

B 1	SEQUENCE NO. (MDE USE ONLY) 55285	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type	STATE PERMIT NUMBER HO-17-0240 <small>fill in this form completely</small>
------------	---	--	---

OWNER INFORMATION

Date Received (APA) 8 mm dp yy 13

Land Design & Development

15 Last Name Owner First Name 34

8318 Forrest Street, Suite 200

36 Street or RFD 55

Ellicott City MD 21043

57 Town 70 State 72 Zip 76

LOCATION OF WELL

B 3

Howard COUNTY 8 21

Jacks Landing SUBDIVISION 23 42

SECTION 44 48 LOT 46 50 **8**

Clarksville NEAREST TOWN 52 71

DRILLER INFORMATION

Michael Barlow MWD 355

Driller's Name 76 License No. 81

Barlow Well Drilling

Firm Name

522 Underwood Lane 21014

Address

12/7/17

Signature Date

SOURCES OF DRILLING WATER

B 4

1. **Well**

2.

3.

Triadelphia Mill Rd STREET ADDRESS *11 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH WEST EAST SOUTH

34 **50** 37 DISTANCE FROM ROAD FT

ENTER FT OR MI 38' 39

TAX MAP: **34** BLK: **3** PARCEL **414**

WELL INFORMATION

B 2

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

8 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) **750**

14 20

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

Howard COUNTY NAME **(13)** COUNTY NO.

STATE SIGNATURE INSERT S → 41

DATE ISSUED **2/9/18**

2/9/18 CO SIGNATURE **2/9/18** EXP. DATE

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

2/20 at 600' < 1/2 gpm bedrock @ 38' - 50' steel casing

2/28 - at 700' on hole #2 1/4 gpm

3/27 - simultaneous yield lot 7 - well A - close to rd, well B - farther from rd

50 3/4 gpm

35'

2/21 drilling 2nd location @ SE corner stake w/ well box at 49' bedrock @ 40' will set 50' steel casing

Pursuant to § 10-624 of the State Government 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.

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)

37 CABLE REVERSE-ROTary DRIVE-POINT

other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

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 DEEPEM AN EXISTING WELL

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

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

APPROX. PERMIT NUMBER _____ **G** _____

PERMIT No. **HO-17-0240**

70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS See attached memo

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

ENVIRO-CHEM LABORATORIES, INC.



47 Loveton Circle. Suite K • Sparks, Maryland 21152

410-472-1112

FINAL REPORT OF ANALYSIS

Michael Barlow Well Drilling
522 Underwood Lane
Bel Air, MD 21014

Report Date: 04/10/2018
Report Number: 180410111354

LAB#- E053327-01 SAMPLE ID- Lot 8 Well 1 HO 17-0240 WELL # HO 17-0240
LOCATION- Well Head SAMPLER- 8862 MI
DATE SAMPLED- 03/27/2018 TIME SAMPLED- 16:30 Residual Chlorine- <0.05 mg/L
DATE RECEIVED- 03/28/2018 TIME RECEIVED- 15:45
DELIVERED BY- B Johnston RECEIVED BY- Ginny Shelley
COMMENTS-

COMMENTS-

ANALYSIS	METHOD	ANALYSIS DATE/TIME	BY	RESULT	DATA FLAG
Total Metals by EPA 200.7 by Enviro-Chem					
\$ Sodium	EPA 200.7	03/30/18 13:05	RAS	28.1	mg/L
Wet Chemistry by Enviro-Chem					
\$ Chloride	EPA 300.0	03/28/18 22:08	WND	117	mg/L
\$ Dissolved Solids	SM 2540C	04/02/18 12:00	SES	444	mg/L

Analytical Results

Project: Jacks Landing

Project Number: E053327
Project Manager: Stephen Shelley

Reported:
04/03/18 11:25

E053327-01 (Lot 8 Well 1 HO 17-0240)
Jacks Landing
8032902-01 (Drinking Water)
Sample Date: 03/27/18

Analyte	Result	Units	Reporting			Prepared	Analyzed	Analyst	Notes
			Limit	Dilution					
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS)									
tert-Amyl alcohol (TAA)	ND	ug/L	10.0	1	03/29/18	03/29/18 13:31	WB		
tert-Amyl methyl ether (TAME)	0.64	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Benzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromochloromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromodichloromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromoform	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromomethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
tert-Butanol (TBA)	ND	ug/L	10.0	1	03/29/18	03/29/18 13:31	WB		
n-Butylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
sec-Butylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
tert-Butylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Carbon tetrachloride	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Chlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Chloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Chloroform	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Chloromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
2-Chlorotoluene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
4-Chlorotoluene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Dibromochloromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dibromo-3-chloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dibromoethane (EDB)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Dibromomethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,3-Dichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,4-Dichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Dichlorodifluoromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,1-Dichloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dichloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,1-Dichloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
cis-1,2-Dichloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
trans-1,2-Dichloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dichloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,3-Dichloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
2,2-Dichloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		



