

| | | | | | | |
|---|-------|---------------------------------|--|---|--|-----------|
| C 1 | 27647 | 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 | A520074-B |
| ST/CO USE ONLY DATE Received MM DD YY | | DATE WELL COMPLETED MM DD YY | | Depth of Well 22 400 26 (TO NEAREST FOOT) | | |
| 8 13 | | 9 11 2015 | | 9/28/15 SC | | |

| | | | |
|-------------------|-----------------------|------------|--------------|
| OWNER | Woodstock Land LLC | PERMIT NO. | 15-0124 |
| WELL SITE ADDRESS | 1637 Woodstock Rd | TOWN | Woodstock Md |
| SUBDIVISION | Patrick Castilla Prop | SECTION | LOT 1 |

| | | |
|--|-----------------|------------------------------|
| 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 FROM TO | check if water bearing |
| Sand | 0 29 | |
| Maia Rock | 29 400 | |
| Water | 110 | |

| | |
|---|----------------|
| GROUTING RECORD | |
| WELL HAS BEEN GROUTED (Circle Appropriate Box) | |
| YES | NO |
| Y | N |
| TYPE OF GROUTING MATERIAL (Circle one) | |
| CEMENT | BENTONITE CLAY |
| CM | BC |
| NO. OF BAGS | NO. OF POUNDS |
| 8 | 232 |
| GALLONS OF WATER | |
| 48 | |
| DEPTH OF GROUT SEAL (to nearest foot) | |
| from 0 ft. to 27 ft. | |
| (enter 0 if from surface) | |

| | |
|---|----------|
| CASING RECORD | |
| casing types insert appropriate code below | |
| ST | CO |
| STEEL | CONCRETE |
| PL | OT |
| PLASTIC | OTHER |
| MAIN CASING TYPE | |
| PL | G |
| 60 61 | 63 64 |
| Nominal diameter top (main) casing (nearest inch) | |
| 6 34 | |
| Total depth of main casing (nearest foot) | |
| 34 | |

| | |
|------------------------|--------------|
| OTHER CASING (if used) | |
| diagram | depth (feet) |
| inch | from to |

| | | |
|-----------------------------|--------|-------|
| SCREEN RECORD | | |
| screen type or open hole | | |
| ST | BR | HO |
| STEEL | BRASS | OPEN |
| PL | BRONZE | HOLE |
| PLASTIC | OT | OTHER |

| | |
|---|--|
| C 2 | |
| DEPTH (nearest ft.) | |
| Ho 31 400 | |
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 | |

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

| | | |
|--|-------------|------------------|
| C 3 | | |
| PUMPING TEST | | |
| HOURS PUMPED (nearest hour) | | |
| 3 | | |
| PUMPING RATE (gal. per min.) | | |
| 4 | | |
| METHOD USED TO MEASURE PUMPING RATE | | |
| Bucket | | |
| WATER LEVEL (distance from land surface) | | |
| BEFORE PUMPING | | |
| 24 ft. | | |
| WHEN PUMPING | | |
| 282 ft. | | |
| TYPE OF PUMP USED (for test) | | |
| A | P | T |
| air | piston | turbine |
| C | R | O |
| centrifugal | rotary | other |
| J | S | (describe below) |
| jet | 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 | |
| LAND SURFACE | |
| - below | |
| 3 (nearest foot) | |

| | |
|--------------------------|--|
| LATITUDE 39.32494 | |
| LONGITUDE 76.87600 | |
| (DEFAULT COORD. WGS 84) | |
| NOTES: | |
| 8 bags = 2.96 bags/10' ✓ | |
| 2.7 | |

| | |
|--|--|
| NUMBER OF UNSUCCESSFUL WELLS: 0 | |
| WELL HYDROFRACTURED | |
| yes no | |
| Y N | |
| 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 S D Q 24 | |
| DRILLERS SIGNATURE | |
| (MUST MATCH SIGNATURE ON APPLICATION) | |
| LIC. NO.: M S D Q 27 | |
| SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee) | |

| | | | |
|--|---|--|---|
| B 1 37568 <small>1 2 3 6</small> | SEQUENCE NO. <small>(MDE USE ONLY)</small> | STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 530540 | STATE PERMIT NUMBER HO-15-0124 <small>70 fill in this form completely 79</small> |
| Date Received (APA) 8-1-15 <small>8 MM DD YY 13</small> OWNER INFORMATION Woodstock Land LLC <small>15 Last Name Owner First Name 34</small> 3330 Bethany Lane Suite 1 <small>36 Street or RFD 55</small> Ellicott City Md 21042 <small>57 Town 70 State 72 Zip 76</small> | | B 3 LOCATION OF WELL Howard <small>8 COUNTY 21</small> S. Patrick Costello Property <small>23 SUBDIVISION 42</small> SECTION 44 46 LOT 1 48 50 Woodstock <small>52 NEAREST TOWN 71</small> | |
| DRILLER INFORMATION Larry M. Mayne M.S.D. 027 <small>Driller's Name 76 License No. 81</small> Joseph L. Mayne Well Drilling <small>Firm Name</small> 5512 Ridge Rd Mt Airy 21771 <small>Address</small> Larry Mayne 7-14-2015 <small>Signature Date</small> | | B 4 SOURCES OF DRILLING WATER 1. Well 2. 3. ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) <div style="text-align: center;"> <small>NORTH</small> <div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; padding: 2px;">W</div> <div style="border: 1px solid black; padding: 2px;">E</div> </div> <small>SOUTH</small> </div> 34 30 37 <small>DISTANCE FROM ROAD ENTER FT OR MI 38 39</small> TAX MAP: _____ BLK: _____ PARCEL: _____ | |
| B 2 WELL INFORMATION APPROX. PUMPING RATE 5 <small>(GAL. PER MIN.) 8 12</small> AVERAGE DAILY QUANTITY NEEDED 500 <small>(GAL. PER DAY) 14 20</small> | | NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard Sites A520074-B 13 <small>COUNTY NAME COUNTY NO.</small> STATE SIGNATURE RA 8/15/15 <small>DATE ISSUED 43 MM DD YY 48 CO SIGNATURE EXP. DATE</small> | |
| USE FOR WATER (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> PUBLIC WATER SUPPLY WELL <input type="checkbox"/> TEST, OBSERVATION, MONITORING <input type="checkbox"/> OPEN LOOP GEOTHERMAL <input type="checkbox"/> CLOSED LOOP GEOTHERMAL | | PROPOSED LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> Radium, Sodium, chloride, + TDS samples collected 9/11/15 SC </div> | |
| APPROXIMATE DEPTH OF WELL 280 FEET <small>24 28</small> APPROXIMATE DIAMETER OF WELL 6 INCH <small>NEAREST INCH</small> | | METHOD OF DRILLING (circle one) BORED (or Augered) <input checked="" type="checkbox"/> JETTED <input type="checkbox"/> Jetted & DRIVEN <input type="checkbox"/> <small>30 AIR-ROTARY 37 CABLE</small> AIR-PERCussion <input type="checkbox"/> ROTARY (Hydraulic Rotary) <input type="checkbox"/> Drive-POINT <input type="checkbox"/> REVerse-ROTARY <input type="checkbox"/> other _____ | |
| REPLACEMENT OR DEEPEENED WELLS (CIRCLE APPROPRIATE BOX) <input type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input checked="" type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> THIS WELL WILL DEEPEEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE) 41 _____ 52 | | | |
| Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER _____ G _____ PERMIT No. HO-15-0124 <small>70 71 72 73 74 75 76 77 78 79</small> | | | |
| SPECIAL CONDITIONS Radium Sample required @ the yield test and the existing hand dug well on the property must be sealed and abandoned. <small>NOTE: APPROVING AUTHORITY SHOULD USE SEPARATE SHEET IF NEEDED</small> | | | |

Well Permit No. HO - 15-0124
Location of property (road) 1684 Woodstock Rd
Subdivision S. Patrick Costello Prop. Lot 1 Block Plat Sec.
Well Driller Joseph L Murphy Owner Woodstock Land LLC

Depth of well 400'
Distance of measuring point (M.P.) above ground 3'
Static water level (S.W.L.) below M.P. 24'

Time pump started 7:15 Pumping rate 20 gpm
Total time 30 min to reach pumping water level 282 ft. below H.P.

[illegible]

WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

OK
9/28/15 SC

DATE WELL ABANDONED: 9-11-2015 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) none

* PERMIT NUMBER OF REPLACEMENT WELL: HO-15-0124

* PERSON ABANDONING WELL: Larry Mayne WELL DRILLER'S LICENSE NUMBER: MSD027

CIRCLE: MWD / MSD / MGD

* OWNER'S NAME: Woodstock Land LLC

* WELL LOCATION:

COUNTY: Howard

NEAREST TOWN: Woodstock

TAX MAP BLOCK PARCEL

SUBDIVISION: Castillo Property

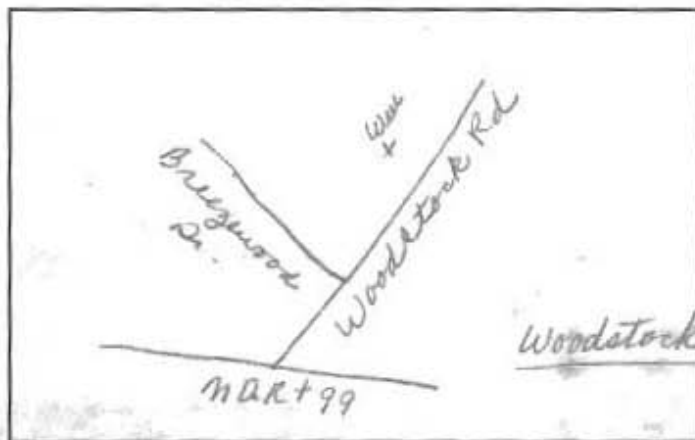
SECTION: LOT: 1

STREET ADDRESS: 1684 Woodstock Rd

LATITUDE 39.32508

LONGITUDE 76.87622

SITE LOCATION MAP



* TYPE OF WELL BEING ABANDONED:

☒ DRILLED ☐ JETTED
☐ BORED ☐ HAND DUG
☐ OTHER (specify)

* USE CODE:

☒ DOMESTIC ☐ MUNICIPAL/PUBLIC
☐ IRRIGATION ☐ INDUSTRIAL
☐ TEST/OBSERVATION ☐ GEOTHERMAL

* TYPE OF CASING:

☒ STEEL ☐ PLASTIC
☐ CONCRETE ☐ OTHER (specify)

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 47 FEET DEEP

WAS ANY CASING REMOVED? ☐ YES ☒ NO

If yes, length removed, in feet:

WAS CASING RIPPED OR PERFORATED? ☐ YES ☒ NO

LOG OF SEALING MATERIAL

| MATERIAL | FEET | |
|-------------------------------------|------------|----|
| | FROM | TO |
| Cement + gravel mixed | 0 | 47 |
| VOLUME OF MATERIAL USED | | |
| 15 Bags of cement 600 lbs gravel | 1410 lbs.- | |

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE# MSD027

MWD / MSD / MGS

CIRCLE ONE

DATE

9-14-2015

COUNTY

WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 3-12-2018 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any)

40-15-0124

* PERMIT NUMBER OF REPLACEMENT WELL:

* PERSON ABANDONING WELL: Larry Mayne

WELL DRILLER'S LICENSE NUMBER: MSD 027

CIRCLE: MWD / MSD / MGD

* OWNER'S NAME: Woodstock Land LLC

SITE LOCATION MAP

* WELL LOCATION:
COUNTY: Howard
NEAREST TOWN: Woodstock
TAX MAP BLOCK PARCEL
SUBDIVISION: S. Patrick Costello Property
SECTION: LOT: 1
STREET ADDRESS: 1684 Woodstock Rd.



