

C 1 36858

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 13

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER Eng Adam WELL SITE ADDRESS 13240 Highland Rd TOWN Highland SUBDIVISION SECTION LOT

WELL LOG table with columns for DESCRIPTION, FEET (FROM, TO), and check if water bearing. Includes handwritten entries for silt, mica, and rock layers.

GROUTING RECORD: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM), NO. OF BAGS (16), NO. OF POUNDS (1304), GALLONS OF WATER (96), DEPTH OF GROUT SEAL (0 to 59 ft).

CASING RECORD: casing types insert appropriate code below (ST, CO, PL, OT), MAIN CASING TYPE (ST), Nominal diameter top (main) casing (6 inches), Total depth of main casing (59 feet).

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

SCREEN RECORD: screen type or open hole (ST, BR, HO, PL, OT), insert appropriate code below.

C 2 DEPTH (nearest ft.) table with columns for depth intervals (8-11, 15-17, 23-26, 30-32, 38-41, 45-47, 51-53, 55-57, 60-62, 64-66, 68-70).

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q 70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 PUMPING TEST: HOURS PUMPED (3), PUMPING RATE (5 gal. per min.), METHOD USED TO MEASURE PUMPING RATE (bucket), WATER LEVEL (distance from land surface) BEFORE PUMPING (18 ft), WHEN PUMPING (172 ft), TYPE OF PUMP USED (for test) (S) submersible.

PUMP INSTALLED: DRILLER INSTALLED PUMP (YES), IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS. TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 (S), CAPACITY: GALLONS PER MINUTE (7), PUMP HORSE POWER (3/4), PUMP COLUMN LENGTH (262), CASING HEIGHT (circle appropriate box and enter casing height) (+) above LAND SURFACE (2) below (nearest foot).

LATITUDE 39.192517 LONGITUDE 76.97079D (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. 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.

B 1

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

43361

HO-15-0327

please type

fill in this form completely

Date Received (APA)

10 18 16

OWNER INFORMATION

8 MM DD YY 13

Eng Adam Last Name Owner First Name

13240 Highland Road Street or RFD

Highland, MD 20777-9721 Town State Zip

B 3

LOCATION OF WELL

Howard County

23 SUBDIVISION

SECTION 44 46 LOT 48 50

Highland NEAREST TOWN

DRILLER INFORMATION

Jeff Corron M WD 567 Driller's Name License No.

Chesapeake Geosystems, Inc. Firm Name

16720 Fort Smallwood Rd Balt. MD 21236 Address

Signature Date 10/17/16

B 4

SOURCES OF DRILLING WATER

- 1. municipal

13240 Highland Rd STREET ADDRESS

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



1040 DISTANCE FROM ROAD ENTER FT OR MI

TAX MAP: 34 BLK: 21 PARCEL 118

B 2

WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) N/A

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) N/A

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 COUNTY NO. 13

STATE SIGNATURE INSERT S

DATE ISSUED 10/18/16 CO SIGNATURE EXP. DATE 10/18/17

APPROXIMATE DEPTH OF WELL 400 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

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

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL
THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
THIS WELL WILL DEEPEM AN EXISTING WELL

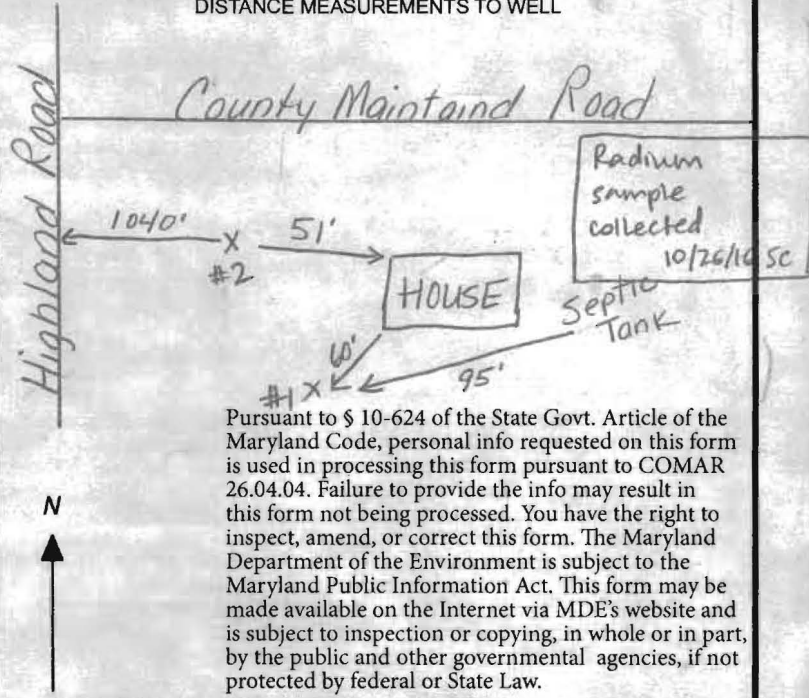
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

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

APPROP. PERMIT NUMBER

PERMIT No. HO-15-0327

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



SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

* Use 50' steel casing or 39.192517 - 76.970790

* Radium sample required @ COUNTY 10' into bedrock, whichever is deeper. * Drill site #1 * Existing well must be sealed.

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

OK
3/15/17 sc

DATE WELL ABANDONED: 12/14/2016 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any) _____

* PERMIT NUMBER OF REPLACEMENT WELL: _____

40 - 15 - 0327

* PERSON ABANDONING WELL: Jeff Corran

WELL DRILLER'S LICENSE NUMBER: 567

CIRCLE: MWD / MSD / MGD

* OWNER'S NAME: Adam Eng

* WELL LOCATION:

COUNTY: Howard

NEAREST TOWN: Highland

TAX MAP _____ BLOCK _____ PARCEL _____

SUBDIVISION: _____

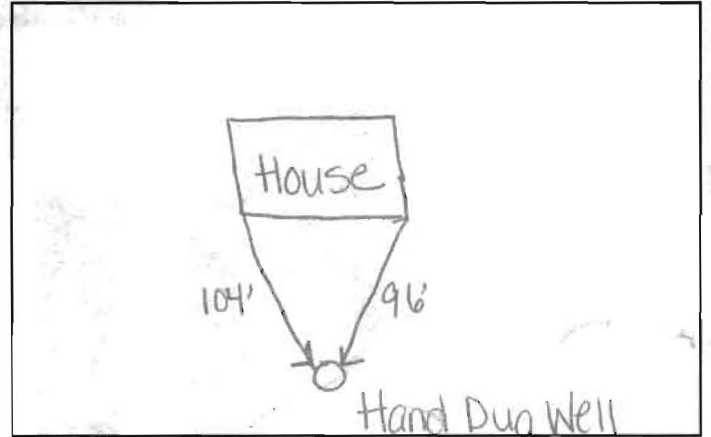
SECTION: _____ LOT: _____

STREET ADDRESS: 13240 Highland Road

LATITUDE 3 9.113251

LONGITUDE 7 6.581327

SITE LOCATION MAP



* TYPE OF WELL BEING ABANDONED:
 DRILLED JETTED
 BORED HAND DUG
 OTHER (specify) _____

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
Bentonite	0	7
VOLUME OF MATERIAL USED		
1,350 lbs		

* USE CODE:
 DOMESTIC MUNICIPAL/PUBLIC
 IRRIGATION INDUSTRIAL
 TEST/OBSERVATION GEOTHERMAL

* TYPE OF CASING:
 STEEL PLASTIC
 CONCRETE OTHER (specify) _____

SIZE OF CASING: 36 INCHES IN DIAMETER

DEPTH OF WELL: 7 FEET DEEP

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

WAS CASING RIPPED OR PERFORATED? YES NO

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

MWD / MSD / MGS 567 12/14/16
 CIRCLE ONE DATE

COUNTY

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: Chesapeake Geosystems Inc Telephone #: 410-789-5020
 Address: 6729 Fort Smallwood Rd
Baltimore Md 21226

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

Name (Print): Wesley Wolfe License# JWD 391

***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: Adam Eng Telephone #: 240-446-4863
 Subdivision: _____ Lot #: _____ Well Tag #: HO-15-0327
 Site Address: 13240 Highland Rd
Highland Md

Submersible Pump Data

Make: Grundfos
 Model #: 7507-15
 Pump Capacity 7 GPM
 Well Yield: 5 GPM

Pitless Adapter

Make: American Granby
 Model#: PT 8005S
 Depth: 36" (36" min)
 NSF/WSC approved: _____

Well Cap and Electric Conduit

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

Depth of well encountered at time of pump installation: _____ (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

Piping to house

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

House Connection

PVC sleeve to undisturbed soil at wall penetration: _____
 Length of sleeve(5' minimum from foundation): _____
 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: Wesley A Wolfe date: 11-16-16

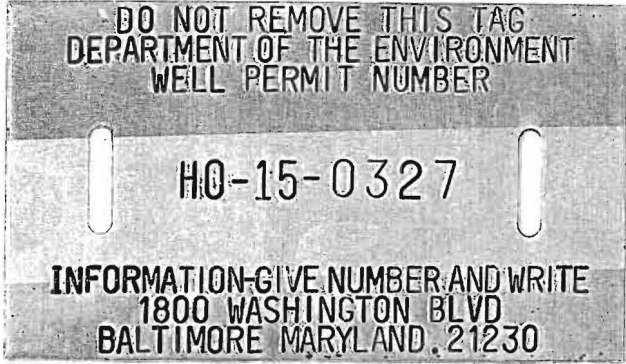
For Health Department Use Only -- Not to be completed by Installer

Date Insp. Requested: 11/16/16 Date Insp. Approved: 12/21/16 Inspector: SC

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 tie-in to existing line
 Adequate grout observed below pitless adapter

13240 Highland Rd Highland Md 20777

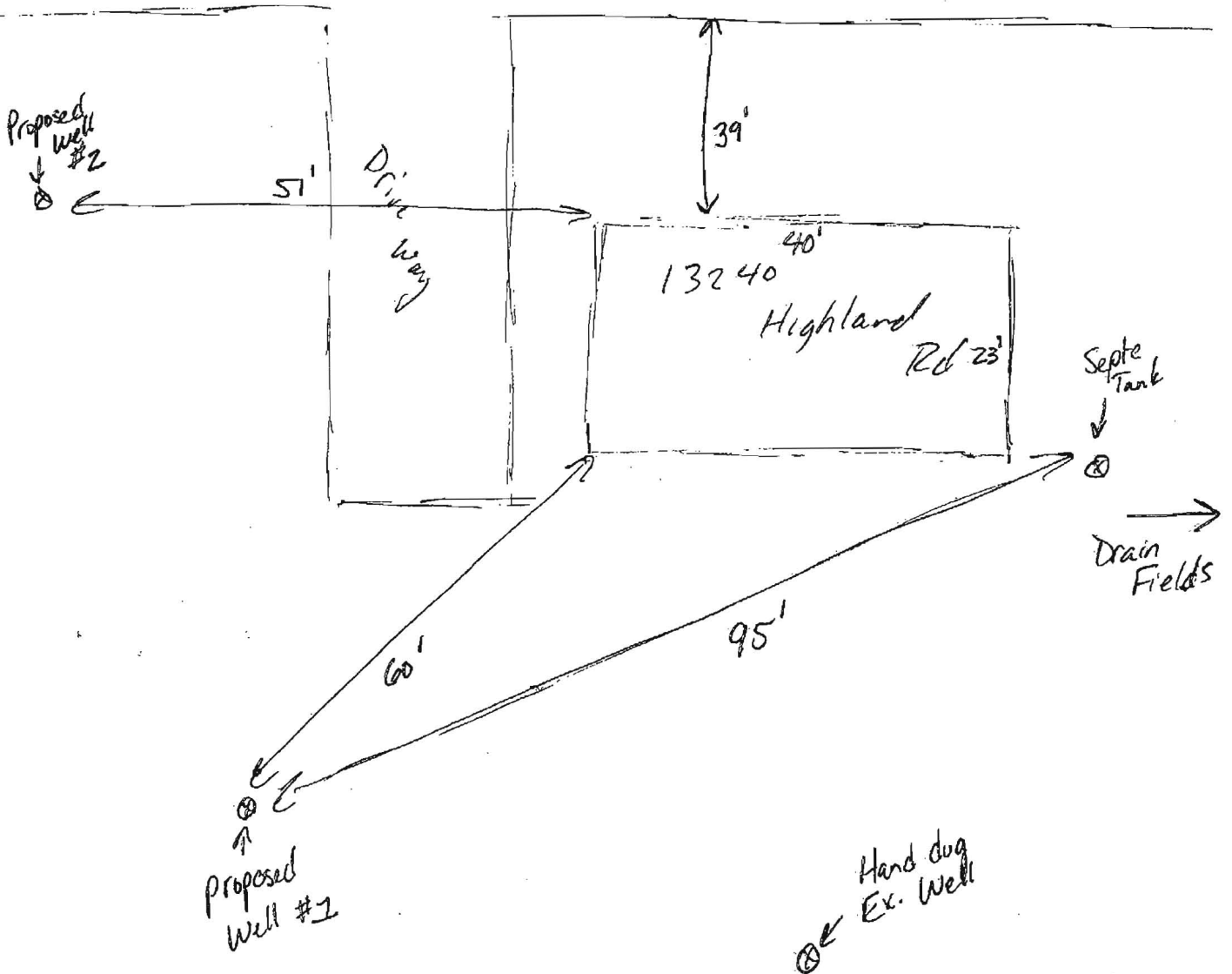
2 - Proposed water well locations



Proposed well site
#1 approved
10/18/16 SC



County Maintained Rd



13240 Highland Rd Highland Md 20777

2 - Proposed water well locations

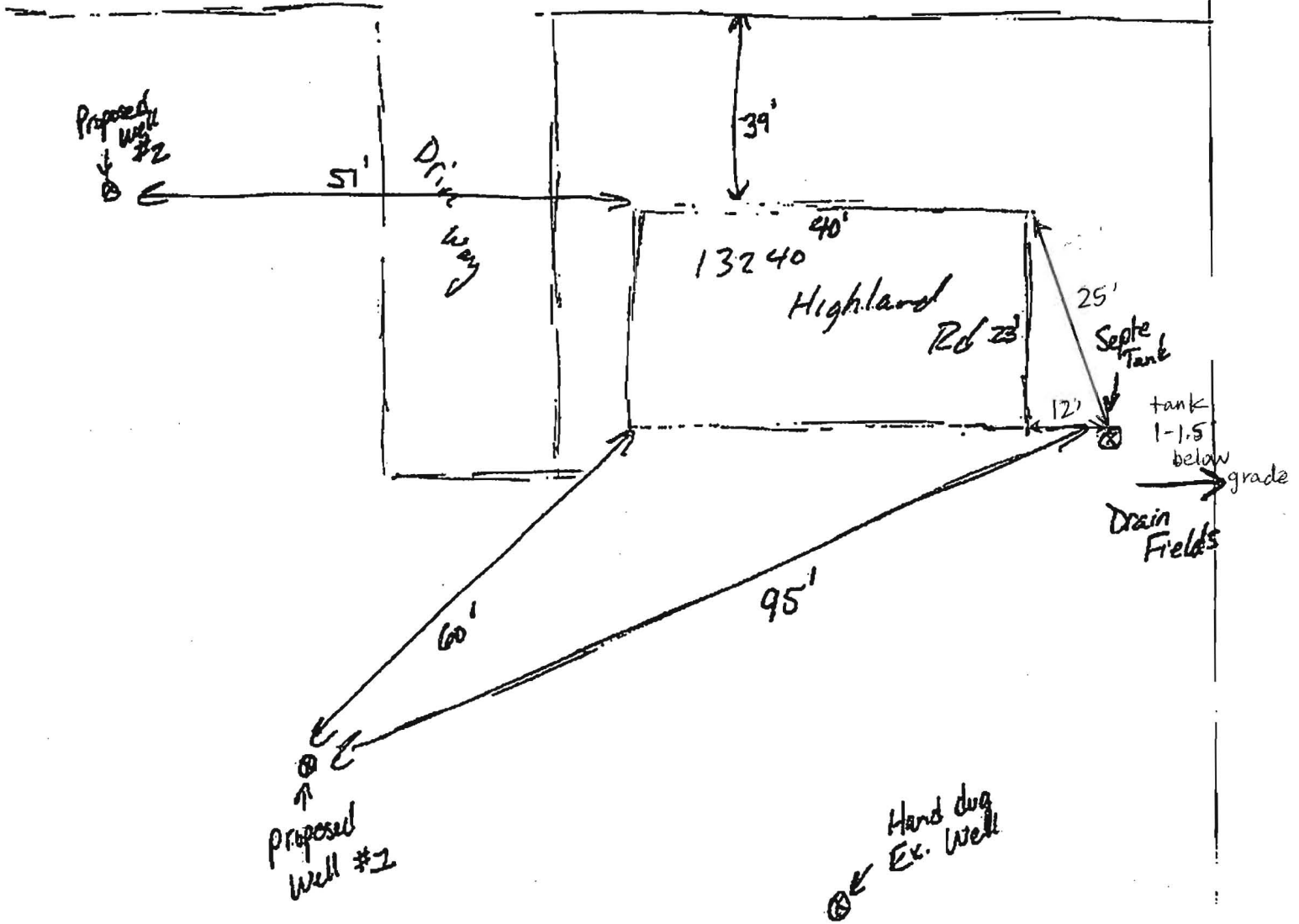
↑ N

10/18/16

Site inspection to confirm measurements.

OK to drill proposed well #1. (SC)

County Maintained Rd





Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Maura Rossman, M.D., Health Officer

November 15, 2016

Mr. Adam Eng
13240 Highland Road
Highland, Maryland 20777

**RE: Replacement Well
E. Highland Road
Well Tag: HO - 15 - 0327**

Dear Mr. Eng:

A sample was collected during a yield test on October 26, 2016 and submitted to the Department of Health & Mental Hygiene Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of 3.3 ± 1.4 picocuries/liter (pCi/L), while the **Gross Beta** level was 7.3 ± 1.9 pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply is **within** EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. **Please note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

A copy of the test results is enclosed for your information. Please call this office at **410-313-1773** if you have any further questions.

Sincerely,

A handwritten signature in cursive script that reads 'Bert Nixon'.

Bert Nixon, Director

Bureau of Environmental Health

Enclosure

✓ cc: Property file

05-361351

SEND REPORT TO: Bert Nixon
Howard Co Health Dept
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, MD 21045

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

Lab No.
E000899 827

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: ADAM SDCS Highland County: Howard

Sample Source: 13240 Highland Rd Location: 110-15-0327
HIGHLANDS MD 20777 9271
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____ Radon-222 Field Blank Bottle A _____
Bottle B _____ Bottle B _____

County 13 Plant No. _____

CHECK (one per Box)

Type	Service	Point of Collection	Testing
Drinking Water <input checked="" type="checkbox"/>	Community <input type="checkbox"/>	Source (Raw) <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"/>

Submitters Code: _____ Federal Project: 5

Collector: S. Collins Telephone No.: 410-313-6287

Date Collected: 10/26/16 Time Collected: _____ a.m. 2:30 p.m.

Field pH: _____ Field Chlorine: _____

Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: Sample collected during yield test

✓	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
✓	Gross Alpha	4000	0899	EPA900.0	3.3±1.4	10/28/16	JT	10/31/16
✓	Gross Beta	4100	0899	EPA900.0	7.3±1.9	10/28/16	JT	10/31/16
<input type="checkbox"/>	Radium-226	4020						
<input type="checkbox"/>	Radium-228	4030						
<input type="checkbox"/>	Total Uranium	4006						
<input type="checkbox"/>	Radon-222 (Bottle A)	4004						
<input type="checkbox"/>	Radon-222 (Bottle B)	4004						
<input type="checkbox"/>	Radon Field Blank A	4004						
<input type="checkbox"/>	Radon Field Blank B	4004						
<input type="checkbox"/>	Tritium							
<input type="checkbox"/>								
<input type="checkbox"/>								

Date Received: 10/27/16 Received By: In Ji

Data Release Signature: _____ Date: 11-1-16

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample pH <2.0?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

FORM REVISED 05/15
DHMH 4540 01/13

PROGRAM COPY

SEND REPORT TO: Bert Nixon
Howard Co. Health Dept.
Bureau of Environmental Health
8932 Fruitland Blvd.

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

301317
 Lab No. E000898 H27

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Field Blank County: Howard

Sample Source: HCHD Lab dH₂O Location: HCHD Lab

Radon-222 Bottle A _____ Radon-222 Field Blank _____
 Bottle B _____ Bottle A _____
 Bottle B _____

County 13 Plant No. _____

CHECK (one per Box)

Type	Service	Point of Collection	Testing
Drinking Water <input checked="" type="checkbox"/>	Community <input type="checkbox"/>	Source (Raw) <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"/>

Submitters Code: _____ Federal Project: 5

Collector: S. Collins Telephone No.: 410-313-6787

Date Collected: 10/26/16 Time Collected: _____ a.m. 3:30 p.m.

Field pH: _____ Field Chlorine: _____

Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: _____

<input checked="" type="checkbox"/>	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000	<u>0898</u>	<u>EPA900.0</u>	<u><2.0</u>	<u>10/28/16</u>	<u>JJ</u>	<u>10/31/16</u>
<input checked="" type="checkbox"/>	Gross Beta	4100	<u>0898</u>	<u>EPA900.0</u>	<u><4.0</u>	<u>10/28/16</u>	<u>JJ</u>	<u>10/31/16</u>
<input type="checkbox"/>	Radium-226	4020						
<input type="checkbox"/>	Radium-228	4030						
<input type="checkbox"/>	Total Uranium	4006						
<input type="checkbox"/>	Radon-222 (Bottle A)	4004						
<input type="checkbox"/>	Radon-222 (Bottle B)	4004						
<input type="checkbox"/>	Radon Field Blank A	4004						
<input type="checkbox"/>	Radon Field Blank B	4004						
<input type="checkbox"/>	Tritium							
<input type="checkbox"/>								
<input type="checkbox"/>								

Date Received: 10/27/16 Received By: _____

Data Release Signature: _____ Date: 11-1-16

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample pH <2.0?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507



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

November 22, 2016

Homeowner
13240 Highland Road
Highland, MD 20777

RE: **Replacement Well Sampling**
13240 Highland Road
#HO-15-0327

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 licensed well driller. A well not in use can potentially contaminate groundwater and pose a threat to human health. Documentation should be submitted to the Health Department once the abandonment is complete.

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.
Well and Septic Program
SCollins@howardcountymd.gov
410-313-6287

Cc: Community Hygiene Program
File

