



Water Resources Data Maryland and Delaware Water Year 1991

Volume 2. Ground-Water Data



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-91-2
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

CALENDAR FOR WATER YEAR 1991

1990

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3							1
7	8	9	10	11	12	13								2	3	4	5	6	7	8
14	15	16	17	18	19	20	4	5	6	7	8	9	10	9	10	11	12	13	14	15
21	22	23	24	25	26	27	11	12	13	14	15	16	17	16	17	18	19	20	21	22
28	29	30	31				18	19	20	21	22	23	24	23	24	25	26	27	28	29
							25	26	27	28	29	30		30	31					

1991

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5						1	2						1	2
6	7	8	9	10	11	12	3	4	5	6	7	8	9	5	4	5	6	7	8	9
13	14	15	16	17	18	19	10	11	12	13	14	15	16	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28			24	25	26	27	28	29	30
														31						
APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6				1	2	3	4							1
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						
JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3	1	2	3	4	5	6	7
7	8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28	29	30	31	29	30					



Water Resources Data Maryland and Delaware Water Year 1991

Volume 2. Ground-Water Data

by R.W. James and M.J. Smigaj



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-91-2
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
208 Carroll Building
8600 La Salle Road
Towson, Maryland 21204

PREFACE

This volume of the annual hydrologic data report of Maryland and Delaware is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Maryland, Delaware, and the District of Columbia are contained in two volumes:

Volume 1. Surface-Water Data

Volume 2. Ground-Water Data

This report (Volume 2) is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey, Maryland Geological Survey, and Delaware Geological Survey, who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

D. C. Andreasen	S. E. Curtin	R. J. Starstoneck
J. E. Auvil	P. Gernhardt	A. J. Tallman
D. A. Bringman	J. L. Griffith	J. L. Tegeler
D. P. Brower	S. N. Hiortdahl	M. D. Tompkins
D. W. Bolton	L. B. Maclin	
C. A. Carter	M. M. Mount	

This report was prepared under the general supervision of D. Grason, District Chief, MD-DE-DC District, H. J. Freiburger, Area Assistant Regional Hydrologist, Mid-Atlantic Programs, and S. P. Sauer, Regional Hydrologist, Northeastern Region, and in cooperation with the States of Maryland and Delaware and with other agencies.

REPORT DOCUMENTATION PAGE		1. REPORT NO. USGS/WRD/HD-91/242	2.	3. Recipient's Accession No.
4. Title and Subtitle Water Resources Data - Maryland and Delaware, Water Year 1991 Volume 2. Ground-Water Data			5. Report Date MARCH 1992	
			6.	
7. Author(s) R. W. James, Jr. and M. J. Smigaj			8. Performing Organization Rept. No. USGS-WDR-MD-DE-91-2	
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division 208 Carroll Building 8600 LaSalle Road Towson, Maryland 21204			10. Project/Task/Work/Unit No.	
			11. Contract(C) or Grant(G) No. (C) (G)	
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division 208 Carroll Building 8600 LaSalle Road Towson, Maryland 21204			13. Type of Report & Period Covered Annual - Oct. 1, 1990 to Sept. 30, 1991	
			14.	
15. Supplementary Notes Prepared in cooperation with the states of Maryland and Delaware and with other agencies.				
16. Abstract (Limit: 200 words) Water resources data for the 1991 water year for Maryland and Delaware consist of records of water levels and water quality of ground-water wells. This report (Volume 2. Ground-Water Data) contains water levels at 366 observation wells, discharge records for 4 springs and water quality at 276 wells. Locations of ground-water level wells are shown on figures 3 and 4. The data in this report represents that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Maryland and Delaware.				
17. Document Analysis a. Descriptors *Maryland, *Delaware, *District of Columbia, * Hydrologic data, *Ground water, *Water quality, Water levels, Water analyses, Chemical analyses, Water temperatures, Sampling sites. b. Identifiers/Open-Ended Terms c. COSATI Field/Group				
18. Availability Statement: No restriction on distribution. This report may be purchased from: National Technical Information Service Springfield, VA 22161			19. Security Class (This Report) UNCLASSIFIED	
			20. Security Class (This Page) UNCLASSIFIED	
			21. No. of Pages 582	
			22. Price	

