



HOWARD COUNTY HEALTH DEPARTMENT

59779-A

DATE 9/12/16

WS

Received From

PHONE #

301-776-8370

For

☐ CASH
☒ CHECK

NO.

12705

\$

320.18

Received By

J. King

Dollars

Full Permit - 10/16/14
11E Cardinal Lane
1703 Underwood Road
Three hundred twenty

C136139

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

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

1236
(THIS NUMBER IS TO BE PUNCHED
IN COLS. 3-6 ON ALL CARDS)

COUNTY
NUMBER

ST/CO USE ONLY
DATE Received
MM DD YY
11 02 16

DATE WELL COMPLETED
MM DD YY
10 14 16

Depth of Well
22 320 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
11/7/16 10-15-0326

OWNER
Phelps, Kevin + Kerry

WELL SITE ADDRESS
1703 Underwood Rd

TOWN
Sykesville

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Brn Clay	0	20	
Grey Rock - soft	20	30	
Grey Rock	30	320	

GROUTING RECORD

yes no
Y N
44 44

WELL HAS BEEN GROUTED
(Circle Appropriate Box)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 24 NO. OF POUNDS 600

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)

from 48 TOP 52 54 BOTTOM 58 ft.
(enter 0 if from surface)

CASING RECORD

casing
types
insert
appropriate
code
below

ST STEEL CO CONCRETE
PL PLASTIC OT OTHER

MAIN CASING TYPE

Nominal diameter
top (main) casing
(nearest inch)

Total depth
of main casing
(nearest foot)

60 61 63 64 66 70

OTHER CASING (if used)

diameter depth (feet)
inch from to

EACH CASING

screen type
or open hole

insert
appropriate
code
below

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

C3

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
27 27 27
C centrifugal R rotary O other (describe below)
27 27 27
J jet S submersible
27 27

NUMBER OF UNSUCCESSFUL WELLS:

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
WELL

I 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 553

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 AW D 948

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

C2

DEPTH (nearest ft.)

1 2

EACH CASING

1 8 9 11 15 17 21

2 23 24 26 30 32 36

3 38 39 41 45 47 51

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)

56 60

from to

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

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

PUMP INSTALLED

DRILLER INSTALLED PUMP
(CIRCLE) (YES or NO)

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 47

CASING HEIGHT (circle appropriate box
and enter casing height)

+ above } LAND SURFACE
49 below } (nearest foot)
49 50 51

LATITUDE 39.32415 ①

LONGITUDE 76.97805

(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.

03-304256

EMERGENCY/TEMP NO. IF ANY

B 1	SEQUENCE NO. (MDE/USE ONLY) <div style="font-size: 2em; font-weight: bold;">41827</div>	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL <div style="font-size: 1.5em;">59479-1</div> <div style="font-size: 0.8em;">please type</div>	STATE PERMIT NUMBER <div style="font-size: 1.5em; font-weight: bold;">H0 - 15 - 0326</div> <div style="font-size: 0.8em;">fill in this form completely</div>
1 2 3 6	OWNER INFORMATION Date Received (APA) <u>012 file</u> 8 MM DD YY 13 15 Last Name <u>Phelps</u> Owner <u>Kevin + Kerry</u> First Name <u>Kevin</u> 34 36 Street or RFD <u>1703 Underwood Rd</u> 55 57 Town <u>Sykesville</u> 70 State <u>MD</u> 72 Zip <u>21784</u> 76		B 3 LOCATION OF WELL 8 COUNTY <u>Howard</u> 21 23 SUBDIVISION <u>Annandale</u> 42 SECTION <u>44</u> 46 LOT <u>2</u> 48 50 52 NEAREST TOWN <u>Sykesville</u> 71
DRILLER INFORMATION Driller's Name <u>John Hess</u> M W D <u>553</u> Firm Name <u>Allied Environmental Svcs</u> Address <u>PO Box 129 Annapolis Junction MD 20701</u> Signature <u>John Hess</u> Date <u>09/25/16</u>		B 4 SOURCES OF DRILLING WATER 1. <u>Public</u> 2. 3. ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) 34 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: <u>0009</u> BLK: <u>0009</u> PARCEL <u>0300</u>	
B 2	WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) <u>8</u> 12 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <u>14</u> 20		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL <u>Howard</u> 13 COUNTY NAME COUNTY NO. STATE SIGNATURE _____ INSERT S → 41 DATE ISSUED <u>10/13/16</u> <u>R. R. T.</u> <u>10/13/17</u> 43 MM DD YY 48 CO SIGNATURE EXP. DATE
USE FOR WATER (CIRCLE APPROPRIATE BOX) <input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) 22 <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 <u>(2 loops)</u>			
APPROXIMATE DEPTH OF WELL <u>320</u> FEET 24 28 APPROXIMATE DIAMETER OF WELL <u>6</u> 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 <u>underwood Rd</u> <u>Porch</u> <u>Driveway</u> <u>Proposed Loops</u>	
METHOD OF DRILLING (circle one) BORED (or Augered) <u>AIR-ROTary</u> JETTED <u>ROTARY (Hydraulic Rotary)</u> Jetted & DRIVEN 30 <u>CABLE</u> <u>REVERSE-ROTary</u> <u>DRIVE-POINT</u> 37 other _____			
REPLACEMENT OR DEEPENED WELLS (CIRCLE APPROPRIATE BOX) <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 39 <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) APPROP. PERMIT NUMBER _____ <u>G</u> _____ PERMIT No. <u>H0 - 15 - 0326</u> 70 71 72 73 74 75 76 77 78 79			
SPECIAL CONDITIONS NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED. <u>Wells must be grouted from bottom to top.</u>			

