C 1 | 3806 | SEQUENCE NO. (MDE USE ONLY)

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

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) A519609

ST/CO USE ONLY
DATE Received MM DD YY

DATE WELL COMPLETED: MM 10 DD 5 YY 04

Depth of Well: 80' (TO NEAREST FOOT) 11/22/04 OK BB

PERMIT NO. FROM "PERMIT TO DRILL WELL": 40 - 94 - 4028

OWNER Warfield (last name) Kennard (first name)

STREET OR RFD Union Chapel Road TOWN Glenwood

SUBDIVISION Mew Woods SECTION LOT 2

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 FROM	FEET TO	check if water bearing
Brown Shale	0	69	
Blue Rock	69	80	✓

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED: yes [Y] no [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.: M S D 0224

Joseph L Mayne
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: ___ D ___

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

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes [Y] no [N]

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS 15 NO. OF POUNDS 1410

GALLONS OF WATER 90

DEPTH OF GROUT SEAL (to nearest foot)

from 0 TOP ft. to 60 BOTTOM 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)
ST	6	73

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 BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2

EACH SCREEN	DEPTH (nearest ft.)		
1	40	71	80
2			
3			

SLOT SIZE 1 ___ 2 ___ 3 ___

DIAMETER OF SCREEN ___ (NEAREST INCH)

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 ___ TELESCOPE CASING

72 ___ LOG INDICATOR

74 75 76 OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 15.

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 20 ft.

WHEN PUMPING 24 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 (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) ___

PUMP HORSE POWER ___

PUMP COLUMN LENGTH (nearest ft.) ___

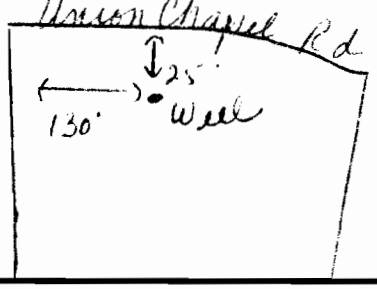
CASING HEIGHT (circle appropriate box and enter casing height)

[+] above [−] below LAND SURFACE

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)



DENV-CR00

COUNTY

EMERGENCY/TEMP NO. IF ANY

B 1 . 9855 (1 2 3 . 6) SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please type

STATE PERMIT NUMBER: HO -94 -4028 (70) fill in this form completely (79)

Date Received (APA): 9/17/04 (8 MM DD YY 13)

OWNER INFORMATION

Warfield Sr. (15 Last Name) Kennard (Owner First Name 34)

P.O. Box 30 (36 Street or RFD 55)

Glenelg (57 Town) Md (70 State) 21737 (72 Zip 76)

DRILLER INFORMATION

Joseph L. Mayne (Driller's Name) MS D024 (76 License No. 81)

Joseph L. Mayne Well Drilling (Firm Name)

5512 Ridge Rd. Mt Airy Md. 21771 (Address)

Joseph L. Mayne (Signature) 9/16/04 (Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 4 (8 12)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- (D) DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION
- I INDUSTRIAL, COMMERICIAL, DEWATERING (22)
- P PUBLIC WATER SUPPLY WELL
- T TEST, OBSERVATION, MONITORING
- G GEO-THERMAL

APPROXIMATE DEPTH OF WELL: 300 (24 28) FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

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 DEEPENED WELLS (CIRCLE APPROPRIATE BOX)

- (N) THIS WELL WILL NOT REPLACE AN EXISTING WELL
- Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
- (39) S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
- D THIS WELL WILL DEEPEN AN EXISTING WELL

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

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

APPROP. PERMIT NUMBER

PERMIT No. HO -94 -4028 (70 71 72 73 74 75 76 77 78 79)

B 3 LOCATION OF WELL

Howard (8 COUNTY 21)

New Woods (23 SUBDIVISION 42)

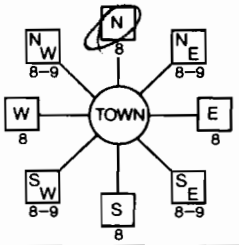
SECTION (44 46) LOT 2 (48 50)

Glenwood (52 NEAREST TOWN 71)

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

B 4

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Union Chapel Rd (11 NEAR WHAT ROAD 30)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

DISTANCE FROM ROAD: 65 (34 37) FT ENTER FT OR MI (38 39)

TAX MAP: 14 BLK: 16 PARCEL 154

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

Howard (13) A519609 (COUNTY NAME COUNTY NO.)