LATITUDE 39.32494

LONGITUDE 76.87600

LOG OF SEALING MATERIAL

| MATERIAL | FEET | |
|------------------------------|----------|-------------|
| | FROM | TO |
| <u>Cement + gravel mixed</u> | <u>0</u> | <u>400'</u> |

* TYPE OF WELL BEING ABANDONED:

☒ DRILLED ☐ JETTED
☐ BORED ☐ HAND DUG
☐ OTHER (specify) _____

* USE CODE:

☒ DOMESTIC ☐ MUNICIPAL/PUBLIC
☐ IRRIGATION ☐ INDUSTRIAL
☐ TEST/OBSERVATION ☐ GEOTHERMAL

VOLUME OF MATERIAL USED

25 Bags cement 150 gal. water
200lb. gravel 3/20/2018
#0 washed stone 4/10/18

* TYPE OF CASING:

☐ STEEL ☒ PLASTIC
☐ CONCRETE ☐ OTHER (specify) _____

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 400 FEET DEEP

WAS ANY CASING REMOVED? ☒ YES ☐ NO

If yes, length removed, in feet: 3

WAS CASING RIPPED OR PERFORATED? ☐ YES ☒ NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE#

MSD 027

MWD / MSD / MGS

CIRCLE ONE

DATE

3-13-18

COUNTY

Pursuant to § 10-624 of the State Govt. Article of the Maryland Code, personal info requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part by the public and other governmental agencies, if not protected by federal or State Law.

Contractor's Report
Shovel gravel on trench
Was used for casing
@ Bottom of casing
Grouting
up

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION

1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784

WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 9-11-2015 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) None

* PERMIT NUMBER OF REPLACEMENT WELL: Ho-15-0124

* PERSON ABANDONING WELL: [Signature] WELL DRILLER'S LICENSE NUMBER: MSD 037

CIRCLE: MWD / MSD / MGD

* OWNER'S NAME: Woodstock Land LLC

* WELL LOCATION:

COUNTY: Howard

NEAREST TOWN: Woodstock

TAX MAP: BLOCK PARCEL

SUBDIVISION: Castillo Family

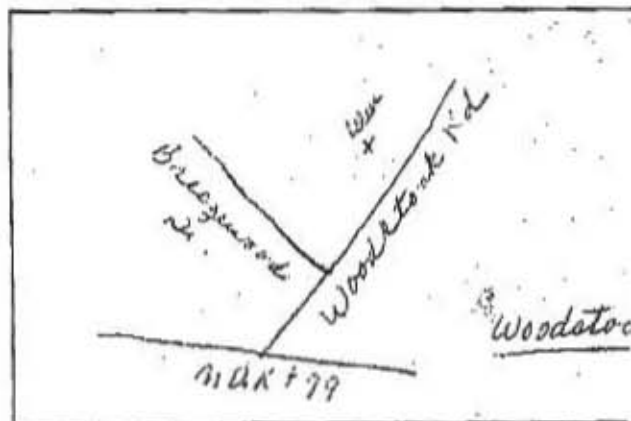
SECTION: LOT 1

STREET ADDRESS: 1634 Woodstock Rd

LATITUDE 39.32508

LONGITUDE 76.87622

SITE LOCATION MAP



* TYPE OF WELL BEING ABANDONED:

- ☒ DRILLED ☐ JETTED
- ☐ BORED ☐ HAND DUG
- ☐ OTHER (specify) _____

* USE CODE:

- ☐ DOMESTIC ☐ MUNICIPAL/PUBLIC
- ☐ IRRIGATION ☐ INDUSTRIAL
- ☐ TEST/OBSERVATION ☐ GEOTHERMAL

* TYPE OF CASING:

- ☒ STEEL ☐ PLASTIC
- ☐ CONCRETE ☐ OTHER (specify) _____

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 47 FEET DEEP

WAS ANY CASING REMOVED? YES ☒ NO ☐

If yes, length removed, in feet: _____

WAS CASING RIPPED OR PERFORATED? YES ☒ NO ☐

LOG OF SEALING MATERIAL

| MATERIAL | FEET | |
|---|------|----|
| | FROM | TO |
| Cement + gravel gravel | 0 | 47 |
| VOLUME OF MATERIAL USED | | |
| 15 Bags of cement - 14.10 lbs - 600 lbs gravel | | |

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE#

MSD 037 MWD / MSD / MGS

CIRCLE ONE

9-11-2015 *

DATE

Send Report To: Bert Nixon

Howard Co. Health Dept.
Bureau of Environmental Health
8930 Stanford Blvd.

Columbia MD 21045

Division of Environmental Chemistry
ENVIRONMENTAL METALS SECTION
201 W. Preston Street, Baltimore, Maryland 21201
Robert A. Myers Ph.D. Director



E16001063001

Received: 09/14/2015

Metals

HO-15-0124

Do not write above this line

LABORATORY ANALYSIS REQUEST

Please Print

Sample ID No: HO-15-0124 Site Name: Woodstock County: Howard

Sample Source: 1684 Woodstock Rd. Collector: S. Collins
Street Town or City Name

Date Collected: 9/11/2015 Time Collected: 10:45 a.m. p.m. Phone #: 410-312-6287

Sample Preserved By: ☐ Field ☐ ESRL ☐ WMRL ☐ Central Lab

Preservative Used: ☒ HNO₃ Acid was added in the lab, pH < 2, SHS, 7/14/15

Sample Type: ☒ Drinking Water ☐ Landfill ☒ Source (Raw Water) ☐ Liquid
Data Category: ☐ Community ☐ Stream ☐ Distribution (Treated) ☐ Solid
Code ☐ Non-Community ☐ Sediment ☐ Other _____
☒ Private

Specify Program: ☒ SDWA ☐ NPDES ☐ CWA ☐ RCRA ☐ Consumer Products ☐ Other _____

Type of Sample Preparation: ☐ Total Metals ☐ Total Metals TCLP ☐ Dissolved Metals
(field preparation required)

Remarks: Sample taken during yield. Initially, there was acid added, & pH was 7.5-8.0

| ✓ | Element | Results (ppm) | ✓ | Element | Results (ppm) |
|---|----------------|---------------|---|----------------|---------------|
| | Antimony (Sb) | | | Copper (Cu) | |
| | Arsenic (As) | | | Lead (Pb) | |
| | Barium (Ba) | | | Silver (Ag) | |
| | Beryllium (Be) | | | Zinc (Zn) | |
| | Cadmium (Cd) | | | Aluminum (Al) | |
| | Chromium (Cr) | | | Iron (Fe) | |
| | Mercury (Hg) | | | Manganese (Mn) | |
| | Nickel (Ni) | | | Calcium (Ca) | |
| | Selenium (Se) | | | Magnesium (Mg) | |
| ✓ | Sodium (Na) | | | Potassium (K) | |
| | Thallium (Tl) | | | Uranium (U) | |

RECEIVED

SEP 23 2015

Lab Supervisor: _____

Date Reported: _____

Columbia, MD 21045

State of Maryland
DHMH-Laboratories Administration
Division of Environmental Chemistry
INORGANICS ANALYTICAL LABORATORY
1770 Ashland Ave
Baltimore, Maryland 21205
WATER ANALYSIS



do not write above this line.

Bottle Number HO-15-0124 Name Woodstock County Howard Code 13
 Location 1684 Woodstock Rd. Data Category Code 4F
 Collected: Date 9/11/15 Time 10:45 am Collector & Phone S. Collins 410-313-6287 Submitter Code
 CHECK (one per box)

| | | | |
|--|---|--|---|
| Drinking Water <input checked="" type="checkbox"/> | Community <input type="checkbox"/> | Source (raw water) <input checked="" type="checkbox"/> | Emergency <input type="checkbox"/> |
| Landfill <input type="checkbox"/> | Non-community <input type="checkbox"/> | Distribution (treated) <input type="checkbox"/> | Routine <input checked="" type="checkbox"/> |
| Stream <input type="checkbox"/> | Private <input checked="" type="checkbox"/> | MCL <input type="checkbox"/> | Recheck <input type="checkbox"/> |
| Other <input type="checkbox"/> | Other <input type="checkbox"/> | | Special <input type="checkbox"/> |

Federal Project 5

| | | | | | | | | | | |
|-------|---|----------------------|------------------|----------------------|--------------------|-------------------------------------|----------------------|--------------------------|----------------------|----------------------|
| FIELD | Plant No. | <input type="text"/> | Sampling Station | <input type="text"/> | Preservation: Iced | <input checked="" type="checkbox"/> | Acid | <input type="checkbox"/> | Type of Acid | <input type="text"/> |
| | pH | <input type="text"/> | Chlorine: Free | <input type="text"/> | Total | <input type="text"/> | Specific Conductance | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | Notes to Lab/Remarks: <u>Sample taken during yield test</u> | | | | | | | | | |
| | | | | | | | | | | |

[illegible]Date
Reported



State of Maryland
DHMH-Laboratories Administration
Division of Environmental Chemistry
TRACE METALS LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director



Certificate of Analysis

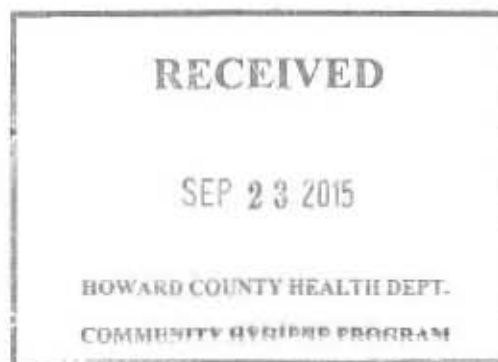
HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project No: E16001063 Date Coll.: 09/11/2015 Date Received 09/14/2015 Submitted By: Collins

Field ID: HO-15-0124
Lab No.: E16001063001

| <u>Method</u> | <u>Element</u> | <u>Result</u> | <u>Units</u> | <u>Date Analyzed</u> |
|---------------|----------------|---------------|--------------|----------------------|
| EPA 200.7 | Sodium | 126.10 | ppm | 09/15/2015 |

Comments:



Approved by: Sadia Munir

Approval date: 09/18/2015

**The following methods are included in our A2LA Scope of Accreditation: EPA 200.7, EPA 200.8, EPA 245.1.

This document contains confidential health information that is privileged, confidential and exempt from disclosure under law. If you have received this information in error, please call (410) 767-6944 and arrange for return or destruction.