GRADE

EACH BORE HOLE (TYP.)

MINIMUM
HORIZONTAL BURY
DEPTH 4' FT

FOR CONT.
SEE PLANS

HORIZONTAL
PIPING

GROUT ENTIRE ANNULAR
SPACE AND VERTICAL
U-TUBE WITH (BENTANITE)
GROUT.

BORE DEPTH

TAPE

5' TO 10' FOOT SECTION OF
REBAR TO GUIDE TUBE
INTO BORE DURING
INSTALLATION

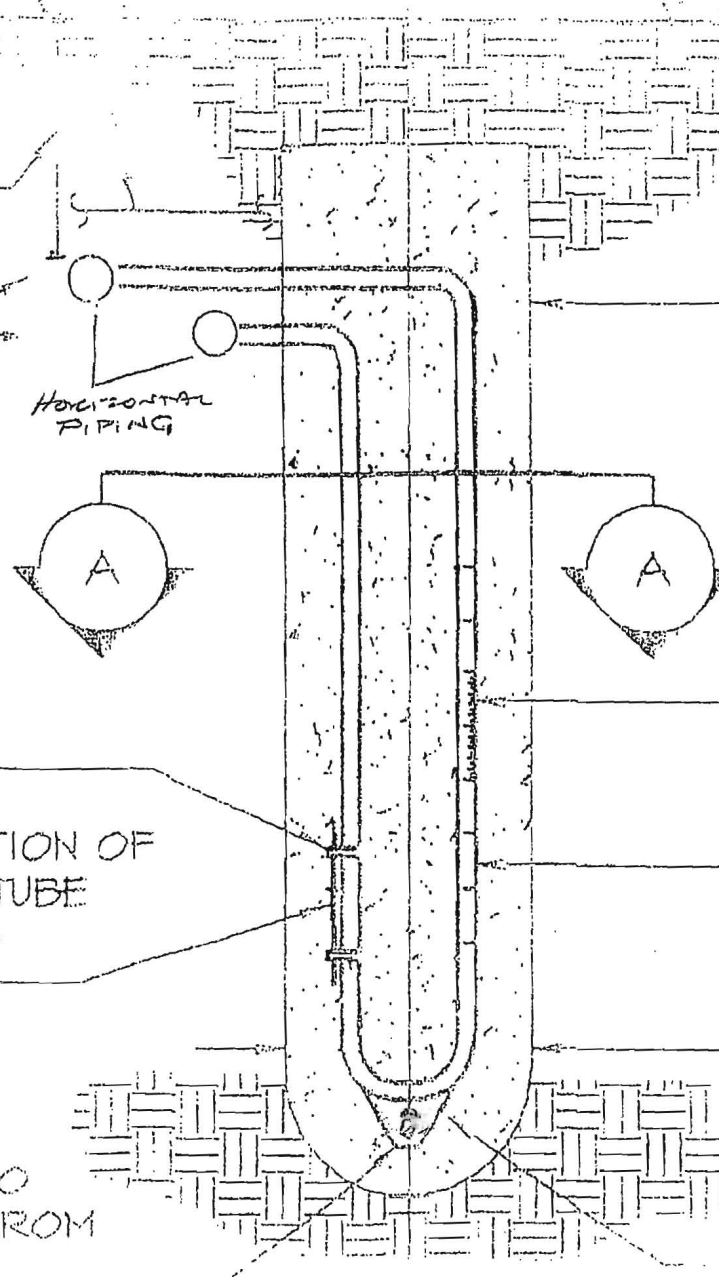
DEPTH MARKINGS IN FEET TO
INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U TUBE
1.25 INCHES

