



HOWARD COUNTY HEALTH DEPARTMENT

61469

DATE 7/19/77

105

Received From

Allied Environmental Services, Inc.

PHONE #

For

Well Permit / 11525 Home Hopkins, MD

- CASH
- CHECK

NO.

1337

One hundred sixty

Dollars

\$ 100.00

Received By

Kemp

C1 46203

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

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

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER David, Peter + Lisa; WELL SITE ADDRESS 11525 Johns Hopkins Rd.; TOWN Clarksville, Md.; SUBDIVISION; SECTION; LOT 7

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries like Top Soil, Red Clay, White Sand, etc.

GROUTING RECORD form with fields for material (Cement, Bentonite Clay), bags, pounds, and depth of seal.

CASING RECORD form with fields for casing type (Steel, Concrete, Plastic, Other), nominal diameter, and total depth.

OTHER CASING (if used) table with columns for diameter and depth.

SCREEN RECORD form with fields for screen type (Steel, Brass, Bronze, Plastic, Open Hole, Other).

PUMPING TEST form with fields for hours pumped, pumping rate, method used, water level, and pump type.

PUMP INSTALLED form with fields for pump type, capacity, horsepower, and casing height.

NUMBER OF UNSUCCESSFUL WELLS: 1; WELL HYDROFRACTURED: Yes

- CIRCLE APPROPRIATE LETTER: A (Abandoned), E (Electric Log), P (Production)

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

DRILLERS LIC. NO. M D 553; DRILLERS SIGNATURE; LIC. NO. JG D 114

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

DEPTH (nearest ft.) table with columns for casing diameter and depth.

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) with fields for T, W, Q, and other data.

LATITUDE 39.16855; LONGITUDE 76.91518; (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.

05-358132

EMERGENCY/TEMP NO. IF ANY

TAG: B/11/17 (S)

B 1	SEQUENCE NO. (MDE USE ONLY) 57820	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type	STATE PERMIT NUMBER HO-17-0166 <small>70 fill in this form completely 79</small>
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OWNER INFORMATION

Date Received (APA) 07/19/17

8 MM DD YY 13

15 Last Name Owner First Name 34
David Peter + Lisa MTR

36 Street or RFD 55
11525 Johns Hopkins Rd

57 Town 70 State 72 Zip 76
Clarksville MD 21029

LOCATION OF WELL

8 COUNTY 21
Howard

23 SUBDIVISION 42
Hopkins Mead

SECTION 44 46 LOT 48 50
7

52 NEAREST TOWN 71
Clarksville

DRILLER INFORMATION

Driller's Name 76 License No. 81
C John Hess MWD 553

Firm Name
Allied Environmental Svcs

Address
PO Box 29 Annapolis Junction MD 20701

Signature Date
John Hess 07/10/17

SOURCES OF DRILLING WATER

1. Public

2.

3.

11525 Johns Hopkins Rd

11 STREET ADDRESS 30

ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)

34 225 37
DISTANCE FROM ROAD FT

ENTER FT OR MI 38 39

TAX MAP: 0041 BLK: 9 PARCEL 095

WELL INFORMATION

APPROX. PUMPING RATE 10
(GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED 1,000
(GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

22 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 _____

DATE ISSUED 7/26/17 CO SIGNATURE CLL EXP. DATE 7/26/18

43 MM DD YY 48

APPROXIMATE DEPTH OF WELL 350 FEET

APPROXIMATE DIAMETER OF WELL 4 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)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

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

39 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 DEEPEN AN EXISTING WELL

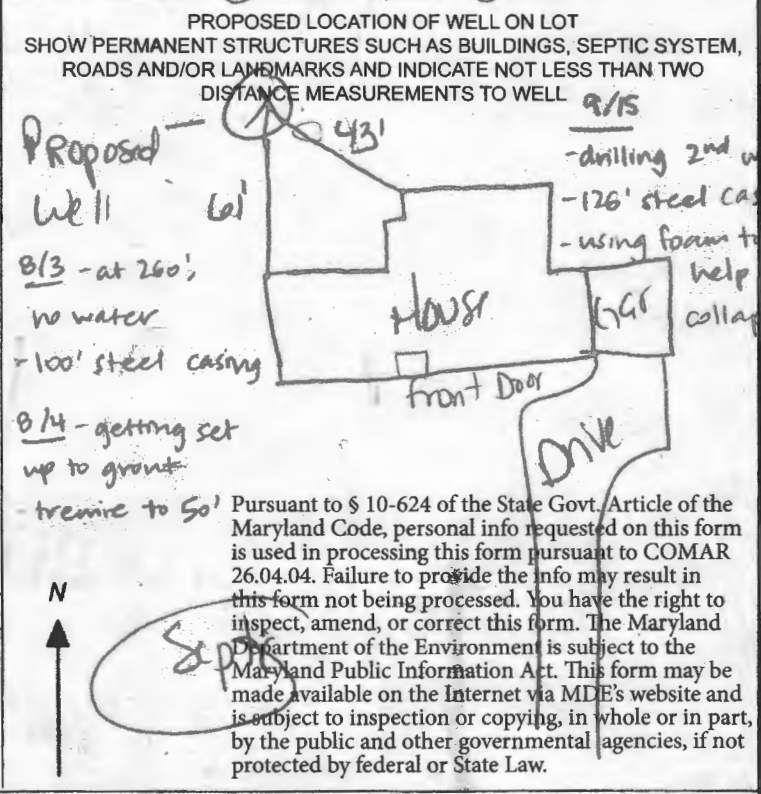
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 _____ 52

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

APPROX. PERMIT NUMBER _____ G _____

PERMIT No. HO-17-0166

70 71 72 73 74 75 76 77 78 79



SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Must use 50' steel casing or 10' into bedrock. Existing well must be sealed. COUNTY whichever is deeper.