STATE SIGNATURE _____ INSERT S → (41)

DATE ISSUED: 10/1/2004 (43 MM DD YY 48) Brian Baker (CO SIGNATURE) 10/1/2005 (EXP. DATE)

NORTH GRID: 532 000 (50 55) EAST GRID: 792 000 (57 63)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X →

SOURCES OF DRILLING WATER
1. well
2.
3.

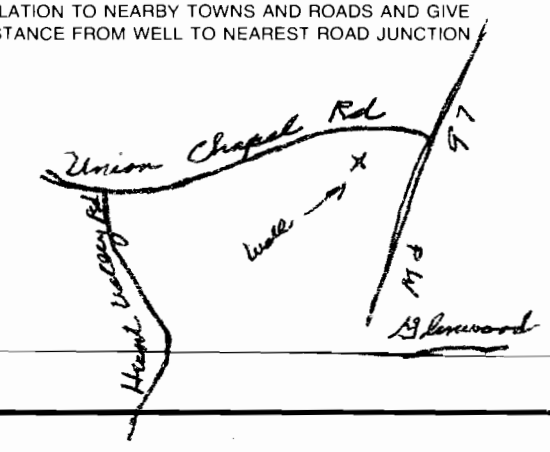
WRITE THE BOX NUMBER FROM THE MAP HERE

E 7912

N 5342

000 000 X

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



SPECIAL CONDITIONS
NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

DENV-Permit 97 ② COUNTY

Page 1 of _____
Date 10-5-04

Review _____

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 94-4028
Location of property (road) Union Chapel Road
Subdivision Men Woods Lot 2 Block _____ Plat _____ Sec. _____
Well Driller Joseph Mayne Owner Kennard Warfield

Depth of well 80'
Distance of measuring point (M.P.) above ground 2½
Static water level (S.W.L.) below M.P. 20'

I. High rate pumping -- reservoir drawdown

Time pump started 7:30 Pumping rate 15 gpm.
Total time 5 min to reach pumping water level 24 ft below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

TIME (in 15 minute intervals	WATER LEVEL below M.P.	PUMPING RATE time to fill #1 gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
7:45	24'	4 sec.	N/A	15 gpm.
8:00	24	4		15
8:15	24	4		15
8:30	24	4		15
8:45	24	4		15
9:00	24	4		15
9:15	24	4		15
9:30	24	4		15
9:45	24	4		15
10:00	24	4		15
10:15	24	4		15
10:36	24	4		15
10:45	24	4		15

HD-224

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 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: A R CROWELL PLUMBING Telephone #: 410-724-2900
Address: P O BOX 423
SAVAGE, MD 20763

(Must circle one) (Licensed Plumber) Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): ROBERT CROWELL License# 8980
***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: RYAN HOMES Telephone #: 410-796-0980
Subdivision: WARFIELD ESTATES / NEW WOODS Lot #: 2 Well Tag #: HO-94-4028
Site Address: 14851 UNION CHAPEL RD
GLENWOOD, MD 21797

Submersible Pump Data
Make: MYERS
Model #: 2ST52-12
Pump Capacity 12 GPM
Well Yield: 15 GPM

Pitless Adapter
Make: GRANBY
Model#: PT800
Depth: 36 (36" min)
NSF/WSC approved: ___

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

Depth of well encountered at time of pump installation: 80 (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: POLY
PSI: Yes (160 psi min)
Depth of supply line: Yes (36" min)

