| C 1 49284 SEQUENCE NO.<br>(MDE USE ONLY)   | STATE OF MARYLAND<br>WELL COMPLETION REPORT   | THIS REPORT MUST BE SUBMITTED WITHIN<br>45 DAYS AFTER WELL IS COMPLETED.  |  |  |
|--|---|---|--|--|
| 1 2 3 6<br>(THIS NUMBER IS TO BE PUNCHED<br>IN COLS./3-6 ON ALL CARDS)   | FILL IN THIS FORM COMPLETELY<br>PLEASE TYPE   | COUNTY<br>NUMBER  |  |  |
| ST/CO USE ONLY<br>DATE Received Area 200<br>8 13 15  | ETED Depth of Well<br>22 20 26 (TO NEAREST FOOT)  | 0K<br>3/17/175C FROM "PERMIT TO DRILLWELL"<br>28 29 30 31 32 33 34 35 36 37   |  |  |
| WELL SITE ADDRESS  | Development<br>Station firstination TOWN (  | DODDINE   |  |  |
| SUBDIVISION FANTLANE FOR   | SECTION_  | LOT 32  |  |  |
| WELL LOG<br>Not required for driven wells  | GROUTING RECORD<br>WELL HAS BEEN GROUTED<br>(Circle Appropriate Box)  | C 3   |  |  |
| STATE THE KIND OF FORMATIONS PENETRATED, THEIR<br>COLOR, DEPTH, THICKNESS AND IF WATER BEARING   | TYPE OF GROUTING MATERIAL (Circle one)  | HOURS PUMPED (nearest hour)   |  |  |
| DESCRIPTION (Use additional sheets if needed) FROM TO bearing  | CEMENT CIM BENTONITE CLAY BC<br>NO. OF BAGS 46 0 NO. OF POUNDS 46 46  | PUMPING RATE (gal. per min.)  |  |  |
| Soil 0 5   | GALLONS OF WATER  | METHOD USED TO MEASURE PUMPING RATE   |  |  |
| CLAJ 5 14  | from ft. to ft. to ft. to ft. (enter 0 if from surface)   | WATER LEVEL (distance from land surface)  |  |  |
| Brown  | casing types CASING RECORD  | BEFORE PUMPING  |  |  |
| Shale 14 28  | insert<br>appropriate<br>code<br>below<br>PLA<br>DT<br>OT   | WHEN PUMPING 22 26 ft.<br>TYPE OF PUMP USED (for test)  |  |  |
| MED GTAN   | MAIN Nominal diameter Total depth<br>CASING top (main) casing of main casing                                    | A air P piston T turbine  |  |  |
| Rock 28 300 0  | TYPE (nearest inch)! (nearest foot)   | C centrifugal R rotary O (describe below)   |  |  |
| 205 -  | 60 61 63 64 66 70   E OTHER CASING (if used)<br>A diameter depth (feet)   | Z7 S submersible  |  |  |
|  | H inch from to -<br>C   | PUMP INSTALLED<br>DRILLER INSTALLED PUMP YES NO<br>(CIRCLE) (YES of NO)   |  |  |
|  |   | IF DRILLER INSTALLS PUMP, THIS SECTION<br>MUST BE COMPLETED FOR ALL WELLS.  |  |  |
| Experiences Consistent PAU   | screen type<br>or open hole<br>insert STEEL BR HO<br>OPEN   | TYPE OF PUMP INSTALLED<br>PLACE (A,C,J,P,R,S,T,O) 29<br>IN BOX 29.  |  |  |
| are providente of the weather weather the second  | appropriate<br>code<br>below<br>L<br>STEEL<br>BRASS<br>BRONZE<br>PLL<br>OTHER                                   | CAPACITY:<br>GALLONS PER MINUTE<br>(to nearest gallon) 31 35  |  |  |
|  | C 2 DEPTH (nearest ft.)   | PUMP HORSE POWER<br>PUMP COLUMN LENGTH<br>(nearest ft.)   |  |  |
| WELL HYDROFRACTURED  | A 9 11 15 17 21   | 43 47<br>CASTING HEIGHT (circle appropriate box<br>and enter casing beight)   |  |  |
| CIRCLE APPROPRIATE LETTER  | C 2<br>H 23 24 26 30 32 36  | 49 LAND SURFACE   |  |  |
| WHEN THIS WELL WAS COMPLETED ELECTRIC LOG OBTAINED TEST WELL CONVERTED TO PRODUCTION   | C 3<br>R 38 39 41 45 47 51<br>E   | $\begin{array}{c c} - & below \end{array} \qquad \qquad & \begin{array}{c c} & (nearest) \\ \hline 50 & 51 \\ \hline 50 & 51 \\ \end{array} \qquad & \begin{array}{c c} & (nearest) \\ \hline 50 & 51 \\ \hline \end{array} \qquad & \begin{array}{c c} & (nearest) \\ \hline & foot \end{array} \end{array}$ |  |  |
| WELL<br>I HEREBY CEATIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN<br>ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND<br>IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE<br>CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED<br>HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY<br>KNOWLEDGE. | E     SLOT SIZE 1     2     3       N     DIAMETER     (NEAREST       OF SCREEN     56     60       from     to | LATITUDE 3 9. 54205<br>LONGITUDE 7 7. 0408<br>(DEFAULT COORD. WGS 84)<br>Pursuant to \$10-624 of the State Govt. Article of   |  |  |
| DRILLERS LIC. NO. M CD 355   | GRAVEL PACK   | the Maryand Code personal info. requested on<br>this form is used in processing this form pursuant<br>to COMAR 26.04.04. Failure to provide the info.   |  |  |
| DRILLERS SIGNATURE<br>(MUST MATCH SIGNATURE ON APPLICATION)  | MSERT F IN BOX 68 68<br>MDE USE ONLY<br>(NOT TO BE FILLED IN BY DRILLER)  | may result in this form not being processed. You<br>have the right to inspect, amend, or correct this<br>form. The Maryland Department of the   |  |  |
| HE NO. AWD 920   | T (E.R.O.S.) W Q  | Environment is subject to the Maryland Public<br>Information Act. This form may be made<br>available on the Internet via MDE's website and is   |  |  |
| SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)  | 70     72       TELESCOPE     LOG       CASING     THER DATA  | subject to inspection or copying, in whole or in<br>part, by the pulic and other governmental<br>agencies, if not protected by federal or state law.  |  |  |