TYPICAL BORE DIAMETER
6.0 INCHES

ANCHOR FITTING TO
PREVENT U-TUBE FROM
SURFACING AFTER
INSTALLATION

TYPICAL SOCKET U-BEND



HOWARD COUNTY GROUTING PROCEDURE

Boreholes will be grouted from the bottom to the top via a tremie pipe and positive displacement pump. Bentonite grout, known as Quik-Grout will be used according to the manufacturer's specifications to achieve a consistency of at least 20% solids (24 gallons potable water/50 lb. sack of grout) and a permeability no more than 2.5×10^{-8} cm/sec. Grouting will be completed immediately after installing the geothermal loop and no later than twenty-four (24) hours after installing the geothermal loop. Open boreholes/annular space will be protected as necessary to prevent the entry of surface water or pollutants.

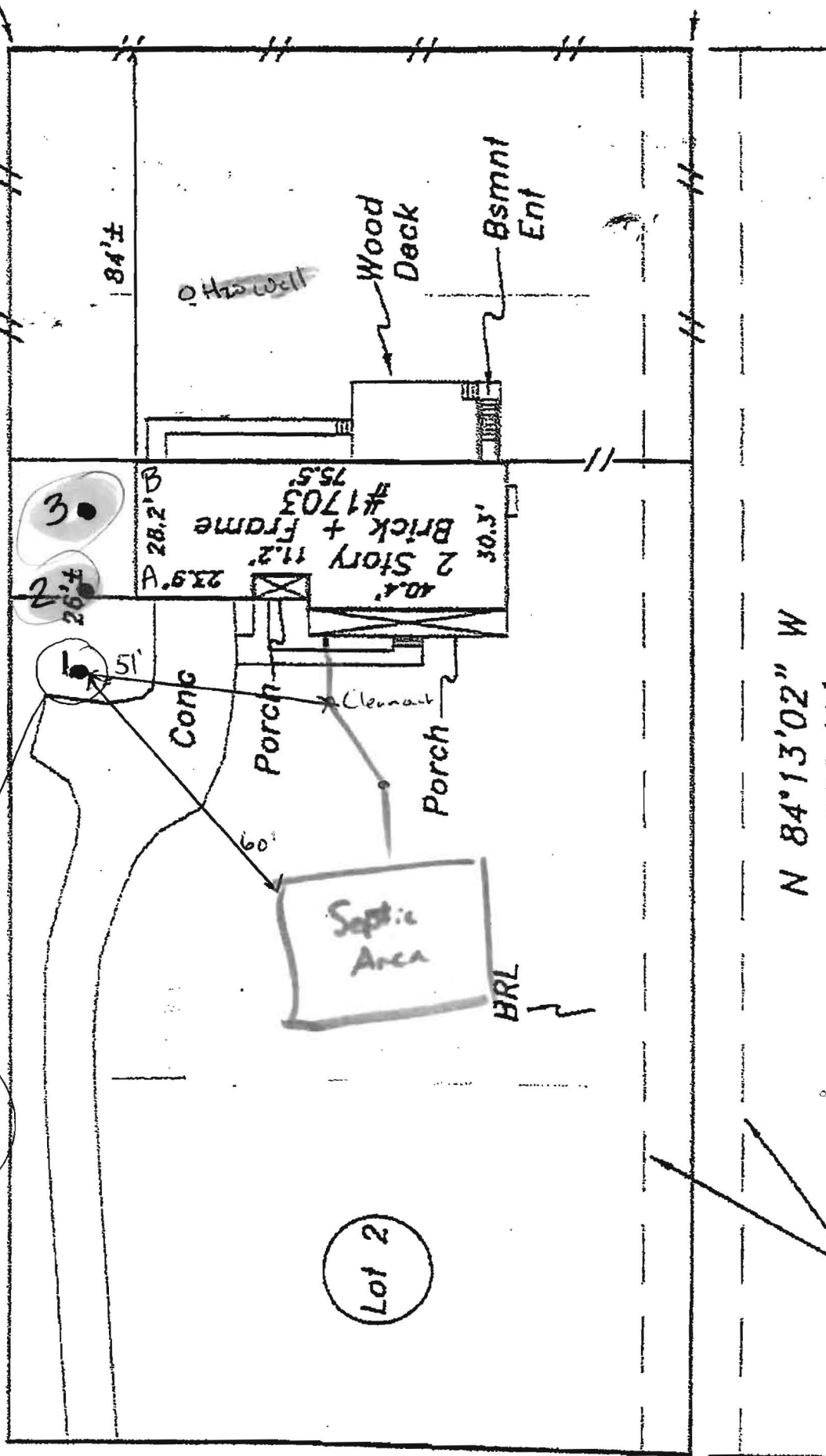
Well sites ok
10/13/16 (R)