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

duplicate

ORIGINAL WELL APPROVED 2/5/2017

DATE WELL ABANDONED: 8/2/17 (month/day/year)

PERMIT NUMBER OF ABANDONED WELL (if any) None

No tag

PERMIT NUMBER OF REPLACEMENT WELL:

H0 - 17 - 0166

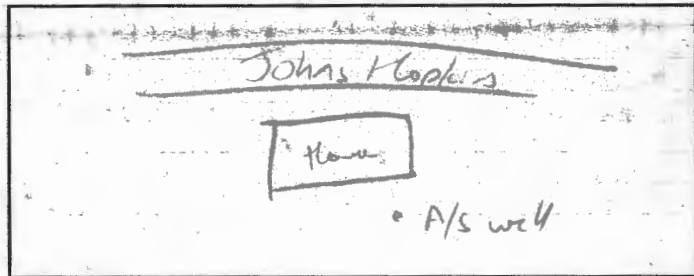
PERSON ABANDONING WELL: William Guizzardi WELL DRILLER'S LICENSE NUMBER: 233

CIRCLE: MWD / MSD / MGD

OWNER'S NAME: Peter David

SITE LOCATION MAP

WELL LOCATION:
COUNTY: Howard
NEAREST TOWN: Clarksville
TAX MAP 0041 BLOCK PARCEL 0195
SUBDIVISION:
SECTION: LOT:
STREET ADDRESS: 11525 Johns Hopkins
LATITUDE 39.168560
LONGITUDE 76.915133



LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
<u>Bentonite</u>	<u>98</u>	<u>7</u>
<u>Portland</u>	<u>7</u>	<u>3</u>
<u>Dirt</u>	<u>3</u>	<u>0</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) _____

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 98 FEET DEEP

WAS ANY CASING REMOVED? YES NO
If yes, length removed, in feet: 3' under grade

WAS CASING RIPPED OR PERFORATED? YES NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN: William Guizzardi LICENSE# 233

CIRCLE ONE MWD / MSD / MGS

DATE 12/19/17

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

SUBMIT COPIES OF COMPLETED FORM TO:

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

Bad Well
Redr. // APPROVED
12/5/2009

DATE WELL ABANDONED: 9-21-17 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any)

HO-17-0166

* PERMIT NUMBER OF REPLACEMENT WELL:

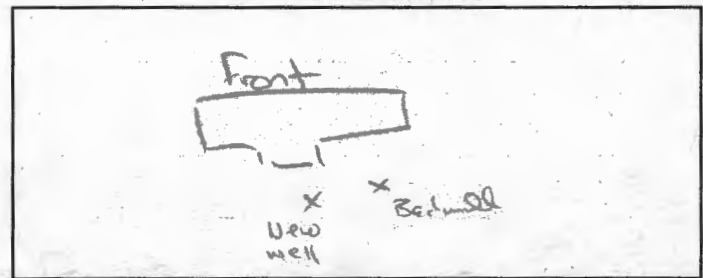
HO-17-0166

* PERSON ABANDONING WELL: William Guizzardi WELL DRILLER'S LICENSE NUMBER: 233

* OWNER'S NAME: Robert Lisa David CIRCLE: MWD MSD MGD

* WELL LOCATION:
 COUNTY: Harris
 NEAREST TOWN: Clarksville
 TAX MAP BLOCK PARCEL
 SUBDIVISION:
 SECTION: 7 LOT:
 STREET ADDRESS: 11525 John Hopkins Rd

SITE LOCATION MAP



LATITUDE 39.16849

LONGITUDE 76.91500

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
<u>Bentonite</u>	<u>405</u>	<u>10</u>
<u>Portland</u>	<u>10</u>	<u>5</u>
<u>Dirt</u>	<u>5</u>	<u>0</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

Bentonite 20000, Portland 10000, BAC

* TYPE OF CASING:

- STEEL PLASTIC
- CONCRETE OTHER (specify) _____

SIZE OF CASING: 6 INCHES IN DIAMETER

DEPTH OF WELL: 405 FEET DEEP

WAS ANY CASING REMOVED? YES NO

If yes, length removed, in feet: 4

WAS CASING RIPPED OR PERFORATED? YES NO

SIGNATURE: William Guizzardi 233
 MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE#

