

7/31/89  
AM  
ASAP

# 348311

# PERMIT

SEWAGE DISPOSAL SYSTEM

MARYLAND STATE DEPARTMENT OF HEALTH

HOWARD COUNTY  
BUREAU OF ENVIRONMENTAL HEALTH  
461-9933

INDEXED

P 448116

A 40072

DISTRICT 4th

DATE 8/3/89

DATE SYSTEM APPROVED 7/31/89

INSPECTOR M. R. F. K.

Olen Ketterman

IS PERMITTED TO INSTALL ☒ ALTER ☐

ADDRESS 14960 Route 144, Woodbine, Maryland 21797 PHONE 442-1336

SUBDIVISION White Wood Estates ROAD 17300 White Plains Ct LOT 16

PROPERTY OWNER Seneca Home Builders, Inc.

ADDRESS \_\_\_\_\_

IF GARBAGE GRINDER IS USED INCREASE SEPTIC TANK CAPACITY BY 50% AND ABSORPTION AREA BY 22%.

GARBAGE GRINDER? YES ☐ NO ☒

SEPTIC TANK CAPACITY 1250 GALLONS NUMBER OF BEDROOMS 4

TRENCHES - 210 sq. ft. per bedroom. Trench to be 2 feet wide. Inlet 4.5 feet below original grade. Bottom maximum depth 8.5 feet below original grade. Effective area begins at 4.5 feet below original grade. 4 feet of stone below distribution pipe.

LOCATION - Place the first trench 200 feet off the front lot line and 160 feet off the right lot line as seen when facing the lot from White Plains Court. Run trenches on contour toward the court.

NOTE - No trench to exceed 100 feet in length. Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank. OK/CW

PLANS APPROVED BY Sid Abel

Updated  
DATE 4/12/89

COVER NO WORK UNTIL INSPECTED AND APPROVED

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS

NOTE: ALL PARTS OF SEPTIC SYSTEMS (I.E. TANK, DISTRIBUTION BOX, TRENCHES) TO BE 100 FEET FROM WELL (UNLESS OTHERWISE SPECIFICALLY AUTHORIZED)

NOTE: IF DEEP TRENCH(IES) ARE USED CALL FOR INSPECTION BEFORE AND AFTER PLACING GRAVEL IN TRENCH(IES)