Did Not
drill this
site
10/11/16 (R)

S 84°13'02" E
287.45'

N 07°11'00" E 81.59'
N 05°27'11" E 57.44'

N 84°13'02" W
200.12'



FILE INQUIRY NOTES

[illegible]

Rappaport, Ryan

From: Kevin Phelps <kevinphelps@gmail.com>
Sent: Friday, October 14, 2016 10:55 PM
To: Rappaport, Ryan
Subject: 1703 Underwood Road Well Drilling

Mr. Rappaport,

I just found your card with the note to call you about my well permit. The wells are for geothermal heat loops. The permits are being handled by my contractor, Ground Loop Geothermal. I'll be happy to speak with you when you're available. My cell is 410-262-2387, but honestly my contractor will have more information--the Project Manager is Jason Cullum, his number is 410-836-1706.

Thank you,

Kevin Phelps
1703 Underwood Road
Sykesville, MD 21784

Talk to homeowner about 2 potable wells in
the backyard. Why 2? only have record of 1.



Why 2 potable wells on property?

One was an ~~placement~~ well
why wasn't the other
abandoned?

B 1	2448	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL W517987 please type	STATE PERMIT NUMBER HD-94-3582 <small>fill in this form completely</small>
Date Received (APA) 11/16/02 8 MM DO YY 13		OWNER INFORMATION		
15 Last Name CAUSEY		Owner HARRY		34 First Name
36 Street or RFD 1703 Underwood Rd.		55		
57 Town SYLDESVILLE MD.		70 State	72	76 Zip 21794
DRILLER INFORMATION				
Driller's Name RALPH E. MAYNE		76 License No. MSD117		
Firm Name RALPH E. MAYNE WELL DRILLING				
Address 17024 Hardy Rd. Mt Airy MD. 21771				
Signature <i>Ralph E. Mayne</i>		Date 11-6-02		
B 2		WELL INFORMATION		
1		APPROX. PUMPING RATE (GAL. PER MIN.)		12
2		AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)		20
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"/> GEO-THERMAL				
APPROXIMATE DEPTH OF WELL <u>150</u> FEET 24 28				
APPROXIMATE DIAMETER OF WELL <u>64</u> INCH NEAREST INCH				
METHOD OF DRILLING (circle one)				
BORED (or Augered) <input checked="" type="checkbox"/> JETTED <input type="checkbox"/> Jetted & DRIVEN <input type="checkbox"/> 30 AIR-ROTARY <input type="checkbox"/> AIR-PERCussion <input type="checkbox"/> ROTARY (Hydraulic Rotary) <input type="checkbox"/> 37 CABLE <input type="checkbox"/> REVerse-ROTary <input type="checkbox"/> Drive-POINT <input type="checkbox"/> other _____				
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Not to be filled in by driller (MDE OR COUNTY USE ONLY)				
APPROX. PERMIT NUMBER _____ G _____				
PERMIT No. HD-94-3582 70 71 72 73 74 75 76 77 78 79				
SPECIAL CONDITIONS <small>NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED</small>				

LOCATION OF WELL

8 COUNTY Howard 21

23 SUBDIVISION ANNAN DALE 42

SECTION 44 46 LOT 48 50

52 NEAREST TOWN West Friend Ship 71

MILES FROM TOWN (enter 0 if in town) 2 M I 73 76 77 78

11 NEAR WHAT ROAD Underwood Rd. 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 250 37
DISTANCE FROM ROAD
ENTER FT OR MI 38 39

