

B 1 1 2 3 4 5 6 33123	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 561493	STATE PERMIT NUMBER 40-17-0169 <small>fill in this form completely</small>
Date Received (APA) 08/11/17 8 MM DD YY 13 Holland 15 Last Name Wayne 34 Owner First Name 12685 Triadelphia Rd 36 Street or RFD Ellicott City Md 21042 57 Town 70 State 72 Zip 76		B 3 Howard 8 COUNTY 21 23 SUBDIVISION 42 SECTION 44 46 LOT 48 50 Glencly 52 NEAREST TOWN 71	
OWNER INFORMATION David Kelly 76 Driller's Name MIND 304 81 License No. Jones Well Drilling Inc. Firm Name 3700 Rush Rd Address David Kelly Signature 8-11-17 Date		B 4 SOURCES OF DRILLING WATER 1. potable well 2. 38/23 - 260' -bedrock @ 46' casing 60' 8/24 - 300' dry -moved closer to drive	
B 2 WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) 8 12 400 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20		12685 Triadelphia Rd 11 STREET ADDRESS 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST <input checked="" type="checkbox"/> EAST SOUTH 34 62 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: 0022 BLK: 5 PARCEL 0189	
USE FOR WATER (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> PUBLIC WATER SUPPLY WELL <input type="checkbox"/> TEST, OBSERVATION, MONITORING <input type="checkbox"/> OPEN LOOP GEOTHERMAL <input type="checkbox"/> CLOSED LOOP GEOTHERMAL		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard (13) COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S → 41 DATE ISSUED 8/23/17 S. L. C. H. 8/23/18 43 MM DD YY 48 CO SIGNATURE EXP. DATE DON: 8/23/17 (C) DOG: 8/28/17 (C) DOY: 8/28/17 (C)	
APPROXIMATE DEPTH OF WELL 300 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 MAP 4813 H7 No wells or septic within 100' 8/28 - grouting, 50' tremie set -10 am pump start -Na, Cl, TDS +VOC samples @ 11 am -10-12 pm existing well -dry well -dry well	
METHOD OF DRILLING (circle one) BORED (or Augered) <input checked="" type="radio"/> JETTED <input type="radio"/> Jetted & DRIVEN 30 AIR-ROTARY AIR-PERCUSION ROTARY (Hydraulic Rotary) 37 CABLE REVERSE-ROTARY DRIVE-POINT other		REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX) <input type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input checked="" type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE) 41 52	
Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROX. PERMIT NUMBER G PERMIT No. 40-17-0169 70 71 72 73 74 75 76 77 78 79			

SPECIAL CONDITIONS

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.

Use 50' steel casing or 10' into bedrock, whichever is deeper.
 Sodium, chloride, TDS, + VOC samples req'd.
 @ COUNTY

**JONES WELL DRILLING
3700 RUSH RD
Jarrettsville MD 21084
410-692-6981**

Yield Test Completed: 8/28/2017 Initials: MSR
 Permit Number: HO-17-0169 Well Depth: 300'
 Subdivisor n:
 Section: Lot: County: HO
 Road: 12685 Triadelphia Rd State: MD

	Time	Water Level	Time to Fill 5 Gallon Bucket/ Seconds	Gallons/Minute
1	10:00	39	23	13.04
2	10:15	80	26	11.53
3	10:30	130	27	11.11
4	10:45	146	28	10.71
5	11:00	157	29	10.34
6	11:15	165	30	10.00
7	11:30	170	31	9.67
8	11:45	174	31	9.67
9	12:00	178	32	9.37
10	12:15	180	32	9.37
11	12:30	182	32	9.37
12	12:45	184	33	9.09
13	1:00	185	33	9.09
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31				

FUTURE PERFORMANCE MAY VARY FROM TESTED PERFORMANCE

Date Received in BPS
 CSU 390182
 OCT 12 2017
 Initials: Kobyll

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: Feetzer Telephone #: _____
Address: _____

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

Name (Print): _____ License# _____

*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: _____ Telephone #: _____
Subdivision: _____ Lot #: _____ Well Tag #: HO - 17-DUG 09/15/2017 (1)
Site Address: _____

Submersible Pump Data Pitless Adapter Well Cap and Electric Conduit
Make: _____ Make: _____ Two piece watertight cap: _____
Model #: _____ Model #: _____ Screened, vented well cap: _____
Pump Capacity _____ GPM Depth: _____ (36" min) Cap secured to casing: _____
Well Yield: _____ GPM NSF/WSC approved: _____ Conduit min 18" B.G.: _____
Depth of well encountered at time of pump installation: _____ (feet) Conduit secured to well cap: _____
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors, Cable guards, or other acceptable method used-- Must circle one
Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