NOTE: NO DRY WELL SHALL EXCEED 15 FOOT IN DIAMETER NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 40 PVC OR ABS

PERMIT VOID AFTER TWO YEARS

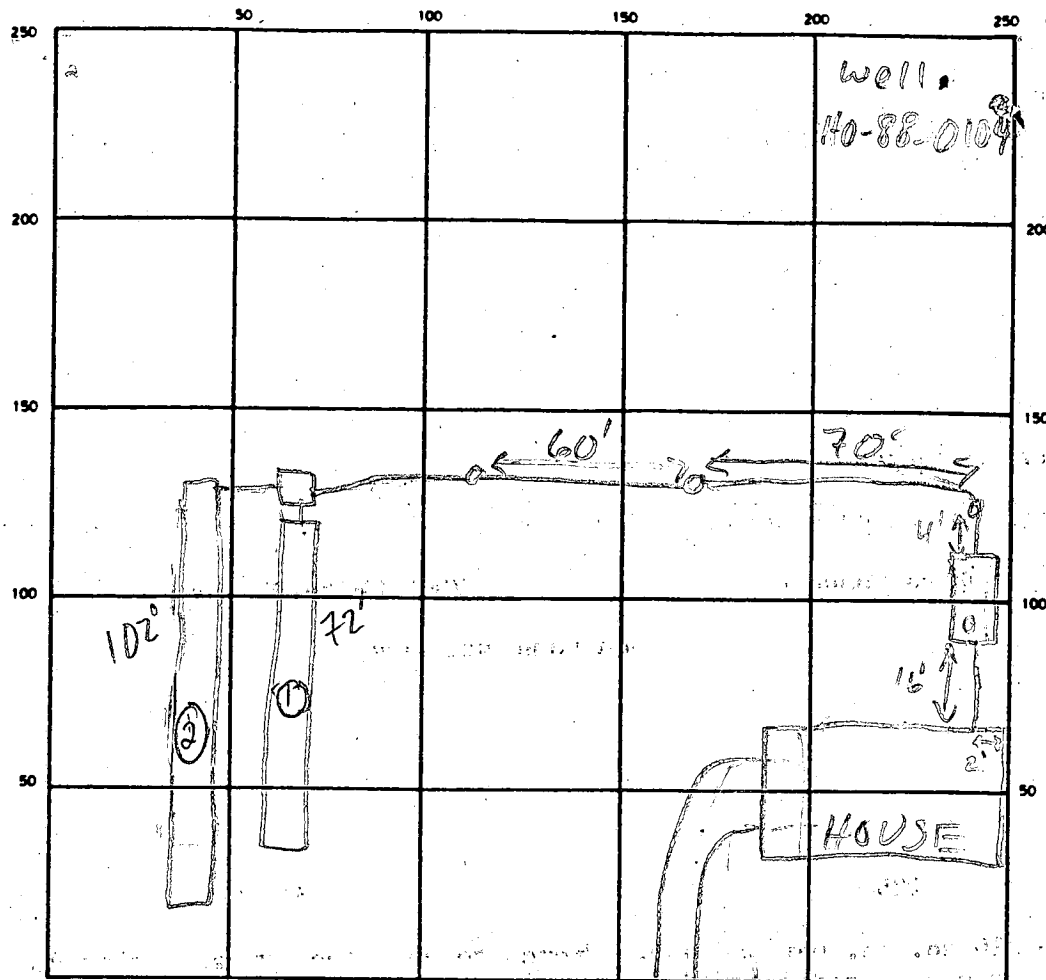
NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL. STAND PIPES MUST BE 6 INCHES IN DIAMETER. CAST IRON, CONCRETE OR TERRA COTTA OR PVC OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET, MANHOLE TO GRADE REQUIRED

NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

\*INSTALLER IS RESPONSIBLE FOR OBTAINING FINAL APROVAL ON THIS PERMIT

\*CALL 461-9933 FOR INSPECTION OF SEPTIC SYSTEMS.

A  
40072



INDICATE NORTH NAME ADJOINING ROADWAY AS BASE LINE  
WHITE PLAINS CT

SEPTIC TANK LEVEL OK CLEANOUTS 3 INLINE - OK, S.T. - OK

DISTRIBUTION BOX LEVEL OK

DRAIN FIELD/TILE FIELD DEPTH 8 5/8 FT. TRENCH WIDTH 2 FT. INLET DEPTH 4-4 1/2 FT.

EFFECTIVE GRAVEL DEPTH 4 1/2 - 5 FT. TOTAL LENGTH 174 FT.

NUMBER OF TRENCHES 2 ONE SIDEWALL/BOTTOM AREA 324 + 510 = 840 SQ. FT.

DRYWELL INSIDE DIAMETER — FT. EFFECTIVE DEPTH BELOW INLET — FT.

ABSORBENT AREA — SQ. FT.

REMARKS 7/31/89 CONTRACTOR DID NOT HAVE UPDATED SPECS. ALLOWED HIM TO PUT INLET IN AT 4' TRENCHES DIG TO 72', 15' ADD'L ON (2), 20' ADD'L ON (1) MR  
7/31/89 #2 ALL EXTRA LINEAR DIST ADDED TO (2); ALL WORK OK TO COVER

DATE SYSTEM APPROVED 7/31/89 INSPECTOR M. Rifkin

# APPLICATION

PERCOLATION TESTING

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
P.O. BOX 476 ELLICOTT CITY, MARYLAND 21043  
TELEPHONE: 461-9933

A 40072

P \_\_\_\_\_

DISTRICT 4TH

DATE 9-8-87

10/27/87  
perc OK  
pending final  
approval  
(Signature)

TO: THE COUNTY HEALTH OFFICER  
ELLICOTT CITY, MARYLAND

I, HEREBY, APPLY FOR THE NECESSARY TEST IN ORDER TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

854-6985

PROPERTY OWNER Kennard Warfield Jr Seneca Home Bld. Inc

ADDRESS 14663 Tridelphia Rd Glenely 21737 PHONE 442-2337

PROSPECTIVE BUYER N/A

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

PROPERTY LOCATION:

SUBDIVISION White Property Whitewood est LOT NO. 16

ROAD AND DESCRIPTION South side of Balto National Pike (Rt 144) north  
side of Hardy Rd 17300 White Plains Ct

TAX MAP 7 PARCEL # 1

SIZE OF LOT 3 ± acres TYPE BLDG. SFD  
(SINGLE FAMILY DWELLING OR COMMERCIAL)

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I FULLY UNDERSTAND THE

FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO COMPLY

WITH ALL M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT.