NORTH
WEST ☒ EAST
SOUTH

TAX MAP: 9 BLK: 21 PARCEL 300

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME Howard COUNTY NO. A24590

STATE SIGNATURE _____ INSERT S _____ 41

DATE ISSUED 11-19-02 Ralph Noonan 11-19-03

43 MM DO YY 48 CO SIGNATURE 544 EXP. DATE

NORTH GRID 806 000 EAST GRID 544 000

50 55 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

1. well
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

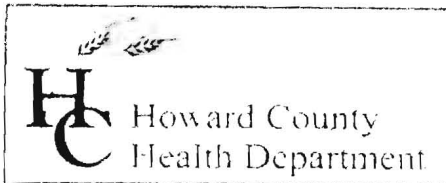
E 580 44

N 806 6

700 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

C1 14318 <small>(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)</small>	SEQUENCE NO. <small>(MDE USE ONLY)</small>	STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED. COUNTY NUMBER 13 A24590																																																														
ST/CO USE ONLY DATE RECEIVED <small>MM DD YY</small>	DATE WELL COMPLETED 11 25 02	Depth of Well 360 <small>(TO NEAREST FOOT)</small>	PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-94-3582																																																														
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23	24	26	30	32	36																																																												
38	39	41	45	47	51																																																												
DRILLERS LIC. NO. MSD 112 DRILLERS SIGNATURE [Signature] <small>(MUST MATCH SIGNATURE ON APPLICATION)</small> LIC. NO. D _____ SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)		PUMPING TEST HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 5 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 40 ft. WHEN PUMPING 360 ft. TYPE OF PUMP USED (for test) A piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible PUMP INSTALLED DRILLER INSTALLED PUMP YES NO (CIRCLE) (YES or 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 _____ 36 _____ PUMP HORSE POWER 37 _____ 41 _____ PUMP COLUMN LENGTH (nearest ft.) 43 _____ 47 _____ CASING HEIGHT (circle appropriate box and enter casing height) + above LAND SURFACE - below 2 (nearest foot) LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) 																																																															



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

May 27, 2003

Mr. Harry Causey
1703 Underwood Road
Sykesville, MD 21784

Re: Replacement Well
1703 Underwood Road
Well Permit #HO-94-3582

Dear Mr. Causey:

This is to advise you that the septic system for the above referenced property has been installed and inspected. Final approval of the septic system was granted.

The water sample submitted for testing on **May 13, 2003** was free of coliform and E. coli bacteria and was bacteriologically safe for drinking at the time of sampling.

FINAL CERTIFICATE OF POTABILITY

This certifies that all sampling requirements of **COMAR 26.04.04 "Well Regulations"** have been met for the water supply system installed under permit **#HO-94-3582**. The well owner accepts his responsibilities under **COMAR 26.04.04.10**.

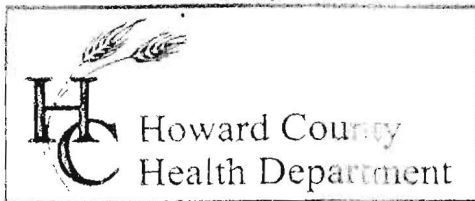
Date of Final Sampling: May 13, 2003

Approving Authority,

Bert Nixon, Director
Community Services Program

Water Sample Dates: May 13, 2003 (Bacteria, Nitrate & Turbidity)
April 7, 2003 (Bacteria)
December 10, 2002 (Bacteria & Chemical)

Enclosures



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

March 5, 2003

Mr. Harry Causey
1703 Underwood Road
Sykesville, MD 21784

RE: **Replacement Well Connection**
1703 Underwood Road
Well Permit #: HO-94-3582

Dear Mr. Causey:

This office is requesting that you forward the enclosed form to the appropriate licensed contractor (Well Driller, Registered Plumber or Pump Installer) who is responsible for the installation of the well pump, well water line connection and related plumbing in the referenced replacement well. The contractor should complete this form neatly and submitted it to this office via fax or mail once the pump is placed in the well.

Submission of this completed form by the contractor is required for final approval of the field inspection, which should be conducted by an inspector from this office when the work is ready for inspection. The contractor is responsible for scheduling an inspection request with this office.

If you have any questions, or would like to discuss these matters further please call me at (410) 313-1771. Thank you for your attention to these important matters.

Respectfully,

Steven R. Krieg, Supervisor
Registered Environmental Sanitarian
Groundwater Management Section
Well & Septic Program

Enclosure

cc: Community Environmental Health Program ✓ 4/14/03
File ✓

C114318

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

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

COUNTY
NUMBER13A24590

ST/CO USE ONLY
DATE Received
MM DO YY
813

DATE WELL COMPLETED
MM DO YY
112502

Depth of Well
2236026
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
H0-94-3582

OWNER
CAUSEY
STREET OR RFD
1703 Underwood Road
SUBDIVISION
ANNANDALE

TOWN
West Friendship

SECTION

LOT

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR
COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Top So. L	0	2	
Sandy	2	20	
Sand Stone	20	30	
MICKA	30	40	
Sand Stone	40	45	✓
MICKA	45	300	
Flint Rock	300	305	✓
MICKA	305	360	

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box)
YES ☒ NO ☐

TYPE OF GROUTING MATERIAL (Circle one)
CEMENT ☒ BENTONITE CLAY ☐

NO. OF BAGS 45 46 14 NO. OF POUNDS 45 46 84

GALLONS OF WATER

DEPTH OF GROUT SEAL (to nearest foot)
from 48 TOP 52 ft. to 54 BOTTOM 58 ft.
(enter 0 if from surface)
8 30+