Piping to house House Connection
Type: _____ PVC sleeve to undisturbed soil at wall penetration: _____
PSI: _____ (160 psi min) Length of sleeve (5' minimum from foundation): _____
Depth of supply line: _____ (36" min) Sleeve sealed properly: _____

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 _____

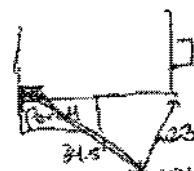
For Health Department Use Only -- Not to be completed by installer

Date Insp. Requested: 9/15/2017 Date Insp. Approved: 09/15/2017 Inspector: (Signature)
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade ✓ 43"
Two piece cap installed and attached to casing securely ✓
Elec. conduit extends at least 18" below grade/attached to cap properly ✓ 37"
Safety rope not outside of well cap/casing ✓
Correct well tag attached properly and casing 8" above finished grade ✓ 10"
Water supply line sleeved adequately at house connection ✗
Adequate grout observed below pitless adapter ✓

* The info previously
well line 18" to
grade (2)

* * * old well pump pulled, not yet ab. + sealed (2)

* * * well 66' to center of road
~ 54' to closest road (2)



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: Robert L. Feezer Co. Telephone #: 410-781-4655
Address: 6321 Barnett Avenue
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): Joshua Henricks License# PI0173

*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: Mr & Mrs. Wayne Holland Telephone #: 410-531-5179
Subdivision: _____ Lot #: _____ Well Tag #: HO - 17 - 0169
Site Address: 12685 Triadelphia Road
Ellicott City, MD 21042-1115

Submersible Pump Data

Make: Schaefer
Model #: 5SR05S4-2W230
Pump Capacity 5 GPM
Well Yield: 9.1 GPM

Pitless Adapter

Make: Boshart
Model#: P-100-SS
Depth: 42" (36" min)
NSF/WSC approved: Yes

Well Cap and Electric Conduit

Two piece watertight cap: Yes
Screened, vented well cap: Yes
Cap secured to casing: Yes
Conduit min 18" B.G.: Yes
Conduit secured to well cap: Yes

Depth of well encountered at time of pump installation: 300 (feet)

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 N/A

Piping to house

Type: Poly
PSI: 200 (160 psi min)
Depth of supply line: 42" (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: Yes
Length of sleeve (5' minimum from foundation): 10'
Sleeve sealed properly: Yes

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.

Joshua Henricks September 14, 2017
Signature of company representative responsible for installation date

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

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

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION
1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784

WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

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

DATE WELL ABANDONED: 8/28/17 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any)

dry hole
from HO-17-0169

* PERMIT NUMBER OF REPLACEMENT WELL:

HO-17-0169

* PERSON ABANDONING WELL: MARK Rutherford

WELL DRILLER'S LICENSE NUMBER: 554

CIRCLE: MWD / MSD / MGD

* OWNER'S NAME: Wayne Holland

* WELL LOCATION:

COUNTY: Howard

NEAREST TOWN: Glenely

TAX MAP 0022 BLOCK 5 PARCEL 0189

SUBDIVISION:

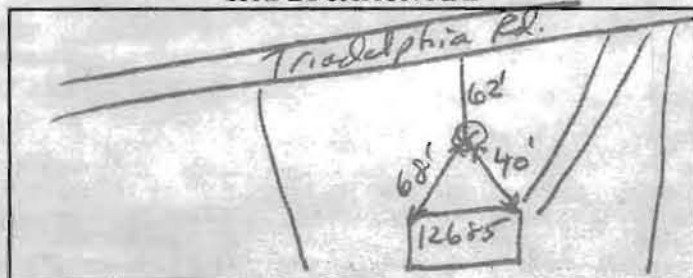
SECTION:

STREET ADDRESS: 12685 Tridelpia Rd.

LATITUDE 3 9.275565

LONGITUDE 7 6.953150

SITE LOCATION MAP



LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
Cement/bentonite grout	0	55
clean fill	55	380
VOLUME OF MATERIAL USED		
30.25 cu/ft cement/bentonite		

* 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: 300 FEET DEEP

WAS ANY CASING REMOVED? ☒ YES ☐ NO

If yes, length removed, in feet: 50

WAS CASING RIPPED OR PERFORATED? ☐ YES ☒ NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN David Kelly LICENSE# 304

MWD / MSD / MGS

12/27/17

CIRCLE ONE

DATE

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.

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION
1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784

WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

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

DATE WELL ABANDONED: Nov. 9, 17 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any)

* PERMIT NUMBER OF REPLACEMENT WELL:

* PERSON ABANDONING WELL: Mark Lathenford

WELL DRILLER'S LICENSE NUMBER: 554

* OWNER'S NAME: Wayne Holland

CIRCLE: MWD / MSD / MGD

* WELL LOCATION:

COUNTY: Howard

NEAREST TOWN: Glenely

TAX MAP 0022 BLOCK 5 PARCEL 0189

SUBDIVISION:

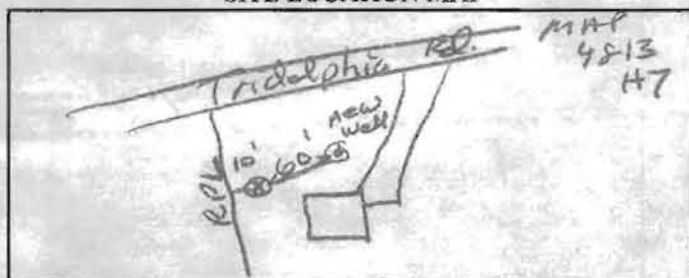
SECTION: LOT:

STREET ADDRESS: 12685 Tridaphia Rd.

LATITUDE 3 9.275472

LONGITUDE 7 4.953186

SITE LOCATION MAP



LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
dirt	0	1
bentonite	1	65
hole plug	65	198
clean fill		

* 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: 198 FEET DEEP

WAS ANY CASING REMOVED? ☒ YES ☐ NO

If yes, length removed, in feet: 3

WAS CASING RIPPED OR PERFORATED? ☐ YES ☒ NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE#

David Kelly

304

MWD / MSD / MGS

CIRCLE ONE

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

September 15, 2017

Homeowner
12685 Triadelphia Road
Ellicott City, MD 21042

RE: Replacement Well Sampling
12685 Triadelphia Road
#HO-17-0169

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.

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. If sampling has already been performed by an outside lab, please help us by forwarding the results of the samples to our office.

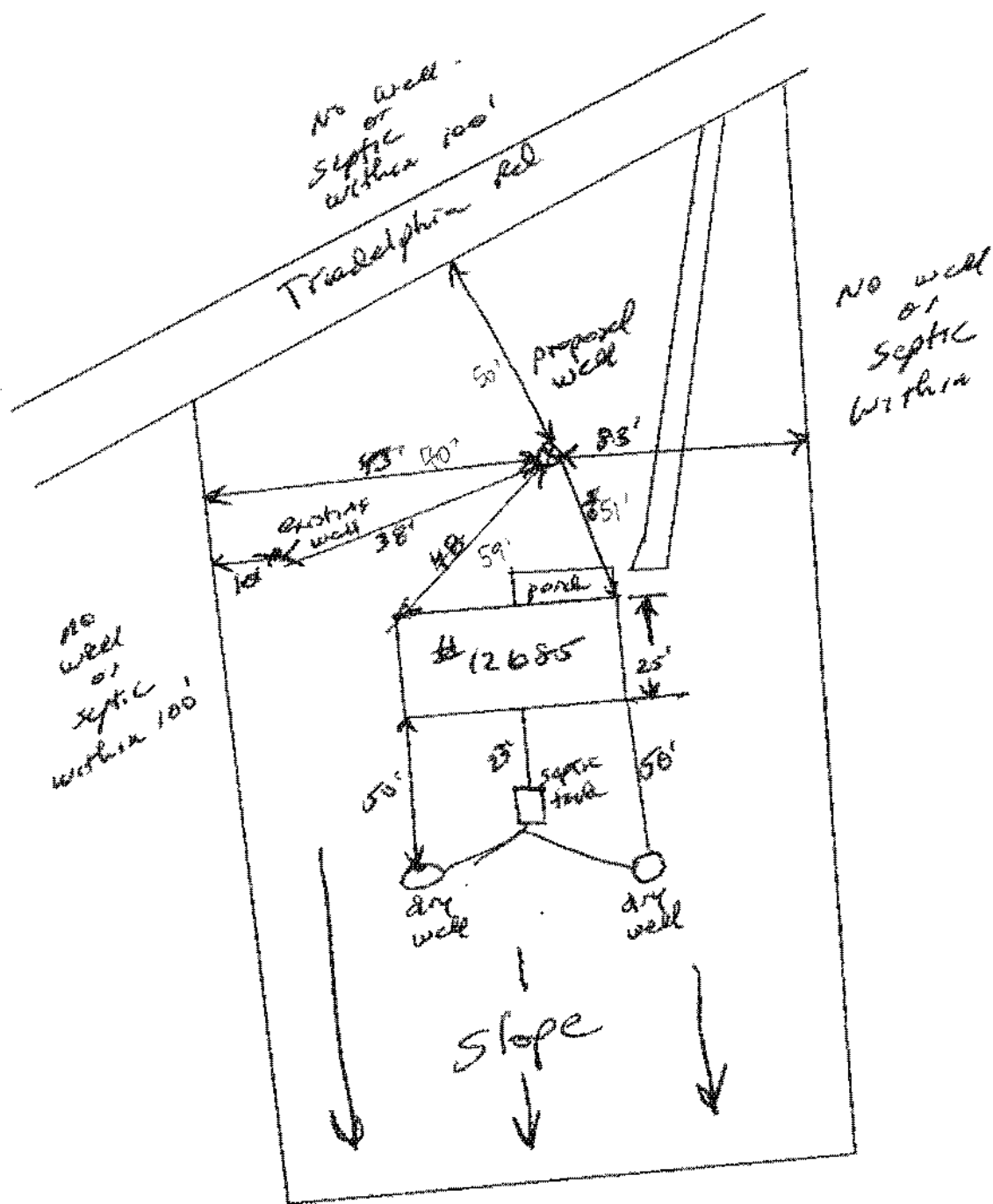
The old well on the property must be sealed by a well driller licensed in Maryland. Documentation should be submitted to the Health Department once this task is completed.

Feel free to contact me with any questions.

Sincerely,

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

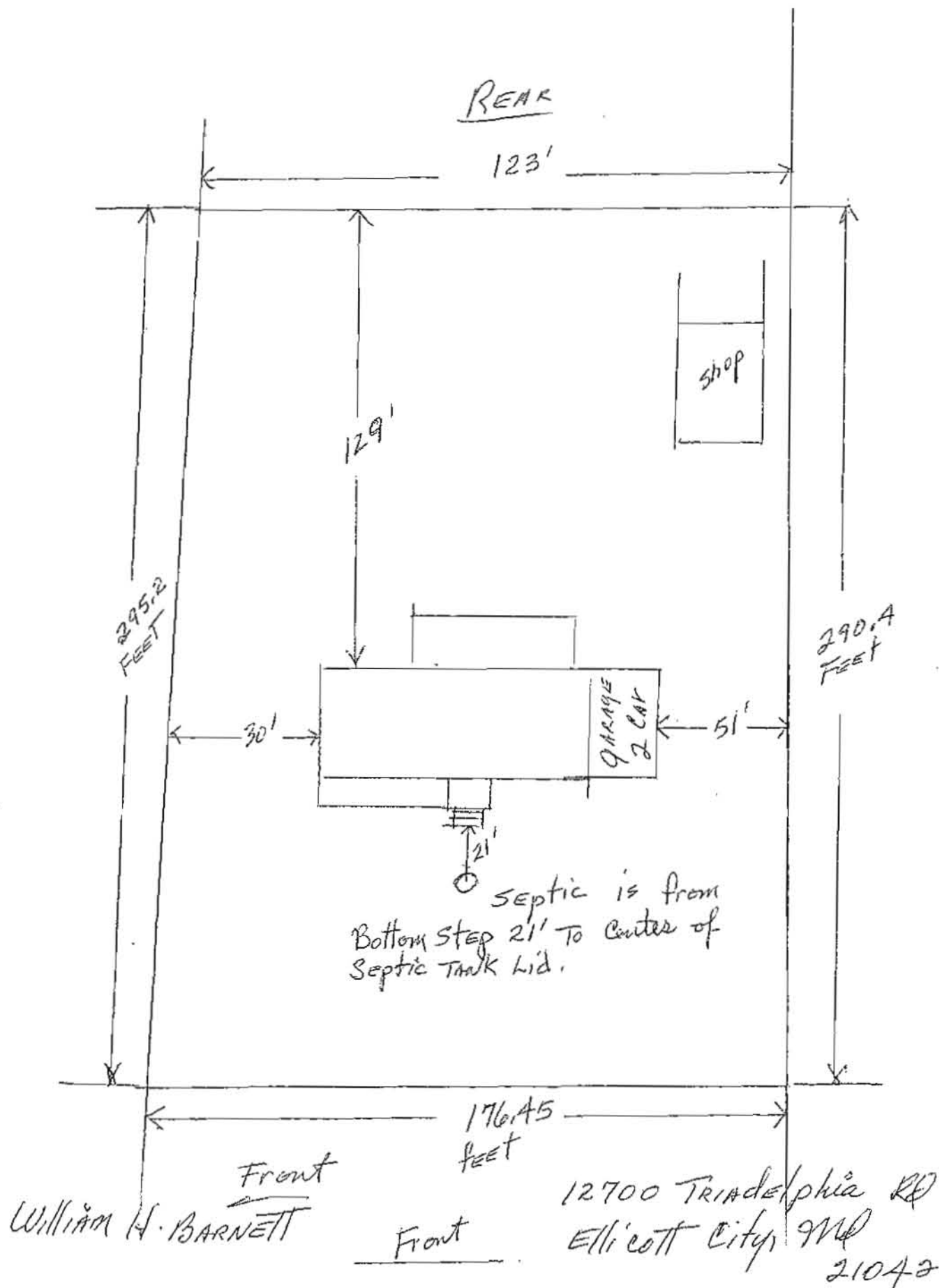
Cc: Community Hygiene Program
File



Not to Scale

Owner: Wayne Holland
 12685 Triadelphia Rd
 Ell City MD 21042
 443-472-5163

12-4-2016





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

September 19, 2017

Homeowner
12685 Triadelphia Road
Ellicott City, MD 21042

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 83 mg/L**. If anyone in your household is on a low-salt diet, you may want to discuss these results with your physician.

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 your well measured 248 mg/L**. The secondary maximum contaminant level for TDS is 500 mg/L; **TDS from your well measured 648 mg/L**.

In addition, a sample was collected for volatile organic compounds (VOCs) to check for contaminants of gasoline. No VOCs were detected in the water sample.

Given the elevated levels of sodium and TDS you may want to consult a plumber and/or water treatment company to discuss options. Please be aware that any backwash generated from a treatment system must be disposed of in a subsurface disposal system. Prior to installing a system that generates backwash, please contact the Health Department to ensure that all regulatory requirements are met.

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

Sincerely,

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

Cc: Community Hygiene Program
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 NoE18000859 Date Coll. 08/28/2017 Date Received 08/29/2017 Submitted By:Collins

Field ID: HO-17-0169
Lab No.: E18000859001

<u>Analyte</u>	<u>Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
Chloride	SM 4500-Cl E	248	mg/L	09/01/2017
Total Dissolved Solids	SM 2540C	648	mg/L	08/29/2017

Comments:

Approved by:

Approval date: 09/05/2017

*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 Mxan