MWD MSD MGS 11/01/17
 CIRCLE ONE DATE

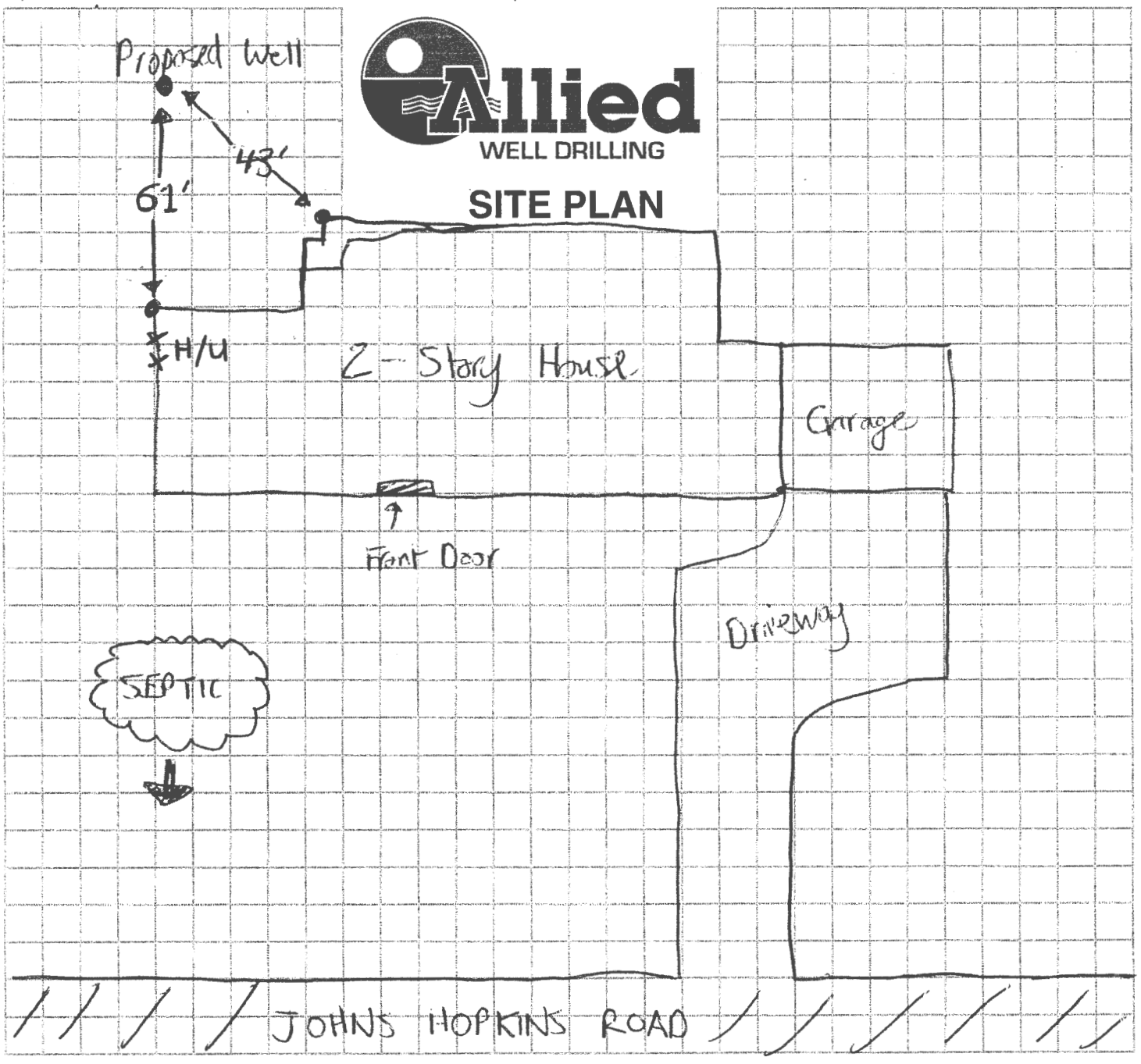
COUNTY

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11525 John's Hopkins Rd, Clarksville MD



SITE PLAN



Sediment Control Protocol: Silt fence

Distance From House: 43'
 From Septic: > 100'
 From Sewer: N/A
 From Property Line: > 30'
 From Street: > 200'

Trees Nearby: Yes
 Utility Issues: Need marking
 Mats Needed: Yes
 Access For H/U: As marked
 Neighboring Tags: _____

Comments: * SEE CALLUM FOR H/U DETAIL

Person Completing Form: Callum Robinson

**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: Allied Well Drilling Telephone #: 301-776-8370
Address: PO Box 129
Annapolis Junction MD 20701

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Jorge Montes License# JWD402

*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: Peter + Lisa David Telephone #: 410-808
Subdivision: Hopkins Mead Lot #: 7 Well Tag #: HO-17-0166 ✓
Site Address: 1152 Johns Hopkins Rd 10/23/2017
Clarksville MD 21029

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Franklin</u>	Make: <u>Campbell</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>7SR1534</u>	Model#: <u>2010-1044F</u>	Screened, vented well cap: <input type="checkbox"/>
Pump Capacity: <u>3</u> GPM	Depth: <u>38</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>3.75</u> GPM	NSF/WSC approved: <input checked="" type="checkbox"/>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>440'</u> (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, <u>Cable</u> guards, or other acceptable method used— Must circle one		
Safety rope, if used, attached to brass rope adapter or other acceptable method <u>inside of well casing</u> <u>N/A</u>		

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>HDPE line</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): <input type="checkbox"/>
Depth of supply line: <u>38</u> (36" min)	Sleeve sealed properly: <input type="checkbox"/>

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 10/3/17

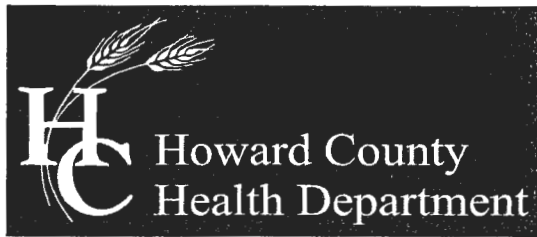
For Health Department Use Only – Not to be completed by Installer

Date Insp. Requested: 10/23/2017 Date Insp. Approved: 10/23/2017 Inspector: (A)
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade 36" 10/23/2017 (A)
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly 27" 10/23/2017 (A)
Safety rope not outside of well cap/casing
Correct well tag attached properly and casing 8" above finished grade 1" 10/23/2017 (A)
Water supply line sleeved adequately at house connection
Adequate grout observed below pitless adapter

Note from 8/11/2017 inspection
2' ± well line
House back

10/23/2017
*Grout starts 3' below pitless adapter. Mixture of portland cement and bentonite per A capelle. (A)
10/23/2017 (A)
Tied into previous well line installed & inspected on 8/11/2017

Added to Document on 10/23/2017 (A)



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

August 29, 2017

Homeowner
11525 Johns Hopkins Road
Clarksville, MD 21029

RE: **Replacement Well Sampling**
11525 Johns Hopkins Road
#HO-17-0166

Dear Homeowner,

According to our records, your replacement well has been connected to the dwelling. We request that you contact the Community Hygiene Program at **(410) 313-1773** to schedule initial water sampling for the above referenced replacement well, as required by the Maryland Well Construction Regulation (*COMAR 26.04.04*). This sampling includes testing for bacteria, nitrates, turbidity, and sand. There is currently **no charge** for the sampling and it is to your benefit to have it tested.

Allied Well Drilling recently submitted passing water test results for bacteria; the Health Department would like to collect samples for turbidity, nitrate, and sand.

Sampling of the new well should be collected from the primary indoor drinking tap, but if suitable scheduling is not possible, the sample may be taken from an outside tap to complete your sampling obligation. However, the potential for unsuccessful sample results increases when samples are collected from taps exposed to the outside environment.

Feel free to contact me with any questions.

Sincerely,

A handwritten signature in cursive script that reads 'Sarah Collins'.

Sarah Collins, L.E.H.S.
Howard County Health Department
SCollins@howardcountymd.gov
410-313-6287

Cc: Community Hygiene Program
File

Collins, Sarah

From: Shelly Krebs <shelly.krebs@gmail.com>
Sent: Friday, July 06, 2018 9:30 AM
To: Collins, Sarah
Subject: Re: Potability
Attachments: Krebs request 1763_001.pdf

Hi Sarah,

Thank you very much for your help. Attached is the signed form.

Can you also tell me how these parameters differ than the federal parameters? I see that the federal guidelines have turbidity at <5 NTU, and there is nothing about the iron or magnesium. Also, can you please comment on how the turbidity is collected? Are the tubes shaken prior to taken a measurement since the sediment can fall out of solution? How do you regulate this when the samples are collected and tested at a private lab?