CASING RECORD

casing
types
insert
appropriate
code
below

☒ ST
STEEL
☒ PL
PLASTIC

☐ CO
CONCRETE
☐ OT
OTHER

MAIN CASING TYPE PL

Nominal diameter top (main) casing (nearest inch)! 6

Total depth of main casing (nearest foot) 35

OTHER CASING (if used)
EACH CASING diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole
(insert appropriate code below)

☒ ST
STEEL
☐ BR
BRASS
☐ PL
PLASTIC

☒ HO
OPEN HOLE
☐ OT
OTHER

C2 DEPTH (nearest ft.)

1 2 33 360

EACH CASING 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)
56 60

from to

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

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

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 5

METHOD USED TO MEASURE PUMPING RATE 11 Bucket 15

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft. 40

WHEN PUMPING 22 25 ft. 360

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 (CIRCLE) (YES or NO) 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 47

CASING HEIGHT (circle appropriate box and enter casing height)

☒ + above } LAND SURFACE

☐ - below } 2 (nearest foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

30' well

33'

Ext House

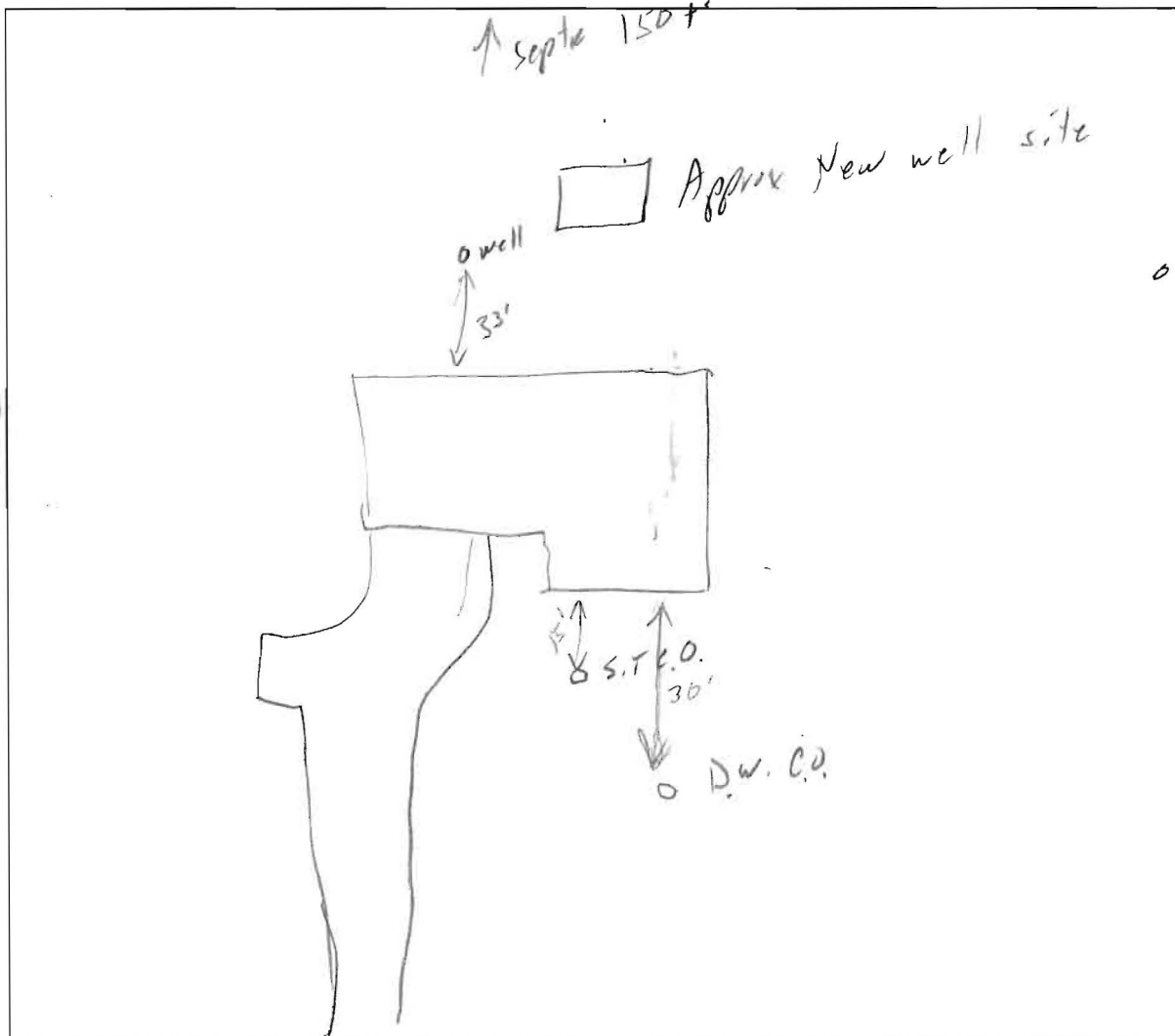
B 1	2448	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL W517987 please type	STATE PERMIT NUMBER HO-94-3582 fill in this form completely
Date Received (APA) <u>11/06/02</u> 8 MM DD YY 13		OWNER INFORMATION		
15 Last Name <u>CAUSEY</u> Owner First Name <u>HARRY</u> 34		23 SUBDIVISION <u>1703 Underwood Rd.</u> 42		
36 Street or RFD <u>SYRACUSE MO. 21594</u> 55		SECTION <u>44</u> LOT <u>46</u> 50		
57 Town <u>SYRACUSE</u> 70 State <u>MO.</u> 72 Zip <u>21594</u> 76		52 NEAREST TOWN <u>West FRIENDSHIP</u> 71		
DRILLER INFORMATION		LOCATION OF WELL		
Driller's Name <u>Ralph E. MAYNE</u> 76 License No. <u>M S D 117</u> 81		8 COUNTY <u>Howard</u> 21		
Firm Name <u>Ralph E. MAYNE well Drilling</u>		23 SUBDIVISION <u>1703 Underwood Rd.</u> 42		
Address <u>17024 Hardy Rd. Mt Airy MO. 21521</u>		SECTION <u>44</u> LOT <u>46</u> 50		