Mal D Rein  
(SIGNATURE OF APPLICANT)

APPROVED BY Sichay Abel FOR Deep trenches DATE 8-12-88

REJECTED BY \_\_\_\_\_ FOR \_\_\_\_\_ DATE \_\_\_\_\_

HOLD PENDING FURTHER TESTS \_\_\_\_\_ DATE \_\_\_\_\_

REASONS FOR REJECTION OR HOLDING for certified perc holes & sub: plat

BLDG. PERMIT SIGNED  
AND RETURNED 4-12-89

BP24693 8AL

# THIS IS NOT A PERMIT

198 ~~7~~ / Bedroom

### SOIL PROFILE

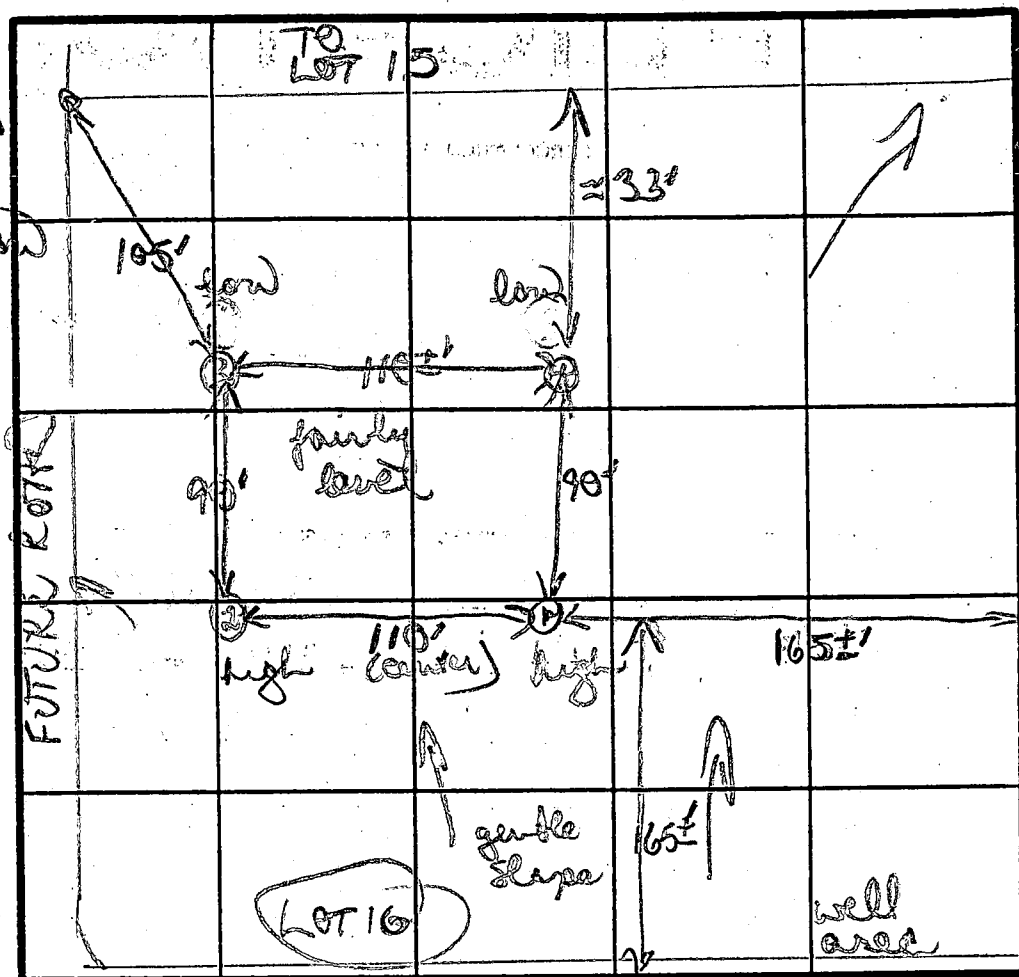
orange yellow  
clay 3'  
10 layers  
orange  
yellow  
silty clay  
brown  
w/  $< 10\%$   
small  
saprophyte  
frag 7'  
12' D