CONTENTS

	Page
Preface.....	iii
List of ground-water wells, by county or independent city, for which records of ground-water levels published in this volume.....	vi
List of ground-water wells, by county or independent city, for which records of ground-water quality published in this volume.....	xii
Introduction.....	1
Cooperation.....	1
Summary of hydrologic conditions.....	2
Explanation of the records.....	4
Station identification numbers.....	4
Latitude-longitude system.....	4
Records of ground-water levels.....	5
Data collection and computation.....	5
Data presentation.....	5
Records of ground-water quality.....	6
Data collection and computation.....	6
Data presentation.....	6
Remarks codes.....	7
Access to WATSTORE data.....	7
Definition of terms.....	8
Publications on Techniques of Water-Resources Investigations.....	14
Station records, ground water.....	20
Ground-water spring discharge.....	20
Ground-water levels.....	24
Quality of ground water.....	470
Index.....	565

ILLUSTRATIONS

Figure 1. Monthly ground-water levels at key observation wells.....	3
2. System for numbering wells and miscellaneous sites (latitude and longitude)....	4
3. Map of Maryland and Delaware showing location of ground-water observation wells.....	16
4. Map of Maryland and Delaware showing location of project ground-water observation wells.....	18

GROUND-WATER SPRING DISCHARGE		Page
MARYLAND:		
CECIL COUNTY		
Spring 393459076045001	Local number CE Cc 40.....	20
FREDRICK COUNTY		
Spring 391846077370501	Local number FR Fb 12.....	21
HARFORD COUNTY		
Spring 394153076325701	Local number HA Aa 9.....	22
WASHINGTON COUNTY		
Spring 392836077442701	Local number WA Di 103.....	23

GROUND-WATER LEVELS		
DELAWARE:		
KENT COUNTY		
Well 391039075325501	Local number Id53-05.....	24-25
Well 391026075304901	Local number Id55-01.....	26-27
Well 390607075331501	Local number Jd42-03.....	28
Well 385041075395601	Local number Mc51-01.....	29
Well 385310075331301	Local number Md22-01.....	30
NEWCASTLE COUNTY		
Well 393917075401601	Local number Db15-05.....	31
Well 393856075415602	Local number Db24-17.....	32
Well 393734075371103	Local number Db33-17.....	33
Well 393734075371102	Local number Db33-18.....	34
Well 393734075371101	Local number Db33-19.....	35
Well 393755075364801	Local number Dc34-05.....	36
Well 393755075364802	Local number Dc34-06.....	37
Well 393316075421601	Local number Eb23-22.....	38
Well 393316075421602	Local number Eb23-23.....	39
Well 393316075421603	Local number Eb23-24.....	40
Well 393316075421604	Local number Eb23-25.....	41
Well 392055075443501	Local number Gb51-06.....	42-43
Well 391949075410701	Local number Hb14-01.....	44
SUSSEX COUNTY		
Well 384930075370201	Local number Nc13-03.....	45-46
Well 384639075353101	Local number Nc45-01.....	47
Well 384955075192801	Local number Ng11-01.....	48
Well 384038075110001	Local number Oh54-01.....	49
Well 384038075110002	Local number Oh54-02.....	50
Well 383138075260201	Local number Qe44-01.....	51
Well 383050075105201	Local number Qh54-04.....	52
Well 383050075105202	Local number Qh54-05.....	53
Well 383050075105203	Local number Qh54-06.....	54
Well 383050075105204	Local number Qh54-07.....	55
Well 382808075030501	Local number Rj22-05.....	56
Well 382808075030502	Local number Rj22-06.....	57
Well 382808075030503	Local number Rj22-07.....	58
Well 382808075030504	Local number Rj22-08.....	59

MARYLAND:		
ALLEGANY COUNTY		
Well 394024078273401	Local number AL Ah 1.....	60
Well 393930078460901	Local number AL Bd 2.....	61
Well 393009079025201	Local number AL Ca 19.....	62
ANNE ARUNDEL COUNTY		
Well 391101076404001	Local number AA Ac 11.....	63
Well 391015076373501	Local number AA Ad 29.....	64
Well 391032076385902	Local number AA Ad 90.....	65
Well 391032076385904	Local number AA Ad 102.....	66
Well 391032076385905	Local number AA Ad 104.....	67
Well 391032076385906	Local number AA Ad 108.....	68
Well 391006076380101	Local number AA Ad 109.....	69-70
Well 390950076391101	Local number AA Bd 91.....	71
Well 390821076365401	Local number AA Bd 152.....	72-73
Well 390938076383701	Local number AA Bd 155.....	74-75
Well 390922076371001	Local number AA Bd 156.....	76-77
Well 390737076374401	Local number AA Bd 157.....	78-79
Well 390744076390001	Local number AA Bd 158.....	80
Well 390737076374402	Local number AA Bd 159.....	81
Well 390908076394402	Local number AA Bd 160.....	82-83
Well 390945076285601	Local number AA Bf 3.....	84
Well 390303076463201	Local number AA Cb 1.....	85
Well 390423076432001	Local number AA Cc 40.....	86
Well 390450076343402	Local number AA Ce 117.....	87-88
Well 390150076283003	Local number AA Cf 98.....	89
Well 390150076283002	Local number AA Cf 99.....	90
Well 390123076241602	Local number AA Cg 23.....	91-92
Well 390127076240301	Local number AA Cg 25.....	93
Well 385808076373502	Local number AA Dd 42.....	94-95
Well 385915076340401	Local number AA De 1.....	96-97

