DNR-131 EMERGENCY NO. (if any) –

B 1 8072 SEQUENCE NO. (DWR USE ONLY)
1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
DEPARTMENT OF WATER RESOURCES
STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

DWR PERMIT NUMBER CH-TB-2423
FILL IN THIS FORM COMPLETELY

DATE RECEIVED (DWR USE ONLY)

BF 144

OWNER County Commissioners of Charles County (Eleanor F. Carrico, Pres.)
COL 15 LAST NAME FIRST NAME COL. 34

STREET OR RFD Charles County Dept. of Public Works CH BF 144
COL 36 COL. 55

POST OFFICE P. O. Box B, La Plata, Maryland 20646
COL 57 COL. 76

8-13

B 1 CONTINUED — DRILLER INFORMATION
1 2 3 (SEQ. NO.) 6

DATE June 12, 1979 LICENSE NUMBER 260 (77–80)

Robert R. Peters
FIRST NAME DRILLER LAST NAME

SIGNATURE R R Peters

B 2 — WELL INFORMATION
1 2 3 (SEQ. NO.) 6

MAXIMUM PUMPING RATE (GALLONS PER MINUTE) 500 (8–12)

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY) 500,000 (14–20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)
- D DOMESTIC, HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)
- F FARMING, AGRICULTURE, IRRIGATION
- I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

22
- M MUNICIPAL WATER SUPPLY
- P PRIVATE WATER COMPANY

} MUST HAVE STATE HEALTH DEPT. APPROVAL

- T TEST

APPROXIMATE DEPTH OF WELL ~~Est to~~ 1500' FEET (24–28)

APPROXIMATE DIAMETER OF WELL 12" (NEAREST INCH)

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)
BORED (OR AUGERED) JETTED DRIVEN
30-37 AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)
CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE) _____

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
- D THIS WELL WILL DEEPEN AN EXISTING WELL

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

B 3 — LOCATION OF WELL
1 2 3 (SEQ. NO.) 6

COUNTY Charles (8–21) (DO NOT ABBREVIATE COUNTY NAME)

SUBDIVISION Pinefield (23–42)

SECTION (44–46) LOT (48–50)

NEAREST TOWN ~~WALDORF~~ (52–71)

MILES FROM TOWN (ENTER O IF IN TOWN) 4 (73) M I (76 77 78)

B 4 — DIRECTION FROM TOWN
1 2 3 (SEQ. NO.) 6
(CIRCLE APPROPRIATE BOX)

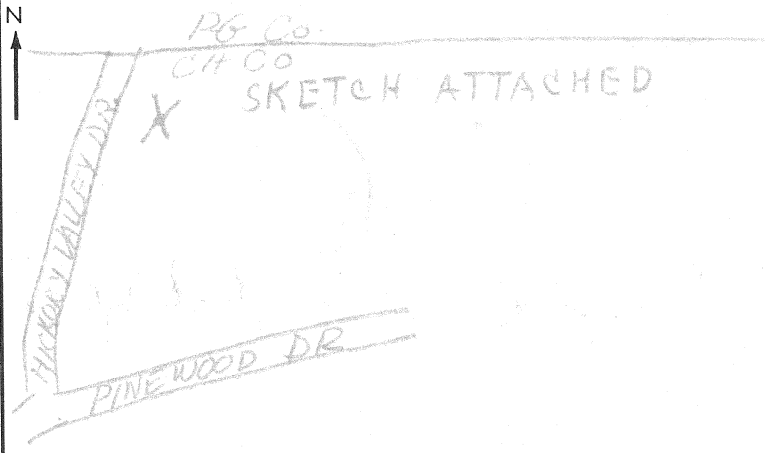
N NORTH E EAST NE NORTHEAST SE SOUTHEAST
S SOUTH W WEST NW NORTHWEST SW SOUTHWEST
(8) (8) (8 9) (8 9)

NEAR WHAT ROAD Hickory Valley Drive (11–30)

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH N (32) SOUTH S (32) EAST E (32) WEST W (32)

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX) 300 FT (34–37) F T M I (38 39)

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL LOCATION MAP.



NOT TO BE FILLED IN BY DRILLER (DWR USE ONLY)

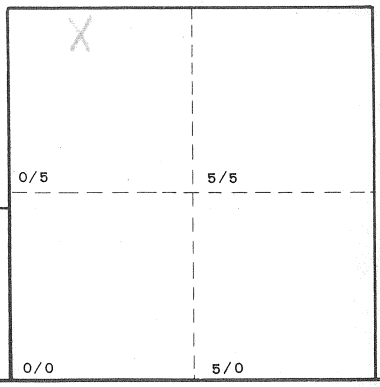
APPROPRIATION PERMIT NUMBER CH 78 GAP 021 (54–63) G A P

ENGINEER REVIEW DISTRICT NO. (65)

FORCE CA (67 68) WRITE INITIALS IN BOX

CONDITIONS A E N S G W Q C L U (70 71 72 73 74 75 76 77 78 79)
A W Q

BOX NUMBER E 240 N 290



B 4 CONTINUED — HEALTH DEPARTMENT APPROVAL
1 2 3 (SEQ. NO.) 6

41 S STATE HEALTH (CIRCLE BOX) COUNTY NAME COUNTY NO.

DATE MO. 6 DAY 5 YR. 79 (43–48)

