

DATE RECEIVED: MM 11 DD 17 YY 17 DATE WELL COMPLETED: MM 09 DD 11 YY 17 DEPTH OF WELL: 600 (TO NEAREST FOOT) COUNTY NUMBER: 28 PERMIT NO. FROM "PERMIT TO DRILL WELL": HO-17-0707

OWNER: Elm Street Development WELL SITE ADDRESS: Hawland Mill Rd TOWN: Clarksville SUBDIVISION: Mill Creek SECTION: \_\_\_\_\_ LOT: 11

**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		check if water bearing
	FROM	TO	
Soil	0	7	
Brown Shale	7	56	
Med Gray Rock	56	600	
	91		

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED:  YES  NO

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 D 355

DRILLERS SIGNATURE: \_\_\_\_\_

LIC. NO. WR 0113

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

**GROUTING RECORD** yes  no

WELL HAS BEEN GROUTED (Circle Appropriate Box) **Y** **N**

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT **CM** BENTONITE CLAY **BC**

NO. OF BAGS 25 NO. OF POUNDS 1875

GALLONS OF WATER 125

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 600 ft.

**CASING RECORD**

caseing types insert appropriate code below

**ST** STEEL **CO** CONCRETE **PL** PLASTIC **OT** OTHER

MAIN CASING TYPE: **PL** Nominal diameter top (main) casing (nearest inch): 6 Total depth of main casing (nearest foot): 600

**OTHER CASING (if used)**

inch	depth (feet) from	to
_____	_____	_____
_____	_____	_____

**SCREEN RECORD**

screen type or open hole insert appropriate code below

**ST** STEEL **BR** BRASS **HO** OPEN HOLE **PL** PLASTIC **OT** OTHER

**C 2** DEPTH (nearest ft.)

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
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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 68

**MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)**

T (E.R.O.S.) W Q

70 \_\_\_\_\_ 72 \_\_\_\_\_ 74 75 76 \_\_\_\_\_

TELESCOPE CASING LOG INDICATOR OTHER DATA

**C 3** **PUMPING TEST**

HOURS PUMPED (nearest hour) 6

PUMPING RATE (gal. per min.) 75

METHOD USED TO MEASURE PUMPING RATE watch/bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 49 ft.

WHEN PUMPING 100 ft.

TYPE OF PUMP USED (for test)

**A** air **P** piston **T** turbine **C** centrifugal **R** rotary **O** other (describe below) **J** jet **S** submersible

**PUMP INSTALLED**

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES  NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 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 } (nearest foot) 1

LATITUDE 39.18421

LONGITUDE 77.00043

(DEFAULT COORD. WGS 84)

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**B 1** SEQUENCE NO. (MDE USE ONLY) **58655** STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL STATE PERMIT NUMBER **Ho - 17 - 0207**  
 1 2 3 6 **561525** please type 70 **fill in this form completely** 79

**OWNER INFORMATION**  
 Date Received (APA) **01/18/17**  
 8 MM DD YY 13  
 15 Last Name **Elm Street Development** Owner First Name 34  
 36 Street or RFD **1355 Beverly RD, Suite 240** 55  
 57 Town **McLean VA** 70 State 72 Zip **22101** 76

**B 3 LOCATION OF WELL**  
 8 COUNTY **Howard** 21  
 23 SUBDIVISION **Mill Creek** 42  
 SECTION **11** LOT 44 46 48 50  
 52 NEAREST TOWN **Clarksville** 71

**DRILLER INFORMATION**  
 Driller's Name **Michael Barkow** M W D 355 76 License No. 81  
 Firm Name **Barkow Well Drilling**  
 Address **522 Underwood Lane 21014**  
 Signature **[Signature]** Date **9/11/17**

**B 4 SOURCES OF DRILLING WATER**  
 1. **Well**  
 2.  
 3. **1300** STREET ADDRESS 30  
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) **1300** 37  
 DISTANCE FROM ROAD **FT** 38 39  
 ENTER FT OR MI  
 TAX MAP: **39** BLK: **6** PARCEL **0001**

**B 2 WELL INFORMATION**  
 APPROX. PUMPING RATE **5** 8 12 (GAL. PER MIN.)  
 AVERAGE DAILY QUANTITY NEEDED **750** 14 20 (GAL. PER DAY)