Will Brewington, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Analytical Results

Project: Jacks Landing

Project Number: E053327
Project Manager: Stephen Shelley

Reported:
04/03/18 11:25

E053327-01 (Lot 8 Well 1 HO 17-0240)
Jacks Landing
8032902-01 (Drinking Water)
Sample Date: 03/27/18

Analyte	Result	Units	Reporting Limit	Dilution	Prepared	Analyzed	Analyst	Notes
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)								
1,1-Dichloropropene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
cis-1,3-Dichloropropene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
trans-1,3-Dichloropropene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Diisopropyl ether (DIPE)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Ethyl tert-butyl ether (ETBE)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Ethylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Hexachlorobutadiene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Isopropylbenzene (Cumene)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
4-Isopropyltoluene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Methyl tert-butyl ether (MTBE)	4.68	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Methylene chloride	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Naphthalene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
n-Propylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Styrene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Tetrachloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Toluene	3.23	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,1,1-Trichloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,1,2-Trichloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Trichloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Trichlorofluoromethane (Freon 11)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,2,3-Trichloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Vinyl chloride	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
o-Xylene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
m- & p-Xylenes	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Surrogate: 4-Bromofluorobenzene		80-120	90 %		03 29 18	03 29 18 13:31		
Surrogate: 1,2-Dichlorobenzene-d4		80-120	100 %		03 29 18	03 29 18 13:31		



Will Brewington, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



MICHAEL BARLOW WELL DRILLING & SERVICE, INC.

522 Underwood Lane
(410) 838-6910

Bel Air, Maryland 21014
Fax (410) 838-3582

WELL YIELD REPORT

Date Test Completed:	March 27, 2018		
Well Depth:	600	feet	
Customer	Land Design & Development	Permit #	H0-17-0240
Road	Triadelphia Mill Rd	Subdivision	Jacks Landing
City	Highland	Section	Well #1
State	Maryland	Lot #	8

Time	Water Level feet	Time to Fill 1-gallon bucket seconds	G.P.M.
9:45 AM	43	5	12.00
10:00 AM	160	6	10.00
10:15 AM	200	120	0.50
10:30 AM	200	120	0.50
10:45 AM	200	120	0.50
11:00 AM	200	120	0.50
11:15 AM	200	120	0.50
11:30 AM	200	120	0.50
11:45 AM	200	120	0.50
12:00 PM	200	120	0.50
12:15 PM	200	120	0.50
12:30 PM	200	120	0.50
12:45 PM	200	120	0.50
1:00 PM	200	120	0.50
1:15 PM	200	120	0.50
1:30 PM	200	120	0.50
1:45 PM	200	120	0.50
2:00 PM	199	120	0.50
2:15 PM	199	120	0.50
2:30 PM	199	120	0.50
2:45 PM	199	120	0.50
3:00 PM	199	120	0.50
3:15 PM	199	120	0.50
3:30 PM	199	120	0.50
3:45 PM	199	120	0.50
4:00 PM	199	120	0.50
4:15 PM	199	120	0.50

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



MICHAEL BARLOW WELL DRILLING & SERVICE, INC.
522 Underwood Lane **Bel Air, Maryland 21014**
(410) 838-6910 **Fax (410) 838-3582**

WELL YIELD REPORT

Date Test Completed:		March 27, 2018	
Well Depth:		600	feet
Customer	Land Design & Development	Permit #	H0-17-0240
Road	Triadelphia Mill Rd	Subdivision	Jacks Landing
City	Highland	Section	Well #1
State	Maryland	Lot #	8

Time	Water Level feet	Time to Fill 1-gallon bucket seconds	G.P.M.
9:45 AM	43	5	12.00
10:00 AM	160	6	10.00
10:15 AM	200	120	0.50
10:30 AM	200	120	0.50
10:45 AM	200	120	0.50
11:00 AM	200	120	0.50
11:15 AM	200	120	0.50
11:30 AM	200	120	0.50
11:45 AM	200	120	0.50
12:00 PM	200	120	0.50
12:15 PM	200	120	0.50
12:30 PM	200	120	0.50
12:45 PM	200	120	0.50
1:00 PM	200	120	0.50
1:15 PM	200	120	0.50
1:30 PM	200	120	0.50
1:45 PM	200	120	0.50
2:00 PM	199	120	0.50
2:15 PM	199	120	0.50
2:30 PM	199	120	0.50
2:45 PM	199	120	0.50
3:00 PM	199	120	0.50
3:15 PM	199	120	0.50
3:30 PM	199	120	0.50
3:45 PM	199	120	0.50
4:00 PM	199	120	0.50
4:15 PM	199	120	0.50

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



MICHAEL BARLOW WELL DRILLING & SERVICE, INC.
 522 Underwood Lane Bel Air, Maryland 21014
 (410) 838-6910 Fax (410) 838-3582