②

orange / yellow  
brown clay  
3 1/2  
m/y yellow  
orange silty  
lean v/  
few scattered  
small patches  
chalk silt  
lean Fk  
128'0

③

orange / yellow  
clay / clay  
iron / iron  
4 1/2 - 5  
yellow / yellow  
to purple  
silty / silty  
w/ 25% small  
foss 12 1/2"



5 INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

ORTH: NAME ADJOINING ROAD: APTS:  
HARDY ROAN

TRANSVERSE  
POINT

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
10/27/82	1	3' S	1059	1105	1105	1112	7min
		7' M	1100	1104	1104	1110	6min
		12' D	bottom (see profile)				
	2	VISUAL ONLY			OK	3 1/2-4'	
		12 1/2' D	bottom (see profile)				
	3	4 1/2-5'	1123	1132	1132	1145	13min
		12 1/2' D	bottom (see profile)				
(over)	4	14' S	1125	1130	1130	1138	8min
		12' D	bottom (see profile)				

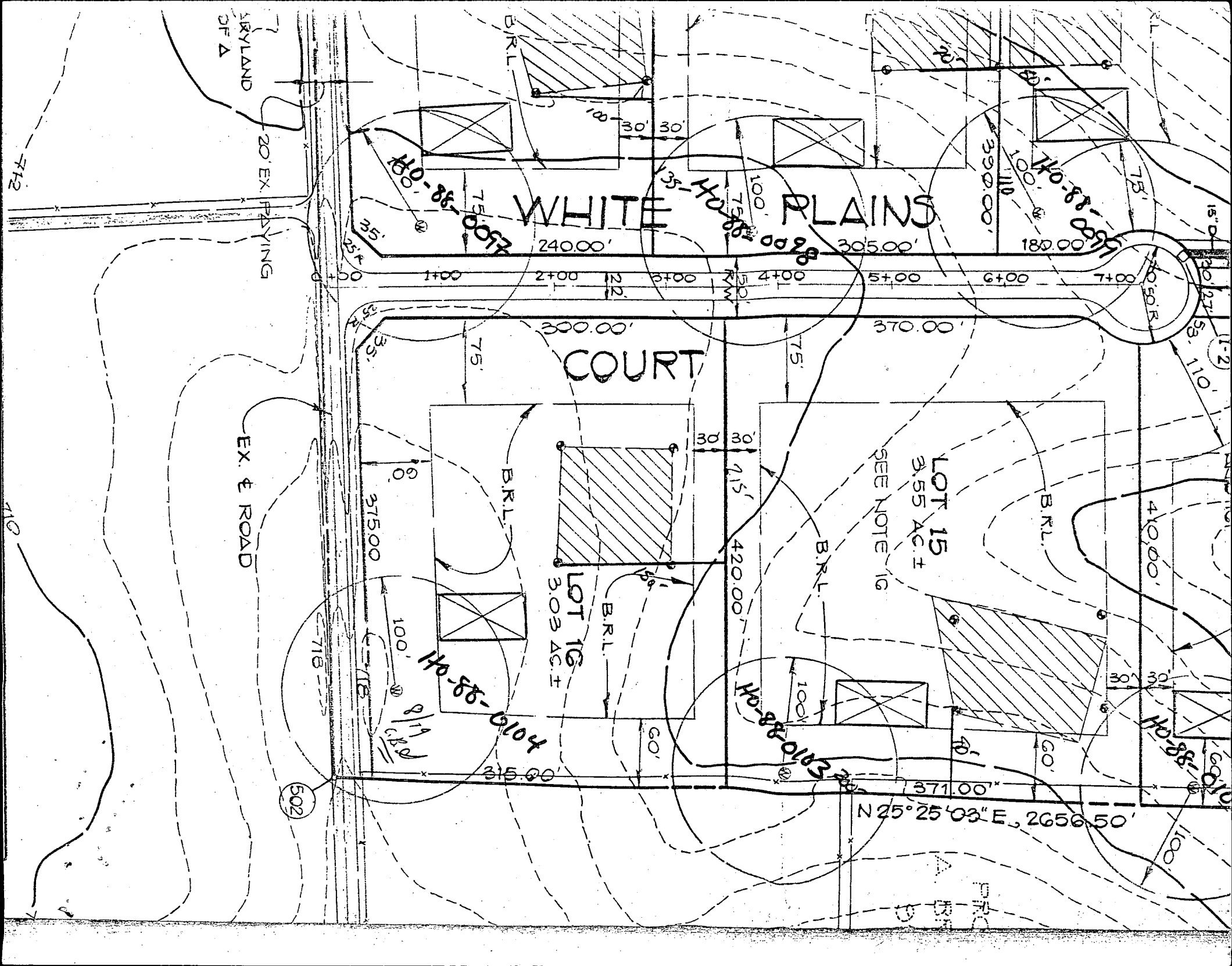
per slug + tested as stake

max red yellow / orange slays to 4 1/2' mostly orange  
yellow & tan pl. salt brn