**USE FOR WATER (CIRCLE APPROPRIATE BOX)**  
 D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION  
 F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 I INDUSTRIAL, COMMERCIAL, DEWATERING  
 P PUBLIC WATER SUPPLY WELL  
 T TEST, OBSERVATION, MONITORING  
 O OPEN LOOP GEOTHERMAL  
 C CLOSED LOOP GEOTHERMAL

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**  
 COUNTY NAME **Howard** COUNTY NO. **(13)**  
 STATE SIGNATURE \_\_\_\_\_ INSERT S → 41  
 DATE ISSUED **11/6/17** CO SIGNATURE **[Signature]** EXP. DATE **11/6/18**  
 43 MM DD YY 48

APPROXIMATE DEPTH OF WELL **60** FEET 24 28  
 APPROXIMATE DIAMETER OF WELL **6** INCH NEAREST INCH

**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  
**Drilled in New well area**  
**Site plan to be provided by**  
**Surveyor**

**METHOD OF DRILLING (circle one)**  
 BORED (or Augered) JETTED Jetted & DRIVEN  
 30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)  
 37 CABLE REVERSE-ROTary DRIVE-POINT  
 other \_\_\_\_\_

**REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)**  
 N THIS WELL WILL NOT REPLACE AN EXISTING WELL - **TANDem well**  
 Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED  
 S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS  
 D THIS WELL WILL DEEPEM AN EXISTING WELL  
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 \_\_\_\_\_ 52

**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**  
 APPROX. PERMIT NUMBER \_\_\_\_\_ **G** \_\_\_\_\_  
 PERMIT No. **Ho - 17 - 0207**  
 70 71 72 73 74 75 76 77 78 79

**SPECIAL CONDITIONS**  
 NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED



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B 1 32968

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO-17-0108 fill in this form completely

559843J please type

Date Received (APA)

11/16/16

OWNER INFORMATION

ELM STREET DEVELOPMENT 1355 BEVERLY RD, SUITE 240 McCLEAN VA 22101

LOCATION OF WELL

HOWARD MILL CREEK CLARKSVILLE

DRILLER INFORMATION

MICHAEL BARLOW MW D 355 BARLOW WELL DRILLING 512 UNDERWOOD LANE ZIDIL

SOURCES OF DRILLING WATER

Well 8/24 - 50' casing - little water @ 85' now @ 260' 8/25 - 60' casing - water @ 90' @ 460'

HAVILAND MILL RD

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) DISTANCE FROM ROAD 1300 FT

WELL INFORMATION

APPROX. PUMPING RATE 750 GAL PER MIN. AVERAGE DAILY QUANTITY NEEDED 14 GAL PER DAY

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

HOWARD 546326J 13 COUNTY NO. STATE SIGNATURE DATE ISSUED 3/2/17 GO SIGNATURE EXP. DATE 3/2/18

DOB: 3/21/17 (SC) DOB: 8/1/17 (SC) DOB: 8/15/17 (SC)

- USE FOR WATER (CIRCLE APPROPRIATE BOX) D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) I INDUSTRIAL, COMMERCIAL, DEWATERING P PUBLIC WATER SUPPLY WELL T TEST, OBSERVATION, MONITORING O OPEN LOOP GEOTHERMAL C CLOSED LOOP GEOTHERMAL

APPROXIMATE DEPTH OF WELL 300 FEET APPROXIMATE DIAMETER OF WELL 6 INCH

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

METHOD OF DRILLING (circle one) BORED (or Augered) AIR-ROTary JETTED AIR-PERcussion Jetted & DRIVEN ROTARY (Hydraulic Rotary) DRIVE-POINT

3/21 - drilled to 500' dry hole 6/8 - at 600' on #4, 21 gpm - fractures @ 190' + 240' 6/5 - beginning to drill hole #2 6/12 - at 380' on hole #5, little water 7/27 - drilling in NW corner of new well box, on site for 200-240' - little water 8/15 - 2 gpm - 10:45 am pump start - 200' meas. pt. 8/1 - 50' casing - 20 bags cement

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPEIN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41

Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROX. PERMIT NUMBER HO 2016 G 002 PERMIT No. HO-17-0108

SPECIAL CONDITIONS SEE ATTACHED MEMO

\*\*\*\*\*  
 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: 9/12/17 (month/day/year)