State of Maryland
DHMH-Laboratories Administration
Division of Environmental Chemistry
INORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project NoE16001061 Date Coll. 09/11/2015 Date Received 09/14/2015 Submitted By:S. Collins

Field ID: HO-15-0124
Lab No.: E16001061001

| <u>Analyte</u> | <u>Method</u> | <u>Result</u> | <u>Units</u> | <u>Date Analyzed</u> |
|------------------------|---------------|---------------|--------------|----------------------|
| Chloride | SM 4500-Cl E | 457 | mg/L | 09/21/2015 |
| Total Dissolved Solids | SM 2540C | 1255 | mg/L | 09/16/2015 |

Comments:

Approved by:

Approval date: 09/22/2015

*The following methods are included in our A2LA Scope of Accreditation: EPA150.1, EPA 353.2, EPA 375.2, SM4500F C, SM 4500-CN G & QCM-CN, QCM-CN.

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INTERIM CERTIFICATE OF POTABILITY

Expiration Date – SEPTEMBER 27, 2018

March 27, 2018

Homeowner
1684 Woodstock Road
Woodstock, MD 21163

**RE: Costello Property, P. 157
1684 Woodstock Road
Building Permit: B17003495
Well Permit: HO-17-0164**

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 **2/28/2018**. Final approval of the well line connection to the dwelling was granted on **3/1/2018**. The well construction was completed on **9/26/2017**. Water samples were collected on **3/13/2018, 3/20/2018**.

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.

Gross Alpha and Beta samples were also collected on **9/26/2017**. Results showed a Gross Alpha level of **3.2 ± 1.2 pCi/L** and Gross Beta level of **5.1 ± 1.9 pCi/L**. The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year). At the time of testing and with respect to these parameters, the well water is safe for all uses.

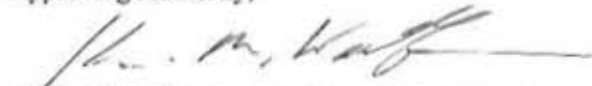
This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-17-0164. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

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 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>

In closing, please refer to our "Homeowner Fact Sheet" for understanding your onsite sewage disposal system. You will also find a link to Maryland Department of the Environments website which elaborates in further detail operation and maintenance of your Septic System.

Approving Authority,



Kevin M Wolf, L.E.H.S., REHS/R.S., 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 #: 120481 Account #: 1935
Reference: Lot 4 Company: Forty West Builders
Location: 1684 Woodstock Road Requested By: John Walker
Woodstock, MD 21163 Source: Well Water
Date/ Time Collected: 3/13/2018 1110 Site: Pressure Tank ✓
Date/Time Rec'd: 3/13/2018 1510 Treatment: None **
Chlorine ppm: Free: ND Total: ND pH: 6.7 -
Collected By: G. Lana 3799GL Well #: HO-17-0164

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|--------------------------------|---------|-------------|-----------|--------------------|------------------------|
| Bacteria, Coliform, Total, MPN | 45.3 | MPN/ 100 ml | <1.0 | SM20 9223 | 3/14/2018 / 1000 / CRS |
| Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM20 9223 | 3/14/2018 / 1000 / CRS |
| Nitrate | 8.36 | mg/L | 10 | 601 | 3/13/2018 / 1550 / RER |
| Turbidity | 3.18 | NTU | <10 | SM20 2130B | 3/13/2018 / 1615 / RER |
| Sand | NS | mg/L | 5 | Visual/Gravimetric | 3/13/2018 / 1615 / RER |

Failed
Kaw

NOTES

- 1 **Sample collected prior to Sediment Filter
- 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 Sample collected by client, analyzed as received
- 8 ND:None Detected
- 9 Visual well check: Sealed, vented cap
- 10 pH & Chlorine level tested on site

Reason for Test : Client's Information
Building Permit # : B17003495

Date Reported: 3/14/2018

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 #: | 120600 | Account #: | 1935 |
| Reference: | Lot 4 | Company: | Forty West Builders |
| Location: | 1684 Woodstock Road | Requested By: | John Walker |
| | Woodstock, MD 21163 | Source: | Well Water |
| Date/ Time Collected: | 3/20/2018 1100 | Site: | Pressure Tank |
| Date/Time Rec'd: | 3/20/2018 1306 | Treatment: | None ** |
| Chlorine ppm: | Free: ND Total: ND | pH: | 6.5 |
| Collected By: | J. Yeager 6176JY | Well #: | HO-17-0164 |

| PARAMETERS | RESULTS | UNITS | REFERENCE | METHOD | DATE/TIME/ANALYST |
|--------------------------------|---------|-------------|-----------|-----------|------------------------|
| Bacteria, Coliform, Total, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM20 9223 | 3/21/2018 / 0915 / CRS |
| Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM20 9223 | 3/21/2018 / 0915 / CRS |

NOTES

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

Reason for Test : Use & Occupancy
Building Permit # : B17003495

410-977-2276 ^{cc scap}
Patrick Costello
Pcostello@
fortywest.com

Date Reported: 3/21/2018

| | | | | |
|--|--------------|--|--|--|
| C 1 | 36473 | 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. |
| 1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS) | | | | |
| ST/CO USE ONLY DATE Received MM <u>10</u> DD <u>02</u> Y <u>17</u> | | DATE WELL COMPLETED MM <u>9</u> DD <u>26</u> Y <u>2017</u> | | Depth of Well 22 <u>300</u> 26 (TO NEAREST FOOT) |
| | | PERMIT NO. FROM "PERMIT TO DRILL WELL" <u>Ho - 17 - 0164</u> | | |
| OWNER <u>Woodstock Land LLC</u> | | COUNTY NUMBER <u>13</u> | | |
| WELL SITE ADDRESS <u>1694 Woodstock Rd</u> | | TOWN <u>Woodstock</u> | | |
| SUBDIVISION <u>5. Patrick Costello Property</u> | | SECTION <u> </u> LOT <u> </u> | | |