Ray F. Anderson Jr.
APPROVED BY

NORTH COORDINATE 29900 (50–55)

EAST COORDINATE 04200 (57–63)

ELEVATION AT WELL HEAD (FEET) (65–68)

B 5
1 2 3 (SEQ. NO.) 6

SPECIAL CONDITIONS 8-63 (DWR USE ONLY)

8 63

SURVEY

DNR-214 (7-77)

C 1 6776 — SEQUENCE NO. (WRA USE ONLY)
1 2 3 (SEQ. NO.) 6
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WI IN 30 DAYS AFTER WELL COMPLET

FILL IN THIS FORM COMPLETELY

COUNTY NUMBER Ch-Bf-144

DATE RECEIVED (WRA USE ONLY) 8-13

DATE WELL COMPLETED 2/1/80 (15–20)

DEPTH OF WELL 705 (22 (TO NEAREST FOOT) 26)

PERMIT NO. FROM "PERMIT TO DRILL WELL" (28 29 30 31 32 33 34 35 36 37)

DRILLERS IDENTIFICATION NO.

OWNER County Commissioners of Charles County, Charles County Dept. of Public Works
LAST NAME FIRST NAME

STREET OR RFD P. O. Box B POST OFFICE La Plata, MD 20646

WELL DESCRIPTION

WELL LOG

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

DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM	FEET TO	CHECK IF WATER BEARING
Please see attached sheets.			

GROUTING RECORD

WELL HAS BEEN GROUTED (CIRCLE APPROPRIATE BOX) YES [Y] (44) NO [N] (44)

TYPE OF GROUTING MATERIAL (CIRCLE BOX):

CEMENT [C M] (45 46) BENTONITE CLAY [B C] (45 46)

NO. OF BAGS 60 NO. OF POUNDS 5,760

GALLONS OF WATER 360

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. (48 52) TO 110' FT. (54 58)

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES — INSERT APPROPRIATE CODE BELOW

[S T] STEEL [C O] CONCRETE [P L] PLASTIC [O T] OTHER

MAIN CASING TYPE	NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)	TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)
S T (60 61)	12" (63 64)	481'-6" (66 70)

OTHER CASING (IF USED)

EACH CASING

	DIAMETER (INCH)	DEPTH (FEET) FROM	TO
S T	12"	+20	705'
S T	24"	0	55'

SCREEN RECORD

SCREEN TYPE OR OPEN HOLE — INSERT APPROPRIATE CODE BELOW

[S T] STEEL [B R] BRASS OR BRONZE [H O] OPEN HOLE [P L] PLASTIC [O T] OTHER

C 2 (1 2 3 (SEQ. NO.) 6)

EACH SCREEN

		DEPTH (NEAREST WHOLE FOOT) FROM	TO
1	O T (8 9)	479'-6" (11 15)	530'-9" (17 21)
2	O T (23 24)	599'-9" (26 30)	620' (32 36)
3	O T (38 39)	659'-6" (41 45)	700' (47 51)

SLOT SIZE 1, .030 2, .030 3, .030

DIAMETER OF SCREEN 12" ID (56 60) (NEAREST INCH)

GRAVEL PACK FROM 459' TO 710'

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX (68) [F]

CIRCLE APPROPRIATE BOXES

[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 I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME

(PLEASE PRINT) Robert R. Peters

SIGNATURE

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) — TELESCOPE CASING

(E.R.O.S.) (72) — LOG INDICATOR

W Q (74 75 76) — OTHER DATA AVAILABLE

C 3 (1 2 3 (SEQ. NO.) 6)

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR) 12 (8 9)

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 520 (11 15)

METHOD USED TO MEASURE PUMPING RATE water meter

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING 203'-5" (17 20) (NEAREST FOOT)

WHEN PUMPING 241'-2" (22 25) (NEAREST FOOT)

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX) (FOR PUMPING TEST)

[A] AIR (27) [P] PISTON (27) [T] TURBINE (27)

[C] CENTRIFUGAL (27) [R] ROTARY (27) [O] OTHER (DESCRIBE BELOW) (27)

[J] JET (27) [S] SUBMERSIBLE (27)

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX – SEE ABOVE: A, C, J, P, R, S, T, O) (29)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX) YES [Y] NO [N]

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON) (31 35)

PUMP HORSE POWER (37 41)

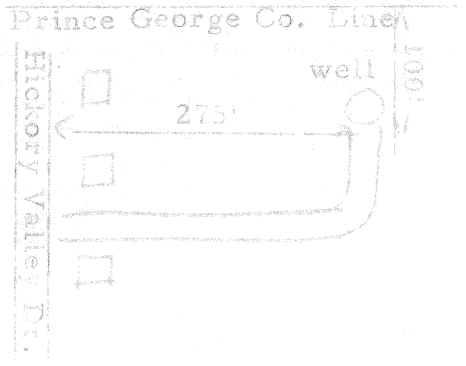
PUMP COLUMN LENGTH (NEAREST FOOT) (43 47)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