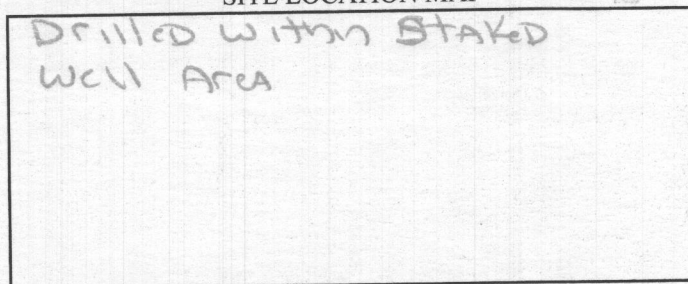
\* PERMIT NUMBER OF ABANDONED WELL (if any) \_\_\_\_\_

\* PERMIT NUMBER OF REPLACEMENT WELL: \_\_\_\_\_

\* PERSON ABANDONING WELL: Michael Barlow WELL DRILLER'S LICENSE NUMBER: 355  
 CIRCLE: (MWD) MSD / MGD

\* OWNER'S NAME: Elm Street Development

SITE LOCATION MAP



\* WELL LOCATION:  
 COUNTY: Howard  
 NEAREST TOWN: Clarksville  
 TAX MAP 39 BLOCK 6 PARCEL 0001  
 SUBDIVISION: Mill Creek  
 SECTION: \_\_\_\_\_ LOT: 11  
 STREET ADDRESS: Harland Mill Rd

LATITUDE 3 9.18417 - -

LONGITUDE 7 7.00041 - -

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
<u>Drill cuttings</u>	<u>600</u>	<u>25</u>
VOLUME OF MATERIAL USED		
<u>525 lbs cement GROUT</u>		

\* 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) Dry Hole

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 600 FEET DEEP

WAS ANY CASING REMOVED?  YES  NO  
 If yes, length removed, in feet: \_\_\_\_\_

WAS CASING RIPPED OR PERFORATED?  YES  NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN [Signature] LICENSE# 355

MWD / MSD / MGS  
 CIRCLE ONE

12/18/17  
 DATE

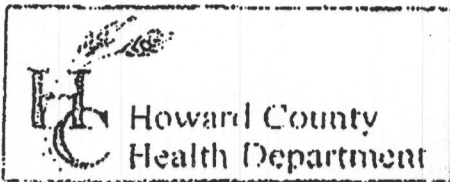
COUNTY



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Howard County  
Health Department

3525 H Ellicott Mills Drive, Ellicott City, MD 21043  
(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:

All individual well sites for lots 2-23 of Mill Creek are staked + properly labeled

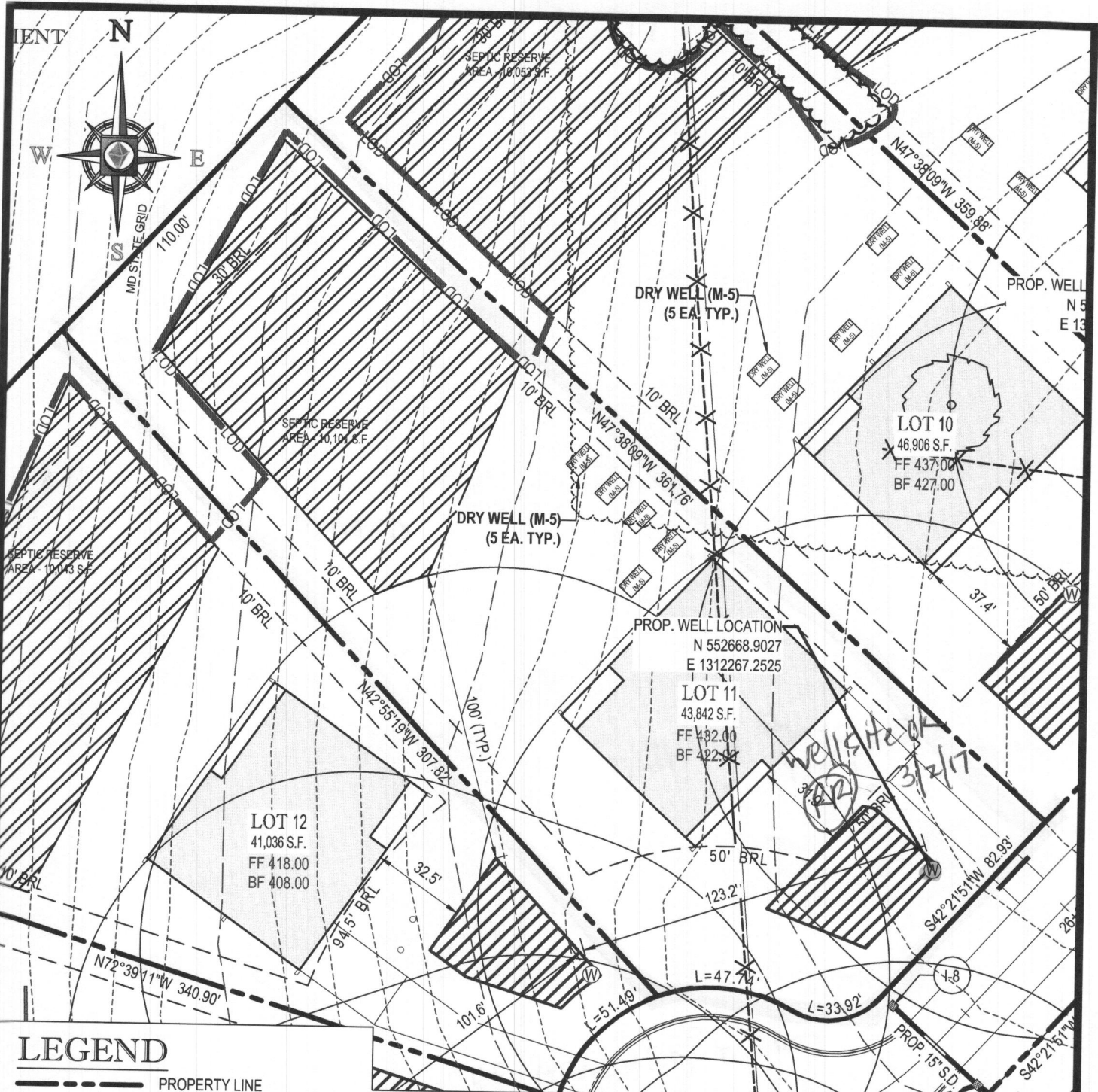
The well site has been staked by Bohler Engineering,  
(professional land surveyor or company employing professional land surveyors)  
on 3/3/17 (date) and does not require a site inspection.