| WELL LOG Not required for driven wells STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">DESCRIPTION (Use additional sheets if needed)</th> <th colspan="2">FEET</th> <th rowspan="2">check if water bearing</th> </tr> <tr> <th>FROM</th> <th>TO</th> </tr> </thead> <tbody> <tr> <td>Sand</td> <td>0</td> <td>72</td> <td></td> </tr> <tr> <td>Maia Rock</td> <td>72</td> <td>300</td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">Water at 180, 230</td> </tr> </tbody> </table> | DESCRIPTION (Use additional sheets if needed) | FEET | | check if water bearing | FROM | TO | Sand | 0 | 72 | | Maia Rock | 72 | 300 | | Water at 180, 230 | | | | GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="checkbox"/> Y <input type="checkbox"/> N TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> CM BENTONITE CLAY <input type="checkbox"/> BC NO. OF BAGS <u>17</u> NO. OF POUNDS <u>1548</u> GALLONS OF WATER <u>102</u> DEPTH OF GROUT SEAL (to nearest foot) from <u>0</u> ft. to <u>74</u> ft. (enter 0 if from surface) TOP 48 52 54 58 BOTTOM CASING RECORD casing types insert appropriate code below <table style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> ST STEEL</td> <td><input type="checkbox"/> CO CONCRETE</td> </tr> <tr> <td><input type="checkbox"/> PL PLASTIC</td> <td><input type="checkbox"/> OT OTHER</td> </tr> </table> MAIN CASING TYPE <u>S+</u> Nominal diameter top (main) casing (nearest inch) <u>6</u> Total depth of main casing (nearest foot) <u>75</u> 60 61 63 64 66 70 OTHER CASING (if used) diameter inch _____ depth (feet) from _____ to _____ E A C H C A S I N G SCREEN RECORD screen type or open hole insert appropriate code below <table style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> ST STEEL</td> <td><input type="checkbox"/> BR BRASS</td> <td><input type="checkbox"/> HO OPEN HOLE</td> </tr> <tr> <td><input type="checkbox"/> PL PLASTIC</td> <td><input type="checkbox"/> BZ BRONZE</td> <td><input type="checkbox"/> OT OTHER</td> </tr> </table> | <input checked="" type="checkbox"/> ST STEEL | <input type="checkbox"/> CO CONCRETE | <input type="checkbox"/> PL PLASTIC | <input type="checkbox"/> OT OTHER | <input checked="" type="checkbox"/> ST STEEL | <input type="checkbox"/> BR BRASS | <input type="checkbox"/> HO OPEN HOLE | <input type="checkbox"/> PL PLASTIC | <input type="checkbox"/> BZ BRONZE | <input type="checkbox"/> OT OTHER |
|--|--|---------------------------------------|--|------------------------------|------------------------------|----|------|---|----|--|-----------|----|-----|--|-------------------|--|--|--|--|--|--------------------------------------|-------------------------------------|-----------------------------------|--|-----------------------------------|---------------------------------------|-------------------------------------|------------------------------------|-----------------------------------|
| DESCRIPTION (Use additional sheets if needed) | | FEET | | | check if water bearing | | | | | | | | | | | | | | | | | | | | | | | | |
| | FROM | TO | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sand | 0 | 72 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maia Rock | 72 | 300 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water at 180, 230 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> ST STEEL | <input type="checkbox"/> CO CONCRETE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> PL PLASTIC | <input type="checkbox"/> OT OTHER | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> ST STEEL | <input type="checkbox"/> BR BRASS | <input type="checkbox"/> HO OPEN HOLE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> PL PLASTIC | <input type="checkbox"/> BZ BRONZE | <input type="checkbox"/> OT OTHER | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | |
|--|---|--------------------------------------|-------------------------|-------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| NUMBER OF UNSUCCESSFUL WELLS: <u>0</u> WELL HYDROFRACTURED <input checked="" type="checkbox"/> Y <input type="checkbox"/> N 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. | C 2 DEPTH (nearest ft.) <table style="width:100%;"> <tr> <td>1 <u>Ho</u> 2 <u>74</u> 3 <u>300</u></td> <td>4 _____ 5 _____ 6 _____</td> </tr> <tr> <td>7 _____ 8 _____ 9 _____</td> <td>10 _____ 11 _____ 12 _____</td> </tr> <tr> <td>13 _____ 14 _____ 15 _____</td> <td>16 _____ 17 _____ 18 _____</td> </tr> <tr> <td>19 _____ 20 _____ 21 _____</td> <td>22 _____ 23 _____ 24 _____</td> </tr> <tr> <td>25 _____ 26 _____ 27 _____</td> <td>28 _____ 29 _____ 30 _____</td> </tr> <tr> <td>31 _____ 32 _____ 33 _____</td> <td>34 _____ 35 _____ 36 _____</td> </tr> <tr> <td>37 _____ 38 _____ 39 _____</td> <td>40 _____ 41 _____ 42 _____</td> </tr> <tr> <td>43 _____ 44 _____ 45 _____</td> <td>46 _____ 47 _____ 48 _____</td> </tr> <tr> <td>49 _____ 50 _____ 51 _____</td> <td>52 _____ 53 _____ 54 _____</td> </tr> <tr> <td>55 _____ 56 _____ 57 _____</td> <td>58 _____ 59 _____ 60 _____</td> </tr> </table> SLOT SIZE 1 _____ 2 _____ 3 _____ DIAMETER OF SCREEN _____ (NEAREST INCH) from _____ to _____ 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 | 1 <u>Ho</u> 2 <u>74</u> 3 <u>300</u> | 4 _____ 5 _____ 6 _____ | 7 _____ 8 _____ 9 _____ | 10 _____ 11 _____ 12 _____ | 13 _____ 14 _____ 15 _____ | 16 _____ 17 _____ 18 _____ | 19 _____ 20 _____ 21 _____ | 22 _____ 23 _____ 24 _____ | 25 _____ 26 _____ 27 _____ | 28 _____ 29 _____ 30 _____ | 31 _____ 32 _____ 33 _____ | 34 _____ 35 _____ 36 _____ | 37 _____ 38 _____ 39 _____ | 40 _____ 41 _____ 42 _____ | 43 _____ 44 _____ 45 _____ | 46 _____ 47 _____ 48 _____ | 49 _____ 50 _____ 51 _____ | 52 _____ 53 _____ 54 _____ | 55 _____ 56 _____ 57 _____ | 58 _____ 59 _____ 60 _____ |
| 1 <u>Ho</u> 2 <u>74</u> 3 <u>300</u> | 4 _____ 5 _____ 6 _____ | | | | | | | | | | | | | | | | | | | | |
| 7 _____ 8 _____ 9 _____ | 10 _____ 11 _____ 12 _____ | | | | | | | | | | | | | | | | | | | | |
| 13 _____ 14 _____ 15 _____ | 16 _____ 17 _____ 18 _____ | | | | | | | | | | | | | | | | | | | | |
| 19 _____ 20 _____ 21 _____ | 22 _____ 23 _____ 24 _____ | | | | | | | | | | | | | | | | | | | | |
| 25 _____ 26 _____ 27 _____ | 28 _____ 29 _____ 30 _____ | | | | | | | | | | | | | | | | | | | | |
| 31 _____ 32 _____ 33 _____ | 34 _____ 35 _____ 36 _____ | | | | | | | | | | | | | | | | | | | | |
| 37 _____ 38 _____ 39 _____ | 40 _____ 41 _____ 42 _____ | | | | | | | | | | | | | | | | | | | | |
| 43 _____ 44 _____ 45 _____ | 46 _____ 47 _____ 48 _____ | | | | | | | | | | | | | | | | | | | | |
| 49 _____ 50 _____ 51 _____ | 52 _____ 53 _____ 54 _____ | | | | | | | | | | | | | | | | | | | | |
| 55 _____ 56 _____ 57 _____ | 58 _____ 59 _____ 60 _____ | | | | | | | | | | | | | | | | | | | | |

| | |
|--|--|
| C 3 PUMPING TEST HOURS PUMPED (nearest hour) <u>3</u> PUMPING RATE (gal. per min.) <u>5</u> METHOD USED TO MEASURE PUMPING RATE <u>Bucket</u> WATER LEVEL (distance from land surface) BEFORE PUMPING <u>54</u> ft. WHEN PUMPING <u>193</u> ft. TYPE OF PUMP USED (for test) <input checked="" type="checkbox"/> A air <input type="checkbox"/> P piston <input type="checkbox"/> T turbine <input type="checkbox"/> C centrifugal <input type="checkbox"/> R rotary <input type="checkbox"/> O other (describe below) <input type="checkbox"/> J jet <input checked="" type="checkbox"/> S submersible | PUMP INSTALLED DRILLER INSTALLED PUMP (CIRCLE) (YES OR NO) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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 <u>29</u> CAPACITY: GALLONS PER MINUTE (to nearest gallon) _____ PUMP HORSE POWER _____ PUMP COLUMN LENGTH (nearest ft.) _____ CASING HEIGHT (circle appropriate box and enter casing height) <input checked="" type="checkbox"/> + above } LAND SURFACE <input type="checkbox"/> - below } _____ (nearest foot) |
|--|--|

| | |
|---|--|
| DRILLERS LIC. NO.: <u>M 5 D 027</u> DRILLERS SIGNATURE <u>[Signature]</u> (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO.: <u> </u> D <u> </u> SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee) | LATITUDE <u>39.32691</u> LONGITUDE <u>76.87797</u> (DEFAULT COORD. WGS 84) Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or state law. |
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| | | | | |
|---|-------|--|--|---|
| B 1 | 42802 | SEQUENCE NO. (MDE USE ONLY) | STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 559076 please type | STATE PERMIT NUMBER Ho-17-0164 fill in this form completely |
| Date Received (APA) 12/13/16 8 MM DO YY 13 | | OWNER INFORMATION | | |
| 15 Last Name Woodstock Land LLC | | 21 First Name | | |
| 36 Street or RFD 3230 Bethany Lane Suite 1 | | 55 | | |
| 57 Town Ellicott City | | 70 State Md | | |
| | | 72 Zip 21042 | | |
| DRILLER INFORMATION | | | | |
| Driller's Name Joseph L Mayne | | M S D 024 76 License No. 81 | | |
| Firm Name Joseph L Mayne Well Drilling | | | | |
| Address 5512 Ridge Rd Mt Airy Md 21111 | | | | |
| Signature Joseph L Mayne | | Date 12-9-16 | | |
| B 2 WELL INFORMATION | | | | |
| 1 APPROX. PUMPING RATE (GAL. PER MIN.) | | 5 8 12 | | |
| AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) | | 14 20 500 | | |
| USE FOR WATER (CIRCLE APPROPRIATE BOX) | | | | |
| <input checked="" type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> PUBLIC WATER SUPPLY WELL <input type="checkbox"/> TEST, OBSERVATION, MONITORING <input type="checkbox"/> OPEN LOOP GEOTHERMAL <input type="checkbox"/> CLOSED LOOP GEOTHERMAL | | | | |
| APPROXIMATE DEPTH OF WELL 24 300 28 FEET | | APPROXIMATE DIAMETER OF WELL 6 INCH | | |
| METHOD OF DRILLING (circle one) | | | | |
| BORED (or Augered) JETTED Jetted & DRIVEN <input checked="" type="checkbox"/> AIR-ROTARY <input type="checkbox"/> AIR-PERCussion <input type="checkbox"/> ROTARY (Hydraulic Rotary) <input type="checkbox"/> CABLE <input type="checkbox"/> REVERSE-ROTARY <input type="checkbox"/> DRIVE-POINT other _____ | | | | |
| REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX) | | | | |
| <input type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input checked="" type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> THIS WELL WILL DEEPEIN AN EXISTING WELL | | | | |
| PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 H0-15-012452 | | | | |
| Not to be filled in by driller (MDE OR COUNTY USE ONLY) | | | | |
| APPROP. PERMIT NUMBER _____ G _____ | | | | |
| PERMIT No. H0-17-0164 70 71 72 73 74 75 76 77 78 79 | | | | |
| B 3 | | LOCATION OF WELL | | |
| 8 COUNTY Howard | | 21 | | |
| 23 SUBDIVISION S. Patrick Costello Property | | 42 | | |
| SECTION 44 46 | | LOT 48 50 | | |
| 52 NEAREST TOWN Woodstock | | 71 | | |
| B 4 | | SOURCES OF DRILLING WATER | | |
| 1. well | | 11 STREET ADDRESS 1694 Woodstock Rd | | |
| 2. | | 30 | | |
| 3. | | ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) | | |
| | | NORTH <input type="checkbox"/> WEST <input checked="" type="checkbox"/> EAST SOUTH | | |
| | | 34 700 37 DISTANCE FROM ROAD | | |
| | | ENTER FT OR MI 38 39 | | |
| | | TAX MAP: 10 BLK: 18 PARCEL 157 | | |
| NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL | | | | |
| COUNTY NAME Howard COUNTY NO. 13 STATE SIGNATURE _____ INSERT S → 41 DATE ISSUED 7/21/17 CO SIGNATURE _____ EXP. DATE 7/21/18 43 MM DO YY 48 | | | | |
| DON: 9/25/17 (S) DOB: 09/26/2017 (2) day: 09/26/2017 PROPOSED LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL 9/25 -75' steel casing -on site for drilling 90-120' -hit 1gpm water @ 120' 313. Woodstock Rd Mt Rt 99 Pursuant to § 10-624 of the State Govt. Article of the Maryland Code, personal info requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State Law. | | | | |
| SPECIAL CONDITIONS | | | | |
| NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF REQUIRED Radium, sodium chloride, TDS samples at yield. Existing well must be sealed. | | | | |

Date 09/26/2017

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 17-0164
Location of property (road) 1684 Woodstock RD
Subdivision _____ Lot _____ Block _____ Plat _____ Sec. _____
Well Driller Maurice Joseph Owner

Depth of well 300'
Distance of measuring point (M.P.) above ground 1'
Static water level (S.W.L.) below M.P. 54'

I. High rate pumping -- reservoir drawdown

Time pump started 07:30 Pumping rate 20 gpm
Total time _____ to reach pumping water level _____ ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

[illegible]

Depth of well 300'
Distance of measuring point (M.P.) above ground 1'
Static water level (S.W.L.) below M.P. 54'

HD-224

**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: Shelton Plumbing Telephone #: 410 775-2127
Address: 11713 Green Valley Rd
Union Bridge, MD 21791

(Must circle one) (Licensed Plumber) Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): George Shelton, Jr License# 16905

*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: Forty West Builders Telephone #: 410 418-8900
Subdivision: Setback Creek Pkwy Lot #: HO-17-0104 ✓ 3/1/18
Site Address: 1084 Woodstock Rd
Washington, MD

| | | |
|--|-----------------------------|---------------------------------------|
| Submersible Pump Data | Pitless Adapter | Well Cap and Electric Conduit |
| Make: <u>Grundfos</u> | Make: <u>Messco</u> | Two piece watertight cap: <u>✓</u> |
| Model #: <u>10G315</u> | Model #: <u>MBN50</u> | Screened, vented well cap: <u>✓</u> |
| Pump Capacity <u>10</u> GPM | Depth: <u>31"</u> (36" min) | Cap secured to casing: <u>✓</u> |
| Well Yield: <u>5</u> GPM | NSF/WSC approved: <u>✓</u> | Conduit min 18" B.G.: <u>✓</u> |
| Depth of well encountered at time of pump installation: _____ (feet) | | Conduit secured to well cap: <u>✓</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

| | |
|--|--|
| Piping to house | House Connection |
| Type: <u>polyth.</u> | PVC sleeve to undisturbed soil at wall penetration: <u>✓</u> |
| PSI: <u>160</u> (160 psi min) | Length of sleeve (5' minimum from foundation): <u>10'</u> |
| Depth of supply line: <u>31"</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.