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

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

Lab No. Date Received



E18000868001

Received 08/29/2017

Metals

HO-17-0169

Do not write above this line

LABORATORY ANALYSIS REQUEST

Please Print

Sample ID No: HO-17-0169 Site Name: _____ County: Howard

Sample Source: 12685 Triadelphia Rd. Ellicott Collector: S. Collins
Street Town or City City Name

Date Collected: 8/28/2017 Time Collected: 11 a.m. _____ p.m. Phone #: 410-313-6287

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

Preservative Used: ☒ HNO₃ _____ mL pH: _____

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: Replacement well - sample collected during yield test.

✓	Element	Results (ppm)	✓	Element	Results (ppm)
	Antimony (Sb)			Copper (Cu)	
	Arsenic (As)			Lead (Pb)	
	Barium (Ba)			Silver (Ag)	
	Beryllium (Be)			Zinc (Zn)	
	Cadmium (Cd)			Aluminum (Al)	
	Chromium (Cr)			Iron (Fe)	
	Mercury (Hg)			Manganese (Mn)	
	Nickel (Ni)			Calcium (Ca)	
	Selenium (Se)			Magnesium (Mg)	
✓	Sodium (Na) <u>515</u>			Potassium (K)	
	Thallium (Tl)			Uranium (U)	
				Vanadium (V)	

Lab Supervisor: _____

Date Reported: ____/____/____

DHMH 4432 (05/15)

• Phone: (443) 681-3857

• Fax: (443) 681-4507

SUBMITTER'S COPY



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: E18000868 Date Coll.: 08/28/2017 Date Received: 08/29/2017 Submitted By: Collins

Field ID: HO-17-0169
Lab No.: E18000868001

<u>Method</u>	<u>Element</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
EPA 200.7	Sodium	83.10	ppm	09/07/2017

Comments:

Approved by: Yungso Choi

Approval date: 09/08/2017

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

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

Telephone: (443) 681 - 3853

Fax: (443) 681-4507

S:\EnviroFinal-Metals.rpt



State of Maryland
Laboratories Administration
Division of Environmental Sciences
ORGANICS 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. No: E18000861001