Thank you again for all your help,
Shelly

On Fri, Jul 6, 2018 at 7:53 AM, Collins, Sarah <SCollins@howardcountymd.gov> wrote:

Hi Shelly,

Good to hear from you- I hope you're enjoying the summer. I was thinking about you guys the other day when I was in the area.

In summary, the requirements for issuing a certificate of potability are passing samples for turbidity (<10 NTU), nitrate (<10 mg/L), sand (<5 mg/L), and bacteria (two samples free of coliform bacteria collected at least 24 hrs apart). I think we discussed previously that turbidity can exceed 10 mg/L if it is due to naturally occurring iron or magnesium in the water. A well can only receive a certificate of potability after having passing samples for all of the parameters. The potability requirements are spread throughout the Code of Maryland Regulations (COMAR) and these are the links to the specific chapters:

Nitrate: <http://www.dsd.state.md.us/comar/comarhtml/26/26.04.01.06.htm>

Turbidity and sand: <http://www.dsd.state.md.us/comar/comarhtml/26/26.04.04.16.htm>

Bacteria: <http://www.dsd.state.md.us/comar/comarhtml/26/26.04.04.30.htm>

SEND REPORT TO: Bert Nixon

Howard County Health Dept
Bureau of Environmental Health
8930 Stanford Blvd
Columbia, MD 21045

PHONE NO.: 410-313-1773

Category Code: 4F

State of Maryland
DHMH - Laboratories Administration
DIVISION OF ENVIRONMENTAL SCIENCES
1770 Ashland Avenue, Baltimore, MD 21205
Robert A. Myers, Ph.D. Director

MICROBIOLOGICAL ANALYSIS OF DRINKING WATER

005733

Invoice No.:

Lab No.:

FIELD RECORD

Sample Type:

- Community
- Transient
- Non-Transient
- Private
- Repeat Sample
- C.O.P
- Bottled Water
- OTHER:

Source Address: 11525 Johns Hopkins Rd.
 Sampling Site: bathroom sink Bottle No.: 11525 SC-B
 Ice: Yes No Treated: Yes No County: Howard
 Date Collected: 11/30/17 Time Collected: 9 am pm
 Collector Name: S. Collins Collector ID No.: 3406 SC
 Collector Tel. No.: 410-313-6287 PWS ID No.:

Test Requested:

- Quantitative: Colilert-QT P/A: Colilert
- Heterotrophic Plate Count SimPlate
- Multiple Tube Fermentation: MTF
- Quantitative: Enterolert
- Other:

County: 13 Plant No. Sampling Station
 pH: 7.2 Res. Cl: 0.0 Free: 0.0 Total: 0.0

Remarks: neutralizer, softener, UV lamp

LABORATORY RECORD (DHMH Use Only)

Test Method(s): (check all that apply)

- SM 9223 Colilert SM 9223 Colilert-QT SM 9223 Colilert-18
- SM 9221B (MTF) SM 9221B, F (MTF) SM 9223 Colisure
- SM 9215B (HPC) Enterolert ASTM D6503-99 SimPlate
- Other:

Temperature Control:

1.59°C

Thiosulfate:

- Present
- Absent
- Undetermined

P/A Test

100 mL Sample	(+/-)
Total Coliforms	
E. coli	
Enterococci	

Quantitative Test

Dilution: 1:10 1:100 1:1000

100 mL Sample	# Positive wells	MPN/100 mL
Total Coliforms	0	<1
E. coli	0	<1
Enterococci		

Heterotrophic Plate Count

Incubated 24, 48, 72hr @ 35°C

Plate A:

Plate B:

Average: CFU/mL
MPN/mL

Presumptive MTF Test

mL of Sample	10 mL
Gas/24h	
Gas/48h	

Confirmed MTF Test

mL of Sample	10 mL
Total Coliforms	
E. coli	

MTF Results

No. of Positive (+)	MPN/100 mL	Recorded Value

Specialized Testing Results:

NOV 30 '17 PM 2:22 *gc*

Received

NOV 30 '17 PM 3:33 *gc*

Placed in Incubator

DEC 1 '17 AM 9:34 *gc*

Results Read/Reported

Analyst: J. Helm

Reviewed by/Date: K. Jones 12/1/17

Remarks: Fax Email Phone

Laboratory: Central Lab (443) 681-3960 ESRL (410) 219-9005 WMRL (301) 759-5115

This report shall not be reproduced except in full without the written approval of the laboratory. Results only valid for sample received.

SEND REPORT TO:
 Howard County Health Dept
 Bureau of Environmental Health
 8930 Stanford Blvd
 Columbia, MD 21045

DHMH - Laboratories Administration
 DIVISION OF ENVIRONMENTAL SCIENCES
 1770 Ashland Avenue, Baltimore, MD 21205
 Robert A. Myers, Ph.D. Director

MICROBIOLOGICAL ANALYSIS OF DRINKING WATER

005369

PHONE NO.:
 410-313-1773
 Category Code: 4F

Invoice No.:

Lab No.:

FIELD RECORD

Sample Type:

- Community
- Transient
- Non-Transient
- Private
- Repeat Sample
- C.O.P
- Bottled Water
- OTHER:

Source Address: 11525 Johns Hopkins Rd Clarksville
 Sampling Site: well piness adaptor Bottle No.: 11525 SC
 Ice: Yes No Treated: Yes No County: Howard
 Date Collected: 11/14/17 Time Collected: 9:50 am pm
 Collector Name: S. Collins Collector ID No.: 3406 SC
 Collector Tel. No.: 410-313-6287 PWS ID No.:

Test Requested:

- Quantitative: Colilert-QT P/A: Colilert
- Heterotrophic Plate Count SimPlate
- Multiple Tube Fermentation: MTF
- Quantitative: Enterolert
- Other:

County: 13 Plant No. Sampling Station
 pH: 6.5 Res.Cl: 0.0 Free: 0.0 Total: 0.0

Remarks: Replacement well ICOP

LABORATORY RECORD (DHMH Use Only)

Test Method(s): (check all that apply)

- SM 9223 Colilert SM 9223 Colilert-QT SM 9223 Colilert-18
- SM 9221B (MTF) SM 9221B, F (MTF) SM 9223 Colisure
- SM 9215B (HPC) Enterolert ASTM D6503-99 SimPlate
- Other:

Temperature Control:

23 °C

Thiosulfate:

- Present
- Absent
- Undetermined

P/A Test

100 mL Sample	(+/-)
Total Coliforms	
<i>E. coli</i>	
Enterococci	

Quantitative Test

Dilution: 1:10 1:100 1:1000

100 mL Sample	# Positive wells	MPN/100 mL
Total Coliforms	<u>32</u>	<u>50</u>
<i>E. coli</i>	<u>0</u>	<u><1</u>
Enterococci		

Heterotrophic Plate Count

Incubated 24, 48, 72hr @ 35°C

Plate A:

Plate B:

Average: CFU/mL
 MPN/mL

Presumptive MTF Test

mL of Sample	10 mL				
Gas/24h					
Gas/48h					

Confirmed MTF Test

mL of Sample	10 mL				
Total Coliforms					
<i>E. coli</i>					

MTF Results

No. of Positive (+)	MPN/100 mL	Recorded Value

Specialized Testing Results:

KS
 NOV 14 '17 PM 2:09
 Received KS
 NOV 14 '17 PM 3:30
 Placed in Incubator KS
 NOV 15 '17 AM 9:48
 Results Read/Reported

Analyst: K. Jones

Reviewed by/Date: J. Collins 11-15-17

Remarks:

Fax Email Phone

Laboratory: Central Lab (443) 681-3960 ESRL (410) 219-9005 WMRL (301) 759-6115

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Howard County Health Dept
Bureau of Environmental Health
8930 Stanford Blvd
Columbia, MD 21045

DHMH - Laboratories Administration
DIVISION OF ENVIRONMENTAL SCIENCES
1770 Ashland Avenue, Baltimore, MD 21205
Robert A. Myers, Ph.D. Director

MICROBIOLOGICAL ANALYSIS OF DRINKING WATER

PHONE NO.: 410-313-1773
Category Code: 4F

Invoice No.:

Lab No: 005227

FIELD RECORD

Sample Type: <input type="checkbox"/> Community <input type="checkbox"/> Transient <input type="checkbox"/> Non-Transient <input checked="" type="checkbox"/> Private <input type="checkbox"/> Repeat Sample <input type="checkbox"/> C.O.P <input type="checkbox"/> Bottled Water <input type="checkbox"/> OTHER:	Source Address: <u>11525 Johns Hopkins Rd. Clarksville</u>
	Sampling Site: <u>Pressure tank</u> Bottle No.: <u>11525 SC</u>
	Ice: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Treated: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> County: <u>Howard</u>
	Date Collected: <u>11/7/17</u> Time Collected: <u>8:30</u> <input checked="" type="checkbox"/> am <input type="checkbox"/> pm
	Collector Name: <u>S. Collins</u> Collector ID No.: <u>3406 SC</u>
	Collector Tel. No.: <u>410-313-6287</u> PWS ID No.:

Test Requested: <input checked="" type="checkbox"/> Quantitative: Colilert-QT <input type="checkbox"/> P/A: Colilert <input type="checkbox"/> Heterotrophic Plate Count <input type="checkbox"/> SimPlate <input type="checkbox"/> Multiple Tube Fermentation: MTF <input type="checkbox"/> Quantitative: Enterolert <input type="checkbox"/> Other:	County: <table border="1"><tr><td>1</td><td>3</td></tr></table> Plant No.: <table border="1"><tr><td> </td><td> </td><td> </td><td> </td></tr></table> Sampling Station: <table border="1"><tr><td> </td><td> </td><td> </td><td> </td></tr></table> pH: <table border="1"><tr><td>6</td><td>5</td></tr></table> Res.Cl: <table border="1"><tr><td>0</td><td>0</td></tr></table> Free: <table border="1"><tr><td>0</td><td>0</td></tr></table> Total: <table border="1"><tr><td>0</td><td>0</td></tr></table>	1	3									6	5	0	0	0	0	0	0
1	3																		
6	5																		
0	0																		
0	0																		
0	0																		
Remarks: <u>Replacement well ICOP</u>																			

LABORATORY RECORD (DHMH Use Only)

Test Method(s): (check all that apply) <input type="checkbox"/> SM 9223 Colilert <input type="checkbox"/> SM 9223 Colilert-QT <input checked="" type="checkbox"/> SM 9223 Colilert-18 <input type="checkbox"/> SM 9221B (MTF) <input type="checkbox"/> SM 9221B, F (MTF) <input type="checkbox"/> SM 9223 Colisure <input type="checkbox"/> SM 9215B (HPC) <input type="checkbox"/> Enterolert ASTM D6503-99 <input type="checkbox"/> SimPlate <input type="checkbox"/> Other:	Temperature Control: <u>23</u> °C	Thiosulfate: <input checked="" type="checkbox"/> Present <input type="checkbox"/> Absent <input type="checkbox"/> Undetermined
---	---	--

P/A Test <table border="1"> <tr><td>100 mL Sample</td><td>(+/-)</td></tr> <tr><td>Total Coliforms</td><td></td></tr> <tr><td>E. coli</td><td></td></tr> <tr><td>Enterococci</td><td></td></tr> </table>	100 mL Sample	(+/-)	Total Coliforms		E. coli		Enterococci		Quantitative Test Dilution: <input type="checkbox"/> 1:10 <input type="checkbox"/> 1:100 <input type="checkbox"/> 1:1000 <table border="1"> <tr><td>100 mL Sample</td><td># Positive wells</td><td>MPN/100 mL</td></tr> <tr><td>Total Coliforms</td><td>37</td><td>66</td></tr> <tr><td>E. coli</td><td>0</td><td>21</td></tr> <tr><td>Enterococci</td><td></td><td></td></tr> </table>	100 mL Sample	# Positive wells	MPN/100 mL	Total Coliforms	37	66	E. coli	0	21	Enterococci			Heterotrophic Plate Count Incubated 24, 48, 72hr @ 35°C Plate A: <table border="1"><tr><td> </td></tr></table> Plate B: <table border="1"><tr><td> </td></tr></table> Average: <table border="1"><tr><td> </td></tr></table> CFU/mL MPN/mL			
100 mL Sample	(+/-)																								
Total Coliforms																									
E. coli																									
Enterococci																									
100 mL Sample	# Positive wells	MPN/100 mL																							
Total Coliforms	37	66																							
E. coli	0	21																							
Enterococci																									