Signature of Company representative responsible for installation: George Shelton, Jr date: 3/1/18

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

Date Insp. Requested: 3/1/18 Date Insp. Approved: 3/1/18 Inspector: ②

| | | |
|--|----------|---------------------|
| Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade | <u>✓</u> | <u>43' 3/1/18 ②</u> |
| Two piece cap installed and attached to casing securely | <u>✓</u> | <u>43' 3/1/18 ②</u> |
| Elec. conduit extends at least 18" below grade/attached to cap properly | <u>✓</u> | <u>17' 3/1/18 ②</u> |
| Safety rope not outside of well cap/casing | <u>✓</u> | <u>9' 3/1/18 ②</u> |
| Correct well tag attached properly and casing 8" above finished grade | <u>✓</u> | |
| Water supply line sleeved adequately at house connection | <u>✓</u> | |
| Adequate grout observed below pitless adapter | <u>✓</u> | |

3/1/18 ②

Cap missing Bolt.

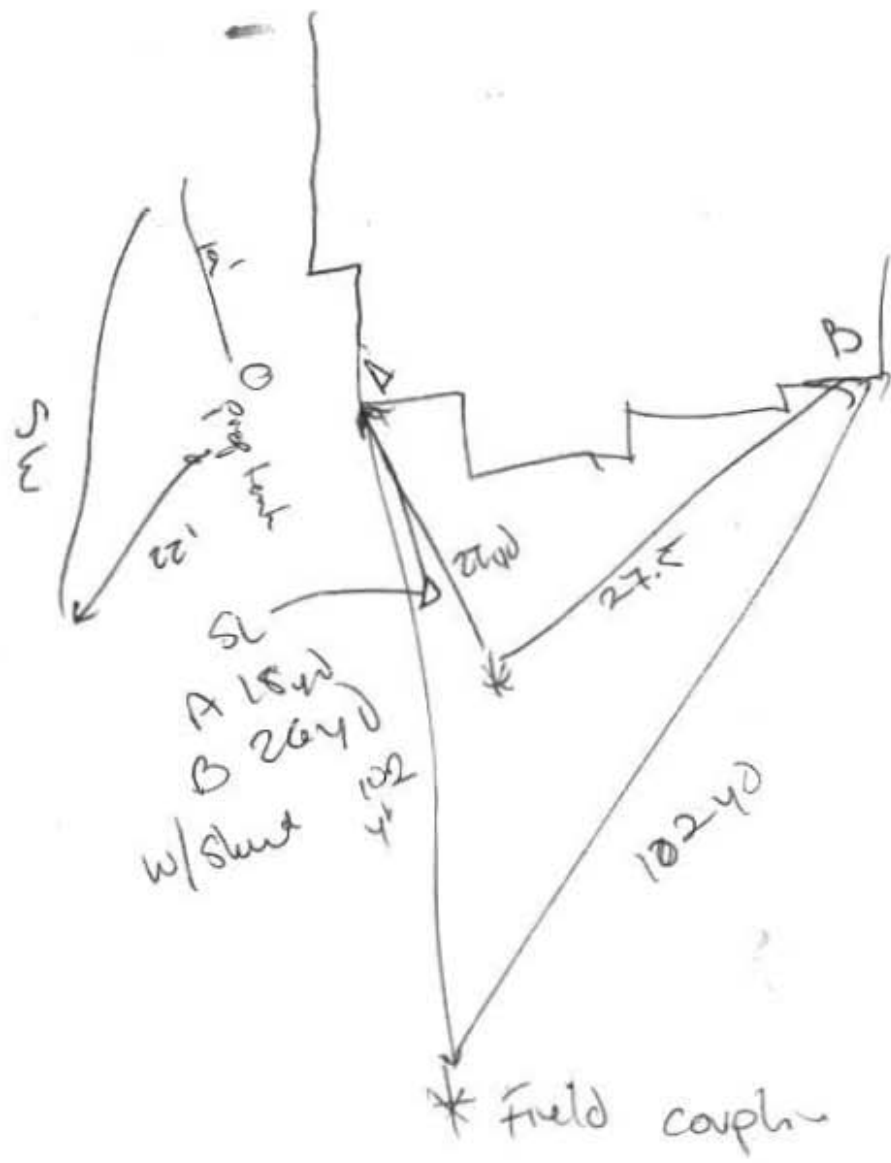
Conduit not sealed

* Fixed before leaving inspection

3/5/18

* SEE SITE INSPECTION SHEET FOR DETAIL ②

OK House
3/1/18 ②

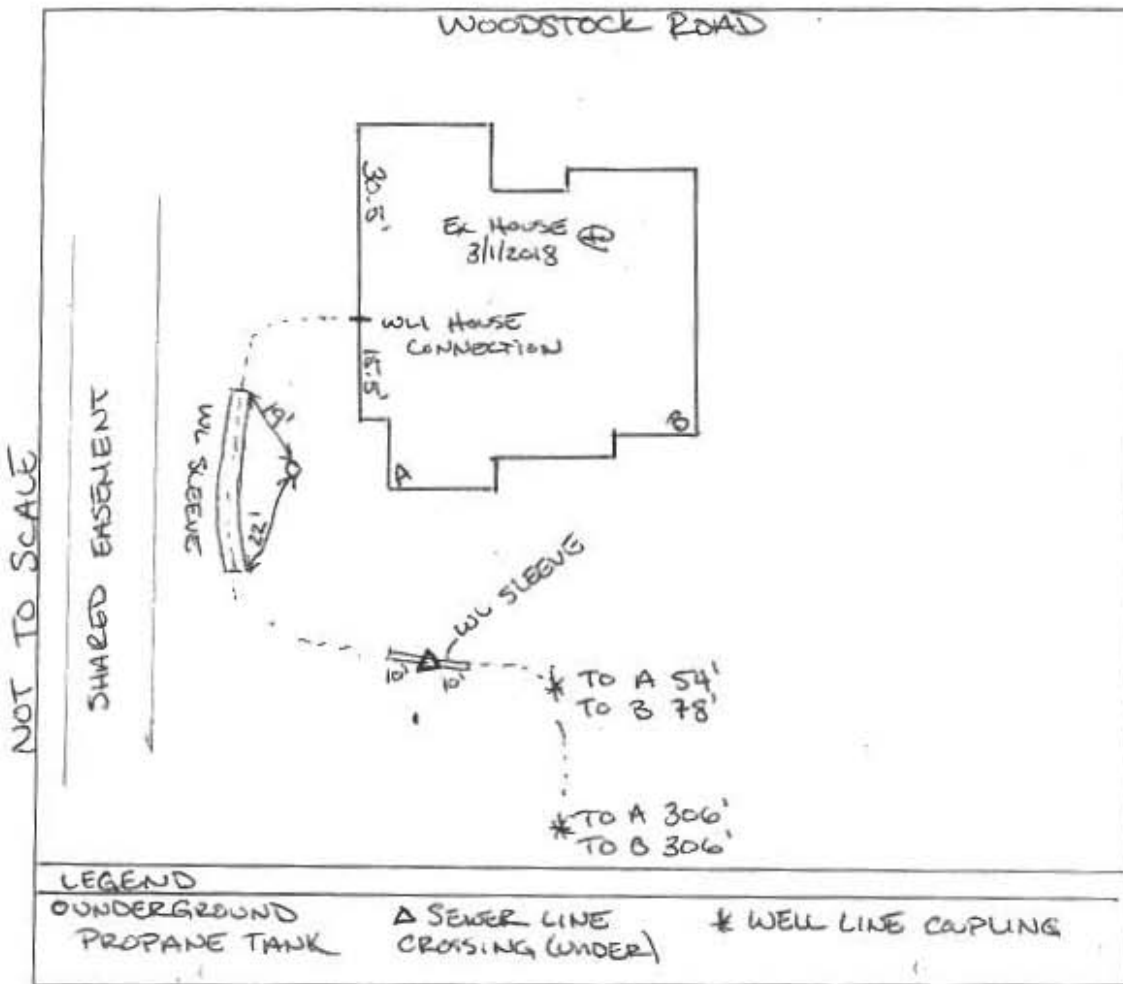


SITE INSPECTION SHEET

OWNER: FOURTY WEST BUILDERS PHONE #: 410-418-8900
ADDRESS: 1684 WOODSTOCK ROAD CONTRACTOR: SHELTON PLUMBING
WOODSTOCK, MD 21163 WELL TAG #: HO-17-0164
SUBDIVISION: S. PATRICK CASTLE DOT: N/A COUNTY #: STMD
PROPOSAL: PROP

WELL LINE INSPECTION HOUSE DETAIL

LOCATION DIAGRAM



COMMENTS: Well line has had blue Trace wire. Well line is adequately sleeved at house connection and around Septic Distribution box and drain field (Not shown)

DATE: 3/5/2018

INSPECTOR: [Signature]

420
45°

24' WIDE USE-IN-COMMON
ACCESS EASEMENT
L. 16137, F. 309

EX. POLE
BGE #217626

410

INITIAL
WELL

ALT.
WELL

5

ALT.
WELL

4

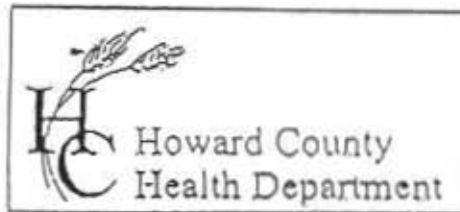


DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER

H0-17-0164

INFORMATION-GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD
BALTIMORE MARYLAND 21230

Well sites approved 7/24/17 SC
Well sites marked by Vannor 400



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:

S. Patrick Costello Prop. 1684 Woodstock Rd
Subdivision/Property Name Lot# Road Name

- ☒ The well site has been staked by Van Mae Associates
(professional land surveyor or company employing professional land surveyors)
on 11-29-16 (date) and does not require a site inspection.