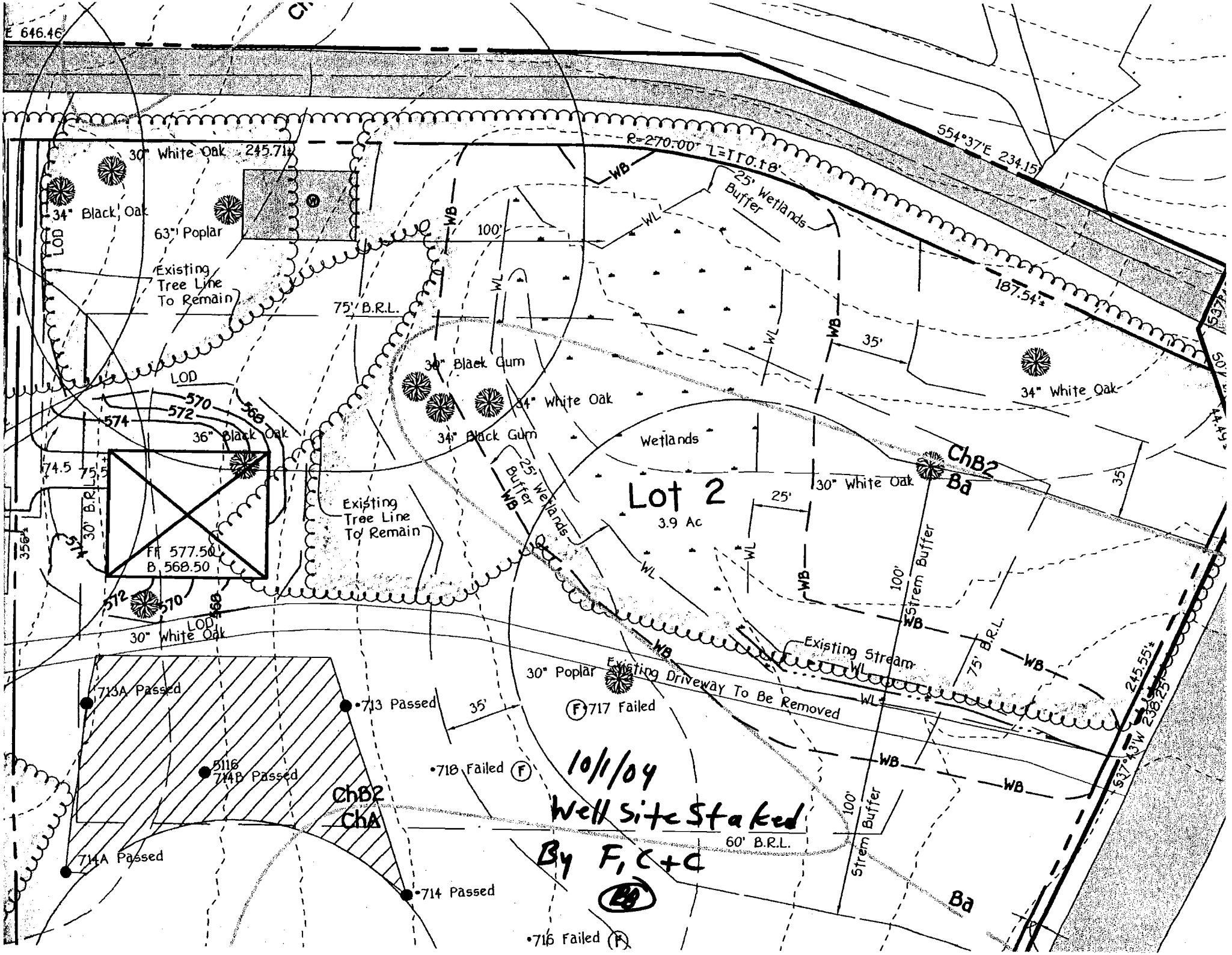
House Connection
PVC sleeve to undisturbed soil at wall penetration: Yes
Approximate length of sleeve: 10'
Sleeve caulked and sealed properly: Yes