EMERGENCY/TEMP NO. IF ANY TAG: 2/22/17/SC STATE PERMIT NUMBER SEQUENCE NO STATE OF MARYLAND 850 (MDE USE ONLY) APPLICATION FOR PERMIT TO DRILL WELL 40 15 -020 please type 79 fill in this form completely LOCATION OF WELL Date Received (APA) 3 BI OWNER INFORMATION HOWAR 1.3 DD MM YY Last Name COUNTY 21 8 DPINEN DEIFI 2 M FAIRLAN Owne 23 SUBDIVISION 42 HA Street or RFD SECTION L 44 46 MJ 1001 State 72 Zip 76 Town NEAREST TOWN 52 71 DRILLER INFORMATION 2 MICHAS D M B 4 Driller's Name 76 License No. 81 24 BARLO LORGAN STATTO SOURCES OF DRILLING WATER 1. WELL Firm Name TREET ADDRESS 30 2. 51 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) 3.HCHD N Address 0 2 2 D onsite SOUTH Signature Date 34 10 37 Complete B 2 WELL INFORMATION 6 DISTANCE FROM ROAD 20 Or APPROX. PUMPING RATE 2 ENTER FT OR MI 38 39 (GAL. PER MIN.) 12 8 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) BLK: TAX MAP: PARCEL 20 14 NOT TO BE FILLED IN BY DRILLER USE FOR WATER (CIRCLE APPROPRIATE BOX) HEALTH DEPARTMENT APPROVAL DOMESTIC POTABLE SUPPLY & RESIDENTIAL D IRRIGATION F FARMING (LIVESTOCK WATERING & AGRICULTURAL COUNTY NAME IRRIGATION) COUNTY NO. STATE INDUSTRIAL, COMMERCIAL, DEWATERING 1 22 INSERT S PUBLIC WATER SUPPLY WELL 41 P DATE ISSUED TEST, OBSERVATION, MONITORING T 12/8 116 EXP. DATE OPEN LOOP GEOTHERMAL 144 00 48 CO SIGNATURE 0 DNI CLOSED LOOP GEOTHERMAL C 3/9 DON PROPOSED LOCATION OF WELL ON LOT 300 FEET SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, APPROXIMATE DEPTH OF WELL ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL NEAREST APPROXIMATE DIAMETER OF WELL 3/9 METHOD OF DRILLING (circle one) 15 gpm BORED (or Augered) JETTED Jetted & DRIVEN RLO6 30 AIR-ROTary AIR-PERcussion **ROTARY (Hydraulic Rotary)** 35 static 37 CABLE **REVerse-ROTary DRive-POINT** other REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL THIS WELL WILL REPLACE A WELL THAT WILL BE Y ABANDONED AND SEALED THIS WELL WILL REPLACE A WELL THAT WILL BE USED S 39 AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 52 Not to be filled in by driller (MDE OR COUNTY USE ONLY) HD2015G024(01) APPROP. PERMIT NUMBER PERMIT No. 170 73 74 SPECIAL CONDITIONS 8 NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED



# MICHAEL BARLOW WELL DRILLING & SERVICE, INC.

522 Underwood Lane (410) 838-6910 **Bel Air, Maryland 21014** Fax (410) 838-3582

WELL YIELD REPORT

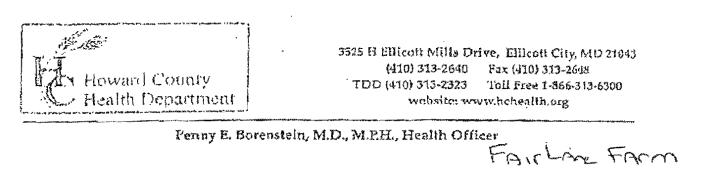
|          | Date Test Completed:      | Date Test Completed: |               |  |
|----------|---------------------------|----------------------|---------------|--|
|          | Well Depth:               | 300                  | feet          |  |
| Customer | Land Design & Development | Permit #             | HO-15-0381    |  |
| Road     | Galaxy Drive              | Subdivision          | Fairlane Farm |  |
| City     | Woodbine                  | Section              |               |  |
| State    | Maryland                  | Lot #                | 32            |  |

| Time                  | Water Level<br>feet                    | Time to Fill<br>1-gallon bucket<br>seconds | G.P.M. |
|-----------------------|--|--|--------|
| 9:30 AM               | 35                                     | 6  | 10.00  |
| 9:45 AM               | 40                                     | 6  | 10.00  |
| 10:00 AM              | 40                                     | 6  | 10.00  |
| 10:15 AM              | 40                                     | 6  | 10.00  |
| 10:30 AM              | 40                                     | 6  | 10.00  |
| 10:45 AM              | 40                                     | 6  | 10.00  |
| 11:00 AM              | 40                                     | 6  | 10.00  |
| 11:15 AM              | 40                                     | 6  | 10.00  |
| 11:30 AM              | 40                                     | 6  | 10.00  |
| 11:45 AM              | 40                                     | 6  | 10.00  |
| 12:00 PM              | 40                                     | 6  | 10.00  |
| 12:15 PM              | 40                                     | 6  | 10.00  |
| 12:30 PM              | 40                                     | 6  | 10.00  |
| 12:45 PM              | 40                                     | 6  | 10.00  |
| 1:00 PM               | 40                                     | 6  | 10.00  |
|                       |  |  |        |
|                       | or informational purposes only. Please | e note the yield may increase or decre     | ase    |
| over time and the GPM | indicated above is not a guarantee.    |  |        |

#### HOWAED COUNTY HEALTH DEPARTMENT SUREAU OF ENVIRONMENTAL HEALTH WELL & SEPTIC PROGRAM TEL: (410)513-1771 FAX: (410)513-2648