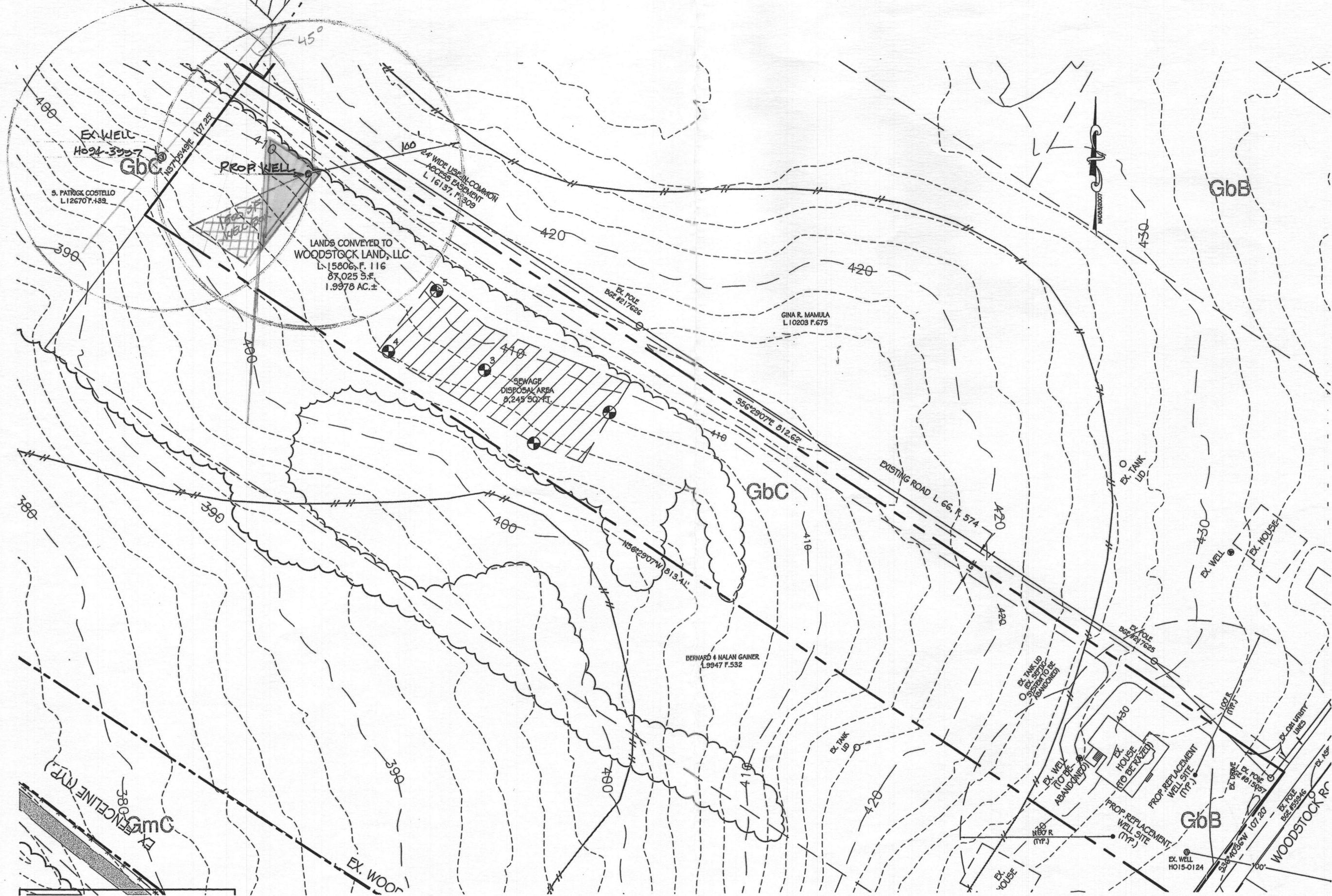
- ☐ The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

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

$1'' = 60'$

Need Topo



Wolf, Kevin

From: John Boris -MDE- <john.boris@maryland.gov>
Sent: Thursday, June 02, 2016 3:00 PM
To: Williams, Jeffrey
Cc: Steven Krieg -MDE- (steven.krieg@maryland.gov); Wolf, Kevin; Naomi Howell -MDE-
Subject: Re: Certifying well for new house

Jeff,

Your answer to question #1 is that water quality is not consider demand in this section of regulation. You are correct in stating that the issue of backwash/reject water will be an issue on a lot of record.

For question #2 this well will still require an FCOP regardless of whether this is a new well or replacement well.

If you have any further questions please feel free to contact me.

John A. Boris, Jr., LEHS
Geologist Program Consultant
Maryland Dept. of the Environment
Onsite Systems Division
Office: (410) 537-3678
Cell: (443) 992-6195
Fax: (410) 537-3163

On Wed, Jun 1, 2016 at 12:08 PM, Williams, Jeffrey <jewilliams@howardcountymd.gov> wrote:

Hello gentlemen. Following up on a conversation Kevin had with John, I'd like to get MDE's take on an interpretation of the regs. We have a well that was recently drilled as a replacement well for an existing house. The well has extremely elevated Na, Cl, TDS levels. It has not yet been put into service for the existing house. The owner is instead pursuing a tear-down/rebuild on the lot. The two regulatory questions are:

1. 26.04.02.03F4 states that before issuing a building permit, we must certify the water system as "meeting the water demand." Can we use elevated levels of a secondary contaminant to state that the existing well is not capable of meeting the water demand and therefore they must drill a new well for the new house? Alternatively, could we use this section to state that it would either need to show details of a whole house r/o with room for backwash discharge or drill a new one for building permit approval? Or, would "water demand" be strictly interpreted to mean only yield?
2. Since this is a well being newly put into service to serve a new house, can we say it needs an ICOP, or would it not get one because it's the same type of use (residential)?

Thanks

Jeff Williams

Program Supervisor, Well & Septic Program

Bureau of Environmental Health

Howard County Health Dept.

410-313-4261

jewilliams@howardcountymd.gov

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Wolf, Kevin

From: Wolf, Kevin
Sent: Friday, January 13, 2017 12:42 PM
To: 'Patrick Costello'
Subject: RE: 1684 Woodstock Road
Attachments: 20170113124702913.pdf

Patrick,

I've sketched out a possible well box. I am not sure if it is 1500sq ft or not. You may have to push the SDA south east some to get the 100' setback from the proposed well box. This is just a possibility of course. Ron may need to do some work but you see the 45° down-gradient from 1676 Woodstock Rd SDA. Need full topo of these lots. Plan may need to be larger.

Have him submit a Perc Cert (PC) along with this site plan. You can remove the notation on the original PC submittal requiring BAT for the new house.

Thanks,

Kevin M. Wolf, LEHS, REHS/RS
Groundwater Mgmt. Sec. Supervisor
Well & Septic Program
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, MD 21045
(o) 410-313-2645
(f) 410-313-2648



kwolf@howardcountymd.gov

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From: Patrick Costello [<mailto:pcostello@fortywest.com>]
Sent: Wednesday, January 11, 2017 5:00 PM
To: Wolf, Kevin
Subject: Re: 1684 Woodstock Road

Kevin -

Can you shoot me over your markup or sketch of what you were talking about with the well box and the 45 degrees?

Thanks,

Pat

From: "Wolf, Kevin" <KWolf@howardcountymd.gov>
Date: Wednesday, January 11, 2017 at 4:35 PM
To: Patrick Costello <pcostello@fortywest.com>
Subject: RE: 1684 Woodstock Road

Thanks Patrick. Forward a copy of that invoice to me and ill get your demo ready. I have a perc repair tomorrow all day so this will probably happen Friday.

Kevin

From: Patrick Costello [mailto:pcostello@fortywest.com]
Sent: Wednesday, January 11, 2017 3:19 PM
To: Wolf, Kevin
Subject: Re: 1684 Woodstock Road

Kevin -

Attached is well abandonment report from Mayne. At this point we plan to keep the drilled well to allow for a future owner to use for irrigation.

Fogles is coming out tomorrow to pump out old tank. I will forward invoice after they do so.

Best,

Pat

From: "Wolf, Kevin" <KWolf@howardcountymd.gov>
Date: Wednesday, January 11, 2017 at 11:57 AM
To: Patrick Costello <pcostello@fortywest.com>
Subject: 1684 Woodstock Road

Pat,

To confirm our previous phone conversation, we are ok to proceed with your demo request at this time. We will however need the following in order to issue the demo:

- abandonment of the pit well and the existing drilled well (Joe Mayne should supply you with an MDE Well Abandonment Form)
- Copy of an invoice from a waste hauler that the existing septic tank and components have been pumped out.

Let me know how when VanMar will resubmit the perc cert and revised well site plan.

Thanks,

Kevin M. Wolf, LEHS, REHS/RS
Groundwater Mgmt. Sec. Supervisor
Well & Septic Program
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, MD 21045
(o) 410-313-2645
(f) 410-313-2648



kwolf@howardcountymd.gov

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FILE INQUIRY NOTES

[illegible]



Bureau of Environmental Health

8930 Stanford Boulevard, 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

Maura Rossman, M.D., Health Officer

October 16, 2015

Woodstock Land, LLC
Attn: Patrick Costello
3230 Bethany Lane Suite 1
Ellicott City, Maryland 21042

RE: 1684 Woodstock Road
Woodstock, Maryland
Well Tag: HO - 15 - 0124

Dear Mr. Costello:

A sample was collected during a yield test on September 11, 2015 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 6.8 ± 3.9 picocuries/liter (pCi/L), while the **Gross Beta** level was 13.3 ± 4.0 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 targeted 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 is **within** EPA regulatory standards. Given these findings, additional testing **for these parameters** will not be required to secure the future Use & Occupancy. For these parameters, the installation of a water softener system and / or a reverse osmosis system most likely will not be necessary. If treatment is installed, this may further control these contaminants. **Please note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to potentially secure a Use & Occupancy for this well.

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.

