



<b>B 1</b>	SEQUENCE NO. (MDE USE ONLY) <u>574933</u>	<b>STATE OF MARYLAND</b> <b>APPLICATION FOR PERMIT TO DRILL WELL</b> please type	STATE PERMIT NUMBER <u>H0 - 20 - 0301</u> <small>70 fill in this form completely 79</small>
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**OWNER INFORMATION**

Date Received (APA) 10/20/23

8 MM DD YY 13

15 Last Name Rafel Owner Yusuf First Name Yusuf 34

36 Street or RFD 5018 Rome Red Way 55

57 Town Ellicott City 70 State MD 72 Zip 21043 76

**LOCATION OF WELL**

8 COUNTY Howard 21

23 SUBDIVISION Clouer field 42

SECTION 44 46 LOT 10 48 50

52 NEAREST TOWN Mt. Airy 71

**DRILLER INFORMATION**

Driller's Name John Hess 76 License No. MW D 553 81

Firm Name Carroll Water

Address 12047 Falls Rd Cockeysville

Signature John Hess Date 10/22/23

**SOURCES OF DRILLING WATER**

1. Public

2. Public

3. Public

11 STREET ADDRESS 13560 Mitchells Way 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH  
 WEST  
 EAST  
 SOUTH

34 DISTANCE FROM ROAD 37

ENTER FT OR MI FT 38 39

TAX MAP: 15 BLK: 9999 PARCEL 04

**WELL INFORMATION**

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

**USE FOR WATER (CIRCLE APPROPRIATE BOX)**

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

INDUSTRIAL, COMMERCIAL, DEWATERING

PUBLIC WATER SUPPLY WELL

TEST, OBSERVATION, MONITORING

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**

COUNTY NAME Howard COUNTY NO. 13

STATE SIGNATURE \_\_\_\_\_ INSERT S → 41

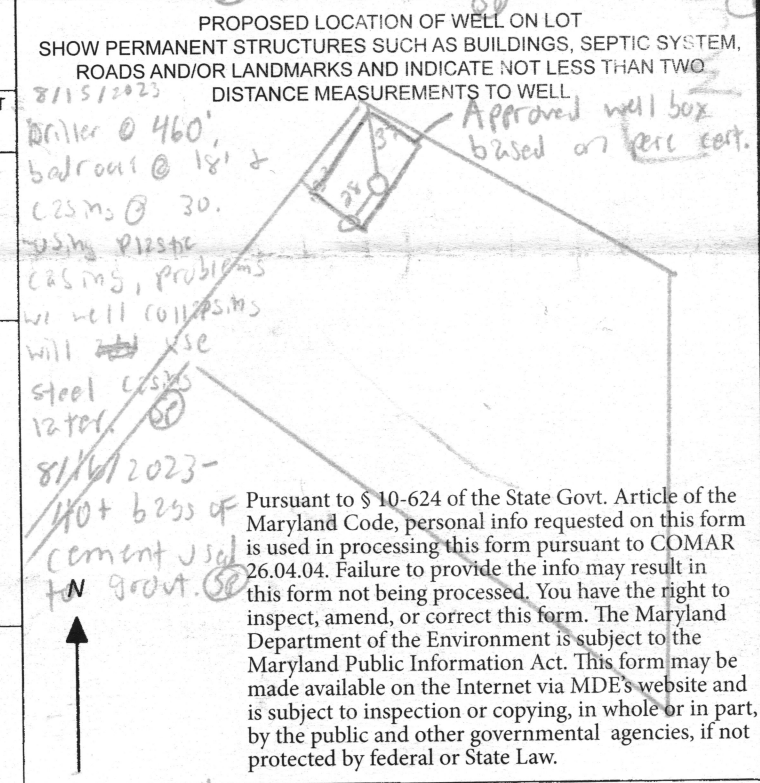
DATE ISSUED 7/25/2023 43 MM DD YY 48

CO SIGNATURE 8/16/2023 EXP. DATE 7/25/2024

Don: 8/15/2023 DOG: 8/16/2023 DOY: 8/16/2023

APPROXIMATE DEPTH OF WELL 400 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH



**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 DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)**

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39  THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS

THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 \_\_\_\_\_ 52

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

APPROP. PERMIT NUMBER \_\_\_\_\_

PERMIT No. H0 - 20 - 0301

**SPECIAL CONDITIONS** Call for Drilling, Grout, & Yield.

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.



**Carroll Water**  
purifying the essential

**CARROLL WATER SYSTEMS**

**12047 Falls Road**  
(410) 876-5100

**Cockeysville, MD 21030**  
(410) 688-4417



**Carroll Water**  
purifying the essential

**WELL YIELD REPORT**

Date Test Completed	8/18/2023
Well Depth	460 Feet
Customer	Yusuf Patel
Street	13560 Mitchels Way
City	Mt. Airy
State	MD
Zip code	21794
Permit#	HO-20-0301
Subdivision	
Section	
Lot#	
Tester	Austin

Time	Water Level Feet	PSI	Time to Fill 1 Gallon Bucket Seconds	Additional Data	G.P.M
6:00	90		5.01		12
6:15	120		5.03		12
6:30	177		5.02		12
6:45	230		5.04		12
7:00	240		12.01		5
7:15	240		12.01		5
7:30	241		12.02		5
7:45	240		12.01		5
8:00	241		12.03		5
8:15	240		12.02		5
8:30	241		12.00		5
8:45	240		12.01		5
9:00	240		12.00		5
9:15	241		12.02		5
9:30	240		12.01		5
9:45	241		12.03		5
10:00	240		12.02		5