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

RECEIVED  
MAR -6 2017  
HOWARD COUNTY HEALTH DEPT  
COMMUNITY HYGIENE PROGRAM



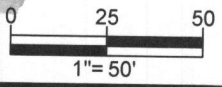
**LEGEND**

-  PROPERTY LINE
-  BUILDING RESTRICTION LINE
-  PROPOSED WELL BOX / WELL LOCATION
-  SEPTIC RESERVED AREA

**RECEIVED**  
**FEB 28 2017**

HOWARD COUNTY HEALTH DEPT.  
 COMMUNITY HYGIENE DIVISION

HO-17-0108



PROJECT NAME:

**PROPOSED LOTS 1-23 & NONBUILDABLE PRESERVATION PARCEL A - G**  
 6780 HAVILAND MILL ROAD, CLARKSVILLE, MD

SHEET TITLE:

**WELL EXHIBIT - LOT 11**  
 1 OF 1



**BOHLER**  
**ENGINEERING**

SCALE: 1" = 50'	DATE: 11-01-16	CAD ID: EX0	PROJECT NUMBER: MD142038
--------------------	-------------------	----------------	-----------------------------

22636 DAVIS DRIVE, SUITE 250 STERLING, VA 20164  
 PHONE: (703) 709-9500 FAX: (703) 709-9501

**Collins, Sarah**

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**From:** Collins, Sarah  
**Sent:** Tuesday, August 01, 2017 7:22 AM  
**To:** 'Mike Isom'  
**Subject:** RE: Mill Creek lot 11

Hi Mike,

It is okay to frack lots 11 and 12. We will need simultaneous yield tests, definitely lots 11 and 12. We may need additional simultaneous yields or at least monitoring of water levels while testing other lots. I'll take measurements of well distances around lots 11 and 12 today and let you know.

Thanks,  
Sarah

---

**From:** Mike Isom [<mailto:misom@mbwd.us>]  
**Sent:** Tuesday, August 01, 2017 6:48 AM  
**To:** Collins, Sarah  
**Subject:** Re: Mill Creek lot 11

No all 3. I didn't include 20 in the letter because the well is more than 100' from any other well.

Sincerely,

Michael Isom  
Project Manager  
Michael Barlow Well Drilling Service  
Phone: (410) 838-6910  
Fax: (410) 838-3582  
522 Underwood Lane  
Bel Air, MD 21014  
[www.michaelbarlowwelldrilling.com](http://www.michaelbarlowwelldrilling.com)  
[www.thermalloopcorp.com](http://www.thermalloopcorp.com)  
[Click HERE to like us on Facebook!](#)  
On 7/31/2017 8:19 AM, Collins, Sarah wrote:

Hi Mike,

Just to check- a previous email said that you'd like to frack lots 11, 12, and 20, but the letter just says lots 11 and 12. Just lots 11 and 12?