NOV 7'17 PM 2:14 Received <u>15</u> NOV 7'17 PM 3:35 Placed in Incubator <u>15</u> NOV 8'17 AM 9:45 Results Read/Reported	Presumptive MTF Test <table border="1"> <tr><td>mL of Sample</td><td>10 mL</td></tr> <tr><td>Gas/24h</td><td></td></tr> <tr><td>Gas/48h</td><td></td></tr> </table>	mL of Sample	10 mL	Gas/24h		Gas/48h		MTF Results <table border="1"> <tr><td>No. of Positive (+)</td><td>MPN/100 mL</td><td>Recorded Value</td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </table>	No. of Positive (+)	MPN/100 mL	Recorded Value						
	mL of Sample	10 mL															
	Gas/24h																
	Gas/48h																
No. of Positive (+)	MPN/100 mL	Recorded Value															
Confirmed MTF Test <table border="1"> <tr><td>mL of Sample</td><td>10 mL</td></tr> <tr><td>Total Coliforms</td><td></td></tr> <tr><td>E. coli</td><td></td></tr> </table>	mL of Sample	10 mL	Total Coliforms		E. coli												
mL of Sample	10 mL																
Total Coliforms																	
E. coli																	
Specialized Testing Results:																	

Analyst: K. Jones Reviewed by/Date: L. Payer 11-8-17
 Remarks: Fax Email Phone

Laboratory: Central Lab (443) 681-3960 ESRL (410) 219-9005 WMRL (301) 759-5115
 This report shall not be reproduced except in full without the written approval of the laboratory. Results only valid for sample received.

SEND REPORT TO: Bert Nixon

State of Maryland
DHMH - Laboratories Administration
DIVISION OF ENVIRONMENTAL SCIENCES
1770 Ashland Avenue, Baltimore, MD 21205
Robert A. Myers, Ph.D. Director

Howard County Health Dept
Bureau of Environmental Health
8930 Stanford Blvd
Columbia, MD 21045

MICROBIOLOGICAL ANALYSIS OF DRINKING WATER

005369

PHONE NO.: 410-313-1773

Category Code: 4F

Invoice No.:

Lab No.:

FIELD RECORD

Sample Type:
 Community
 Transient
 Non-Transient
 Private
 Repeat Sample
 C.O.P
 Bottled Water
 OTHER:

Source Address: 11525 Johns Hopkins Rd. Clarksville
 Sampling Site: well pitless adaptor Bottle No.: 11525 SC
 Ice: Yes No Treated: Yes No County: Howard
 Date Collected: 11/14/17 Time Collected: 9:50 am pm
 Collector Name: S. Collins Collector ID No.: 3406 SC
 Collector Tel. No.: 410-313-6287 PWS ID No.:

Test Requested:
 Quantitative: Colilert-QT P/A: Colilert
 Heterotrophic Plate Count SimPlate
 Multiple Tube Fermentation: MTF
 Quantitative: Enterolert
 Other:

County: 13 Plant No. Sampling Station
 pH: 6.5 Res.Cl: 0.0 Free: 0.0 Total: 0.0

Remarks: Replacement well ICOP

LABORATORY RECORD (DHMH Use Only)

Test Method(s): (check all that apply)
 SM 9223 Colilert SM 9223 Colilert-QT SM 9223 Colilert-18
 SM 9221B (MTF) SM 9221B, F (MTF) SM.9223 Colisure
 SM 9215B (HPC) Enterolert ASTM D6503-99 SimPlate
 Other:

Temperature Control: 23 °C Thiosulfate: Present Absent Undetermined

P/A Test

100 mL Sample	(+/-)
Total Coliforms	
E. coli	
Enterococci	

Quantitative Test

Dilution: 1:10 1:100 1:1000

100 mL Sample	# Positive wells	MPN/100 mL
Total Coliforms	32	50
E. coli	0	1
Enterococci		

Heterotrophic Plate Count
Incubated 24, 48, 72hr @ 35°C

Plate A:
 Plate B:
 Average: CFU/mL
 MPN/mL

NOV 14 '17 PM 2:09
 Received NOV 14 '17 PM 3:30
 Placed in Incubator NOV 15 '17 AM 9:48
 Results Read/Reported

Presumptive MTF Test

mL of Sample	10 mL
Gas/24h	
Gas/48h	

Confirmed MTF Test

mL of Sample	10 mL
Total Coliforms	
E. coli	

MTF Results

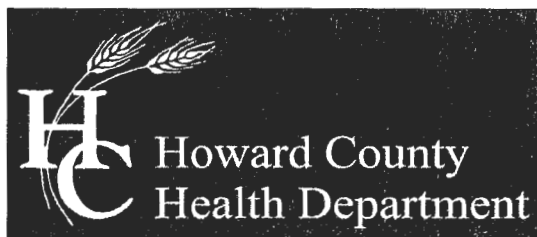
No. of Positive (+)	MPN/100 mL	Recorded Value

Specialized Testing Results:

Analyst: K. Jones Reviewed by/Date: J. Collins 11-15-17
 Remarks: Fax Email Phone

Laboratory: Central Lab (443) 681-3960 ESRL (410) 219-9005 WMRL (301) 759-5115

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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

December 14, 2017

Homeowner
11525 Johns Hopkins Road
Clarksville, MD 21029

Dear Homeowner,

The Health Department received results from the testing for sodium, chloride, and total dissolved solids (TDS) from your well water.

Elevated sodium levels in drinking water could affect individuals on low-salt diets. The action level for sodium is 20 milligrams per liter (mg/L); **sodium from your well measured 8.8 mg/L before treatment and 42.18 mg/L after water softener, neutralizer, and UV lamp treatment.**

Chloride and TDS are both considered secondary contaminants, meaning high concentrations can affect taste, color, odor, or corrosive properties of water but present no risk to health. The secondary maximum contaminant level for chloride is 250 mg/L; **chloride from you well measured <10 mg/L before treatment and <10 mg/L after treatment.** The secondary maximum contaminant level for TDS is 500 mg/L; **TDS from your well measured 98 mg/L before treatment and 143 mg/L after treatment.**

Feel free contact me at the number or email below with any questions regarding the results of water sampling.

Sincerely,

A handwritten signature in cursive script that reads 'Sarah Collins'.