Method: EPA 524.2 VOCs and THMs

Date Received: 08/29/2017

Date Collected: 08/28/2017

Field ID: H0170169-1/2

Submitted By: S. Collins

Date Analyzed: 09/06/2017

Contaminant	RL	MCL	Result	Contaminant	RL	MCL	Result
REGULATED				2-Chlorotoluene	0.5		ND
1,1,1-Trichloroethane	0.5	200	ND	4-Chlorotoluene	0.5		ND
1,1,2-Trichloroethane	0.5	5	ND	Bromobenzene	0.5		ND
1,1-Dichloroethane	0.5	7	ND	Bromochloromethane	0.5		ND
1,2,4-Trichlorobenzene	0.5	70	ND	Bromomethane	0.5		ND
1,2-Dichlorobenzene	0.5	600	ND	Chloroethane	0.5		ND
1,2-Dichloroethane	0.5	5	ND	Chloromethane	0.5		ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5		ND
1,4-Dichlorobenzene	0.5	75	ND	Dibromomethane	0.5		ND
Benzene	0.5	5	ND	Dichlorodifluoromethane	0.5		ND
Carbon Tetrachloride	0.5	5	ND	Ethyl-tert-Butyl Ether (ETBE)	0.5		ND
Chlorobenzene	0.5	100	ND	Hexachlorobutadiene	0.5		ND
cis-1,2-Dichloroethene	0.5	70	ND	Isopropylbenzene	0.5		ND
Ethylbenzene	0.5	700	ND	Methyl-tert-Butyl Ether (MTBE)	0.5		ND
m+p-Xylene	1.0		ND	Naphthalene	0.5		ND
Methylene Chloride	0.5	5	ND	n-Butylbenzene	0.5		ND
o-Xylene	0.5		ND	n-Propylbenzene	0.5		ND
Styrene	0.5	100	ND	p-Isopropyltoluene	0.5		ND
Tetrachloroethene	0.5	5	ND	sec-Butylbenzene	0.5		ND
Toluene	0.5	1000	ND	tert-Amyl Methyl Ether (TAME)	0.5		ND
Total Xylenes	1.5	10000	ND	tert-Butylbenzene	0.5		ND
trans-1,2-Dichloroethene	0.5	100	ND	trans-1,3-Dichloropropene	0.5		ND
Trichloroethene	0.5	5	ND	Trichlorofluoromethane	0.5		ND
Vinyl Chloride	0.5	2	ND				
TRIHALOMETHANES							
Bromodichloromethane	0.5		ND				
Bromoform	0.5		ND				
Chloroform	0.5		ND				
Dibromochloromethane	0.5		ND				
TOTAL THMs		80	0.00				
UNREGULATED							
1,1,1,2-Tetrachloroethane	0.5		ND				
1,1,1,2,2-Tetrachloroethane	0.5		ND				
1,1-Dichloroethane	0.5		ND				
1,1-Dichloropropene	0.5		ND				
1,2,3-Trichlorobenzene	0.5		ND				
1,2,3-Trichloropropane	0.5		ND				
1,2,4-Trimethylbenzene	0.5		ND				
1,2-Dibromo-3-Chloropropane	0.5		ND				
1,2-Dibromoethane	0.5		ND				
1,3,5-Trimethylbenzene	0.5		ND				
1,3-Dichlorobenzene	0.5		ND				
1,3-Dichloropropane	0.5		ND				
2,2-Dichloropropane	0.5		ND				

Comments:

Approved by:

Approval date:

Sadia Muneeb

09/08/2017

*All results are in parts per billion (ppb); ND = Less than the detection level; na = not applicable; e = estimate

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State of Maryland
Laboratories Administration
Division of Environmental Sciences
ORGANICS 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. No: E18000861002