Thanks,  
Sarah

---

**From:** Mike Isom [<mailto:misom@mbwd.us>]  
**Sent:** Friday, July 28, 2017 2:53 PM

**MICHAEL BARLOW WELL DRILLING  
522 UNDERWOOD LANE  
BEL AIR, MD 21014  
410-838-6910**

Howard County Health Department  
7178 Columbia Gateway Drive  
Columbia, MD 21046  
Attn: Sarah Collins

July 28, 2017

Re: Hydrofracture of Mill Creek lots 11 & 12

After multiple drilling attempts on lots 11 and 12 in the Mill Creek subdivision, the developer would like to hydrofracture both lots. While the wells are more than 50' from each other, they are less than 100' apart, which requires authorization from your office. Please advise our office as soon as possible if we can proceed.

Sincerely,



Michael Barlow

Two wells on property  
 2nd well  
 MO 17-0108 600' 5gpm

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: Fogles Well Pump & Water Treatment, LLC Telephone #: 410-795-5670  
 Address: 580 Obrecht Rd  
Sykesville, MD 21784

(Must circle one) Licensed Plumber  Licensed Well Driller  Licensed Well Pump Installer

License # and name of individual responsible for the field installation:  
 Name (Print): Donald C Fogle License #: MSD226

\*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: NVR INC Telephone #: 240-755-7378  
 Subdivision: Mill Creek Ct Lot #: 11 Well Tag #: HO-17-0207 ✓ 4/15/2019  
 Site Address: 13864 Mill Creek Ct 17-0108 ✓ 4/15/2019  
Clarysville, MD 21029

Submersible Pump Data	Pitless Adapter	Well Cap and Electric Conduit
Make: <u>Goulds</u>	Make: <u>Campbell</u>	Two piece watertight cap: <u>YES</u>
Model #: <u>50210422</u>	Model #: <u>NA</u>	Screened, vented well cap: <u>YES</u>
Pump Capacity: <u>5</u> GPM	Depth: <u>30"</u> (36" min)	Cap secured to casing: <u>YES</u>
Well Yield: <u>75</u> GPM	NSE/WSC approved: <u>YES</u>	Conduit min 18" B.G.: <u>YES</u>
Depth of well encountered at time of pump installation: <u>600'</u> (ft)		Conduit secured to well cap: <u>YES</u>

If pump capacity exceeds well yield, a low water cutoff switch is required by NSPC 1990 Section 17.8.4  
 Tongue and groove, cable guards, or other acceptable method used - Must circle one  
 Safety rope, if used, attached to hoist rope adapter or other acceptable method inside of well casing. NA

Pipette to house	House Connection
Type: <u>1" poly pipe</u>	PVC sleeve to undisturbed soil at wall penetration: <u>YES</u>
PST: <u>200</u> (psi min)	Length of sleeve (minimum from foundation): <u>6</u>
Depth of supply line: <u>30"</u> (36" min)	Sleeve sealed properly: <u>YES</u>

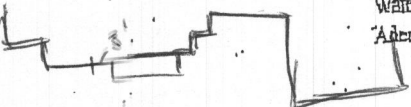
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: Donald C Fogle date: 4/15/19

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

Date Insp Requested: <u>4/15/2019</u>	Date Insp Approved: <u>4/15/2019</u>	Inspector: <u>(Signature)</u>	<u>0108</u>	<u>0207</u>
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade	<input checked="" type="checkbox"/>		<u>43"</u>	<u>36"</u>
Two piece cap installed and attached to casing securely	<input checked="" type="checkbox"/>			
Elec conduit extends at least 18" below grade/attached to cap properly	<input checked="" type="checkbox"/>		<u>30"</u>	<u>26"</u>
Safety rope not outside of well cap/casing	<input checked="" type="checkbox"/>			
Correct well tag attached properly and casing 8" above finished grade	<input checked="" type="checkbox"/>		<u>21"</u>	<u>39"</u>
Water supply line sleeved adequately at house connection	<input checked="" type="checkbox"/>			
Adequate grout observed below pitless adapter	<input checked="" type="checkbox"/>			

EX HOUSE  
 4/15/2019



## INTERIM CERTIFICATE OF POTABILITY

Expiration Date – JANUARY 9, 2020

July 9, 2019

Homeowner  
13864 Mill Creek Court  
Clarksville, MD 21029

**RE: Mill Creek, Lot 11**  
**13864 Mill Creek Court**  
**Building Permit: B19000293**  
**Well Permit: HO-17-0108, HO-17-0207**

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 **5/6/2019**. Final approval of the well line connection to the dwelling was granted on **4/15/2019**. The well construction was completed on **9/11/2017, 9/12/2017**. Water samples were collected on **6/10/2019, 6/20/2019, 6/24/2019, 7/2/2019**.

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-17-0108, 17-0207. 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.**

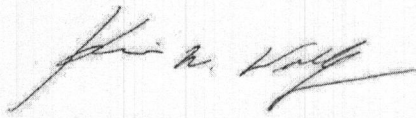
Please contact (410) 313-1773 to schedule a final water sample appointment or contact a Maryland certified water laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:  
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

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

In closing, please refer to our "[Homeowner Fact Sheet](#)" 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,



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 #: 130985 Account #: 1933  
Reference: Mill Creek Lot 11 Company: Fogles Well Pump & Treatment  
Location: 13864 Mill Creek Court Requested By: Dave Fogle  
Clarksville, MD 21029 Source: Well Water  
Date/ Time Collected: 6/24/2019 1050 Site: Pressure Tank  
Date/Time Rec'd: 6/24/2019 1425 Treatment: Prior to Neutralizer/Iron Handler  
Chlorine ppm: Free: ND Total: ND pH: 6.3  
Collected By: J. Evans 7411JE Well #: HO-17-0207\*(B)

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	6/25/2019 / 0900 / RER
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	6/25/2019 / 0900 / RER

### NOTES

- 1 \*Two wells on the property HO-17-0108 (Well A) & HO-17-0207 (Well B). Sample collected from Well B
- 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 Sample collected by client, analyzed as received
- 5 ND:None Detected
- 6 Visual well check: Sealed, vented cap
- 7 pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy  
Building Permit # : B19000293

Date Reported: 6/25/2019

# 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 #: 130635 Account #: 1933  
Reference: Mill Creek Lot 11 Company: Fogles Well Pump & Treatment  
Location: 13864 Mill Creek Court Requested By: Dave Fogle  
Clarksville, MD 21029 Source: Well Water  
Date/ Time Collected: 6/10/2019 1400 Site: Pressure Tank  
Date/Time Rec'd: 6/10/2019 1535 Treatment: None  
Chlorine ppm: Free: ND Total: ND pH: 7.1  
Collected By: B. Wilkerson 9315BW Well #: HO-17-0207

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	11.1	MPN/ 100 ml	<1.0	SM20 9223B	6/11/2019 / 1000 / CRS
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	6/11/2019 / 1000 / CRS
Nitrate	<1.0	mg/L	10	601	6/11/2019 / 0925 / RER
Turbidity	9.56	NTU	<10	SM20 2130B	6/11/2019 / 0925 / RER
Sand	NS	mg/L	5	Visual/Gravimetric	6/11/2019 / 0925 / RER

### 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 # : 19000293

Date Reported: 6/11/2019

# 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 #: 130928 Account #: 1933  
Reference: Mill Creek Lot 11 Company: Fogles Well Pump & Treatment  
Location: 13864 Mill Creek Court Requested By: Dave Fogle  
Clarksville, MD 21029 Source: Well Water  
Date/ Time Collected: 6/20/2019 0845 Site: Kitchen Sink Tap  
Date/Time Rec'd: 6/20/2019 1525 Treatment: Neutralizer/Iron Handler  
Chlorine ppm: Free: NT Total: NT pH: NT  
Collected By: J. Evans 7411JE Well #: HO-17-0108\*(A)

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	2.0	MPN/ 100 ml	<1.0	SM20 9223B	6/21/2019 / 1030 / RER
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	6/21/2019 / 1030 / RER

### NOTES

- \* Two wells on the property HO-17-0108 (Well A) & HO-17-0207 (Well B). Sample collected from Well A
- MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- Sample collected by client, analyzed as received
- NT = Not Tested
- Visual well check: Sealed, vented cap
- pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy  
Building Permit # : 19000293

Date Reported: 6/21/2019

MILL CREEK

Lot 11

GPS Coordinates

Well #1 – HO-17-0108 – 39.18401 77.00036

Well #2 – HO-17-0207 – 39.18421 77.00043

Dry Holes (5 total)

39.18428	77.00030
39.18421	77.00032
39.18423	77.00031
39.18423	77.00025
39.18417	77.00041

# 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 #: 131161 Account #: 1933  
Reference: Mill Creek Lot 11 Company: Fogles Well Pump & Treatment  
Location: 13864 Mill Creek Court Requested By: Dave Fogle  
Clarksville, MD 21029 Source: Well Water  
Date/ Time Collected: 7/2/2019 1300 Site: Pressure Tank  
Date/Time Rec'd: 7/2/2019 1500 Treatment: None  
Chlorine ppm: Free: ND Total: ND pH: 6.3  
Collected By: B. Wilkerson 9315BW Well #: HO-17-0108(A)\*

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	7/3/2019 / 1000 / RER
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	7/3/2019 / 1000 / RER
Nitrate	4.36	mg/L	10	601	7/2/2019 / 1600 / CRS
Turbidity	3.53	NTU	<10	SM20 2130B	7/2/2019 / 1615 / CRS
Sand	NS	mg/L	5	Visual/Gravimetric	7/2/2019 / 1615 / CRS

### NOTES

- \*Two wells on the property HO-17-0108 (Well A) & HO-17-0207 (Well B). Sample collected from Well A
- mg/L = milligrams per liter (also, parts per million)
- MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- NS = None Seen (NS indicates less than 5 mg/L)
- NTU = Nephelometric Turbidity Units
- Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- Sample collected by client, analyzed as received
- ND:None Detected
- Visual well check: Sealed, vented cap
- pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy

Building Permit # : 19000293

Date Reported: 7/3/2019

\*\*\*\*\*  
 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: 9/12/17 (month/day/year)

\* PERMIT NUMBER OF ABANDONED WELL (if any) \_\_\_\_\_

\* PERMIT NUMBER OF REPLACEMENT WELL: \_\_\_\_\_

Ho-17-0108

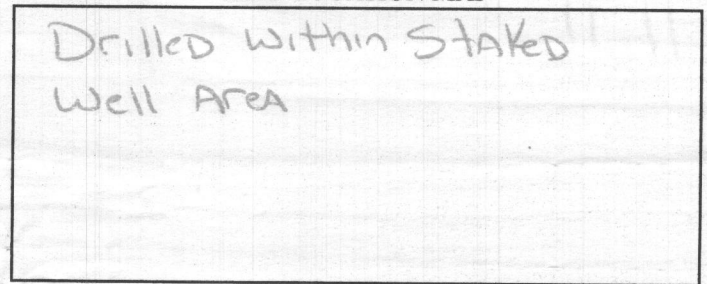
\* PERSON ABANDONING WELL: Michael Barlow WELL DRILLER'S LICENSE NUMBER: 355

CIRCLE: MWD / MSD / MGD

\* OWNER'S NAME: Elm Street Development

SITE LOCATION MAP

\* WELL LOCATION:  
 COUNTY: Howard  
 NEAREST TOWN: Clarksville  
 TAX MAP 39 BLOCK 6 PARCEL 0001  
 SUBDIVISION: Mill Creek  
 SECTION: \_\_\_\_\_ LOT: \_\_\_\_\_  
 STREET ADDRESS: Haviland Mill Rd



LATITUDE 3 9.18423

LONGITUDE 7 7.00031

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
Drill Cuttings	600	25
Cement Grout	25	0
VOLUME OF MATERIAL USED		
<u>600 lbs Cement Grout</u>		

\* 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) Dry Hole

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 600 FEET DEEP

WAS ANY CASING REMOVED?  YES  NO  
 If yes, length removed, in feet: \_\_\_\_\_

WAS CASING RIPPED OR PERFORATED?  YES  NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN [Signature] LICENSE# 355

CIRCLE ONE MWD / MSD / MGS

DATE 12/18/17

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.