GROUND-WATER LEVELS-Continued

Page

MARYLAND-Continued:**ANNA ARUNDEL COUNTY--Continued**

Well 385920076322401	Local number AA De	140	98
Well 385920076322402	Local number AA De	144	99
Well 385852076333201	Local number AA De	177	100-101
Well 385921076270701	Local number AA Df	19	102-103
Well 385916076270702	Local number AA Df	20	104-105
Well 385905076293601	Local number AA Df	79	106-107
Well 385623076274401	Local number AA Df	103	108
Well 385406076383901	Local number AA Ed	45	109
Well 384646076352401	Local number AA Fd	43	110

BALTIMORE CITY

Well 391617076322001	Local number 2S5E-	1	111
Well 391600076353301	Local number 3S2E-	5	112
Well 391556076315301	Local number 3S5E-	46	113
Well 391349076354501	Local number 5S2E-	24	114
Well 391349076354502	Local number 5S2E-	25	115
Well 391213076324401	Local number 7S4E-	1	116

BALTIMORE COUNTY

Well 393129076384201	Local number BA Cd	26	117
Well 393102076341801	Local number BA Ce	21	118
Well 392931076410301	Local number BA Dc	444	119
Well 392045076512501	Local number BA Ea	18	120
Well 392305076432001	Local number BA Ec	43	121
Well 391607076312901	Local number BA Fe	19	122
Well 391356076293501	Local number BA Gf	11	123
Well 391257076282501	Local number BA Gf	168	124
Well 391256076282501	Local number BA Gf	169	125
Well 391226076253401	Local number BA Gf	178	126

CALVERT COUNTY

Well 384331076395201	Local number CA Bb	27	127
Well 384334076394501	Local number CA Bb	28	128
Well 383930076314301	Local number CA Cc	18	129
Well 383934076320202	Local number CA Cc	39	130-131
Well 383605076344601	Local number CA Cc	57	132
Well 383239076354201	Local number CA Db	47	133
Well 383216076351401	Local number CA Db	65	134
Well 383216076351402	Local number CA Db	66	135
Well 383216076351403	Local number CA Db	67	136
Well 382549076260101	Local number CA Ed	47	137-138
Well 382343076302901	Local number CA Fc	13	139-140
Well 382343076302902	Local number CA Fc	14	141
Well 382340076303001	Local number CA Fc	15	142
Well 382340076303002	Local number CA Fc	16	143
Well 382343076303801	Local number CA Fc	17	144
Well 382340076303801	Local number CA Fc	18	145-146
Well 382337076303701	Local number CA Fc	19	147
Well 382337076303702	Local number CA Fc	20	148
Well 382342076303401	Local number CA Fc	21	149
Well 382340076303201	Local number CA Fc	22	150
Well 382339076304201	Local number CA Fc	33	151-152
Well 382339076304202	Local number CA Fc	34	153
Well 382408076260401	Local number CA Fd	51	154
Well 382407076260301	Local number CA Fd	54	155
Well 382318076242401	Local number CA Fe	22	156
Well 381952076270901	Local number CA Gd	6	157

CAROLINE COUNTY

Well 390333075504501	Local number CO Bc	1	158
Well 390227075470201	Local number CO Bd	53	159
Well 385310075503601	Local number CO Dc	129	160
Well 385217075490601	Local number CO Dd	47	161

CARROLL COUNTY

Well 394008077005601	Local number CL Ad	47	162
Well 393638076510001	Local number CL Bf	1	163
Well 393754076512401	Local number CL Bf	184	164
Well 392259077052401	Local number CL Ec	75	165