### Information Form for the Installation of the Well Pump, Piffers Adapter, and Supply Finnes

|      | NOHE: The installer is responsible for requesting an inspection prior to 9 am an the day of the desired<br>inspection. No work is to be covered until approved by the Health Department. All installations runst comply<br>with the Refional Standard Plannbing Code (NSPC, 25 amended locally) and COMAR 26.04.84 (MD Well  |
|------|--|
|      | Construction Regulations). Submission of a complete form is required prior to Use and Occumancy aneroval.  |
| •    | Company Name FOORS WELL Rimpx Wilter Treiphone = 410 795 5670<br>Address USSIO Obyrecht Rol<br>Sy Keguille M2 21764  |
|      |  |
| •    | (Minst circle one) Licensed Planuber (Licensed Well Deäther Licensed Well Pump, installer<br>License # and name of individual responsible for fluctuation:   |
|      | Name (Print): Drivid C fronte Lipeuset MSDZZ (0  |
|      | =A Treased individual must per Torm the actual istallation. Apprentices must be under the supervision of a   |
| -23  | freensed journeymen or measter plannber, promy installer or well driller. Licenses may be subjected in field<br>vermichion. Unfreensed individuals may be reported to the appropriate licensing agency.  |
|      | vernicedan pursuant war and proposed in the stable present stering strate.   |
|      | Name d'Property Qwner_NNRTelephonie = 240-712-0525<br>Subdivision: <u>FALY KIYR_FAY M5</u> Lat= 37_Well Tag= H0-15-038] V  |
|      | STEADER 1029 THINGER bird DY   |
|      | Salmersible Pum Date Pilless Adapter Well Can and Biestric Contact   |
|      | Make <u>CAMORE</u> Make <u>CAMORE</u> Two piece water Egit cape <u>V</u> CS  |
|      | Para Capacity GEM Deptin 3/0 (36" min) Cap secured to resing WC  |
|      | Well Yielt GEM NSF/WSC approved VE Conduction 18" B.G LCS<br>Depth of well encountered at time of pump installation: 300 (Seed) Conduct secured to well cap: LCS   |
|      | Efpurn capacity exceeds well yield, a low water could switch is required by NSPC 1990 Section 17.8.4   |
|      | Torque arrestors, Cable guards, or other acceptable nethod used-Must circle one  |
|      | Santy rope, if used, attached to busis rope adapte or office acceptable method inside of well casing Nff   |
|      | Proze house House Comection  |
|      | Type_1'PIN PIPE PVC steve to indisturbed soil at wall penetration VC   |
|      | Depth at supply have: 3(0" (35" min) Sheeve waled property: VCS  |
|      | The water supply fine is required to be at least ter feron the septic tank, promp chamber, sewage piping,  |
|      | Distribution box, drainfields, and servage reservences. If this <u>cannot be accomplished</u> , cannot dis once for  |
| 0    | anitalistani of zering terring   |
|      | Signature percentative responsible for installation date   |
|      |  |
|      | For Health Department DecOnly - Not to be completed by Installer   |
|      | Date Insp. Requested: 10/10/18 Date Tasp. Approved: 10/12/18 Inspection SC   |
|      | Inspection Data: Pittess adapter waterlight & water upply Time at least 36° below grade  |
|      | Elec. conduct extends at least 18° bolow grade/attached to cap properly  |
| 3    | Safety nope not outside of well captaing   |
| ٦'   | Connectivell tag attached properly and casing $S^{\circ}$ above finished grads   |
| - 0  | Water supply life subjected and data in these connection Adequate grout observed below pitters attanter  |
|      | · · · · · · · · · · · · · · · · · · ·  |
| 1180 |  |
| •    | E Contraction of the second se |



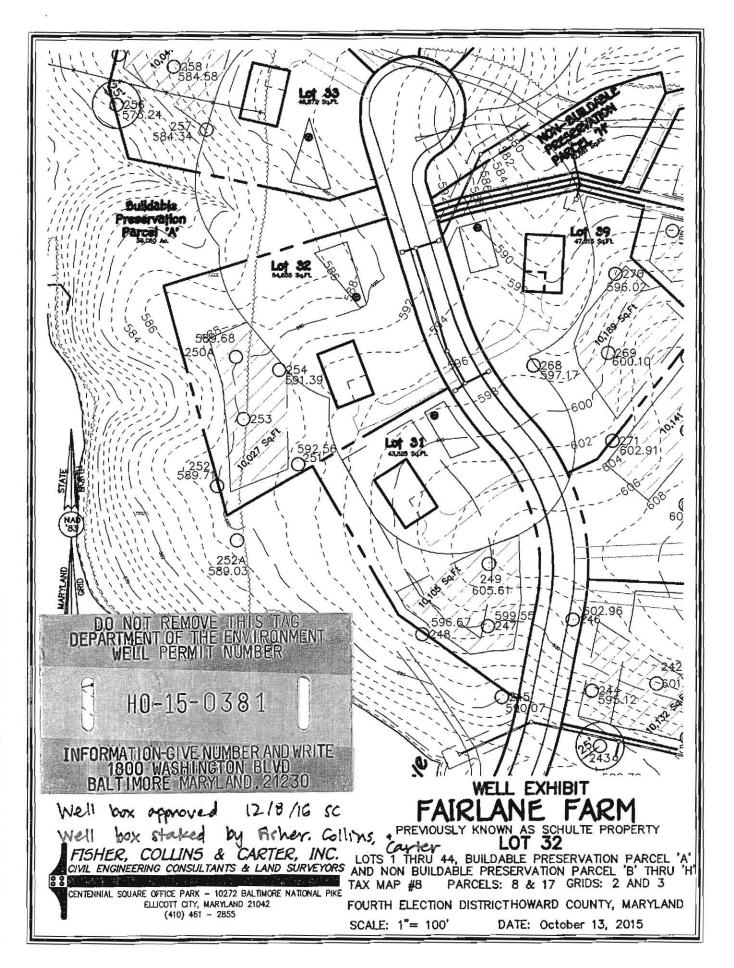
Subdivision TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- The well site has been staked by Fisher Collins + Carter (professional land surveyor or company employing professional land surveyors) on 3 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 6/10/03