WELL YIELD REPORT

Date Test Completed:		March 26, 2018	
Well Depth:		850	feet
Customer	Land Design & Development	Permit #	
Road	Triadelphia Mill Rd	Subdivision	Jacks Landing
City	Highland	Section	Well #2
State	Maryland	Lot #	8

Time	Water Level feet	Time to Fill 1-gallon bucket seconds	G.P.M.
9:45 AM	44	5	12.00
10:00 AM	130	7	8.57
10:15 AM	205	80	0.75
10:30 AM	205	80	0.75
10:45 AM	205	80	0.75
11:00 AM	205	80	0.75
11:15 AM	204	80	0.75
11:30 AM	204	80	0.75
11:45 AM	204	80	0.75
12:00 PM	204	80	0.75
12:15 PM	204	80	0.75
12:30 PM	204	80	0.75
12:45 PM	205	80	0.75
1:00 PM	205	80	0.75
1:15 PM	204	80	0.75
1:30 PM	204	80	0.75
1:45 PM	204	80	0.75
2:00 PM	204	80	0.75
2:15 PM	203	80	0.75
2:30 PM	203	80	0.75
2:45 PM	202	80	0.75
3:00 PM	202	80	0.75
3:15 PM	202	80	0.75
3:30 PM	202	80	0.75
3:45 PM	202	80	0.75
4:00 PM	202	80	0.75
4:15 PM	202	80	0.75

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

Send Report To: Bert Nixon

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

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



E18003491002

Received: 03/28/2018

Metals

HO-17-0240

LABORATORY ANALYSIS REQUEST

D
Do not write above this line

Please Print

Sample ID No: HO-17-0240 Site Name: Jack's Landing - Lot B County: Howard

Sample Source: Triadelphia Mill Rd Dayton Collector: S. Collins
Street Town or City Name

Date Collected: 3/27/2018 Time Collected: 2 a.m. / 10 p.m. Phone #: 410-313-6287
954 03-28-18

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 _____
4F Private

Specify Program: SDWA NPDES CWA RCRA Consumer Products Other _____

Type of Sample Preparation: Total Metals Total Metals TCLP Dissolved Metals
(field preparation required)

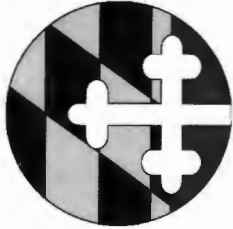
Remarks: field test - well A

✓	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)	<u>SHS</u>			
	Chromium (Cr)			Lead (Pb)				
	Mercury (Hg)			Magnesium (Mg)				
	Nickel (Ni)			Manganese (Mn)				
	Selenium (Se)			Molybdenum (Mo)				
✓	Sodium (Na)	<u>SHS</u>		Potassium (K)				
	Thallium (Tl)			Silver (Ag)				

Lab Supervisor: _____ Date Reported: ___/___/___

•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: E18003491 Date Coll.: 03/27/2018 Date Received: 03/28/2018 Submitted By: Collins

Field ID: HO-17-0240
Lab No.: E18003491002

<u>Method</u>	<u>Element</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
EPA 200.7	Iron	1.42	ppm	04/02/2018
EPA 200.7	Sodium	13.88	ppm	04/02/2018

Comments:

Approved by: Yungtao Choi

Approval date: 04/05/2018

**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.

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



E18003490003

Received: 03/28/2018

Inorganic

HO-17-0240

S A M P L E I D	Bottle Number	HO-17-0240		Name	Jack's Landing - lot B		County	Howard	County Code	13	
	Location	Triadelphia MUN Rd.		Dayton			Data Category Code	4F			
	Collected: Date	3/27/18		Time	2 pm		Collector & Phone	S. Collins 410-313-6287		Submitter Code	
	CHECK (one per box)	<input checked="" type="checkbox"/> Drinking Water <input type="checkbox"/> Landfill <input type="checkbox"/> Stream <input type="checkbox"/> Other		<input type="checkbox"/> Community <input type="checkbox"/> Non-community <input checked="" type="checkbox"/> Private <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Source (raw water) <input type="checkbox"/> Distribution (treated) <input type="checkbox"/> MCL		<input type="checkbox"/> Emergency <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Recheck <input type="checkbox"/> Special		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:	Yield test - well A.										

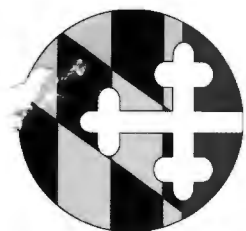
CHECK STS	TESTS	Error Code	RESULTS
	Alkalinity (Total)		
	Ammonia - N		
✓	Chloride		
	Conductance*, Spec.		
✓	Dissolved Solids (Total)		
	Hardness		
	Fluoride		
	Nitrite, N		
	Nitrate - Nitrite, N		
	Sulfate		
	Total Solids		
	Turbidity*		
	Other:		

* 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 NoE18003490 Date Coll. 03/27/2018 Date Received 03/28/2018 Submitted By: S. Collins

Field ID: HO-17-0240
Lab No.: E18003490003

<u>Analyte</u>	<u>Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Analyzed</u>
Chloride	SM 4500-Cl E	86	mg/L	03/30/2018
Total Dissolved Solids	SM 2540C	284	mg/L	03/29/2018

Comments:

Approved by: _____

Shahin Aneli

Approval date: 04/04/2018

*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.