B. Wilson

**ALSO PRESENT**

Alan, Mark W

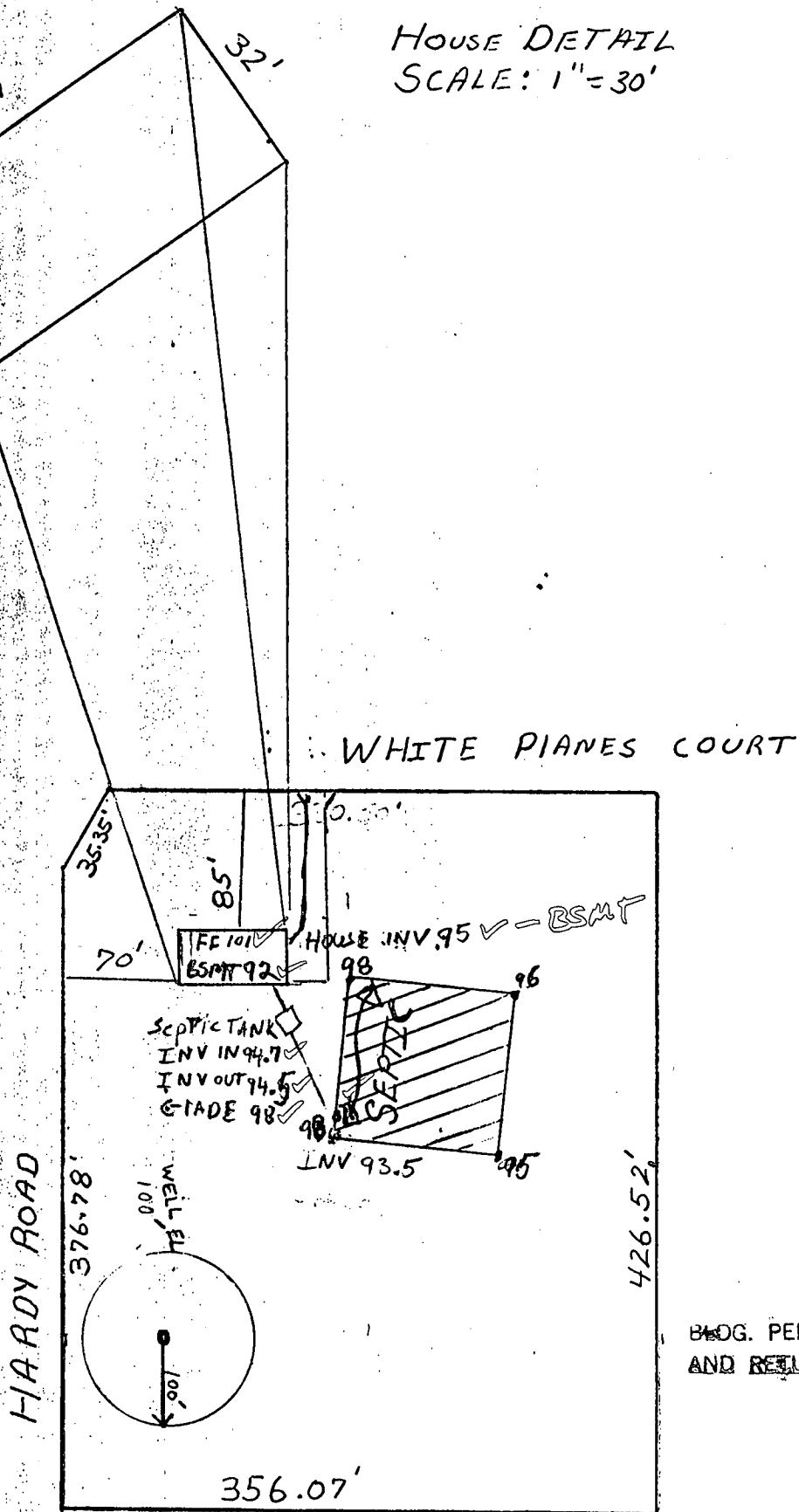


# Seneca Home Builders, Inc.

3126 CABIN RUN RD.  
WOODBINE, MARYLAND 21797

854 6985

HOUSE DETAIL  
SCALE: 1"=30'



BLOG. PERMIT SIGNED  
AND RETURNED 4-12-89

BP 24693

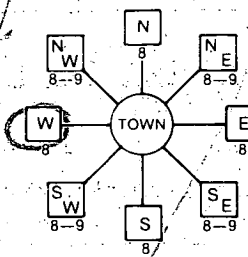
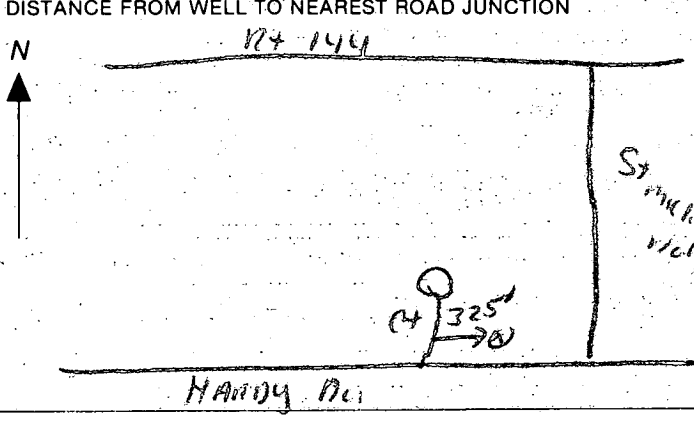
SAB

HOUSE LOCATION PLAT  
17300 WHITE PLAINS COURT  
WHITE WOOD ESTATES SUBDIVISION

LOT 16

BLOCK

SCALE 1"=100'

B 1 3602 <small>(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)</small>	SEQUENCE NO. (DP USE ONLY)	STATE OF MARYLAND <b>PERMIT TO DRILL WELL</b> please print or type	STATE PERMIT NUMBER 40-88-0104 <small>fill in this form completely</small>
Date Received (APA) 080488 OWNER INFORMATION WARFIELD KERN 15 Last Name      Owner      First Name 14063 TRIDELPHIA RD 36 Street or RFD GLENELB      MD21232 57 Town      70 State 72      Zip      76		B 3 LOCATION OF WELL HOWARD 8 COUNTY      21 WHITE WOODS EST 23 SUBDIVISION      42 SECTION 44-46      LOT 16 52 NEAREST TOWN POPULAR SPRINGS 52 NEAREST TOWN      71 MILES FROM TOWN (enter 0 if in town) 1 MI 73      76      77      78	
DRILLER INFORMATION RALPH MAYNE Driller's Name      77 License No. 80 Ralph Mayne Well Drilling Firm Name 9700 Brown Church Rd. Apt 204 Address Ralph Mayne      2/30/88 Signature      Date		B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)  11 NEAR WHAT ROAD WHITE PLAINS CT. ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N WEST W EAST E SOUTH S 34 325 37 DISTANCE FROM ROAD ENTER FT or MI F+ 38 39	
B 2 WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) 5 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500 14      20		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL HOWARD      A 40072 COUNTY NAME      COUNTY NO. STATE SIGNATURE      INSERT S DATE ISSUED 081788 43      48 CO SIGNATURE      EXP. DATE 02-16-89 NORTH GRID 549000      EAST GRID 0766000 50      55      57      63	
USE FOR WATER (CIRCLE APPROPRIATE BOX) <input checked="" type="checkbox"/> HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY) <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT) <input type="checkbox"/> PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL) <input type="checkbox"/> TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)		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 7646 N 5149 000 000	
APPROXIMATE DEPTH OF WELL 150 FEET 24      28 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 DEEPEMED 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 type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY <input type="checkbox"/> THIS WELL WILL DEEPEMED AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41      52		DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION N  HANDY DC	
Not to be filled in by driller (OEP USE ONLY)			
APPROP. PERMIT NUMBER      GAP      63			
FORCE SA      WRITE INITIALS IN BOX      PERMIT NO. 40-88-0104 67 68      70 71 72 73 74 75 76 77 78 79			
SPECIAL CONDITIONS			