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation — 4-16-06 date

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

Date Insp. Requested: _____ Date Insp. Approved: 11-26-05 Inspector: BB
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 seen outside of well cap/casing ✓
- Correct well tag attached properly and casing 8" above finished grade ✓
- Water supply line sleeved adequately at house connection under floor
- Adequate grout observed below pitless adapter ✓


E 646.46'
R=270.00' L=110.18'
S54°37'E 234.15'
30" White Oak
245.71'±
34" Black Oak
63" Poplar
LOD
Existing Tree Line To Remain
75' B.R.L.
100'
WB
WL
25' Wetlands Buffer
187.54'±
35'
30" Black Gum
34" White Oak
34" Black Gum
Wetlands
36" Black Oak
570
572
574
568
74.5
75'
30' B.R.L.
FF 577.50
B 568.50
Existing Tree Line To Remain
Lot 2
3.9 Ac
ChB2
Ba
25'
100' Strem Buffer
Existing Stream
75' B.R.L.
245.55'±
S37°43'W 238.25'
30" White Oak
30" Poplar
Existing Driveway To Be Removed
713A Passed
713 Passed
717 Failed
718 Failed
5116
714B Passed
ChB2
ChA
714A Passed
714 Passed
716 Failed
60' B.R.L.
10/1/04
Well Site Staked
By F, C+C
BG

Howard County
Health Department

3525 H Ellicott Mills Drive, Ellicott City, MD 21043
(410) 313-1771 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

April 20, 2006

NVR Inc/Ryan Homes
6085 Marshalee Drive
Elkridge MD 21075

RE: 14851 Union Chapel Road
Mew Woods, Lot 2
Glenelg, MD 21737
BP#: B00156887
Well Permit # HO-94-4028

Dear Sirs:

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 on 01/20/2006. Final approval of the well line connection to the dwelling was approved on 01/26/2005.**

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking. The water sample results were found to be in compliance with COMAR water quality standards.

INTERIM CERTIFICATE OF POTABILITY

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-94-4028. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

Date of Water Sample(s): 04/03/2006
Date of Well Completion: 10/05/2004

Approving Authority,

Stuart Oster, R. S.
Well & Septic Program

cc: Building Inspector's Office
Community Health Services
File

CERTIFICATE OF ANALYSIS

TRACE LABORATORIES-EAST

Headquarters
5 North Park Drive
Hunt Valley, MD 21030
Telephone: 410/252-7742
Telephone: 410/584-9099
Fax: 410/584-9117
Email:
tracelab@connext.net
www.tracelabs.com

Maryland State Certified
Water Quality Laboratory
No. 318

Requester:
Ryan Homes
11460 Cronridge Drive
Owings Mills, Maryland 21117

S/O Number: 06-2999
Report Date: April 4, 2006

Property Sampled: **14851 Union Chapel Road**

County: Howard
Subdivision: Mew Woods
Lot #: 2
Building Permit #: B00156887

Tax Map #: 14
Parcel #: 154

Date/Time Collected: April 3, 2006 at 11:15 am
Date/Time Received: April 3, 2006 at 12:10 pm

Sample Location: Powder Room Tap
Sampler ID: 6724GP
Samples Iced: Yes
Residual Cl_2 <0.1 mg/L: Yes

Well Tag Number: HO-94-4028
Well Condition: 2-Piece Cap
Satisfactory

Water Conditioning/Treatment: NONE

PARAMETER	RESULT	METHOD	MCL/*SMCL	
Nitrate	8.6 mg/L as N	SM 4500D	10 mg/L as N	Pass
Turbidity	2.1 NTU	EPA 180.1	10 NTU	Pass
pH	5.2 Units	EPA 150.1	*6.5-8.5 Units	***
Sand	Negative		Negative	
Total Coliform	Absent	SM 9223B	Absent	Pass
E.coli	Absent	SM 9223B	Absent	Pass

Heather R. Beam
Manager-Drinking Water Testing

MCL=Maximum Contamination Level
*SMCL=Secondary Maximum Contamination Level
***A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.