Signature <u>Ralph E. Mayne</u> 11-6-02 Date		52 NEAREST TOWN <u>West FRIENDSHIP</u> 71		
WELL INFORMATION		MILES FROM TOWN (enter 0 if in town) <u>2</u> M I 73 76 77 78		
APPROX. PUMPING RATE (GAL. PER MIN.) <u>5</u> 8 12		DIRECTION OF WELL FROM TOWN (CIRCLE BOX)		
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <u>500</u> 14 20		ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)		
USE FOR WATER (CIRCLE APPROPRIATE BOX)		TAX MAP: <u>9</u> BLK: <u>21</u> PARCEL <u>300</u>		
<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"/> GEO-THERMAL		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL <u>Howard</u> COUNTY NAME <u>A24590</u> COUNTY NO. STATE SIGNATURE _____ INSERT S → 41 DATE ISSUED <u>11-19-02</u> CO SIGNATURE <u>Ralph Noonan</u> EXP. DATE <u>11-19-03</u> NORTH GRID <u>806000</u> EAST GRID <u>544000</u> 50 55 60 65		
APPROXIMATE DEPTH OF WELL <u>150</u> FEET 24 28		SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X <u>11/25/02 8:30</u>		
APPROXIMATE DIAMETER OF WELL <u>69</u> INCH 24 28		SOURCES OF DRILLING WATER 1. <u>well</u> 2. 3.		
METHOD OF DRILLING (circle one)		WRITE THE BOX NUMBER FROM THE MAP HERE		
BORED (or Augered) <u>AIR-ROTary</u> JETTED <u>ROTARY (Hydraulic Rotary)</u> Jetted & DRIVEN 30 <u>CABLE</u> <u>REverse-ROTary</u> <u>Drive-POINT</u> 37 other _____		E <u>58044</u> N <u>80066</u>		
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION		
<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 39 <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		N 		
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. <u>HO-94-3582</u> 70 71 72 73 74 75 76 77 78 79				
SPECIAL CONDITIONS NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.				

11/6/02 HAM

SITE INSPECTION SHEET

OWNER: Causey PHONE #: Myne
ADDRESS: 1703 Underwood Dr CONTRACTOR: _____
WELL TAG #: HO-84-1070 - OLD TAG
SUBDIVISION: _____ LOT: _____ COUNTY #: _____
PROPOSAL: Low flow New TAG HO-94-3582

LOCATION DIAGRAM



COMMENTS: _____

DATE: 11/6/02 INSPECTOR: [Signature]