CECIL COUNTY

Well 393637075535001	Local number CE Be	73	166
Well 393637075535002	Local number CE Be	74	167
Well 393615075475901	Local number CE Bf	81	168
Well 393537075492001	Local number CE Bf	82	169
Well 393432075593601	Local number CE Cd	51	170
Well 393432075593602	Local number CE Cd	52	171
Well 393216075564201	Local number CE Cd	53	172
Well 393433075544901	Local number CE Ce	54	173
Well 393241075500201	Local number CE Ce	55	174
Well 393026075523101	Local number CE Ce	56	175
Well 392536075593201	Local number CE Dd	81	176
Well 392403075521801	Local number CE Ee	29	177

GROUND-WATER LEVELS-Continued

Page

MARYLAND-Continued:**CHARLES COUNTY**

Well 383524077111802	Local number CH Bb	17	178-179
Well 383634077104501	Local number CH Bb	22	180
Well 383524077094401	Local number CH Bc	5	181-182
Well 383631077083501	Local number CH Bc	6	183
Well 383633077083001	Local number CH Bc	24	184-185
Well 383554077085601	Local number CH Bc	71	186
Well 383709077061001	Local number CH Bc	74	187
Well 383819076555501	Local number CH Be	43	188-189
Well 383853076532601	Local number CH Bf	101	190-191
Well 383508076540701	Local number CH Bf	146	192
Well 383508076540703	Local number CH Bf	151	193-194
Well 383746076482901	Local number CH Bg	12	195
Well 383652076495701	Local number CH Bg	13	196
Well 383422077114601	Local number CH Ch	7	197-198
Well 383313077125401	Local number CH Ch	11	199
Well 383315077131401	Local number CH Ch	28	200
Well 383407077120501	Local number CH Ch	35	201
Well 383328077114201	Local number CH Ch	38	202
Well 383332077111501	Local number CH Ch	39	203
Well 383308077110301	Local number CH Ch	40	204
Well 383236076563901	Local number CH Ce	37	205-206
Well 383340076511601	Local number CH Cf	33	207
Well 382607077002601	Local number CH Dd	33	208
Well 382927076552301	Local number CH De	45	209
Well 382103076560201	Local number CH Ee	16	210
Well 382154076574801	Local number CH Ee	70	211
Well 382456076562201	Local number CH Ee	90	212

DORCHESTER COUNTY

Well 383708075503801	Local number DO Bg	59	213
Well 383151076080801	Local number DO Cd	1	214
Well 383340076041601	Local number DO Ce	5	215
Well 383408076042402	Local number DO Ce	15	216
Well 383346076030301	Local number DO Ce	21	217
Well 383243076042301	Local number DO Ce	78	218
Well 383401076032001	Local number DO Ce	88	219
Well 382800076180701	Local number DO Db	17	220
Well 382807076175801	Local number DO Db	18	221
Well 382847076190901	Local number DO Db	19	222
Well 382916075491702	Local number DO Dh	27	223

FREDRICK COUNTY

Well 394200077190701	Local number FR Af	27	224
Well 393733077274801	Local number FR Bd	96	225
Well 393156077135701	Local number FR Cg	1	226
Well 392517077190401	Local number FR Df	35	227
Well 392257077095601	Local number FR Eh	11	228

GARRETT COUNTY

Well 394017078581701	Local number GA Ag	1	229
Well 393749079190301	Local number GA Bc	1	230
Well 391559079260901	Local number GA Fa	25	231
Well 391559079260902	Local number GA Fa	26	232
Well 391512079270901	Local number GA Fa	28	233
Well 391512079270902	Local number GA Fa	29	234
Well 391539079254601	Local number GA Fa	31	235
Well 391539079254602	Local number GA Fa	32	236
Well 391539079254603	Local number GA Fa	33	237
Well 391539079254604	Local number GA Fa	34	238
Well 391501079260001	Local number GA Fa	38	239
Well 391530079244401	Local number GA Fb	22	240
Well 391530079244403	Local number GA Fb	24	241
Well 391530079244404	Local number GA Fb	25	242
Well 391513079243602	Local number GA Fb	27	243
Well 391513079243603	Local number GA Fb	28	244
Well 391513079243605	Local number GA Fb	30	245
Well 391602079240301	Local number GA Fb	31	246-247
Well 391602079240302	Local number GA Fb	32	248-249
Well 391602079240303	Local number GA Fb	33	250
Well 391602079240304	Local number GA Fb	34	251-252
Well 391715079223101	Local number GA Fb	35	253
Well 391715079223102	Local number GA Fb	36	254
Well 391715079223103	Local number GA Fb	37	255
Well 391715079223104	Local number GA Fb	38	256
Well 391715079223105	Local number GA Fb	39	257
Well 391420079264901	Local number GA Ga	16	258-259