Analytical Results

Project: Jacks Landing

Project Number: E053327
Project Manager: Stephen Shelley

Reported:
04/03/18 11:25

E053327-01 (Lot 8 Well 1 HO 17-0240)
Jacks Landing
8032902-01 (Drinking Water)
Sample Date: 03/27/18

Analyte	Result	Units	Reporting				Analyzed	Analyst	Notes
			Limit	Dilution	Prepared				
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS)									
tert-Amyl alcohol (TAA)	ND	ug/L	10.0	1	03/29/18	03/29/18 13:31	WB		
tert-Amyl methyl ether (TAME)	0.64	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Benzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromochloromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromodichloromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromoform	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Bromomethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
tert-Butanol (TBA)	ND	ug/L	10.0	1	03/29/18	03/29/18 13:31	WB		
n-Butylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
sec-Butylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
tert-Butylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Carbon tetrachloride	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Chlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Chloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Chloroform	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Chloromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
2-Chlorotoluene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
4-Chlorotoluene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Dibromochloromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dibromo-3-chloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dibromoethane (EDB)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Dibromomethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,3-Dichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,4-Dichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
Dichlorodifluoromethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,1-Dichloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dichloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,1-Dichloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
cis-1,2-Dichloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
trans-1,2-Dichloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,2-Dichloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
1,3-Dichloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		
2,2-Dichloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Will Brewington, President

Analytical Results

Project: Jacks Landing

Project Number: E053327
Project Manager: Stephen Shelley

Reported:
04/03/18 11:25

E053327-01 (Lot 8 Well 1 HO 17-0240)
Jacks Landing
8032902-01 (Drinking Water)
Sample Date: 03/27/18

Analyte	Result	Units	Reporting		Prepared	Analyzed	Analyst	Notes
			Limit	Dilution				
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)								
1,1-Dichloropropene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
cis-1,3-Dichloropropene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
trans-1,3-Dichloropropene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Diisopropyl ether (DIPE)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Ethyl tert-butyl ether (ETBE)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Ethylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Hexachlorobutadiene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Isopropylbenzene (Cumene)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
4-Isopropyltoluene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Methyl tert-butyl ether (MTBE)	4.68	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Methylene chloride	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Naphthalene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
n-Propylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Styrene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Tetrachloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Toluene	3.23	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,1,1-Trichloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,1,2-Trichloroethane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Trichloroethene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Trichlorofluoromethane (Freon 11)	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,2,3-Trichloropropane	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Vinyl chloride	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
o-Xylene	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
m- & p-Xylenes	ND	ug/L	0.50	1	03/29/18	03/29/18 13:31	WB	
Surrogate: 4-Bromofluorobenzene		80-120	90 %		03/29/18	03/29/18 13:31		
Surrogate: 1,2-Dichlorobenzene-d4		80-120	100 %		03/29/18	03/29/18 13:31		



Will Brewington, President

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

HOME LAND

LABS

1220 East Joppa Road #C505
Towson, MD 21286
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 365

108 Old Solomons Island Road, Suite 12
Annapolis, MD 21401
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 106

3430 Rockefeller Court
Waldorf, MD 20602
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 139

Certificate of Analysis

Report Date: 11/22/2023

Client: Well Water Solutions, Inc.

Property Address: 5509 Jacks Landing Way Well #1
Clarksville, MD 21029

Report No: 248043

Sample Time: 11/20/2023 14:00

Date & Time Received: 11/21/2023 12:20

Sampled By: John Moseman - 2674JM

Field Preservation: Ice

Sample Point(s): Raw From PT Well

Water Conditioning Appears to be: None

Field Chlorine: 0.00

Field pH: 7.40

Well Type: Drilled

Well Height: 3'

Cap Type: 2-Piece

Casing: Steel

Conduit: PVC

Clarity: Clear

Sand: Absent

Well Tag Number: HO-17-0240

This report is the sole property of Well Water Solutions, Inc.. Any questions about the report MUST be directed to Well Water Solutions, Inc. at (410) 935-7185. Home Land Labs is not at liberty to discuss this report without written consent from Well Water Solutions, Inc..