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

**HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
WELL & SEPTIC PROGRAM  
TEL: (410)313-1771 FAX: (410)313-2648**

**Information Form for the Installation of the Well Pump, 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: Barlow Well Drilling Telephone #: 410-838-6910  
Address: 522 UNDERWOOD LANE  
BEL AIR, MD 21014

(Must circle one) Licensed Plumber  Licensed Well Driller  Licensed Well Pump Installer  
License # and name of individual responsible for the field installation:  
Name (Print): Michael Isom License# MSD162

\*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: Keystone Homes Telephone #: 410-596-6105  
Subdivision: Cloverfield Lot #: 10 Well Tag #: HO-20-0301 ✓  
Site Address: 13560 Mitchells Way  
West Friendship MD 21794

<b><u>Submersible Pump Data</u></b>	<b><u>Pitless Adapter</u></b>	<b><u>Well Cap and Electric Conduit</u></b>
Make: <u>Goulds</u>	Make: <u>BEP</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>7CS10422</u>	Model#: <u>P800</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>7</u> GPM	Depth: <u>36</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>5</u> GPM	NSF/WSC approved: <u>yes</u>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: _____ (feet)	Conduit secured to well cap: <input checked="" type="checkbox"/>	

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

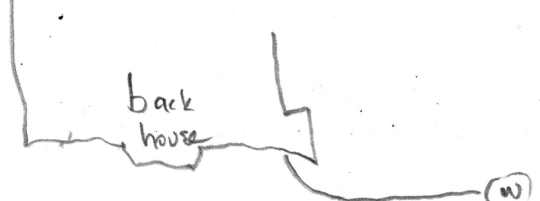
<b><u>Piping to house</u></b>	<b><u>House Connection</u></b>
Type: <u>Poly</u>	PVC sleeve to undisturbed soil at wall penetration: <input checked="" type="checkbox"/>
PSI: <u>200</u> (160 psi min)	Length of sleeve (5' minimum from foundation): <u>6 FEET</u>
Depth of supply line: <u>36</u> (36" min)	Sleeve 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: \_\_\_\_\_ date: 10/8/25

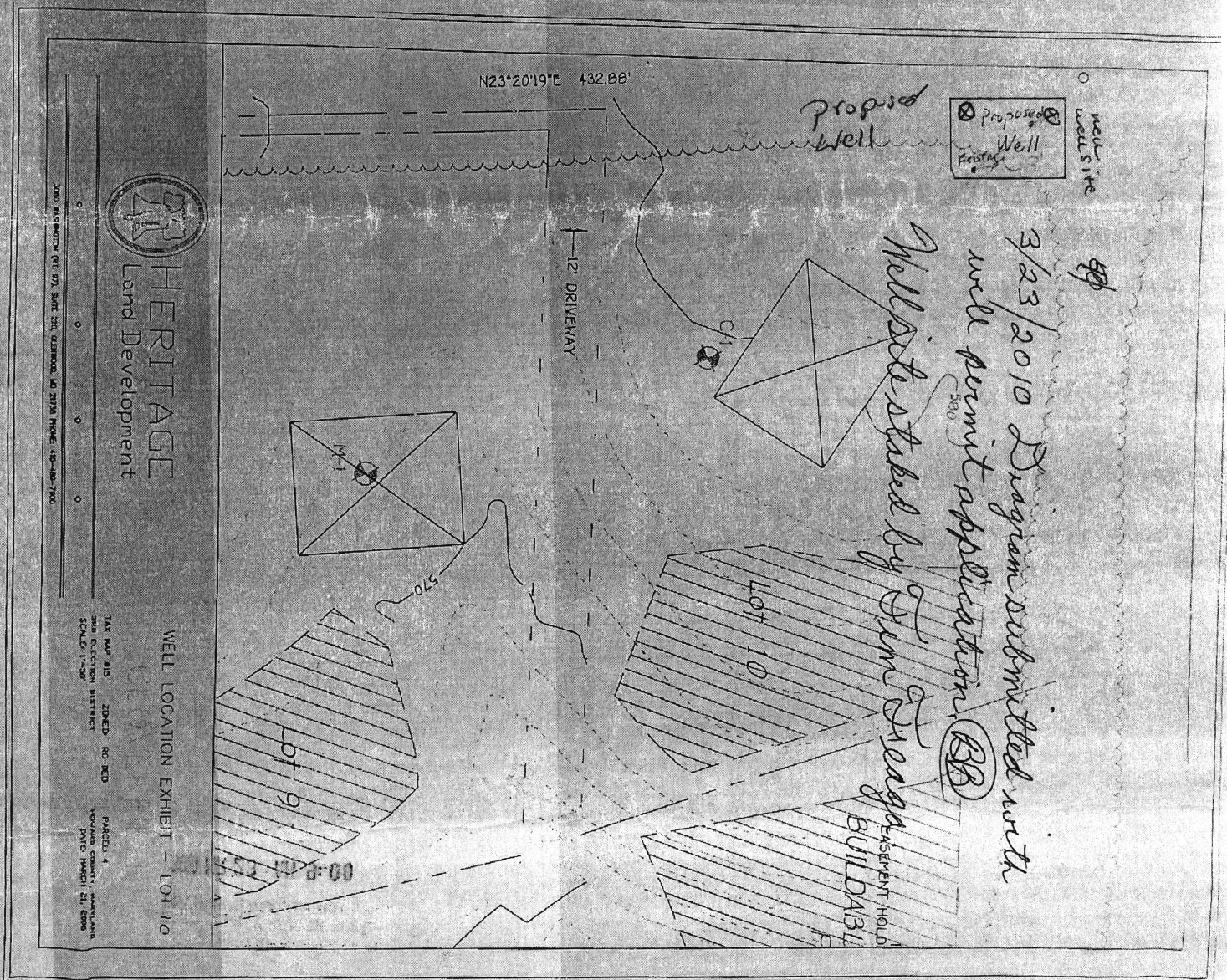
**For Health Department Use Only - Not to be completed by Installer**