[+] ABOVE / [–] BELOW LAND SURFACE 2'-0" (49 50 51) (NEAREST FOOT)

LOCATION OF WELL ON LOT

N ↑ SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



SURVEY

PINEFIELD PRODUCTION WELL
Charles County, Maryland
Formation Log

Total Depth Of All Strata	Check if Water Bearing	Formations
0' - 7'		White and red clay
7' - 25'		Large gravel and red clay
25' - 35'		Gravel and red clay
35' - 60'	✓	Large gravel
60' - 80'		Large gravel and gray clay
80' - 100'		Gray clay
100' - 120'		Clay
120' - 140'		Clay
140' - 160'		Large gravel and clay
160' - 170'		Clay, brown sand and some gravel
170' - 180'		Clay and brown sand
180' - 200'		Clay and brown sand
200' - 210'		Clay and brown sand
210' - 220'		Clay and brown sand
220' - 230'	✓	Sand and large gravel
230' - 240'	✓	Sand and gravel
240' - 250'	✓	Sand and gravel
250' - 260'	✓	Sand
260' - 270'	✓	Sand and rocks
270' - 280'	✓	Sand and small gravel
280' - 290'	✓	Sand and small gravel
290' - 300'	✓	Sand and small gravel
300' - 310'		Clay and fine sand
310' - 320'		Clay and fine sand
320' - 330'	✓	Sand
330' - 340'	✓	Black and gray sand
340' - 350'	✓	Black and gray sand and shells
350' - 360'	✓	Black and gray sand and shells
360' - 380'	✓	Black and gray sand and shells
380' - 390'		Fine sand
390' - 410'		Fine sand (cored 400'-410') #1
410' - 420'		Fine sand and some shells
420' - 430'		Fine sand (Cored 420'-430') #2
430' - 440'		Fine sand and shells
440' - 500'	✓	Fine sand and shells
500' - 510'	✓	Clay and fine sand
510' - 540'	✓	Coarse sand (Cored 520'-530') #3
540' - 550'	✓	Sand
550' - 570'	✓	Black and gray sand
570' - 580'	✓	Coarse sand
580' - 590'	✓	Fine black and gray sand and shells
590' - 630'	✓	Fine black and gray sand and shells (Cored 620-630) #4
630' - 640'		Fine gray and brown sand

PINEFIELD PRODUCTION WELL
Formation Log

Total Depth Of All Strata	Check if Water Bearing	Formations
640'- 650'		Fine gray and brown sand
650'- 720'	✓	Small gravel and sand (Cored 693'-703') #5
720'- 730'		Fine sand
730'- 850'		Red clay and sand (Cored 818'-828') #6, (828'-838') #7
850'- 860'		Fine brown sand, glauconite and red clay
860'- 870'	✓	Fine salt and pepper sand
870'- 880'		Fine salt and pepper sand some lignite and gray clay
880'- 890'		Gravel, sand, and clay (Cored 880'-890') #8
890'- 900'		Gravel, sand, and clay
900'- 920'		Red clay
920'- 940'		Red clay, salt and pepper sand and gravel
940'- 960'		Red clay
960'-1060'		Fine salt and pepper sand and clay (Cored 1000'-1016) #9
1060'-1070'		Fine sand
1070'-1080'		Sand and clay (Cored 1068'-1078') #10
1080'-1090'		Sand and clay
1090'-1100'	✓	Sand
1110'-1160'		Sand and clay
1160'-1170'		Clay
1170'-1180'		Sand and clay
1180'-1190'		Sand and clay
1190'-1200'		Sand and some clay (Cored 1187'-1197') #11
1200'-1270'		Sand (Cored 1218'-1228') #12
1270'-1280'		Clay
1280'-1290'		Clay
1290'-1350'		Clay (Cored 1310'-1320') #13
1350'-1390'		Clay
1390'-1430'		Clay (Cored 1415'-1425') #14
1430'-1440'		Clay and some quartz, hard
1440'-1450'		Fine gray clay
1450'-1460'		Fine sand and gray clay
1460'-1480'		Sand and clay
1480'-1490'		Sand and some clay
1490'-1520'		Sand (Cored 1516'-1526') #15
1520'-1530'		Sand and clay
1530'-1580'		Sand and clay
1580'-1600'		Sand, some clay
1600'-1620'	✓	Sand (Cored 1615'-1625') #16
1620'-1630'		Clay
1630'-1640'		Gravel and clay
1640'-1660'		Clay

PINEFIELD PRODUCTION WELL
Formation Log

Total Depth Of All Strata	Check if Water Bearing	Formations
1660'-1710'		Fine sand
1710'-1750'		Fine sand (Cored 1712'-1722') #17
1750'-1800'		No samples
1800'-1810'		Fine sand and some clay
1810'-1830'		Clay
1830'=1850'	✓	Sand
1850'-1860'	✓	Coarse sand
1860'-1870'		Clay
1870'-1920'		Fine sand and clay