<b>C1</b> <span style="font-size: 24pt; font-weight: bold;">0594</span>		SEQUENCE NO. (DENY USE ONLY)		<b>STATE OF MARYLAND</b> <b>-WELL COMPLETION REPORT</b> FILL IN THIS FORM COMPLETELY PLEASE PRINT OR TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
						COUNTY NUMBER <u>A-40072</u>	
DATE Received <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; justify-content: space-between;"><div>8</div><div>13</div></div>		DATE WELL COMPLETED <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; justify-content: space-between;"><div>08</div><div>19</div><div>88</div></div>		Depth of Well 22 <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">205</div> 26 (TO NEAREST FOOT)		PERMIT NO. FROM "PERMIT TO DRILL WELL" <div style="border: 1px solid black; width: 100px; height: 20px; display: flex; justify-content: space-between;"><div>40</div><div>88</div><div>0109</div></div>	
OWNER last name <u>WILLIAMS</u> first name <u>KRAI</u>		STREET OR RFD <u>10000 WILLOW FLY</u>		TOWN <u>FERRIS - FAIRFAX</u>		LOT <u>16</u>	
SUBDIVISION <u>10000 WILLOW FLY</u>		SECTION <u>16</u>		LOT <u>16</u>			
<b>WELL LOG</b> Not required for driven wells		<b>GROUTING RECORD</b>		<b>C3</b>		<b>PUMPING TEST</b>	
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		WELL HAS BEEN GROUTED (Circle Appropriate Box)		<div style="display: flex; justify-content: space-around;"><div><div style="border: 1px solid black; padding: 2px;">Y</div>yes</div><div><div style="border: 1px solid black; padding: 2px;">N</div>no</div></div>		HOURS PUMPED (nearest hour) <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">3</div>	
		TYPE OF GROUTING MATERIAL		PUMPING RATE (gal. per min. to nearest gal.) <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">10</div>			
DESCRIPTION (Use additional sheets if needed)		CEMENT <div style="border: 1px solid black; padding: 2px;">CM</div> BENTONITE CLAY <div style="border: 1px solid black; padding: 2px;">BC</div>		METHOD USED TO MEASURE PUMPING RATE <u>Bucket</u>		WATER LEVEL (distance from land surface)	
		NO. OF BAGS <u>11</u> NO. OF POUNDS <u>100</u>		BEFORE PUMPING <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">45</div>		WHEN PUMPING <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">55</div>	
GALLONS OF WATER <u>66</u>		DEPTH OF GROUT SEAL (to nearest foot)		TYPE OF PUMP USED (for test)		CAPACITY: GALLONS PER MINUTE (to nearest gallon)	
from <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">0</div> TOP 52 ft. to <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">40</div> BOTTOM 58 ft.		(enter 0 if from surface)		A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible		PUMP HORSE POWER <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">37</div>	
Top Soil 0 2		<b>CASING RECORD</b>		PUMP COLUMN LENGTH (nearest ft.) <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">43</div>		CASING HEIGHT (circle appropriate box and enter casing height)	
Brown Shale 2 60		casing types insert appropriate code below		PUMP COLUMN LENGTH (nearest ft.) <div style="border: 1px solid black; width: 40px; height: 20px; display: flex; align-items: center; justify-content: center;">43</div>		LAND SURFACE <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">3</div> (nearest foot)	
Brown Slate 60 65		<div style="border: 1px solid black; padding: 2px;">ST</div> STEEL <div style="border: 1px solid black; padding: 2px;">CO</div> CONCRETE		CASING HEIGHT (circle appropriate box and enter casing height)		LOCATION OF WELL ON LOT	
Blue Slate 65 90		<div style="border: 1px solid black; padding: 2px;">PL</div> PLASTIC <div style="border: 1px solid black; padding: 2px;">OT</div> OTHER		CASING HEIGHT (circle appropriate box and enter casing height)		SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)	