Method: EPA 524.2 VOCs and THMs

Date Received: 08/29/2017

Date Collected: 08/28/2017

Field ID: H0170169F-1/2

Submitted By: S. Collins

Date Analyzed: 09/06/2017

Contaminant	RL	MCL	Result	Contaminant	RL	MCL	Result
REGULATED				2-Chlorotoluene	0.5		ND
1,1,1-Trichloroethane	0.5	200	ND	4-Chlorotoluene	0.5		ND
1,1,2-Trichloroethane	0.5	5	ND	Bromobenzene	0.5		ND
1,1-Dichloroethane	0.5	7	ND	Bromochloromethane	0.5		ND
1,2,4-Trichlorobenzene	0.5	70	ND	Bromomethane	0.5		ND
1,2-Dichlorobenzene	0.5	600	ND	Chloroethane	0.5		ND
1,2-Dichloroethane	0.5	5	ND	Chloromethane	0.5		ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5		ND
1,4-Dichlorobenzene	0.5	75	ND	Dibromomethane	0.5		ND
Benzene	0.5	5	ND	Dichlorodifluoromethane	0.5		ND
Carbon Tetrachloride	0.5	5	ND	Ethyl-tert-Butyl Ether (ETBE)	0.5		ND
Chlorobenzene	0.5	100	ND	Hexachlorobutadiene	0.5		ND
cis-1,2-Dichloroethane	0.5	70	ND	Isopropylbenzene	0.5		ND
Ethylbenzene	0.5	700	ND	Methyl-tert-Butyl Ether (MTBE)	0.5		ND
m+p-Xylene	1.0		ND	Naphthalene	0.5		ND
Methylene Chloride	0.5	5	ND	n-Butylbenzene	0.5		ND
o-Xylene	0.5		ND	n-Propylbenzene	0.5		ND
Styrene	0.5	100	ND	p-Isopropyltoluene	0.5		ND
Tetrachloroethene	0.5	5	ND	sec-Butylbenzene	0.5		ND
Toluene	0.5	1000	ND	tert-Amyl Methyl Ether (TAME)	0.5		ND
Total Xylenes	1.5	10000	ND	tert-Butylbenzene	0.5		ND
trans-1,2-Dichloroethane	0.5	100	ND	trans-1,3-Dichloropropene	0.5		ND
Trichloroethene	0.5	5	ND	Trichlorofluoromethane	0.5		ND
Vinyl Chloride	0.5	2	ND				
TRIHALOMETHANES							
Bromodichloromethane	0.5		ND				
Bromoform	0.5		ND				
Chloroform	0.5		ND				
Dibromochloromethane	0.5		ND				
TOTAL THMs		80	0.00				
UNREGULATED							
1,1,1,2-Tetrachloroethane	0.5		ND				
1,1,2,2-Tetrachloroethane	0.5		ND				
1,1-Dichloroethane	0.5		ND				
1,1-Dichloropropene	0.5		ND				
1,2,3-Trichlorobenzene	0.5		ND				
1,2,3-Trichloropropane	0.5		ND				
1,2,4-Trimethylbenzene	0.5		ND				
1,2-Dibromo-3-Chloropropane	0.5		ND				
1,2-Dibromoethane	0.5		ND				
1,3,5-Trimethylbenzene	0.5		ND				
1,3-Dichlorobenzene	0.5		ND				
1,3-Dichloropropane	0.5		ND				
2,2-Dichloropropane	0.5		ND				

Comments:

Approved by:

Approval date:

Sadia Muneeb

09/08/2017¹

*All results are in parts per billion (ppb); ND = Less than the detection level; na = not applicable; e = estimate

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State of Maryland
Laboratories Administration
Division of Environmental Sciences
ORGANICS 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. No: E18000861003

Method: EPA 524.2 VOCs and THMs

Date Received: 08/29/2017
Field ID: H0170169T

Date Collected: 08/28/2017
Submitted By: S. Collins

Date Analyzed: 09/06/2017

Contaminant	RL	MCL	Result	Contaminant	RL	MCL	Result
REGULATED				2-Chlorotoluene	0.5		ND
1,1,1-Trichloroethane	0.5	200	ND	4-Chlorotoluene	0.5		ND
1,1,2-Trichloroethane	0.5	5	ND	Bromobenzene	0.5		ND
1,1-Dichloroethene	0.5	7	ND	Bromochloromethane	0.5		ND
1,2,4-Trichlorobenzene	0.5	70	ND	Bromomethane	0.5		ND
1,2-Dichlorobenzene	0.5	600	ND	Chloroethane	0.5		ND
1,2-Dichloroethane	0.5	5	ND	Chloromethane	0.5		ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5		ND
1,4-Dichlorobenzene	0.5	75	ND	Dibromomethane	0.5		ND
Benzene	0.5	5	ND	Dichlorodifluoromethane	0.5		ND
Carbon Tetrachloride	0.5	5	ND	Ethyl-tert-Butyl Ether (ETBE)	0.5		ND
Chlorobenzene	0.5	100	ND	Hexachlorobutadiene	0.5		ND
cis-1,2-Dichloroethene	0.5	70	ND	Isopropylbenzene	0.5		ND
Ethylbenzene	0.5	700	ND	Methyl-tert-Butyl Ether (MTBE)	0.5		ND
m+p-Xylene	1.0		ND	Naphthalene	0.5		ND
Methylene Chloride	0.5	5	ND	n-Butylbenzene	0.5		ND
o-Xylene	0.5		ND	n-Propylbenzene	0.5		ND
Styrene	0.5	100	ND	p-Isopropyltoluene	0.5		ND
Tetrachloroethene	0.5	5	ND	sec-Butylbenzene	0.5		ND
Toluene	0.5	1000	ND	tert-Amyl Methyl Ether (TAME)	0.5		ND
Total Xylenes	1.5	10000	ND	tert-Butylbenzene	0.5		ND
trans-1,2-Dichloroethene	0.5	100	ND	trans-1,3-Dichloropropene	0.5		ND
Trichloroethene	0.5	5	ND	Trichlorofluoromethane	0.5		ND
Vinyl Chloride	0.5	2	ND				
TRihalOMETHANES							
Bromodichloromethane	0.5		ND				
Bromoform	0.5		ND				
Chloroform	0.5		ND				
Dibromochloromethane	0.5		ND				
TOTAL THMs		80	0.00				
UNREGULATED							
1,1,1,2-Tetrachloroethane	0.5		ND				
1,1,2,2-Tetrachloroethane	0.5		ND				
1,1-Dichloroethane	0.5		ND				
1,1-Dichloropropene	0.5		ND				
1,2,3-Trichlorobenzene	0.5		ND				
1,2,3-Trichloropropane	0.5		ND				
1,2,4-Trimethylbenzene	0.5		ND				
1,2-Dibromo-3-Chloropropane	0.5		ND				
1,2-Dibromoethane	0.5		ND				
1,3,5-Trimethylbenzene	0.5		ND				
1,3-Dichlorobenzene	0.5		ND				
1,3-Dichloropropane	0.5		ND				
2,2-Dichloropropane	0.5		ND				