Bureau of Environmental Health 8930 Stanford Blvd | Columbia, MD 21045 410.313.2640 - Voice/Relay 410.313.2648 - Fax 1.866.313.6300 - Toll Free

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

#### **INTERIM CERTIFICATE OF POTABILITY** Expiration Date – JUNE 14, 2018

December 14, 2018

Homeowner 1029 Thunderbird Drive Woodbine, MD 21797

RE: Fairlane Farm, Lot 32 1029 Thunderbird Drive Building Permit: B18002457 Well Permit: HO-15-0381

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 10/15/2018. Final approval of the well line connection to the dwelling was granted on 10/12/2018. The well construction was completed on 3/9/2017. Water samples were collected on 12/6/2018.

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. 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-15-0381. 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



Bureau of Environmental Health 8930 Stanford Blvd | Columbia, MD 21045 410.313.2640 - Voice/Relay 410.313.2648 - Fax 1.866.313.6300 - Toll Free

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

In closing, please refer to our "<u>Homeowner Fact Sheet</u>" which illustrates a better understanding for your Onsite Sewage Disposal System. You will also find a link to Maryland Department of the Environments website which describes in further detail operation and maintenance of your septic system.

Approving Authority,

a for

Kevin M. Wolf, LEHS, R.S./REHS, 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 #:<br>Reference:<br>Location:<br>Date/ Time Collected:<br>Date/Time Rec'd:<br>Chlorine ppm:<br>Collected By: | 127135<br>Fairlane Farr<br>1029 Thunde<br>Woodbine, N<br>12/6/2018<br>12/6/2018<br>Free: ND<br>A. Berchock | erbird Drive<br>4D 21797<br>1245<br>1400<br>Total: |          | Account #:<br>Company:<br>Requested B<br>Source:<br>Site:<br>Treatment:<br>pH:<br>Well #: |            | r<br>nk                |
|--|--|--|----------|---|------------|------------------------|
| PARAMETERS   |  | RESULTS  | UNITS    | REFERENCE   | METHOD     | DATE/TIME/ANALYST      |
| Bacteria, Coliform, Total,   | MPN  | <1.0   | MPN/ 100 | ml <1.0   | SM20 9223B | 12/7/2018 / 0830 / CRS |
| Bacteria E coli MPN  |  | <1.0   | MPN/ 100 | ml <1.0   | SM20 9223B | 12/7/2018 / 0830 / CRS |

| Bacteria, E. coli, MPN | <1.0 | MPN/ 100 ml | <1.0 | SM20 9223B         | 12/7/2018 / 0830 / CRS |
|------------------------|------|-------------|------|--------------------|------------------------|
| Nitrate                | 6.66 | mg/L        | 10   | 601                | 12/6/2018 / 1615 / CRS |
| Turbidity              | 0.76 | NTU         | <10  | SM20 2130B         | 12/6/2018 / 1645 / CRS |
| Sand                   | NS   | mg/L        | 5    | Visual/Gravimetric | 12/6/2018 / 1645 / CRS |

#### 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 Sample collected by client, analyzed as received
- 7 ND:None Detected
- 8 Visual well check: Sealed, vented cap
- 9 pH and Chlorine level tested in lab (pH tested after recommended holding time)

| Reason for Test :   | Use & Occupancy |
|---------------------|-----------------|
| Building Permit # : | B18002457       |