Brown Slate 90 95		MAIN CASING TYPE		CASING HEIGHT (circle appropriate box and enter casing height)		ROAD	
Blue Slate 95 205		Nominal diameter top (main) casing (nearest inch)		CASING HEIGHT (circle appropriate box and enter casing height)			
		<div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">P</div> 60 <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">L</div> 61		CASING HEIGHT (circle appropriate box and enter casing height)			
		Total depth of main casing (nearest foot)		CASING HEIGHT (circle appropriate box and enter casing height)			
		<div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">6</div> 63 <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">20</div> 64		CASING HEIGHT (circle appropriate box and enter casing height)			
		OTHER CASING (if used)		CASING HEIGHT (circle appropriate box and enter casing height)			
		diameter inch		CASING HEIGHT (circle appropriate box and enter casing height)			
		depth (feet) from to		CASING HEIGHT (circle appropriate box and enter casing height)			
		<div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">3</div> 41 <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">4</div> 42		CASING HEIGHT (circle appropriate box and enter casing height)			
		screen type or open hole		CASING HEIGHT (circle appropriate box and enter casing height)			
		insert appropriate code below		CASING HEIGHT (circle appropriate box and enter casing height)			
		<div style="border: 1px solid black; padding: 2px;">ST</div> STEEL <div style="border: 1px solid black; padding: 2px;">BR</div> BRASS <div style="border: 1px solid black; padding: 2px;">PL</div> PLASTIC <div style="border: 1px solid black; padding: 2px;">HO</div> OPEN HOLE <div style="border: 1px solid black; padding: 2px;">OT</div> OTHER		CASING HEIGHT (circle appropriate box and enter casing height)			
		SLOT SIZE 1 2 3		CASING HEIGHT (circle appropriate box and enter casing height)			
		DIAMETER OF SCREEN <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">56</div> (NEAREST INCH)		CASING HEIGHT (circle appropriate box and enter casing height)			
		from to		CASING HEIGHT (circle appropriate box and enter casing height)			
		GRAVEL PACK		CASING HEIGHT (circle appropriate box and enter casing height)			
		IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68		CASING HEIGHT (circle appropriate box and enter casing height)			
		TELESCOPE CASING		CASING HEIGHT (circle appropriate box and enter casing height)			
		LOG INDICATOR		CASING HEIGHT (circle appropriate box and enter casing height)			
		OTHER DATA		CASING HEIGHT (circle appropriate box and enter casing height)			
		T (E.R.O.S.)		CASING HEIGHT (circle appropriate box and enter casing height)			
		WQ		CASING HEIGHT (circle appropriate box and enter casing height)			
		70 72 74 75 76		CASING HEIGHT (circle appropriate box and enter casing height)			
		SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)		CASING HEIGHT (circle appropriate box and enter casing height)			
		DRILLERS IDENT. NO. <u>273</u>		CASING HEIGHT (circle appropriate box and enter casing height)			
		DRILLERS SIGNATURE <u>WILLIAMS</u>		CASING HEIGHT (circle appropriate box and enter casing height)			
		(MUST MATCH SIGNATURE ON APPLICATION)		CASING HEIGHT (circle appropriate box and enter casing height)			
		I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 10.17.13 "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.		CASING HEIGHT (circle appropriate box and enter casing height)			
		CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED		CASING HEIGHT (circle appropriate box and enter casing height)			
		E ELECTRIC LOG OBTAINED		CASING HEIGHT (circle appropriate box and enter casing height)			
		P TEST WELL CONVERTED TO PRODUCTION WELL		CASING HEIGHT (circle appropriate box and enter casing height)			