Date Insp. Requested: 10/9/25 Date Insp. Approved: 10/10/25 Inspector: RR/MB  
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade  48"  
Two piece cap installed and attached to casing securely   
Elec. conduit extends at least 18" below grade/attached to cap properly  48"  
Safety rope not outside of well cap/casing   
Correct well tag attached properly and casing 3" above finished grade   
Water supply line sleeved adequately at house connection  no seal @ house  
Adequate grout observed below pitless adapter



10/10/25 WL approval.

- Well area is staked
- Would like to attempt a well in the corner closest to lot #9 and parcel 0207



3/23/2010 Diagram submitted with well permit application BB  
Well site staked by Tim Steagall

S23°20'19"W 56.78'

STONE

~~432.88'~~

10' B.R.L.

0"E

488.7

EX. WELL HO-95-0370

40'

WELL AREA

EX. WELL HO-95-0370

584

583

582

WOODS

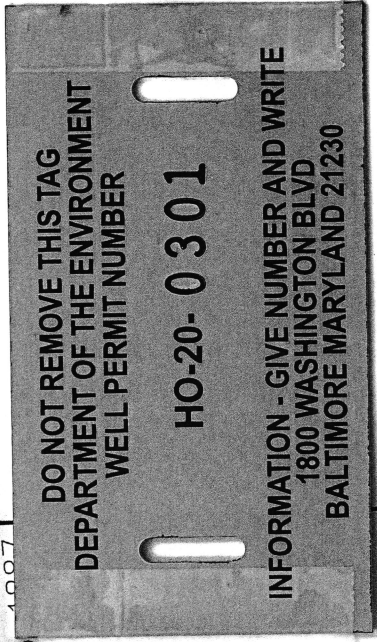
584

580

580

30

S63°04'15"E



well site

Approved  
*(Signature)*

7/25/2023



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

## 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:

Clouet Field                      10                      13560 Mitchells Way  
Subdivision/Property Name                      Lot #                      Road Name

The well site has been staked by Brian R. Dietz  
(professional land surveyor or company employing professional land surveyors)  
on 7-11-2023 (date)

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 9/20/21

Website: [www.hchealth.org](http://www.hchealth.org) Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth) Twitter: @HoCoHealth

**INTERIM CERTIFICATE OF POTABILITY**

**Expiration Date – June 26, 2026**

December 26, 2025

Muhammad Rizwan Akbar & Hina Zaheer  
13560 Mitchells Way  
West Friendship, MD 21794

**RE: Clover Field, Lot 10  
13560 Mitchells Way  
Building Permit: B25001904  
Well Permit: HO-20-0301**

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **11/7/2025**. Final approval of the well line connection to the dwelling was granted on **10/10/2025**. The well construction was completed on **8/18/2023**. Water samples were collected on **12/23/2025**.

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-20-0301. 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

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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,

A handwritten signature in black ink, appearing to read 'Kevin M. Wolf', is written over a light blue horizontal line.

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

## Page, Shepsura

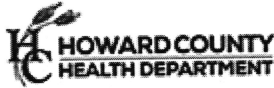
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**From:** Page, Shepsura  
**Sent:** Friday, June 14, 2024 1:30 PM  
**To:** John Hess  
**Cc:** Burns, Matthew; Wolf, Kevin  
**Subject:** RE: 13560 Mitchells Way

Thank you for the response, I can put the correct gallons of water on the report we have on file.

Have a great weekend,

Shepsura Page, EH Specialist  
Well & Septic Program  
Howard County Health Department  
8930 Stanford Blvd.  
Columbia, MD 21045  
410-313-1789 (Office)  
410-313-2648 (Fax)  
[www.hchealth.org](http://www.hchealth.org)  
[spage@howardcountymd.gov](mailto:spage@howardcountymd.gov)



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**From:** John Hess <jhess@carrollwater.com>  
**Sent:** Friday, June 14, 2024 12:52 PM  
**To:** Page, Shepsura <spage@howardcountymd.gov>  
**Cc:** Burns, Matthew <mburns@howardcountymd.gov>; Wolf, Kevin <KWolf@howardcountymd.gov>  
**Subject:** Re: 13560 Mitchells Way

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Yes, looks like someone couldnt read the field log and transferred incorrect numbers. It should be 240 GALLONS. Should i fill out a new report ??? Let me know.