GROUND-WATER LEVELS-Continued

Page

MARYLAND-Continued:**HARFORD COUNTY**

Well 393902076160001	Local number	HA Bd	31.....	260
Well 393158076302601	Local number	HA Ca	23.....	261
Well 392529076180901	Local number	HA Dd	89.....	262
Well 392721076150301	Local number	HA Dd	91.....	263
Well 392721076150302	Local number	HA Dd	92.....	264
Well 392557076161601	Local number	HA Dd	106.....	265
Well 392921076100401	Local number	HA De	66.....	266
Well 392628076133101	Local number	HA De	151.....	267
Well 392606076145801	Local number	HA De	181.....	268
Well 392606076145802	Local number	HA De	182.....	269
Well 392606076145803	Local number	HA De	183.....	270
Well 392914076110301	Local number	HA De	195.....	271
Well 392819076130901	Local number	HA De	197.....	272
Well 392819076130902	Local number	HA De	198.....	273
Well 392819076130903	Local number	HA De	199.....	274
Well 392435076203301	Local number	HA Ec	11.....	275
Well 392408076210101	Local number	HA Ec	46.....	276
Well 392408076210102	Local number	HA Ec	47.....	277
Well 392343076161901	Local number	HA Ed	24.....	278
Well 392455076192102	Local number	HA Ed	48.....	279
Well 392455076192103	Local number	HA Ed	49.....	280
Well 392405076183701	Local number	HA Ed	52.....	281-282
Well 392035076172203	Local number	HA Ed	59.....	283-284
Well 392035076172204	Local number	HA Ed	60.....	285-286
Well 392334076171303	Local number	HA Ed	80.....	287-288
Well 391817076173701	Local number	HA Fd	6.....	289-290
Well 391816076173801	Local number	HA Fd	8.....	291-292
Well 391814076173801	Local number	HA Fd	21.....	293-294
Well 391814076173802	Local number	HA Fd	22.....	295-296
Well 391814076173803	Local number	HA Fd	23.....	297-298
Well 391825076172601	Local number	HA Fd	26.....	299-300
Well 391825076172602	Local number	HA Fd	27.....	301-302
Well 391825076172603	Local number	HA Fd	28.....	303-304
Well 391812076173101	Local number	HA Fd	29.....	305-306
Well 391812076173102	Local number	HA Fd	30.....	307-308
Well 391812076173103	Local number	HA Fd	31.....	309-310
Well 391809076174301	Local number	HA Fd	32.....	311-312
Well 391809076174302	Local number	HA Fd	33.....	313-314
Well 391809076174303	Local number	HA Fd	34.....	315-316
Well 391809076174602	Local number	HA Fd	36.....	317-318
Well 391809076174603	Local number	HA Fd	37.....	319-320
Well 391826076173101	Local number	HA Fd	38.....	321-322
Well 391826076173102	Local number	HA Fd	39.....	323-324
Well 391826076173103	Local number	HA Fd	40.....	325-326

HOWARD COUNTY

Well 391910076565701	Local number	HO Bd	1.....	327
Well 391440076555401	Local number	HO Cd	20.....	328
Well 391442076555301	Local number	HO Cd	21.....	329
Well 3914440765554701	Local number	HO Cd	25.....	330
Well 3914420765554701	Local number	HO Cd	26.....	331
Well 3914470765554702	Local number	HO Cd	28.....	332-333
Well 3914420765554702	Local number	HO Cd	29.....	334-335
Well 391440076555402	Local number	HO Cd	78.....	336-337
Well 391445076555101	Local number	HO Cd	79.....	338
Well 3914470765554707	Local number	HO Cd	341.....	339-340
Well 391438076555001	Local number	HO Cd	342.....	341-342
Well 391001076540001	Local number	HO Ce	38.....	343

KENT COUNTY

Well 392007076075501	Local number	KE Ac	20.....	344
Well 391823075594701	Local number	KE Be	43.....	345
Well 391846075561701	Local number	KE Be	55.....	346
Well 391815075472101	Local number	KE Bg	33.....	347
Well 391815075472102	Local number	KE Bg	34.....	348
Well 391400076101401	Local number	KE Cb	36.....	349
Well 391432076015501	Local number	KE Cd	44.....	350
Well 390837076140401	Local number	KE Db	40.....	351