Comments:

Approved by:

Approval date:

Sadia Munir

09/08/2017

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Send Report to: Bert Nixon

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Division of Environmental ChemistryTemperature Blank: 20 °C
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Bureau of Environmental Health
8930 Stanford Blvd
Columbia, MD 21045ORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue
BALTIMORE, MARYLAND 21205

Please write legibly

Bottle No.: H0170169-1
H0170169-2 Plant/Site Name: County: Howard
Location: H0-17-0169 Sample Source: 12685 Triadelphia Rd. Ellicott City
Street Town or City
Collector/ID: S. Collins Phone No.: 410-313-6287

013

County

System No.

PWSID

Plant No.

8 / 23 / 2017

Date Collected

11 am/pm

Time Collected

Field Data: pH 5.0 Free Cl: 0 Total Cl: 0

Sample Type: ☒ Drinking water ☐ Landfill ☒ Source (water) ☐ Oil
☒ Private ☐ Stream ☐ Distribution (treated) ☐ Solid
☐ Community ☐ Soil/Sediment ☐ Water Treatment Plant POE ☐ Other
☐ Non-CommunitySpecify Program: ☒ SDWA ☐ NPDES ☐ RCRA ☐ CWA ☐ CERCLA ☐ Consumer Products
☐ Other

Test Requested	Field & Trip Blank	Preservative Used	Comment
<input type="checkbox"/> EPA Method 504.1 (EDB/DBCP)	<input type="checkbox"/> Field Blank	<input type="checkbox"/> Sodium thiosulfate	
<input type="checkbox"/> EPA Method 508 [Aroclors (SCAN only) & Toxaphene]	<input type="checkbox"/> Field Blank	<input type="checkbox"/> Sodium thiosulfate	
<input type="checkbox"/> EPA Method 515.3 (Herbicides)	<input type="checkbox"/> Field Blank	<input type="checkbox"/> Sodium thiosulfate	
<input type="checkbox"/> EPA Method 515.4 (Herbicides)	<input type="checkbox"/> Field Blank	<input type="checkbox"/> Sodium sulfite	
<input type="checkbox"/> EPA Method 525.2 (Pesticides)	<input type="checkbox"/> Field Blank	<input type="checkbox"/> HCL (6N) <input type="checkbox"/> Sodium sulfite	
<input type="checkbox"/> EPA Method 531.2 (Carbamates)	<input type="checkbox"/> Field Blank	<input type="checkbox"/> Potassium Citrate monobasic <input type="checkbox"/> Sodium thiosulfate	
<input type="checkbox"/> EPA Method 552.2 (Haloacetic acids)	<input type="checkbox"/> Field Blank	<input type="checkbox"/> Ammonium chloride	
<input type="checkbox"/> EPA Method 8270 (Semi-Volatiles) <input type="checkbox"/> Pesticides <input type="checkbox"/> Aroclors	<input type="checkbox"/> Field Blank	<input type="checkbox"/> Sodium thiosulfate	
<input checked="" type="checkbox"/> EPA Method 524.2 (Volatiles) <input checked="" type="checkbox"/> VOCs <input type="checkbox"/> THMs	<input checked="" type="checkbox"/> Field Blank <input checked="" type="checkbox"/> Trip Blank	<input checked="" type="checkbox"/> 1:1 HCL <input type="checkbox"/> 1:1 HCL + Ascorbic acid <input type="checkbox"/> Sodium thiosulfate	FB-1 H0170169F-1 FB-2 H0170169F-2 Trip H0170169T
<input type="checkbox"/> EPA Method 8260 (VOCs)	<input type="checkbox"/> Field Blank	<input type="checkbox"/> 1:1 HCL <input type="checkbox"/> 1:1 HCL + Ascorbic acid	



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E18000861002

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Trace Organics H0170169F-1/

E18000861003

Received: 08/29/2017 EPA 524.2
Trace Organics H0170169T

Remarks:

Lab Supervisor: Date Reported: / /

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•Fax: (443) 681-4507

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