## John Hess

Well Division Director



12047 Falls Road

Cockeysville, MD 21030

OFFICE: 410-876-5100

MOBILE: 410-688-4417

FAX: 410-751-6468

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**From:** Page, Shepsura <[spage@howardcountymd.gov](mailto:spage@howardcountymd.gov)>  
**Sent:** Friday, June 14, 2024 9:20 AM  
**To:** John Hess <[jhess@carrollwater.com](mailto:jhess@carrollwater.com)>  
**Cc:** Burns, Matthew <[mburns@howardcountymd.gov](mailto:mburns@howardcountymd.gov)>; Wolf, Kevin <[KWolf@howardcountymd.gov](mailto:KWolf@howardcountymd.gov)>  
**Subject:** 13560 Mitchells Way

Good Morning John,  
Your completion report for 13560 Mitchells Way looks incorrect. Your cement to water ratio is off, you cannot exceed 6 gallons of water per bag of cement. Please see attached well completion report.

Thanks,

Shepsura Page, EH Specialist  
Well & Septic Program  
Howard County Health Department  
8930 Stanford Blvd.  
Columbia, MD 21045  
410-313-1789 (Office)  
410-313-2648 (Fax)  
[www.hchealth.org](http://www.hchealth.org)  
[spage@howardcountymd.gov](mailto:spage@howardcountymd.gov)



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**Certificate of Analysis**  
**Report Date:** 12/24/2025  
**Order ID:** 286062

**Barlow Well Drilling**  
 522 Underwood Lane  
 Bel Air MD 21014

**Date/Time Received:** 12/23/2025 02:45 PM

This report is the sole property of **Barlow Well Drilling**. Any questions about the report MUST be directed to **Barlow Well Drilling** at +14108386910. Home Land Labs is not at liberty to discuss this report without written consent from **Barlow Well Drilling**.

<b>Sample ID:</b>	16797								<b>Sample Point:</b>	Pressure Tank		
<b>Project Name/Number:</b>									<b>Date/Time Sampled:</b>	12/23/2025 12:15 PM		
<b>Sample Address:</b>	13560 Mitchells Way West Friendship Maryland 21794											
Parameter	Method	Result	Units	RL	MCL	Pass/Fail	SMCL	Acceptable/High	Analyst	Prep Date/Time	Analysis Date/Time	
Total Coliform MPN	SM9223B	Not Detected	Per/100mL	1	1.0	Pass	N/A	N/A	SRC-365	12/23/2025 16:00	12/24/2025 10:10	
(Panel) E. Coli MPN	SM9223B	Not Detected	Per/100mL	1	1.0	Pass	N/A	N/A	SRC-365	12/23/2025 16:00	12/24/2025 10:10	

<b>Sample ID:</b>	16798								<b>Sample Point:</b>	First Floor Powder Room Sink		
<b>Project Name/Number:</b>									<b>Date/Time Sampled:</b>	12/23/2025 12:15 PM		
<b>Sample Address:</b>	13560 Mitchells Way West Friendship Maryland 21794											
Parameter	Method	Result	Units	RL	MCL	Pass/Fail	SMCL	Acceptable/High	Analyst	Prep Date/Time	Analysis Date/Time	
Total Coliform MPN	SM9223B	Not Detected	Per/100mL	1	1.0	Pass	N/A	N/A	SRC-365	12/23/2025 16:00	12/24/2025 10:10	
(Panel) E. Coli MPN	SM9223B	Not Detected	Per/100mL	1	1.0	Pass	N/A	N/A	SRC-365	12/23/2025 16:00	12/24/2025 10:10	

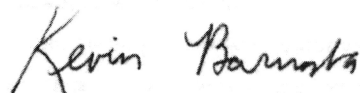
**Certificate of Analysis**  
**Report Date: 12/23/2025**  
**Order ID: 286038**

**Barlow Well Drilling**  
522 Underwood Lane  
Bel Air MD 21014

**Date/Time Received: 12/22/2025 12:24 PM**

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<b>Sample ID:</b>	16746								<b>Sample Point:</b>	Powder Room		
<b>Project Name/Number:</b>									<b>Date/Time Sampled:</b>	12/22/2025 10:25 AM		
<b>Sample Address:</b>	13560 Mitchells Way West Friendship MD 21794											
Parameter	Method	Result	Units	RL	MCL	Pass/Fail	SMCL	Acceptable/ High	Analyst	Prep Date/Time	Analysis Date/Time	
Total Coliform MPN	SM9223B	Not Detected	Per/100mL	1	1.0	Pass	N/A	N/A	LG-370	12/22/2025 16:08	12/23/2025 11:11	
(Panel) E. Coli MPN	SM9223B	Not Detected	Per/100mL	1	1.0	Pass	N/A	N/A	LG-370	12/22/2025 16:08	12/23/2025 11:11	

Approved By:  Kevin Barnaba, President

**Certificate of Analysis**  
**Report Date: 12/10/2025**  
**Order ID: 285370**

**Barlow Well Drilling**  
522 Underwood Lane  
Bel Air MD 21014

**Date/Time Received: 12/09/2025 11:50 AM**

This report is the sole property of **Barlow Well Drilling**. Any questions about the report MUST be directed to **Barlow Well Drilling** at +14108386910. Home Land Labs is not at liberty to discuss this report without written consent from **Barlow Well Drilling**.

<b>Sample ID:</b>	15754	<b>Sample Point:</b>	Pressure Tank								
<b>Project Name/Number:</b>		<b>Date/Time Sampled:</b>	12/09/2025 09:55 AM								
<b>Sample Address:</b>	13560 Mitchells Way West Friendship Maryland 21794										
<b>Parameter</b>	<b>Method</b>	<b>Result</b>	<b>Units</b>	<b>RL</b>	<b>MCL</b>	<b>Pass/Fail</b>	<b>SMCL</b>	<b>Acceptable/High</b>	<b>Analyst</b>	<b>Prep Date/Time</b>	<b>Analysis Date/Time</b>
Total Coliform P/A	SM9223B	Present	Per/100mL	1	Present	Fail	N/A	N/A	SRC-365	12/09/2025 15:49	12/10/2025 11:19
(Panel) E. Coli P/A	SM9223B	Absent	Per/100mL	1	Present	Pass	N/A	N/A	SRC-365	12/09/2025 15:49	12/10/2025 11:19

Approved By:  Kevin Barnaba, President

Parameter	MCL/SMCL	Type	Effects	Source	Common Treatment Options
Total Coliform Bacteria	Present or 1 MPN/100 mL	Primary	Used to indicate whether potentially harmful bacteria are present	Naturally present	Well Repair and Chlorination, UV Light
E. Coli Bacteria	Present or 1 MPN/100 mL	Primary	Stomach illness	Human and animal fecal waste	Well Repair and Chlorination, UV Light
Nitrate	10.0 mg/L	Primary	Blue-Baby Syndrome	Fertilizers and sewage	Reverse Osmosis System
Nitrite	1.0 mg/L	Primary	Blue-Baby Syndrome	Fertilizers and sewage	Reverse Osmosis System
Lead	Action Level of 0.015 mg/L	Primary	Slowed mental development. kidney problems, high blood pressure	Corrosion of household plumbing systems, erosion of natural deposits	Acid Neutralizer, Chemical Feeder (Soda Ash), Pipe Replacement
Radium Gross Alpha	15.0 pCi/L	Primary	Increased risk of cancer	Naturally occurring	Water Softener
Radium 226 & 228 (combined)	5.0 pCi/L	Primary	Increased risk of cancer	Naturally occurring	Water Softener
Volatile Organic Compounds (VOCs)	Varies	Primary	Increased risk of cancer	Gas and chemical leaks	Charcoal Filter
Arsenic	0.010 mg/L	Primary	Skin damage, circulatory problems, cancer	Natural deposits, orchards, industrial waste	Reverse Osmosis System
Cadmium	0.005 mg/L	Primary	Kidney damage	Pipes, natural deposits, industrial waste	Reverse Osmosis System, Water Softener
Copper	Action Level of 1.3 mg/L SMCL of 1.0 mg/L	Primary, Secondary	Primary - Gastrointestinal distress, liver or kidney damage Secondary - Metallic taste, blue-green staining	Corrosion of household plumbing systems, erosion of natural deposits	Acid Neutralizer, Reverse Osmosis System, Pipe Replacement
Turbidity (Public Water Systems)	1.0 NTU	Primary	Water treatment interference, possible bacteria indicator	Varies	Filtration, Source Protection
Turbidity (Private Wells)	10.0 NTU (MD COP Requirement)	Primary	Possible bacteria indicator	Surface water, iron, other	Filtration, Source Protection
Iron	0.3 mg/L	Secondary	Possible staining on plumbing fixtures and laundry	Naturally occurring	Water Softener
Chloride	250 mg/L	Secondary	Salty taste, plumbing corrosion	Salt water intrusion, road salts	Source Protection, Whole House Reverse Osmosis System
pH	Outside of 6.5-8.5 (Neutral Range)	Secondary	Low pH: Bitter metallic taste, corrosion High pH: Slippery feel, soda taste, deposits	Naturally occurring	Acid Neutralizer
Hardness	Not Applicable	Not Applicable	US Dept. of the Interior & Water Quality Assoc. standards grains per gallon (gpg) species: Less than 1 = "soft", 1 - 3.5 = "slightly hard", 3.5 - 7.0 = "moderately hard", 7.0 - 10.5 = "hard", 10.5 and over = "very hard"	Naturally occurring	Hard water is treated with a Water Softener.

Parameter	MCL/SMCL	Type	Effects	Source	Common Treatment Options
Total Coliform Bacteria	Present or 1 MPN/100 mL	Primary	Used to indicate whether potentially harmful bacteria are present	Naturally present	Well Repair and Chlorination, UV Light
E. Coli Bacteria	Present or 1 MPN/100 mL	Primary	Stomach illness	Human and animal fecal waste	Well Repair and Chlorination, UV Light
Nitrate	10.0 mg/L	Primary	Blue-Baby Syndrome	Fertilizers and sewage	Reverse Osmosis System
Nitrite	1.0 mg/L	Primary	Blue-Baby Syndrome	Fertilizers and sewage	Reverse Osmosis System
Lead	Action Level of 0.015 mg/L	Primary	Slowed mental development, kidney problems, high blood pressure	Corrosion of household plumbing systems, erosion of natural deposits	Acid Neutralizer, Chemical Feeder (Soda Ash), Pipe Replacement
Radium Gross Alpha	15.0 pCi/L	Primary	Increased risk of cancer	Naturally occurring	Water Softener
Radium 226 & 228 (combined)	5.0 pCi/L	Primary	Increased risk of cancer	Naturally occurring	Water Softener
Volatile Organic Compounds (VOCs)	Varies	Primary	Increased risk of cancer	Gas and chemical leaks	Charcoal Filter
Arsenic	0.010 mg/L	Primary	Skin damage, circulatory problems, cancer	Natural deposits, orchards, industrial waste	Reverse Osmosis System
Cadmium	0.005 mg/L	Primary	Kidney damage	Pipes, natural deposits, industrial waste	Reverse Osmosis System, Water Softener
Copper	Action Level of 1.3 mg/L SMCL of 1.0 mg/L	Primary, Secondary	Primary - Gastrointestinal distress, liver or kidney damage Secondary - Metallic taste, blue-green staining	Corrosion of household plumbing systems, erosion of natural deposits	Acid Neutralizer, Reverse Osmosis System, Pipe Replacement
Turbidity (Public Water Systems)	1.0 NTU	Primary	Water treatment interference, possible bacteria indicator	Varies	Filtration, Source Protection
Turbidity (Private Wells)	10.0 NTU (MD COP Requirement)	Primary	Possible bacteria indicator	Surface water, iron, other	Filtration, Source Protection
Iron	0.3 mg/L	Secondary	Possible staining on plumbing fixtures and laundry	Naturally occurring	Water Softener
Chloride	250 mg/L	Secondary	Salty taste, plumbing corrosion	Salt water intrusion, road salts	Source Protection, Whole House Reverse Osmosis System
pH	Outside of 6.5-8.5 (Neutral Range)	Secondary	Low pH: Bitter metallic taste, corrosion High pH: Slippery feel, soda taste, deposits	Naturally occurring	Acid Neutralizer
Hardness	Not Applicable	Not Applicable	US Dept. of the Interior & Water Quality Assoc. standards grains per gallon (gpg) specifies: Less than 1 = "soft", 1 - 3.5 = "slightly hard", 3.5 - 7.0 = "moderately hard", 7.0 - 10.5 = "hard", 10.5 and over = "very hard"	Naturally occurring	Hard water is treated with a Water Softener.

# HOME LAND LABS



Order ID: 286062  
Address: 13560 Mitchells Way  
Due Date: 12/24/2025

Phone: (443) 505-8375 Email: [lab@homelandhealthyhomes.com](mailto:lab@homelandhealthyhomes.com)

1220 E Joppa Rd. Ste C505      108 Old Solomons Island Road, Ste L2      3430 Rockefeller Court      2216 Commerce Road, Ste 2A  
Towson, MD 21286      Annapolis, MD 21401      Waldorf, MD 20602      Forest Hill, MD 21050  
MD Lab # 365      MD Lab # 106      MD Lab # 139

Please provide completed form with samples. Highlighted fields are required.

Client Name: <del>Home Land Environmental</del> <b>Barlow well Drilling</b>	Property Address: <b>13560 Mitchells</b>
Email Address: <del>info@homelandhealthyhomes.com</del>	<b>Way West, Friendship</b>
Phone Number: <del>443-995-5385</del>	<b>MD 21794</b>

### Field Collection Information

Sampler Name: <b>Core Rafferty</b>	Field pH: <b>5.84</b>
Sampler ID #: <b>4599CR</b>	Field Chlorine (mg/L): <b>0.0</b>
Date Sampled: <b>12/23/25</b>	Time Sampled: <b>12:15</b>
Well Tag Number: <b>HO-20-0301</b>	Sand: <b>None</b>
Compliance sample for public water system? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Clarity: <b>Clear</b>
If yes, PWS ID #:	

### Well Casing and Cap Condition

Well Type:  Drilled  Well Pit  Below Grade  Artesian  Hand Dug  N/A  Other: \_\_\_\_\_

Height Above Grade: <b>22 inches</b>	Cap Type: <b>2 piece Plastic</b>	Casing: <b>6 inch PVC</b>	Conduit: <b>Secure</b>
Sample Point: <b>first floor powder room sink</b> <b>Pressure tank</b>		Water Conditioning: <b>Sediment filter</b>	

### Requested Testing: (Please check all that apply)

- |  |                                      |   |
|--|--------------------------------------|---|
| <input type="checkbox"/> Potability (Bacteria, Nitrate + Nitrite, Turbidity)         | <input type="checkbox"/> Chlorides   | <input type="checkbox"/> Total Dissolved Solids |
| <input type="checkbox"/> FHA/VA (Bacteria, Nitrate + Nitrite, Turbidity, Lead, Iron) | <input type="checkbox"/> Hardness    | <input type="checkbox"/> Copper                 |
| <input checked="" type="checkbox"/> Bacteria <b>MPN x2</b>                           | <input type="checkbox"/> Arsenic     | <input type="checkbox"/> VOCs                   |
| <input type="checkbox"/> Lead  | <input type="checkbox"/> Cadmium     | <input type="checkbox"/> Other: _____           |
| <input type="checkbox"/> Nitrate + Nitrite   | <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Other: _____           |
| <input type="checkbox"/> Iron  |                                      |   |
| <input type="checkbox"/> Turbidity   |                                      |   |

List rush samples below  
\*Refer to table for rush turnaround times and fees\*

\_\_\_\_\_

\_\_\_\_\_

### Release Signatures

Released By: <u><i>[Signature]</i></u>	Date/Time: <u>12/23/25 2:45</u>	Samples received on ice? <input type="checkbox"/> Yes <input type="checkbox"/> No
Released By: _____	Date/Time: _____	
Released By: _____	Date/Time: _____	
Received in lab by: <u><i>Laura B</i></u>	Date/Time: <u>12/23/25 2:45</u>	Temperature: <u>3.0</u>

C1 0394

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

COUNTY NUMBER

A518641

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-0370

OWNER: Cloverfield/Pfefferkorn LLC, STREET OR RFD: Near Pfefferkorn Rd, TOWN: Glenelg, SUBDIVISION: Cloverfield, SECTION: , LOT: 10

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Rows include Top Soil, Sandy, Sand Stone, MICKA, Sand Stone, MICKA.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM), NO. OF BAGS (16), NO. OF POUNDS (1600), GALLONS OF WATER (96), DEPTH OF GROUT SEAL (0 to 30+ ft.)

CASING RECORD

MAIN CASING TYPE (PL), Nominal diameter (6 inch), Total depth of main casing (40 feet)

OTHER CASING (if used)

Table for other casing with columns for diameter and depth.

SCREEN RECORD

screen type or open hole (HO), insert appropriate code below

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y)

CIRCLE APPROPRIATE LETTER: A, E, P

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04

DRILLERS LIC. NO. M SD 112, DRILLERS SIGNATURE

LIC. NO. D

SITE SUPERVISOR (sign. of driller or journeyman)

C2 DEPTH (nearest ft.)

Table with columns for depth intervals (1-11, 15-17, 21-23, 24-26, 30-32, 36-38, 39-41, 45-47, 51-53) and diameter of screen (56, 60 inch).

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

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

TELESCOPE CASING, LOG INDICATOR, OTHER DATA

C3

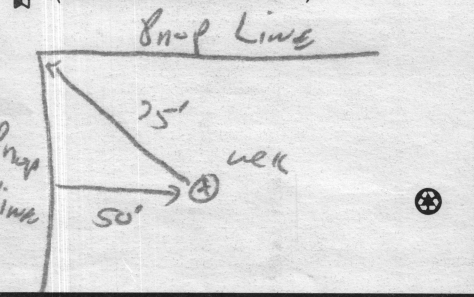
PUMPING TEST

HOURS PUMPED (6), PUMPING RATE (2 gal. per min.), METHOD USED TO MEASURE PUMPING RATE (Bucket), WATER LEVEL (45 ft. before, 205 ft. when pumping)

PUMP INSTALLED

DRILLER INSTALLED PUMP (YES), TYPE OF PUMP INSTALLED (S), CAPACITY: GALLONS PER MINUTE (31-35), PUMP HORSE POWER (37-41), PUMP COLUMN LENGTH (43-47)

LOCATION OF WELL ON LOT, SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS



B 1 0969

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER

HO-95-0370 fill in this form completely

524386

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13

Cloverfield / PFEFFERKORN LLC
3060 Rt. 97
Glenwood MD. 21738

B 3

LOCATION OF WELL

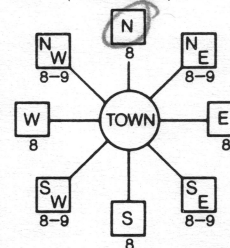
Howard
COUNTY
Cloverfield
SUBDIVISION
SECTION 44 46 LOT 48 50
GLEN ELG
NEAREST TOWN
MILES FROM TOWN (enter 0 if in town) I M I

DRILLER INFORMATION

Ralph E. Maywe M S D 112
Ralph E. Maywe Inc
17024 Hardy Rd Mt Airy MD 21777
Signature Date 3/25/06

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Road A
NEAR WHAT ROAD
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
DISTANCE FROM ROAD 900
ENTER FT OR MI
TAX MAP: 15 BLK: 8 PARCEL 4

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard 13 4518641
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 5/2/06 CO SIGNATURE EXP. DATE 5/3/07
NORTH GRID 53C 000 EAST GRID 803 000

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- Domestic Potable Supply & Residential Irrigation
Farming (Livestock Watering & Agricultural Irrigation)
Industrial, Commercial, Dewatering
Public Water Supply Well
Test, Observation, Monitoring
Geo-thermal

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

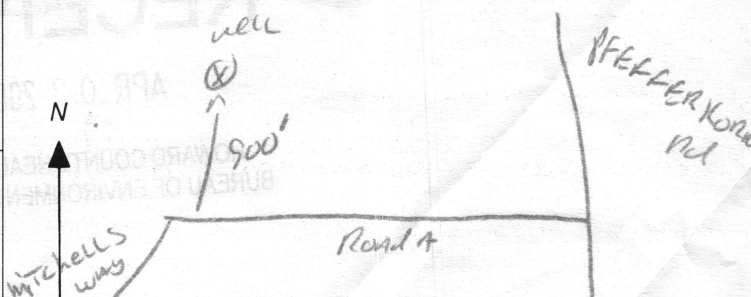
SOURCES OF DRILLING WATER

- well

WRITE THE BOX NUMBER FROM THE MAP HERE

803
534

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



APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary Drive-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- This well will not replace an existing well
This well will replace a well that will be abandoned and sealed
This well will replace a well that will be used as a standby-contact local approving authority for policy on standby wells
This well will deepen an existing well