Primary Contaminants								
Parameter	Method	Result	Pass/Fail	Units	MCL	RL	Analyst	Date of Analysis
Bacteria-Total Coliform	Colilert Test	Absent	Pass	Per/100ml	Present	1	S M - 365	11/22/2023
Bacteria-E.coli	Colilert Test	Absent	Pass	Per/100ml	Present	1	S M - 365	11/22/2023
Nitrate + Nitrite as N	EPA 353.2	Not Detected	Pass	mg/L	10	0.5	K L - 365	11/21/2023
Turbidity	EPA 180.1	1.4	Pass	NTU	10	0.5	S M - 365	11/21/2023

Approved By: Kevin Barnaba Kevin Barnaba, Lab Director

HOME LAND

LABS

248043 Due Date: 11/24/2023
Client: Well Water

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

1220 E Joppa Rd. Ste C505
Towson, MD 21286
MD Lab # 365

108 Old Solomons Island Road, Ste L2
Annapolis, MD 21401
MD Lab # 106

3430 Rockefeller Court
Waldorf, MD 20602
MD Lab # 139

2216 Commerce Road, Ste 2
Forest Hill, MD 21050

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

Client Name: Well Water Solutions, Inc.	Property Address:
Email Address: jmooseman@wellwatersolutions.net & plieber@wellwatersolutions.net	5509 JACKS LANDING WAY
Phone Number: 410-986-7185	CLARKSVILLE MD 21029

Field Collection Information

Sampler Name: John Moseman	Field pH: 7.4
Sampler ID #: 2874JM	Field Chlorine (mg/L): Present / Absent
Date Sampled: 11/20	Time Sampled: 2:00
Well Tag Number: H0-17-0290	Sand Present / Absent
Compliance sample for public water system? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Clarity: Clear / Un-Clear
If yes, PWS ID #:	

Well Casing and Cap Condition

BA-B21003758

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

Height Above Grade: 3 FT	Cap Type: 2 piece	Casing: Steel	Conduit: PVC
Sample Point: RAW FROM PT well		Water Conditioning: NONR	

Requested Testing: (Please check all that apply)

WELL 1

- Potability (Bacteria, Nitrate + Nitrite, Turbidity)
- FHA/VA (Bacteria, Nitrate + Nitrite, Turbidity, Lead, Iron)
- Bacteria
- Lead
- Nitrate + Nitrite
- Iron
- Turbidity
- Chlorides
- Hardness
- Arsenic
- Cadmium
- Gross Alpha
- Total Dissolved Solids
- Copper
- VOCs
- Other: Radon Long Term Radon Short Term

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

Release Signatures

Released By: *[Signature]* Date/Time: 11/20 2:00 PM
 Released By: *[Signature]* Date/Time: 11/21 9:00
 Released By: *[Signature]* Date/Time: 11/21 12:20
 Received in lab by: *[Signature]* Date/Time: 11/21/2023 12:20 PM

HOME LAND LABS

1220 East Joppa Road #C505
Towson, MD 21286
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 365

108 Old Solomons Island Road, Suite I2
Annapolis, MD 21401
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 106

3430 Rockefeller Court
Waldorf, MD 20602
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 139

Certificate of Analysis

Report Date: 11/22/2023

Client: Well Water Solutions, Inc.

Property Address: 5509 Jacks Landing Way Well #2
Clarksville, MD 21029

Report No: 248044

Sample Time: 11/20/2023 14:25

Date & Time Received: 11/21/2023 12:20

Sampled By: John Moseman - 2674JM

Field Preservation: Ice

Sample Point(s): Raw PT Well 2

Water Conditioning Appears to be: None

Field Chlorine: 0.00

Field pH: 7.20

Well Type: Drilled

Well Height: 2'

Cap Type: 2-Piece

Casing: Steel

Conduit: PVC

Clarity: Clear

Sand: Absent

Well Tag Number: Missing

HO-18-0008

This report is the sole property of Well Water Solutions, Inc.. Any questions about the report MUST be directed to Well Water Solutions, Inc. at (410) 935-7185. Home Land Labs is not at liberty to discuss this report without written consent from Well Water Solutions, Inc..

Branzy Contaminants								
Parameter	Method	Result	Pass/Fail	Units	MCL	RL	Analyst	Date of Analysis
Bacteria-Total Coliform	Colilert Test	Absent	Pass	Per/100ml	Present	1	S M - 365	11/22/2023
Bacteria-E.coli	Colilert Test	Absent	Pass	Per/100ml	Present	1	S M - 365	11/22/2023
Nitrate + Nitrite as N	EPA 353.2	Not Detected	Pass	mg/L	10	0.5	K L - 365	11/21/2023
Turbidity	EPA 180.1	1.5	Pass	NTU	10	0.5	S M - 365	11/21/2023

Approved By: Kevin Barnaba Kevin Barnaba, Lab Director

HOME LAND



248044
 Client: Well Water
 Exp. Date: 11/29/2025

Phone: (443) 505-8375 Email: lab@homeandhealthyhomes.com

1220 E Joppa Rd. Ste C505
 Towson, MD 21286
 MD Lab # 365

108 Old Solomons Island Road, Ste L2
 Annapolis, MD 21401
 MD Lab # 106

3430 Rockefeller Court
 Waldorf, MD 20602
 MD Lab # 139

2216 Commerce Road, Ste 2
 Forest Hill, MD 21050

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

Client Name: Well Water Solutions, Inc.	Property Address:
Email Address: jmoseman@wellwatersolutions.net & jlaber@wellwatersolutions.net	5509 JACKS LANDING WAY CLARKSVILLE MD 21029
Phone Number: 410-835-7185	

Field Collection Information

Sampler Name: John Moseman	Field pH: 7.2
Sampler ID #: 2674JM	Field Chlorine (mg/L): Present / Absent
Date Sampled: 11/20	Time Sampled: 2:25
Well Tag Number: MISSING	Sand Present / Absent
Compliance sample for public water system? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Clarity: Clear / Un-Clear
If yes, PWS ID #:	

Well Casing and Cap Condition **PERMIT B21003758 WELL 2**

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

Height Above Grade: 2 FT	Cap Type: 2 piece	Casing: Steel	Conduit: PVC
Sample Point: RAW Well 2 PT		Water Conditioning: NONR	

Requested Testing: (Please check all that apply)

- Potability (Bacteria, Nitrate + Nitrite, Turbidity)
- | | | |
|--|--------------------------------------|---|
| <input type="checkbox"/> Bacteria | <input type="checkbox"/> Chlorides | <input type="checkbox"/> Total Dissolved Solids |
| <input type="checkbox"/> Lead | <input type="checkbox"/> Hardness | <input type="checkbox"/> Copper |
| <input type="checkbox"/> Nitrate + Nitrite | <input type="checkbox"/> Arsenic | <input type="checkbox"/> VOCs |
| <input type="checkbox"/> Iron | <input type="checkbox"/> Cadmium | <input type="checkbox"/> Other: <input type="checkbox"/> Turbidity <input type="checkbox"/> Sodium |
| <input type="checkbox"/> Turbidity | <input type="checkbox"/> Gross Alpha | <input type="checkbox"/> Other: <input type="checkbox"/> Radon Long Term <input type="checkbox"/> 226 & 228 |

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

Release Signatures

Released By: [Signature] Date/Time: 11/20 2:25
 Released By: [Signature] Date/Time: 11/21 9:00
 Released By: [Signature] Date/Time: 11/21 12:20
 Received in lab by: Stone McFaul Date/Time: 11/21/2023 12:20 PM

HOME LAND

LABS

1220 East Joppa Road #C505
Towson, MD 21286
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 365

108 Old Solomons Island Road, Suite I2
Annapolis, MD 21401
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 106

3430 Rockefeller Court
Waldorf, MD 20602
Phone 443.505.8375
lab@homelandhealthyhomes.com
State Certified Water Quality Lab 139

Certificate of Analysis

Report Date: 11/22/2023

Client: Well Water Solutions, Inc.

Property Address: 5509 Jacks Landing Way
Clarksville, MD 21029

Report No: 248048

Sample Time: 11/20/2023 14:45

Date & Time Received: 11/21/2023 12:20

Sampled By: John Moseman - 2674JM

Field Preservation: Ice

Sample Point(s): House R/O System

Water Conditioning Appears to be: Reverse Osmosis System - Whole House

Field Chlorine: 0.00

Field pH: Not Noted

Well Type: Drilled

Well Height: 2'

Cap Type: 2-Piece

Casing: Steel

Conduit: PVC

Clarity: Clear

Sand: None Observed

Well Tag Number: HO-17-0240

This report is the sole property of Well Water Solutions, Inc.. Any questions about the report MUST be directed to Well Water Solutions, Inc. at (410) 935-7185. Home Land Lab\$ is not at liberty to discuss this report without written consent from Well Water Solutions, Inc..

Secondary Contaminants

Parameter	Method	Result	Acceptable/High	Units	SMCL	RL	Analyst	Date of Analysis
Chlorides	SM4500 Cl-B	Not Detected	Acceptable	mg/L	250.0	1	S M - 365	11/21/2023
Total Dissolved Solids	EPA 160.1	Not Detected	Acceptable	mg/L	500	10	K B - 365	11/22/2023

Contaminants

Parameter	Method	Result	Acceptable/High	Units	SMCL	RL	Analyst	Date of Analysis
Sodium, Total	EPA 200.6	1.471	-	mg/L	N/A	0.1	L S - 365	11/22/2023

Approved By:

Kevin Barnaba

Kevin Barnaba, Lab Director

OK

Kevin

Post-Treatment

HOME LAND

A B S

248048 Due Date: 11/21/2023
Client: Well Water

Phone: (443) 505-8375 Email: jab@homelandhealthyhomes.com

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

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

Client Name: Well Water Solutions, Inc.	Property Address:
Email Address: jmoeseman@wellwatersolutions.net & jab@wellwatersolutions.net	5509 JACKS LANDING WAY
Phone Number: 410-685-7185	CLARKSVILLE MD 21029

Field Collection Information

Sampler Name: John Moseman	Field pH:
Sampler ID #: 2874JM	Field Chlorine (mg/L): Present / Absent
Date Sampled: 11/20	Time Sampled: 2:45
Well Tag Number: well 1 HO 17-0240	Sand Present / Absent
Compliance sample for public water system? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	Clarity: Clear / Un-Clear
If yes, PWS ID #:	

Well Casing and Cap Condition **B&100 3758**

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

Height Above Grade: 2 FT	Cap Type: 2 piece	Casing: steel	Conduit PVC
Sample Point: SAMPLERS FROM HOUSE RO SYSTEM		Water Conditioning: HOUSE NO SYSTEM	

Requested Testing: (Please check all that apply)

- Potability (Bacteria, Nitrate + Nitrite, Turbidity)
- FHA/VA (Bacteria, Nitrate + Nitrite, Turbidity, Lead, Iron)
- Bacteria
- Lead
- Nitrate + Nitrite
- Iron
- Turbidity
- Chlorides
- Hardness
- Arsenic
- Cadmium
- Gross Alpha
- Total Dissolved Solids
- Copper
- VOCs
- Other: Lead Bottom Medium Long Term 228 & 229

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

Release Signatures

Released By: *John Moseman* Date/Time: 11/20 2:45
 Released By: *[Signature]* Date/Time: 11/21 9:00
 Released By: *[Signature]* Date/Time: 11/21 12:00
 Received in lab by: *Shane McFaul* Date/Time: 11/21/2023 12:20PM

Send Report to: Bob Ni

Temperature Blank: 45 °C

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

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
ORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue
BALTIMORE, MARYLAND 21205

LABORATORY ANALYSIS REQUEST FORM

Please write legibly

Bottle No.: H0170240-8 Plant/Site Name: Jack's Landing Lot 8 County: Howard

Location: HW-17-0240 (well A) Sample Source: Triadelphia Mill Rd Street Darton Town of City

Collector/ID: S. Collins / 3406 SC Phone No.: 410-313-6287


County: 013 System No.: PWSID: Plant No.: Date Collected: 3/27/2018 Time Collected: 2 am

Field Data: pH 7.0 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-Community

Specify 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 type="checkbox"/> Field Blank <input 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 H170240 FB-1 FB-2 H170240 FB-2
<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	


E18003497006
Received: 03/28/2018 EPA 524.2
Trace Organics H0170240AB


E18003497007
Received: 03/28/2018 EPA 524.2
Trace Organics H0170240FB

Remarks: MDE in Blank

Lab Supervisor: _____ Date Reported: ____/____/____

•Phone: (443) 681-3857 •Fax: (443) 681-4507

SUBMITTER'S COPY



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab. No: E18003497006

Method: EPA 524.2 VOCs and THMs

Date Received: 03/28/2018
Field ID: H0170240AB

Date Collected: 03/27/2018
Submitted By: S. COLLINS

Date Analyzed: 04/05/2018

<u>Contaminant</u>	<u>RL</u>	<u>MCL</u>	<u>Result</u>	<u>Contaminant</u>	<u>RL</u>	<u>MCL</u>	<u>Result</u>
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		5.14
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		0.92
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 Nunez

04/10/2018

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

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) 767-6648 and arrange for return or destruction.

Telephone: (443) 681-3853 Fax: (443) 681-4507



Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab. No: E18003497007

Method: EPA 524.2 VOCs and THMs

Date Received: 03/28/2018
Field ID: H0170240FB

Date Collected: 03/27/2018
Submitted By: S. COLLINS

Date Analyzed: 04/05/2018

Contaminant	RL	MCL	Result	Contaminant	RL	MCL	Result
REGULATED							
1,1,1-Trichloroethane	0.5	200	ND	2-Chlorotoluene	0.5		ND
1,1,2-Trichloroethane	0.5	5	ND	4-Chlorotoluene	0.5		ND
1,1-Dichloroethane	0.5	7	ND	Bromobenzene	0.5		ND
1,2,4-Trichlorobenzene	0.5	70	ND	Bromochloromethane	0.5		ND
1,2-Dichlorobenzene	0.5	600	ND	Bromomethane	0.5		ND
1,2-Dichloroethane	0.5	5	ND	Chloroethane	0.5		ND
1,2-Dichloropropane	0.5	5	ND	Chloromethane	0.5		ND
1,4-Dichlorobenzene	0.5	75	ND	cis-1,3-Dichloropropene	0.5		ND
Benzene	0.5	5	ND	Dibromomethane	0.5		ND
Carbon Tetrachloride	0.5	5	ND	Dichlorodifluoromethane	0.5		ND
Chlorobenzene	0.5	100	ND	Ethyl-tert-Butyl Ether (ETBE)	0.5		ND
cis-1,2-Dichloroethene	0.5	70	ND	Hexachlorobutadiene	0.5		ND
Ethylbenzene	0.5	700	ND	Isopropylbenzene	0.5		ND
m+p-Xylene	1.0		ND	Methyl-tert-Butyl Ether (MTBE)	0.5		ND
Methylene Chloride	0.5	5	0.61	Naphthalene	0.5		ND
o-Xylene	0.5		ND	n-Butylbenzene	0.5		ND
Styrene	0.5	100	ND	n-Propylbenzene	0.5		ND
Tetrachloroethene	0.5	5	ND	p-Isopropyltoluene	0.5		ND
Toluene	0.5	1000	ND	sec-Butylbenzene	0.5		ND
Total Xylenes	1.5	10000	ND	tert-Amyl Methyl Ether (TAME)	0.5		ND
trans-1,2-Dichloroethene	0.5	100	ND	tert-Butylbenzene	0.5		ND
Trichloroethene	0.5	5	ND	trans-1,3-Dichloropropene	0.5		ND
Vinyl Chloride	0.5	2	ND	Trichlorofluoromethane	0.5		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

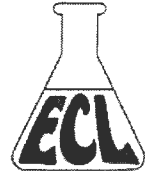
04/10/2018

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

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) 767-6648 and arrange for return or destruction.

Telephone: (443) 681-3853 Fax: (443) 681-4507

ENVIRO-CHEM LABORATORIES, INC.



47 Loveton Circle, Suite K • Sparks, Maryland 21152

410-472-1112

FINAL REPORT OF ANALYSIS

Michael Barlow Well Drilling
522 Underwood Lane
Bel Air, MD 21014

Report Date: 04/10/2018
Report Number: 180410111354

LAB#- E053327-01 SAMPLE ID- Lot 8 Well 1 HO 17-0240 WELL # HO 17-0240
LOCATION- Well Head SAMPLER- 8862 MI
DATE SAMPLED- 03/27/2018 TIME SAMPLED- 16:30 Residual Chlorine- <0.05 mg/L
DATE RECEIVED- 03/28/2018 TIME RECEIVED- 15:45
DELIVERED BY- B Johnston RECEIVED BY- Ginny Shelley
COMMENTS-


COMMENTS-

ANALYSIS	METHOD	ANALYSIS DATE/TIME	BY	RESULT	DATA FLAG
Total Metals by EPA 200.7 by Enviro-Chem					
\$ Sodium	EPA 200.7	03/30/18 13:05	RAS	28.1	mg/L
Wet Chemistry by Enviro-Chem					
\$ Chloride	EPA 300.0	03/28/18 22:08	WND	117	mg/L
\$ Dissolved Solids	SM 2540C	04/02/18 12:00	SES	444	mg/L

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

MEMORANDUM

TO: Barlow Well Drilling
Attn: Mike Isom (MSD 162)

FROM: Kevin M. Wolf, L.E.H.S., REHS/RS, Supervisor 
Groundwater Mgmt. Sec.
Well & Septic Program

DATE: February 9, 2018

RE: **Jack's Landing Lots 6-8 – Well Permits
Special Condition**

**Driller not full of special condition - phone + email 2/9/18*

The following comments apply to the above referenced Well Permit Applications. Please read through and complete as needed.

In order to preserve the quality of ground drinking water, a special condition has been set for the above referenced wells. This condition will require the driller to seal off upper strata by placing a minimum of **50 feet** of steel casing OR **10 feet** into competent bedrock (whichever comes first). For example, if you hit a water-bearing fracture or bedrock at 70 feet, then there should be at least 72 feet of casing or enough casing to get below that fracture. **Any deviations to this condition are to be prior approved by the Health Department.**

Both of these wells will also require sampling at the time of the yield test. Sampling will include but not limited to, Volatile Organic Compounds (VOC's), Total Dissolved Solids (TDS), Chlorides, and Sodium. When calling in the yield and grout on a pre-scheduled day, please make a note that a certified water testing lab and/or the Health Department must be present in order to collect the recommended samples. Please allow 24hrs notification when drilling commences and when the yield/grouts take place.

If you have any questions regarding the above mentioned information, please feel free to contact me at 410-313-2645 or email kwolf@howardcountymd.gov.

KMW

Cc: Ron Green, Land Design and Development, rgreen@ldandd.com
file

Collins, Sarah

From: Collins, Sarah
Sent: Thursday, February 21, 2019 4:36 PM
To: Mike Isom
Subject: Jack's Landing wells

Hi Mike,

Jeff in our office looked over the wells for lots 6-8 and came up with a few things regarding water treatment for the future houses.

Given the presence of VOCs in the water, we'd like you to pump the wells on all three lots for 24 hrs and then resample for VOCs. We're hoping that the levels decrease similar to the drop in VOCs after the 24-hr pumping of the initial well on lot 6. Please also note the static levels of the wells and the time it takes the wells to recover after pumping stops.

Because of the intermediate-to-high levels of sodium, chloride, and TDS in the wells, stainless steel pitless adaptors, water tanks, etc. will be required in the future houses to avoid corrosion.

For the wells on lots 6 and 7 which had high levels of iron, the septic system must have room for a trench specifically for backwash from a treatment system.

Let me know if you have any questions.

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

CONFIDENTIALITY NOTICE

This message and the accompanying documents are intended only for the use of the individual or entity to which they are addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable law. If the reader of this email is not the intended recipient, you are hereby notified that you are strictly prohibited from reading, disseminating, distributing, or copying this communication. If you have received this email in error, please notify the sender immediately and destroy the original transmission.