Sincerely,

Bert Nixon, Director
Bureau of Environmental Health

✓ Enclosure
cc: Property file

SEND REPORT TO: Bert Nunn
Howard Co. Health Dept.
Bureau of Environmental Health
8932 Stanford Blvd
Columbia, MD 21045

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
201 W. Preston St., Baltimore, MD 21201
Robert A. Myers, Ph.D., Director
170 Ashland Ave. Baltimore, MD 21205
RADIATION ANALYSIS REQUEST FORM

Lab No.

000442 0142

Plant/Site Name: Woodstock

County: Howard

Sample Source: 1684 Woodstock Rd.

Location: HO-15-0124

(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____
Bottle B _____

Radon-222 Field Blank

Bottle A _____
Bottle B _____

County 13

Plant No.

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

CHECK (one per Box)

| Type | |
|----------------|-------------------------------------|
| Drinking Water | <input checked="" type="checkbox"/> |
| Landfill | <input type="checkbox"/> |
| Stream | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

| Service | |
|---------------|-------------------------------------|
| Community | <input type="checkbox"/> |
| Non-Community | <input type="checkbox"/> |
| Private | <input checked="" type="checkbox"/> |
| Other | <input type="checkbox"/> |

| Point of Collection | |
|------------------------|-------------------------------------|
| Source (Raw) | <input checked="" type="checkbox"/> |
| Distribution (treated) | <input type="checkbox"/> |
| MCL | <input type="checkbox"/> |

| Testing | |
|-----------|-------------------------------------|
| Emergency | <input type="checkbox"/> |
| Routine | <input checked="" type="checkbox"/> |
| Recheck | <input type="checkbox"/> |
| Special | <input type="checkbox"/> |

Submitters Code:

| | |
|--|--|
| | |
|--|--|

Federal Project: 5

Collector: S. Collins

Telephone No.: 410-313-6237

Date Collected: 9/11/15

Time Collected: 10:45 a.m. _____ p.m.

Field pH: _____

Field Chlorine: _____

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☒ No ☐

Remarks: Sample taken during yield

| <input checked="" type="checkbox"/> | TEST | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|-------------------------------------|----------------------|----------|---------|------------|-----------------|---------------|---------|---------------|
| <input checked="" type="checkbox"/> | Gross Alpha | 4000 | 0442 | EPA900.0 | 6.8 ± 3.9 | 9/16/15 | WT | 9/17/15 |
| <input checked="" type="checkbox"/> | Gross Beta | 4100 | 0442 | EPA900.0 | 13.3 ± 4.0 | 9/16/15 | WT | 9/17/15 |
| <input type="checkbox"/> | Radium-226 | 4020 | | | | | | |
| <input type="checkbox"/> | Radium-228 | 4030 | | | | | | |
| <input type="checkbox"/> | Total Uranium | 4006 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle A) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle B) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank A | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank B | 4004 | | | | | | |
| <input type="checkbox"/> | Tritium | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |

Date Received: 09/14/15 Received By: In Ji
Data Release Signature: Rebecca Miller-Jack Date: 9/17/15

| Lab Use Only | Yes | No | N/A |
|-------------------------------|-------------------------------------|----|-----|
| Sample Intact upon arrival? | <input checked="" type="checkbox"/> | | |
| Sample pH <2.0? | <input checked="" type="checkbox"/> | | |
| Received within holding time? | <input checked="" type="checkbox"/> | | |

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

SEND REPORT TO: Bert Nixon
Howard Co. Health Dept.
Bureau of Environmental Health
8925 Stanford Blvd.
Columbia, MD 21045

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
201 W. Preston St., Baltimore, MD 21201
Robert A. Myers, Ph.D., Director
1770 Ashland Ave. Baltimore, MD 21205
RADIATION ANALYSIS REQUEST FORM

Lab No.

Plant/Site Name: Field Blank

County: Howard

Sample Source: HHO

Location: HCHD Lab

(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____

Radon-222 Field Blank

Bottle A _____

Bottle B _____

Bottle B _____

County 112

Plant No.

CHECK (one per Box)

| Type | |
|----------------|-------------------------------------|
| Drinking Water | <input checked="" type="checkbox"/> |
| Landfill | <input type="checkbox"/> |
| Stream | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

| Service | |
|---------------|-------------------------------------|
| Community | <input type="checkbox"/> |
| Non-Community | <input type="checkbox"/> |
| Private | <input checked="" type="checkbox"/> |
| Other | <input type="checkbox"/> |

| Point of Collection | |
|------------------------|-------------------------------------|
| Source (Raw) | <input checked="" type="checkbox"/> |
| Distribution (treated) | <input type="checkbox"/> |
| MCL | <input type="checkbox"/> |

| Testing | |
|-----------|-------------------------------------|
| Emergency | <input type="checkbox"/> |
| Routine | <input checked="" type="checkbox"/> |
| Recheck | <input type="checkbox"/> |
| Special | <input type="checkbox"/> |

Submitters Code:

Federal Project: 5

Collector: S. Collins

Telephone No.: 410-313-6287

Date Collected: 9/11/15

Time Collected: _____ a.m. 2:30 p.m.

Field pH: _____

Field Chlorine: _____

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☒ No ☐

Remarks: _____

| TEST | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|----------------------|----------|---------|------------|-----------------|---------------|---------|---------------|
| Gross Alpha | 4000 | 0441 | EPA 900.0 | <2.0 | 9/15/15 | WT | 9/17/15 |
| Gross Beta | 4100 | 0441 | EPA 900.0 | <4.0 | 9/15/15 | WT | 9/17/15 |
| Radium-226 | 4020 | | | | | | |
| Radium-228 | 4030 | | | | | | |
| Total Uranium | 4006 | | | | | | |
| Radon-222 (Bottle A) | 4004 | | | | | | |
| Radon-222 (Bottle B) | 4004 | | | | | | |
| Radon Field Blank A | 4004 | | | | | | |
| Radon Field Blank B | 4004 | | | | | | |
| Tritium | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Date Received: 09/14/15

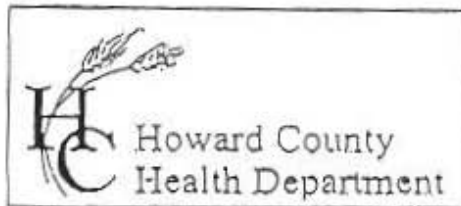
Received By: In JI

Data Release Signature: Deborah Miller - JURY

Date: 9/17/15

| Lab Use Only | Yes | No | N/A |
|-------------------------------|-------------------------------------|----|-----|
| Sample Intact upon arrival? | <input checked="" type="checkbox"/> | | |
| Sample pH <2.0? | <input checked="" type="checkbox"/> | | |
| Received within holding time? | <input checked="" type="checkbox"/> | | |

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



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:

S. Patrick Costello Prop 1 1684 Woodstock Rd
Subdivision/Property Name Lot# Road Name

- ☒ The well site has been staked by Van Man Associates Inc.
(professional land surveyor or company employing professional land surveyors)
on 7-8-2015 (date) and does not require a site inspection.

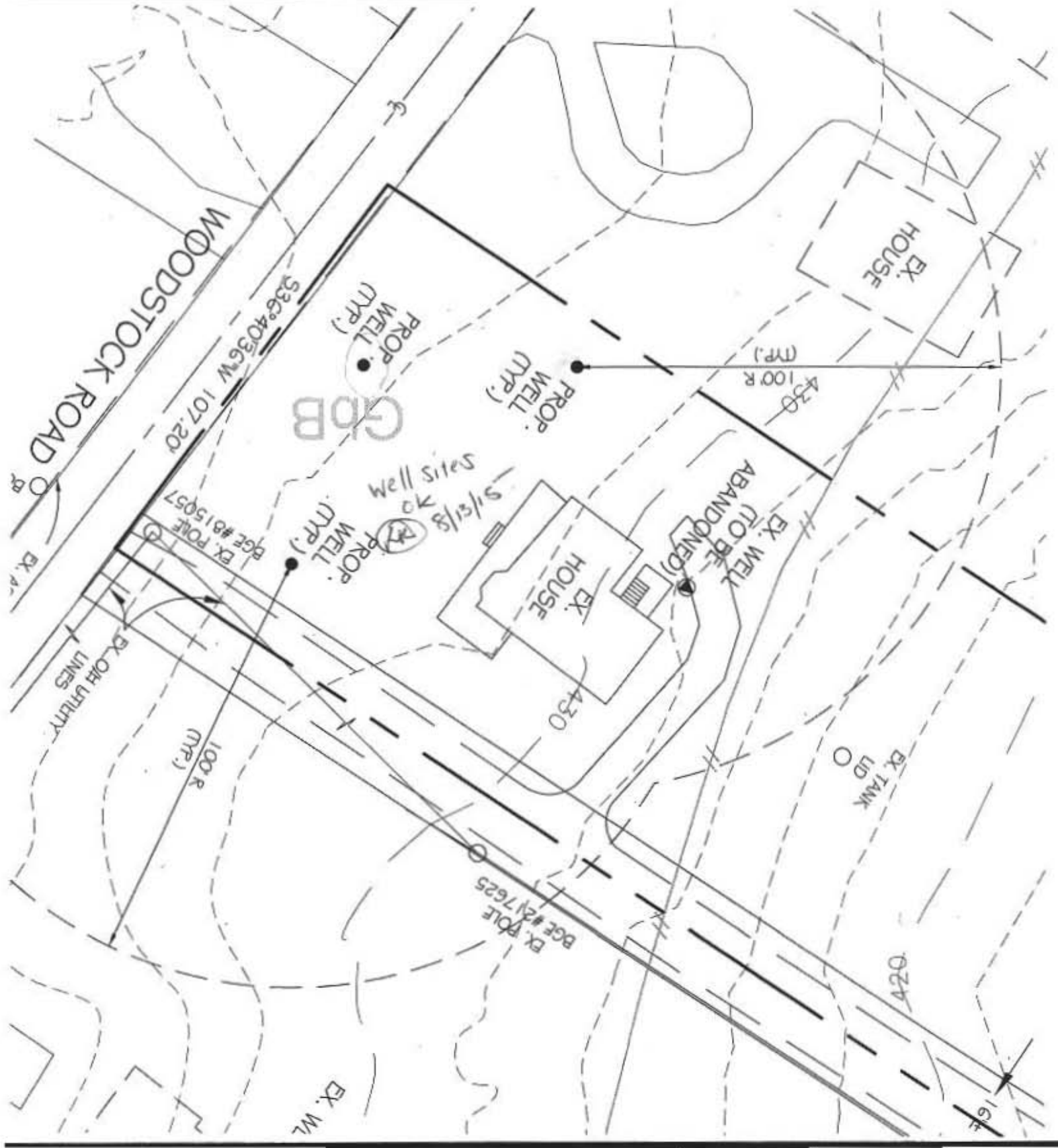
- ☐ The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