Sarah Collins, L.E.H.S.
Howard County Health Department
Well & Septic Program
SCollins@howardcountymd.gov
410-313-6287

Cc: File



State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
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 NoE18002125 Date Coll. 11/30/2017 Date Received 11/30/2017 Submitted By:S. Collins

Field ID: 11525 SC-A
Lab No.: E18002125001

<u>Analyte</u>	<u>Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
Chloride	SM 4500-Cl E	<10	mg/L	12/01/2017
Total Dissolved Solids	SM 2540C	98	mg/L	12/01/2017

Comments:

Approved by:

Shahin Aneli

Approval date: 12/08/2017

*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.

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) 767-6190 and arrange for return or destruction.

Send Report To: Bert Nixon

Howard County Health Dept
Bureau of Environmental Health
8930 Stanford Blvd
Columbia, MD 21045

State of Maryland
MDH-Laboratories Administration
Division of Environmental Sciences
INORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205
WATER ANALYSIS


E18002125002
Received: 11/30/2017
Inorganic 11525 SC-B

Do not write above this line.

S A M P L E I D	Bottle Number	11525 SC-B	Name	Hopkins Mead - Lot 7	County	Howard	County Code	13
	Location	11525 Johns Hopkins Rd.		Clarksville	Data Category Code		4F	
	Collected: Date	11/30/17	Time	9 am	Collector & Phone	S. Collins 410-313-0287	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	S

F I E L D	Plant No.		Sampling Station		Preservation: Iced	<input checked="" type="checkbox"/>	Acid	<input type="checkbox"/>	Type of Acid	
	pH		Chlorine: Free		Total		Specific Conductance			
	Notes to Lab/Remarks: Sample collected from bathroom sink - neutralizer, softener, + UV lamp treatment.									

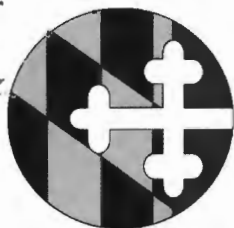
CHECK TESTS	TESTS	Error Code	RESULTS
	Alkalinity (Total)		
	Ammonia - N		
<input checked="" type="checkbox"/>	Chloride		
	Conductance*, Spec.		
<input checked="" type="checkbox"/>	Dissolved Solids (Total)		
	Hardness		
	Fluoride		
	Nitrite, N		
	Nitrate - Nitrite, N		
	Sulfate		
	Total Solids		
	Turbidity*		
	Other:		

* Results reported in Units, all others in milligrams per liter (ppm)

Number of Tests Requested

Section Chief _____

Date Reported _____



State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
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 NoE18002125 Date Coll. 11/30/2017 Date Received 11/30/2017 Submitted By:S. Collins

Field ID: 11525 SC-B
Lab No.: E18002125002

<u>Analyte</u>	<u>Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
Chloride	SM 4500-Cl E	<10	mg/L	12/01/2017
Total Dissolved Solids	SM 2540C	143	mg/L	12/01/2017

Comments:

Approved by:

Approval date: 12/08/2017

*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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State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
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: E18002126 Date Coll.: 11/30/2017 Date Received: 11/30/2017 Submitted By: Collins

Field ID: 11525 SC-A
Lab No.: E18002126001

<u>Method</u>	<u>Element</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
EPA 200.7	Sodium	8.80	ppm	12/01/2017

Comments:

Approved by:

Yingtao Chai

Approval date: 12/04/2017

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

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Send Report To: Bert Nixon

State of Maryland
DHMH - Laboratory Administration

Howard County Health Dept
Bureau of Environmental Health
8930 Stanford Blvd
Columbia, MD 21045

Division of Environmental Sciences
TRACE METALS LABORATORY

1770 Ashland Avenue
Baltimore, Maryland 21205


E18002126002
Received: 11/30/2017
Metals 11525 SC-B

LABORATORY ANALYSIS REQUEST

Do not write above this line

Please Print

Sample ID No: 11525 SC-B Site Name: Hopkins Mead - Lot 7 County: Howard

Sample Source: 11525 Johns Hopkins Rd. Clarksville Collector: S Collins
Street Town or City Name

Date Collected: 11/30/2017 Time Collected: 9 (a.m.) p.m. Phone #: 410-313-6287

Sample Preserved By: Field ESRL WMRL Central Lab
Preservative Used: HNO₃ mL pH: 2

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 collected from bathroom sink - neutralizer, softener, + UV lamp treatment.

✓	Element	Lab Use	✓	Element	Lab Use	✓	Element	Lab Use
	Antimony (Sb)			Aluminum (Al)			Uranium (U)	
	Arsenic (As)			Calcium (Ca)			Vanadium (V)	
	Barium (Ba)			Cobalt (Co)			Zinc (Zn)	
	Beryllium (Be)			Copper (Cu)				
	Cadmium (Cd)			Iron (Fe)				
	Chromium (Cr)			Lead (Pb)				
	Mercury (Hg)			Magnesium (Mg)				
	Nickel (Ni)			Manganese (Mn)				
	Selenium (Se)			Molybdenum (Mo)				
✓	Sodium (Na)	<u>SV</u>		Potassium (K)				
	Thallium (Tl)			Silver (Ag)				

Lab Supervisor: _____

Date Reported: 11/30/17

•Phone: (443) 681 - 4596

•Fax: (443) 681 - 4507



State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
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: E18002126 Date Coll.: 11/30/2017 Date Received: 11/30/2017 Submitted By: Collins

Field ID: 11525 SC-B
Lab No.: E18002126002

<u>Method</u>	<u>Element</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
EPA 200.7	Sodium	42.18	ppm	12/01/2017

Comments:

Approved by: Yinfeng Chai

Approval date: 12/04/2017

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

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Collins, Sarah

From: Collins, Sarah
Sent: Tuesday, February 20, 2018 8:31 AM
To: 'Shelly Krebs'; Brendan Antiochos (brendan.antiochos@gmail.com)
Cc: John Boris -MDE- (john.boris@maryland.gov)
Subject: Water treatment info

Hi Shelly and Brendan,

I was able to contact several water treatment companies in the Annapolis area that may work with high iron in well water. Here's what I learned:

I called Premier Water Services of Maryland, LLC (410-437-3957) on 2/14. The guy on the phone agreed that it is unusual to see higher iron levels post treatment. He said that there could be not enough resin in the water softener, otherwise he didn't have many ideas. Premier does not currently work in Howard County.