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41

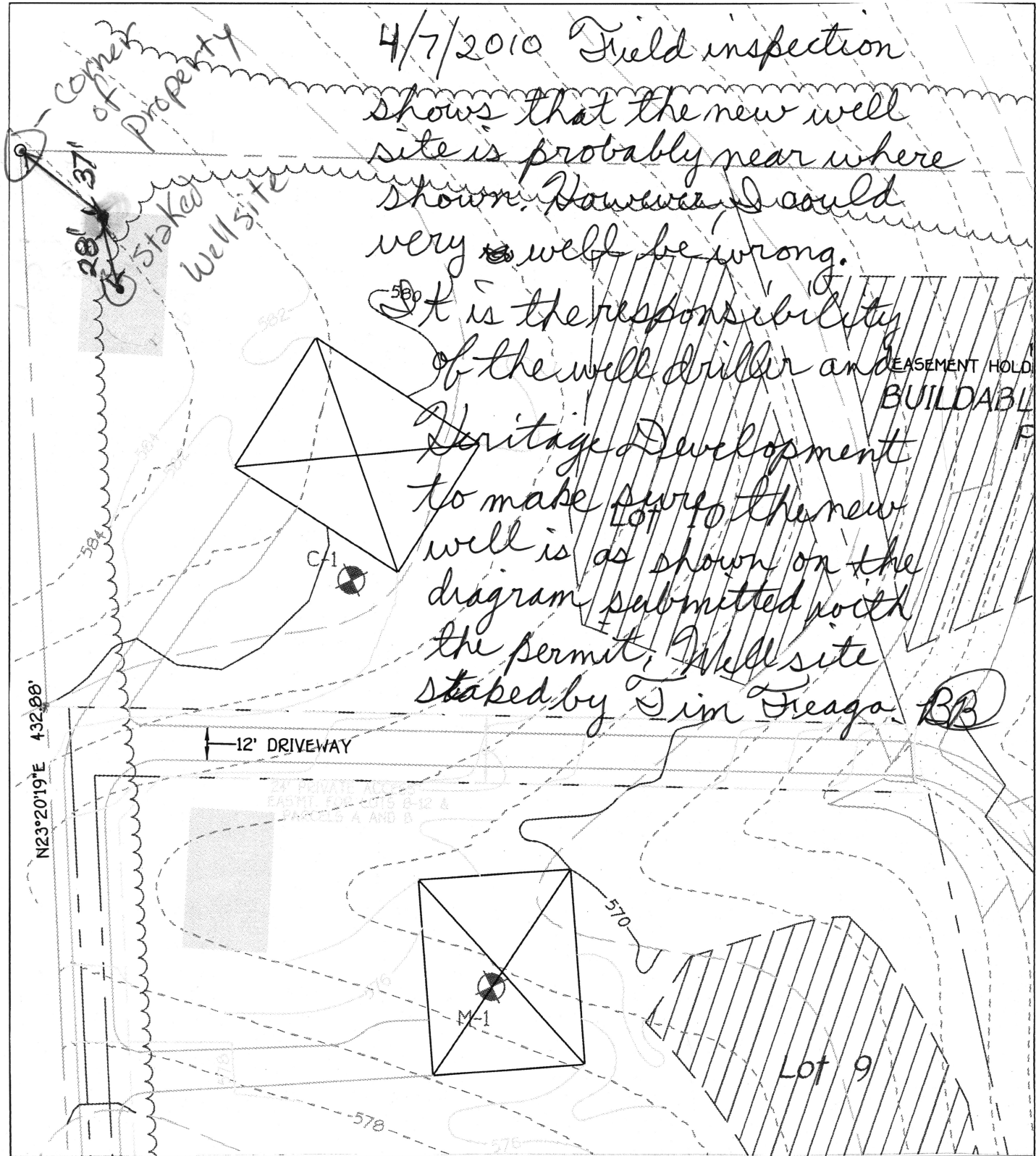
Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER H02006G006(0)

PERMIT No. HO-95-0370

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED



4/7/2010 Field inspection shows that the new well site is probably near where shown. However, I could very well be wrong.

It is the responsibility of the well driller and Heritage Development to make sure the new well is as shown on the diagram submitted with the permit. Well site staked by Tim Treaga. BB



HERITAGE  
Land Development

WELL LOCATION EXHIBIT - LOT 10  
CLOVERFIELD

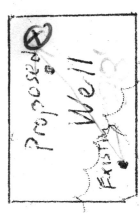
TAX MAP #15 ZONED: RC-DED PARCEL: 4  
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1"=50' DATE: MARCH 21, 2006

LAND PLANNING ♦ DEVELOPMENT ♦ MARKETING ♦ ZONING ♦ VALUATION

3080 WASHINGTON (RT. 97), SUITE 220, GLENWOOD, MD 21738 PHONE: 410-488-7800

new well site

~~580~~



3/23/2010 Diagram submitted with well permit application. (BB)

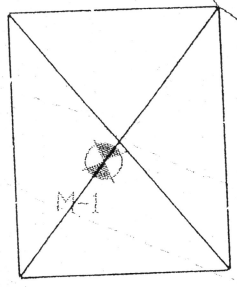
Well site staked by Tim Treaga

EASEMENT HOLD.  
BUILDABLE  
F

Lot 10

N23°20'19"E 432.88'

12' DRIVEWAY



570

Lot 9



HERITAGE  
Land Development

WELL LOCATION EXHIBIT - LOT 10

CLOVERFIELD

TAX MAP #15 ZONED: RC-DED PARCEL: 4  
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1"=50' DATE: MARCH 21, 2006