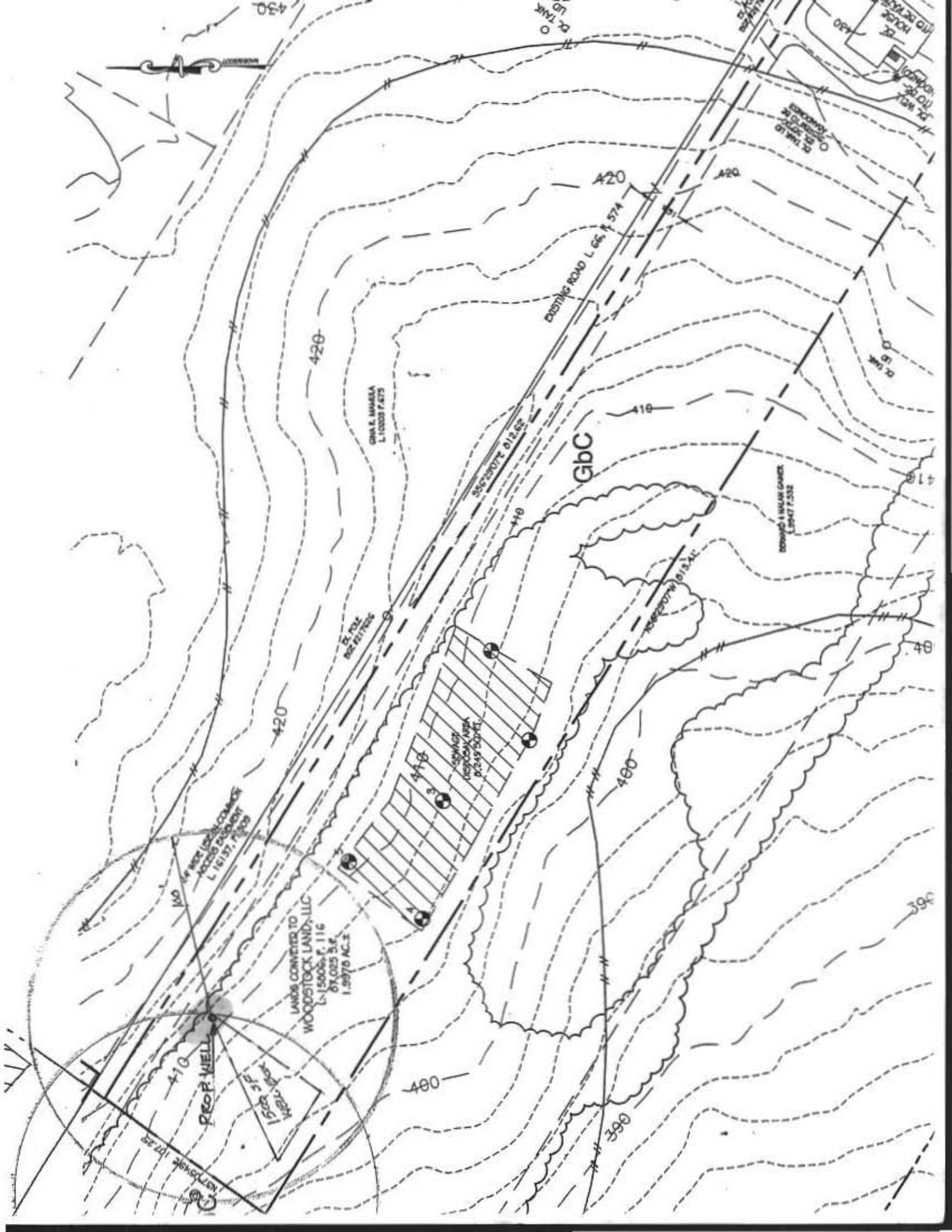
This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 3/11/05

STATE OF MARYLAND
MICHAEL VANS.

DATE _____







Bureau of Environmental Health

8930 Stanford Boulevard, 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

Maura Rossman, M.D., Health Officer

October 6, 2017

Woodstock Land LLC
3230 Bethany Lane
Suite 1
Ellicott City, Maryland 21042

RE: Patrick Costello Property
1684 Woodstock Road
Woodstock, Maryland 21163
Well Tag: HO - 17 - 0164

Dear Woodstock Land LLC:

A sample for a new well was collected during a yield test on September 26, 2017 and submitted to the Maryland Department of Health 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 3.2 ± 1.2 picocuries/liter (pCi/L), while the **Gross Beta** level was 5.1 ± 1.9 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 targeted 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 well water supply is **within** EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. Please **note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

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 schedule additional testing.

Sincerely,

Bert Nixon, Director
Bureau of Environmental Health

✓ Enclosure
cc: Property file

SEND REPORT TO: BERT NIXON

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
RADIATION LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

Lab No.

Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, Maryland 21045

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: 11684 Woodstock RdCounty: HOWARDSample Source: New Well Woodstock, MDLocation: HO-17-0164

(Well no., lab sink, sample tap, etc.)

Radon-222

Bottle A

Radon-222 Field Blank

Bottle A

Bottle B

Bottle B

County

113Sample ID: HOJCAB0164

Plant No.

CHECK (one per Box)

| Type | |
|----------------|-------------------------------------|
| Drinking Water | <input checked="" type="checkbox"/> |
| Landfill | <input type="checkbox"/> |
| Stream | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

| Service | |
|---------------|-------------------------------------|
| Community | <input type="checkbox"/> |
| Non-Community | <input type="checkbox"/> |
| Private | <input checked="" type="checkbox"/> |
| Other | <input type="checkbox"/> |

| Point of Collection | |
|------------------------|-------------------------------------|
| Source (Raw) | <input checked="" type="checkbox"/> |
| Distribution (treated) | <input type="checkbox"/> |
| MCL | <input type="checkbox"/> |

| Testing | |
|-----------|-------------------------------------|
| Emergency | <input type="checkbox"/> |
| Routine | <input checked="" type="checkbox"/> |
| Recheck | <input type="checkbox"/> |
| Special | <input type="checkbox"/> |

Submitters Code:

Federal Project:

Collector:

J. CABAHUG

Telephone No.:

410 313 2643

Date Collected:

09/26/2017

Time Collected:

09:00 a.m. p.m.

Field pH:

Field Chlorine:

Nitric Acid Preserved:

Yes

☒

No

☐

Iced:

Yes

☐

No

☐

Remarks:

Sample Collected During Yield - HOJCAB0164 is Field blank

| ✓ | TEST | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|-------------------------------------|----------------------|----------|---------|------------|-----------------|---------------|---------|---------------|
| <input checked="" type="checkbox"/> | Gross Alpha | 4000 | 0695 | EPA900.0 | 3.2 ± 1.2 | 9/29/17 | IT | 10/2/17 |
| <input checked="" type="checkbox"/> | Gross Beta | 4100 | 0695 | EPA900.0 | 5.1 ± 1.9 | 9/29/17 | IT | 10/2/17 |
| <input type="checkbox"/> | Radium-226 | 4020 | | | | | | |
| <input type="checkbox"/> | Radium-228 | 4030 | | | | | | |
| <input type="checkbox"/> | Total Uranium | 4006 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle A) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle B) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank A | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank B | 4004 | | | | | | |
| <input type="checkbox"/> | Tritium | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |

Date Received:

09/28/17

Received By:

W. Tuerkum

Data Release Signature:

Date:

10-02-17

| Lab Use Only | Yes | No | N/A |
|-------------------------------|-------------------------------------|----|-----|
| Sample Intact upon arrival? | <input checked="" type="checkbox"/> | | |
| Sample pH <2.0? | <input checked="" type="checkbox"/> | | |
| Received within holding time? | <input checked="" type="checkbox"/> | | |

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

SEND REPORT TO:

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Sciences
RADIATION LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Field BlankCounty: Worcester

Sample Source: _____

Location: H0-17-0164

(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____

Radon-222 Field Blank

Bottle A _____

Bottle B _____

Bottle B _____

County ☐ ☐ Sample ID: H0JCAB0164 Plant No. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

CHECK (one per Box)

| Type | |
|----------------|--------------------------|
| Drinking Water | <input type="checkbox"/> |
| Landfill | <input type="checkbox"/> |
| Stream | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

| Service | |
|---------------|--------------------------|
| Community | <input type="checkbox"/> |
| Non-Community | <input type="checkbox"/> |
| Private | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

| Point of Collection | |
|------------------------|--------------------------|
| Source (Raw) | <input type="checkbox"/> |
| Distribution (treated) | <input type="checkbox"/> |
| MCL | <input type="checkbox"/> |

| Testing | |
|-----------|--------------------------|
| Emergency | <input type="checkbox"/> |
| Routine | <input type="checkbox"/> |
| Recheck | <input type="checkbox"/> |
| Special | <input type="checkbox"/> |

Submitters Code: ☐ ☐Federal Project: ☐Collector: J. CABATTUG

Telephone No.: _____

Date Collected: 09/26/2017Time Collected: 10:30 a.m. p.m.

Field pH: _____

Field Chlorine: _____

Nitric Acid Preserved: Yes ☒ No ☐Iced: Yes ☐ No ☐

Remarks: _____

| ✓ | TEST | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|--------------------------|----------------------|----------|---------|------------|-----------------|---------------|---------|---------------|
| ✓ | Gross Alpha | 4000 | 0696 | EPA 900.0 | <2.0 | 9/29/17 | IT | 10/2/17 |
| ✓ | Gross Beta | 4100 | 0696 | EPA 902.0 | <4.0 | 9/29/17 | IT | 10/2/17 |
| <input type="checkbox"/> | Radium-226 | 4020 | | | | | | |
| <input type="checkbox"/> | Radium-228 | 4030 | | | | | | |
| <input type="checkbox"/> | Total Uranium | 4006 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle A) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon-222 (Bottle B) | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank A | 4004 | | | | | | |
| <input type="checkbox"/> | Radon Field Blank B | 4004 | | | | | | |
| <input type="checkbox"/> | Tritium | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |
| <input type="checkbox"/> | | | | | | | | |

Date Received: 09/28/17Received By: W. TuerksenData Release Signature: Ying Date: 10-02-17

| Lab Use Only | Yes | No | N/A |
|-------------------------------|-------------------------------------|----|-----|
| Sample Intact upon arrival? | <input checked="" type="checkbox"/> | | |
| Sample pH <2.0? | <input checked="" type="checkbox"/> | | |
| Received within holding time? | <input checked="" type="checkbox"/> | | |

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