SURVEYORS AND CIVIL ENGINEERS

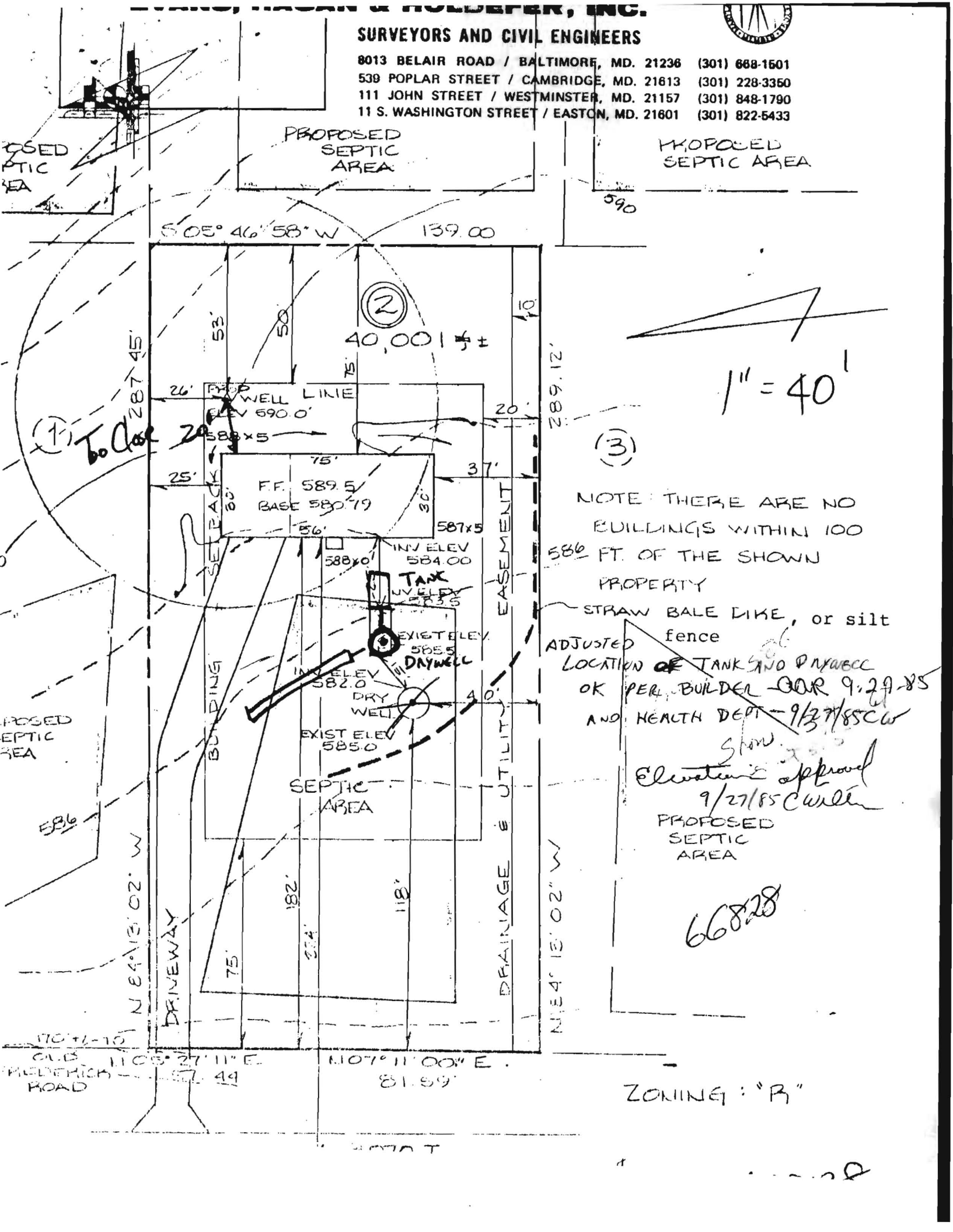
8013 BELAIR ROAD / BALTIMORE, MD. 21236 (301) 668-1501
 539 POPLAR STREET / CAMBRIDGE, MD. 21613 (301) 228-3350
 111 JOHN STREET / WESTMINSTER, MD. 21157 (301) 848-1790
 11 S. WASHINGTON STREET / EASTON, MD. 21601 (301) 822-5433



PROPOSED
SEPTIC
AREA

PROPOSED
SEPTIC
AREA

PROPOSED
SEPTIC AREA



1" = 40'

NOTE: THERE ARE NO
BUILDINGS WITHIN 100
586 FT. OF THE SHOWN
PROPERTY

STRAW BALE LIKE, or silt
fence
ADJUSTED LOCATION OF TANK AND DRYWELL
OK PER BUILDER - 9/29/85
AND HEALTH DEPT - 9/30/85 CW

Elevation approved
9/27/85 CW
PROPOSED
SEPTIC
AREA

66828

ZONING: "B"