\*\*\*\*\*  
 WATER WELL ABANDONMENT-SEALING REPORT FORM  
 \*\*\*\*\*

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

DATE WELL ABANDONED: 9/12/17 (month/day/year)

\* PERMIT NUMBER OF ABANDONED WELL (if any) \_\_\_\_\_

\* PERMIT NUMBER OF REPLACEMENT WELL: \_\_\_\_\_

Ho-17-0108

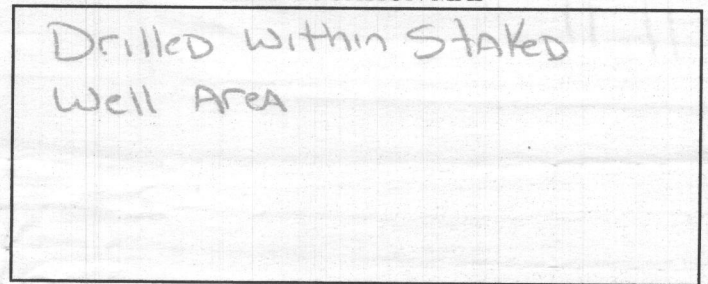
\* PERSON ABANDONING WELL: Michael Barlow WELL DRILLER'S LICENSE NUMBER: 355

CIRCLE: MWD / MSD / MGD

\* OWNER'S NAME: Elm Street Development

SITE LOCATION MAP

\* WELL LOCATION:  
 COUNTY: Howard  
 NEAREST TOWN: Clarksville  
 TAX MAP 39 BLOCK 6 PARCEL 0001  
 SUBDIVISION: Mill Creek  
 SECTION: \_\_\_\_\_ LOT: \_\_\_\_\_  
 STREET ADDRESS: Howland Mill Rd



LATITUDE 3 9 . 184 23 --

LONGITUDE 7 7 . 00 031 --

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
Drill Cuttings	600	25
Cement Grout	25	0
VOLUME OF MATERIAL USED		
<u>600 lbs Cement Grout</u>		

\* 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) Dry Hole

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 600 FEET DEEP

WAS ANY CASING REMOVED?  YES  NO  
 If yes, length removed, in feet: \_\_\_\_\_

WAS CASING RIPPED OR PERFORATED?  YES  NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE# \_\_\_\_\_

355

MWD / MSD / MGS  
 CIRCLE ONE

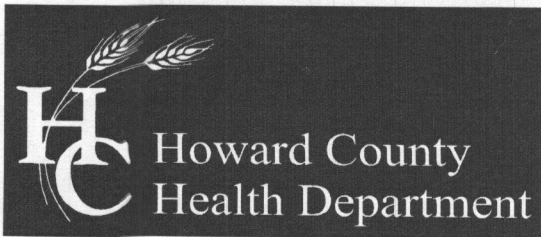
12/18/17  
 DATE

COUNTY



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Bureau of Environmental Health

8930 Stanford Blvd, Columbia, MD 21045  
Main: 410-313-2640 | Fax: 410-313-2648  
TDD 410-313-2323 | Toll Free 1-866-313-6300  
www.hchealth.org

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

LOT 11

**MEMORANDUM**

**TO:** Barlow Well Drilling  
**FROM:** Ryan Rappaport, L.E.H.S. (RR) Well and Septic Program  
**DATE:** March 1, 2017  
**RE:** State Water Appropriation and Use Permit for Crawford Property/Mill Creek Subdivision #HO2016G002(01) & Special Conditions

The State Water Appropriation and Use Permit for the Crawford Property/Mill Creek Subdivision has a requirement regarding well spacing and testing:

*15. The Permittee shall conduct simultaneous yield tests of wells closer than 100 feet apart, if at least one of the wells is on a lot less than one acre in size. The yield testing shall be conducted to ensure that the minimum yield requirements of COMAR 26.04.04.26 are met. In the event that a well that has been tested simultaneously with other wells does not meet minimum yield standards, the Permittee may relocate a well so as to achieve the 100-foot separation distance, deepen or otherwise modify the well to improve its yield or drill a second well to be used in tandem to meet the minimum yield standards during simultaneous testing. All wells shall comply with well construction standards.*

The lots of the Crawford Property/Mill Creek Subdivision that are less than an acre are lots 2, 3, 12, 13 and 18. If a well on one of these lots is within 100' of another well, a simultaneous yield test of both wells will be required.

**SPECIAL CONDITIONS**

- All drilling, grouting and yields must be called into the Health Department for inspection. Call 410-313-1771 for scheduling.
- Since all 23 lots have the well locations staked and not the lot's well boxes it is required that if during the drilling a dry hole is encountered, the Health Department must be notified immediately before any additional drilling is completed on that particular lot.
- The wells on lots 1, 7, 15 and 19 will require TDS, sodium and chloride water samples during the yield test.
- The wells on lots 20 and 21 must be drilled using steel casing that extends to at least 50 feet depth or 10 feet into competent bedrock, whichever is deeper.

Feel free to contact me with any questions at 410-313-1781 or [RRappaport@howardcountymd.gov](mailto:RRappaport@howardcountymd.gov).

Cc: File