I spoke with Brian Edwards at Hague Quality Water of Maryland (443-951-3366) on 2/16. He likened this well to a well off Independence Way in Ellicott City, where the iron levels spiked with high use. He said that colloidal iron is rare in Howard but iron bacteria are common. Brian also mentioned that a leaking pitless adaptor could cause oxidation (but after discussing this with John, there would be air bubbles in the line and we did see high turbidity pre-pitless when we camera'd the well). Hague does work in Howard County and he can come out for a free estimate.

I spoke with Erik at Phelps Water Company (410-956-2522) on 2/16. He thought it could be a well construction issue, and maybe clay is coating the softener. He also asked if the neutralizer treats the water before the softener- the neutralizer would remove some solid iron, which could be a burden on the water softener if the softener is placed first in the treatment process. Erik said that a 64k grain water softener would be needed to treat this level of iron, and that a 32k grain wouldn't be sufficient (I don't know much about these specs.. he said the difference between the two is that it changes which backwash valve is used). Phelps does work in Howard County.

If you're able to contact any of the above companies with any additional results, they may be able to give some more info. Hopefully this helps- let me know if you would like any sampling done now or after installing a new treatment system.

Thanks,
Sarah

Sarah Collins, L.E.H.S.
Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, MD 21045
SCollins@howardcountymd.gov
410-313-6287

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neutralizer, softener, UV lamp treatment
iron 12 pretreatment, higher post

Premier Water Services of Maryland, LLC

5.0 (10) · Water Testing Service
4429 Mountain Rd
(410) 437-3957
Open 24 hours

2/14
chlorides? low in H₂O
weird that iron is higher post
softener may not have enough resin
don't work in H₂O

Arundel Gas & Water Conditioning

2.2 (21) · Gas Company
3177 Solomons Island Rd
(410) 956-2400

Phelps Water Company

4.6 (9) · Water Testing Service
180 Mayo Rd
(410) 956-2522

2/16 - Erik
tested TDS
neutralizer in front of water softener? otherwise too much burden for WS
64K ~~grain~~ water softener AT LEAST, 32K ^{grain} ~~grain~~ won't be enough
changes which backwash valve used

Tapp Water Systems

4.0 (4) · Plumber
4600 Mountain Rd
(410) 437-8277

Integrity Water Solutions

4.1 (10) · Water Softening Equipment Supplier
1229 Generals Hwy
(410) 923-2830

Mr. Water Professional Water Treatment of Annapolis, Maryland

3.0 (2) · Water Softening Equipment Supplier
(443) 569-7327

Hague Quality Water of Maryland

4.9 (159) · Water Softening Equipment Supplier
814 E College Pkwy
(443) 951-3366

2/16 - Brian Edwards
saw interesting well on Independence - iron spiked w/ high
could test well - free estimate
collared iron is rare in this area
iron bar common
leaking pitless could cause oxidation (but well is turbid
pitless no
no bubbles in
line)

Collins, Sarah

From: Andy Capelle <acapelle@alliedwells.com>
Sent: Friday, February 09, 2018 9:23 AM
To: Collins, Sarah
Subject: Re: 11525 Johns Hopkins Road well

It was 4.5" inch well casing (Cresline is manufacturer). It was solid but we put some perforations in it.

On Wed, Feb 7, 2018 at 11:05 AM, Collins, Sarah <SCollins@howardcountymd.gov> wrote:

Hi Andy,

Can we get the pipe specs of the liner for this well? Is it perforated or solid?

Thanks,

Sarah

Sarah Collins, L.E.H.S.

Howard County Health Department

Bureau of Environmental Health

8930 Stanford Blvd.

Columbia, MD 21045

SCollins@howardcountymd.gov

410-313-6287

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Brian Koby - Aramber Water

Memo circa 1994
- Iron + turbidity

Water treatment
companies on Eastern
Shore -
Formation

Thalassemia
Talk w/ other
drillers
- Easterday

FILE INQUIRY NOTES

- Dave Kelly

RESULTS OF REVIEW FOR FILE

Make model
of liner
- well casing
rated?
- ordered from
DSZ.

DATE: 2/6/10

Camera well with John Bonis from MDE. Atlas adapter corroded, likely from shocking w/ concentrated bleach. Static 36' liner @ 40'.

Pump pulled @ 9:30 am, water cloudy @ 12 pm. Liner appears to be perforated ~ 80' for a 20' section. No holes 100', more perforation @ 110'.

Liner stained. Tracks from pulling pump suggest hole is crooked. Perforations @ 150'. Zones of cloudy water, zones of clear. Could be camera scraping edge of liner. Particles visible in water while lowering camera. Very cloudy @ 300'. Dark @ 312', casing not stained @ 313'. Drilled hole @ 326'. Stained casing + cloudy @ 334'. At 347', blockage and casing likely broken @ bottom. Pump rated for 4 gpm, well yield 3.75 gpm (could be churning up sediment).

Actual pump installed:
Pump = Gould's 7CS154226, serial # F1763307 rated 7 gpm. (SC)

DATE: 2/7/10

10 am - spoke with Shelly Krebs via phone. Fogle's returned ~ 4 pm yesterday to install pump and got stuck ~ 35'. They finally ended up installing a 3" pump and barely got it in. 3" pump rated @ 5 gpm. Shelly + Brendan said that they ran water from a hose off the pressure tank to remove mud introduced from pump line and today water is more clear. Brendan recalls that Allied drilled holes in liner themselves. The current plan is for Fogle's to remove the softener + neutralizer b/c turbidity is higher post treatment. They will add back stepwise to determine which component is leading to increased turbidity. (SC)

4" liner
camera w/
pump
re-evaluated
@ well first
Want clean
water up top

Masters
filters

holding tank - let settle 1st heavy iron could come from casing
~ wells on Hall Shop

keep liner as high as possible
- water from top
- liner not working, not settling

2/8 John Boris spoke w/ John Hess

- multimedia filter?
- liner could come out
- well drilled Friday, liner installed Saturday
- DSI or Milby for liner
- solid screen around area of heavier contamination
- acidify samples → turbidity due to iron
- cased off worst geology

2/13

- John Boris spoke w/ Adam Santry, president of Allied
may not go back out w/o contract
could drill shallower well, lower yield but less iron
could seal off zones
can't get rig up there until ground dries up

iron = 12 pretreatment
Magathij Formation
Anne Arundel Co.

Cost for sampling: