

C1 23491

SEQUENCE NO.
(MDE USE ONLY)STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPETHIS REPORT MUST BE SUBMITTED WITHIN
45 DAYS AFTER WELL IS COMPLETED.1 2 3 6
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)COUNTY
NUMBER

ST/CO USE ONLY

DATE Received

MM DD YY
06 10 14

DATE WELL COMPLETED

MM DD YY
5/17/14

Depth of Well

22 375
(TO NEAREST FOOT)PERMIT NO.
FROM "PERMIT TO DRILL WELL"

4/10/15 SC 40-95-2689

OWNER CUNNINGHAM, TOM
WELL SITE ADDRESS 3416 SHADY LANE TOWN Glenwood
SUBDIVISION SECTION LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARINGDESCRIPTION (Use
additional sheets if needed)

FEET

FROM

TO

check
if water
bearingTop Soil 0 2
Brown Shale 2 60
Gray slate 60 375

18 bags * 26 gal / bag = 468 gal / 375' = 1.25 gal/ft

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)yes no
Y N
44 44

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 18 NO. OF POUNDS 900

GALLONS OF WATER 414

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 375 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
belowST CO
STEEL CONCRETE
PL OT
PLASTIC OTHERMAIN
CASING
TYPENominal diameter
top (main) casing
(nearest inch)Total depth
of main casing
(nearest foot)6 6 52
60 61 63 64 66 70E
A
C
H
C
A
S
I
N
G

OTHER CASING (if used)

diameter depth (feet)
inch from toscreen type
or open hole
(insert
appropriate
code
below)

SCREEN RECORD

ST BR HO
STEEL BRASS OPEN
HOLE
PL PL OT
PLASTIC OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED

yes no
Y N

CIRCLE APPROPRIATE LETTER

A A WELL WAS ABANDONED AND SEALED
WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION
WELLI HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN
ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND
IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE
CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED
HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY
KNOWLEDGE.

DRILLERS LIC. NO. 1 MWD 040

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 WRD 064

SITE SUPERVISOR (sign. of driller or journeyman
responsible for sitework if different from permittee)GRAVEL PACK
IF WELL DRILLED
WAS FLOWING WELL
INSERT F IN BOX 68MDE USE ONLY
(NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 72 74 75 76
TELESCOPE LOG OTHER DATA
CASING INDICATOR

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO
MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine
C centrifugal R rotary O other
(describe below)
J jet S submersible

PUMP INSTALLED

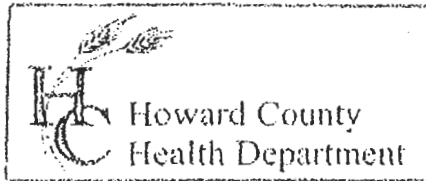
DRILLER INSTALLED PUMP YES NO

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.CAPACITY:
GALLONS PER MINUTE
(to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH
(nearest ft.) 43 47CASING HEIGHT (circle appropriate box
and enter casing height)+ above } LAND SURFACE
- below } (nearest foot)LATITUDE 39.429919
LONGITUDE 77.420318
(DEFAULT COORD. WGS 84)
NOTES:

B 1 29203 <small>1 2 3 6</small>	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type	STATE PERMIT NUMBER HO-95-2689 <small>70 fill in this form completely 79</small>
Date Received (APA) 12570 <div style="display: flex; justify-content: space-between;"> <div> OWNER INFORMATION <small>8 MM DD YY 13</small> CUNNINGHAM TOM <small>15 Last Name Owner First Name 34</small> 3416 SHADY LANE <small>36 Street or RFD 55</small> GLENWOOD MD 21738 <small>57 Town 70 State 72 Zip 76</small> </div> <div> LOCATION OF WELL CC# Howard <small>8 COUNTY 21</small> <small>23 SUBDIVISION 42</small> <small>SECTION 44 46 LOT 48 50</small> Glenwood <small>52 NEAREST TOWN 71</small> </div> </div>			
DRILLER INFORMATION George F. Easterday M/V 040 <small>Driller's Name 76 License No. 81</small> L. Franklin Easterday, Inc. <small>Firm Name</small> 9265 Brown Church Rd., Mt. Airy, Md. 21771 <small>Address</small> <i>George F. Easterday</i> 4/11/2014 <small>Signature Date</small>		SOURCES OF DRILLING WATER wells <ol style="list-style-type: none"> 3416 Shady Lane <small>11 STREET ADDRESS 30</small> ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) <div style="text-align: center;"> <small>NORTH</small> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">W</div> <div style="border: 1px solid black; padding: 2px;">E</div> </div> <small>WEST EAST</small> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">S</div> <div style="border: 1px solid black; padding: 2px;">N</div> </div> <small>SOUTH</small> </div> 40 <small>34 DISTANCE FROM ROAD 37 Ft.</small> <small>ENTER FT OR MI 38 39</small> <small>TAX MAP: BLK: PARCEL</small> 	
WELL INFORMATION <small>1 2</small> 5 <small>APPROX. PUMPING RATE (GAL. PER MIN.) 8 12</small> 500 <small>AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20</small>		USE FOR WATER (CIRCLE APPROPRIATE BOX) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) </div> <div style="width: 50%;"> <input checked="" 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 checked="" type="checkbox"/> CLOSED LOOP GEOTHERMAL </div> </div>	
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard 13 <small>COUNTY NAME COUNTY NO.</small> <small>STATE SIGNATURE INSERT S 41</small> 4/30/14 <i>Anden Gout</i> 4/30/15 <small>43 MM DD YY 48 CO SIGNATURE EXP. DATE</small>		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 	
METHOD OF DRILLING (circle one) <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> BORED (or Augered) <small>30 AIR-ROTary</small> <small>27 CABLE</small> <small>other</small> </div> <div> <input checked="" type="checkbox"/> JETTED <small>AIR-PERCussion</small> <small>REverse-ROTary</small> </div> <div> <input type="checkbox"/> Jetted & DRIVEN <small>ROTARY (Hydraulic Rotary)</small> <small>Drive-POINT</small> </div> </div>		REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX) <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input checked="" 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 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 DEEPEIN AN EXISTING WELL </div> <div style="width: 50%;"> <small>PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 52</small> </div> </div>	
Not to be filled in by driller (MDE OR COUNTY USE ONLY)			
APPROX. PERMIT NUMBER G HO 95 2689 <small>PERMIT NO. 70 71 72 73 74 75 76 77 78 79</small>			
SPECIAL CONDITIONS <small>NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED</small>			



3525 H Ellicott Mills Drive, Ellicott City, MD 21043
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- ☒ The well site has been staked by owner & Esther day
(professional land surveyor or company employing professional land surveyors)
on 4-7-14 (date) and does not require a site inspection.
- ☐ The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 6/10/03

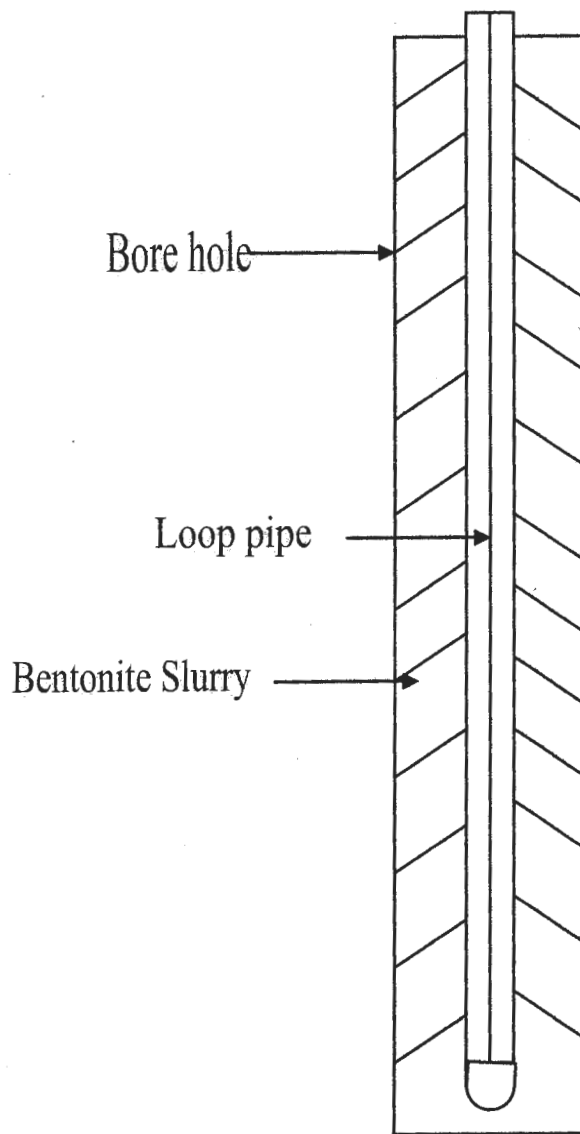
Well sites are staked
3416 Shady Lane



OK
4/30/14
AG

GEOHERMAL WELL DESIGN

L. FRANKLIN EASTERDAY, INC



Owner Tom Cunningham

Location 3416 Shady Lane

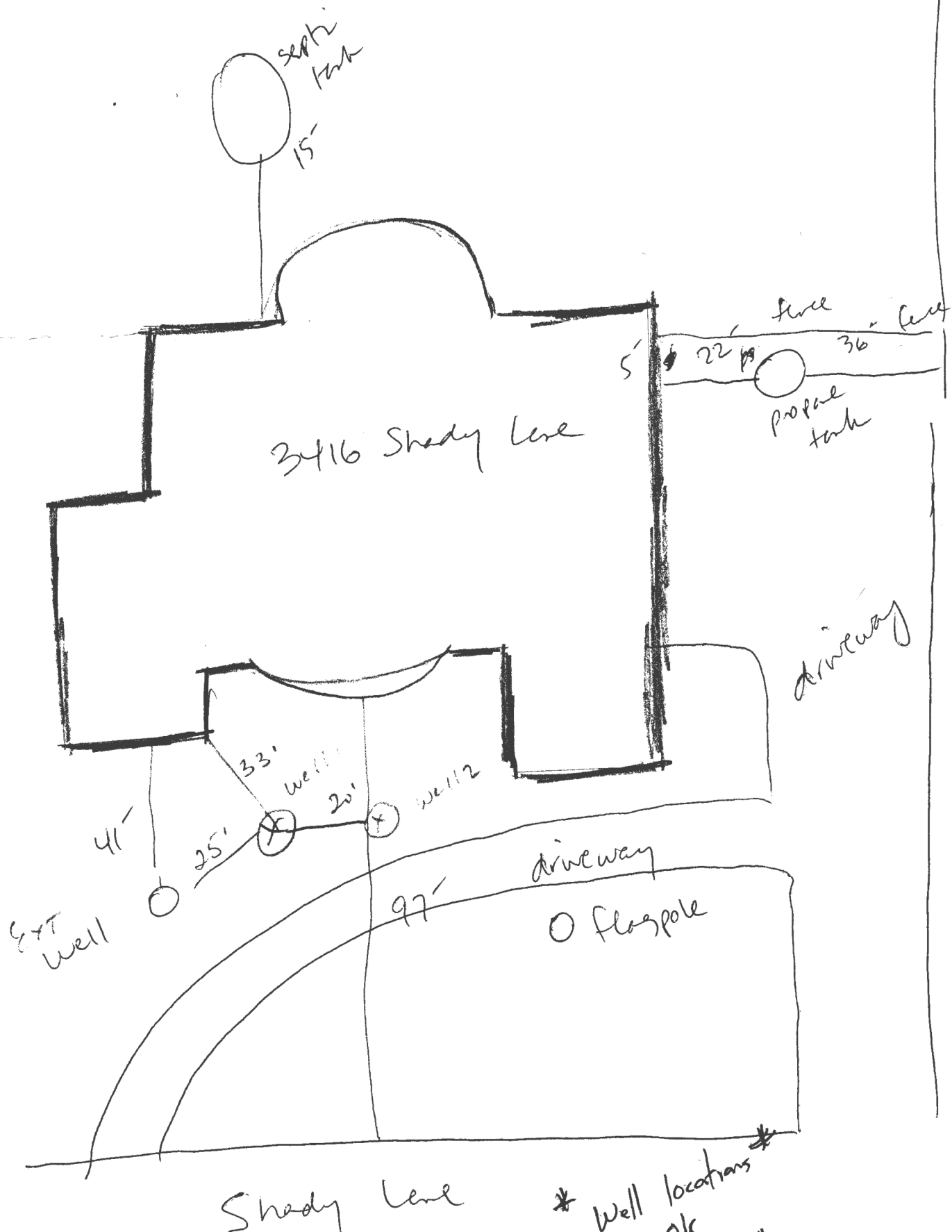
Number of wells 2

Depth 375 Loop Size 1 1/4 "

Grout Material-----Bentonite Slurry from bottom to G.L.

160-

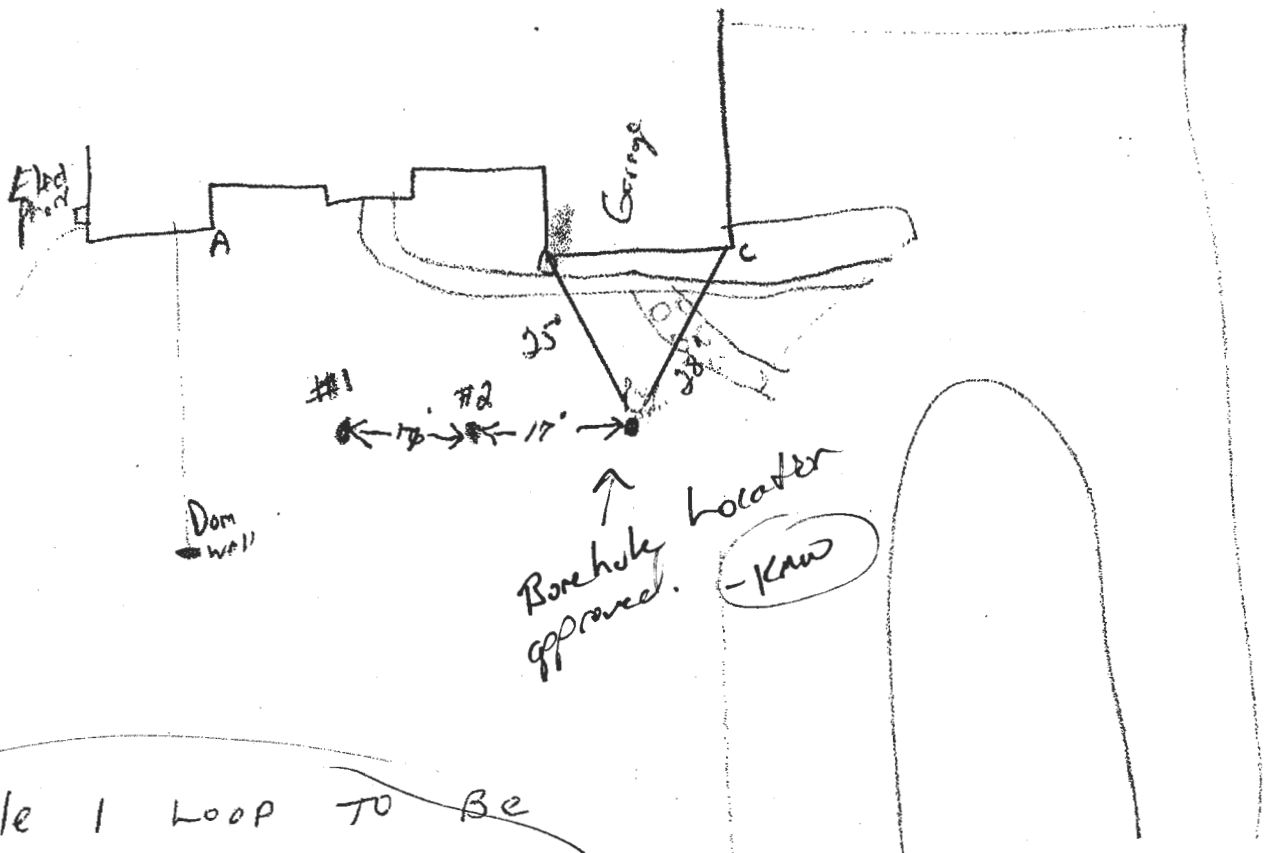
180-



NOT TO SCALE



Tom Cunningham
3416 Shady Lane
Glenwood Md.



Hole 1 Loop TO Be
ABANDONED

Will need
abandonment
report

Wolf, Kevin

From: Sara Easterday [saraeasterday@verizon.net]
Sent: Monday, July 21, 2014 12:34 PM
To: Wolf, Kevin
Subject: Re: Geo emergency 3416 Shady Lane
Attachments: ho co cunningham_140721123151_0001.pdf

Hi Kevin,

The borehole is grouted with bentonite. When it was uncovered you could see the bentonite being pushed out under high pressure. We have a video on a phone. You can come here to see it if you want.

The sketch showing the location of the well that is to be abandoned and the proposed well. Please call me if you have any questions or need further info.

Thanks, again,

Sara

*Sara V Easterday
Administrative Assistant
L. Franklin Easterday, Inc.
Easterday Well & Pump
9265 Brown Church Road
Mt. Airy, Md. 21771
301-829-1640
301-829-2667-fax*

Saraeasterday@verizon.net

From: "Wolf, Kevin" <KWolf@howardcountymd.gov>
To: Sara Easterday <saraeasterday@verizon.net>
Cc: "Williams, Jeffrey" <jewilliams@howardcountymd.gov>
Sent: Monday, July 21, 2014 12:11 PM
Subject: RE: Geo emergency 3416 Shady Lane

Ok. Thanks.

Just a general/technical question for you, pressure testing the line checking for the leaks, how does the loop leak if the bore hole is completed grouted below the u-bend to the top?

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.

From: Sara Easterday [mailto:saraeasterday@verizon.net]
Sent: Monday, July 21, 2014 12:05 PM
To: Wolf, Kevin
Subject: Re: Geo emergency 3416 Shady Lane

Thanks Kevin,

We know it is leaking through pressure testing and digging it out. We use Environal which is environmentally safe and approved. Yes the loop will be abandoned when the new well is installed.

I will send you the locations of the boreholes later today.

Thanks again,

Sara

*Sara V Easterday
Administrative Assistant
L. Franklin Easterday, Inc.
Easterday Well & Pump
9265 Brown Church Road
Mt. Airy, Md. 21771
301-829-1640
301-829-2667-fax*

Saraeasterday@verizon.net

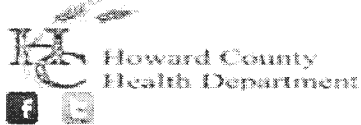
From: "Wolf, Kevin" <KWolf@howardcountymd.gov>
To: Sara Easterday <saraeasterday@verizon.net>
Sent: Monday, July 21, 2014 11:42 AM
Subject: RE: Geo emergency 3416 Shady Lane

Sara,
Yes, you may drill another well on the same permit. Please let me know where the new bore hole location is going. We have the original site plan you submitted to us. You can add it to that and send it to me or tell me the dimensions and I will make the revisions.

My question's to you are 1) which bore hole has the leak? and how did you know it was leaking? i.e. how did you find the leak? 2) The bore hole that has the potential leak needs to be disconnected from the loop and sealed. and 3) what are the chemicals used in the coolant?

Thanks,

Kevin M. Wolf, R.E.H.S./R.S., LEHS
Bureau of Environmental Health
Well & Septic Program
Groundwater Mgmt. Sec.
8930 Stanford Blvd.
Columbia, MD 21045
(o) 410-313-2645
(f) 410-313-2648



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.

From: Sara Easterday [mailto:saraeasterday@verizon.net]
Sent: Monday, July 21, 2014 7:37 AM
To: Wolf, Kevin
Cc: Williams, Jeffrey
Subject: Geo emergency 3416 Shady Lane

Good morning Kevin,

We installed a geo thermal well at the above location in May. The loop is now leaking and will need to be replaced. Can we proceed with drilling another well on the same permit, since the permit allows for up to 10 wells. **Please let me know asap** as the client is without air and we obviously want to take care of the problem in timely manner.

Have a great day,

Sara

*Sara V Easterday
Administrative Assistant
L. Franklin Easterday, Inc.*

Easterday Well & Pump
9265 Brown Church Road
Mt. Airy, Md. 21771
301-829-1640
301-829-2667-fax

Saraeasterday@verizon.net