MONTGOMERY COUNTY

Well 391142077280601	Local number	MO Cb	26.....	352
Well 391314077224201	Local number	MO Cc	14.....	353
Well 390802077283801	Local number	MO Db	68.....	354
Well 390917077244401	Local number	MO Dc	59.....	355
Well 390451077245901	Local number	MO Ec	10.....	356
Well 390434076573002	Local number	MO Eh	20.....	357

GROUND-WATER LEVELS-Continued

Page

MARYLAND-Continued:**PRINCE GEORGES COUNTY**

Well 390151076561501	Local number PG Bc	16	358
Well 385130076465501	Local number PG De	21	359
Well 385152076431301	Local number PG Df	2	360
Well 384423077004501	Local number PG Fb	36	361
Well 384230076555501	Local number PG Fc	17	362
Well 384131076533301	Local number PG Fd	41	363
Well 383228076410601	Local number PG Hf	35	364-365
Well 383348076411301	Local number PG Hf	40	366-367
Well 383348076411302	Local number PG Hf	41	368-369
Well 383348076411303	Local number PG Hf	42	370-371

QUEEN ANNES COUNTY

Well 391203076024301	Local number QA Be	15	372
Well 391203076024302	Local number QA Be	16	373
Well 391203076024303	Local number QA Be	17	374
Well 390841075515201	Local number QA Cg	1	375
Well 390201076182701	Local number QA Db	30	376
Well 390201076182703	Local number QA Db	32	377
Well 390023076174301	Local number QA Db	34	378
Well 390119076191001	Local number QA Db	35	379
Well 390201076182704	Local number QA Db	36	380
Well 390023076174302	Local number QA Db	37	381
Well 385718076211501	Local number QA Ea	77	382
Well 385718076211502	Local number QA Ea	78	383
Well 385757076200101	Local number QA Ea	79	384
Well 385757076200102	Local number QA Ea	80	385
Well 385718076211503	Local number QA Ea	81	386
Well 385751076171603	Local number QA Eb	110	387
Well 385751076171601	Local number QA Eb	111	388
Well 385751076171602	Local number QA Eb	112	389
Well 385748076172001	Local number QA Eb	113	390-391
Well 385843076155302	Local number QA Eb	155	392
Well 385852076195201	Local number QA Eb	156	393
Well 385852076195202	Local number QA Eb	157	394
Well 385756076105301	Local number QA Ec	1	395
Well 385534075573601	Local number QA Ef	29	396
Well 385429076120201	Local number QA Fc	7	397

ST. MARYS COUNTY

Well 382838076470101	Local number SM Bb	15	398
Well 382838076470102	Local number SM Bb	22	399
Well 381616076364701	Local number SM Dd	46	400
Well 381616076364702	Local number SM Dd	49	401
Well 381807076380001	Local number SM Dd	50	402
Well 381616076364703	Local number SM Dd	62	403
Well 381615076364701	Local number SM Dd	63	404
Well 381841076284401	Local number SM Df	66	405
Well 381527076283101	Local number SM Df	71	406
Well 381548076272102	Local number SM Df	84	407
Well 381052076253001	Local number SM Ef	80	408
Well 381213076222801	Local number SM Eg	27	409
Well 380834076303401	Local number SM Fe	30	410-411
Well 380834076303402	Local number SM Fe	31	412
Well 380711076222201	Local number SM Fg	45	413
Well 380347076200101	Local number SM Gh	11	414

SOMERSET COUNTY

Well 381156075412501	Local number SO Be	42	415
Well 380927075423701	Local number SO Ce	42	416-417
Well 380616075380701	Local number SO Cf	2	418

TALBOT COUNTY

Well 385242075593101	Local number TA Bf	73	419
Well 385242075593102	Local number TA Bf	74	420
Well 384923076100601	Local number TA Cc	35	421
Well 384514076103701	Local number TA Cc	36	422
Well 384643076043801	Local number TA Ce	7	423

WASHINGTON COUNTY

Well 394154078103501	Local number WA Ac	1	424
Well 393638078001301	Local number WA Be	2	425
Well 393851077343001	Local number WA Bk	25	426-427
Well 393414077461801	Local number WA Ch	106	428-429
Well 393402077434201	Local number WA Ci	82	430
Well 392904077371501	Local number WA Dj	2	431

WICOMICO COUNTY

Well 382150075352101	Local number WI Ce	13	432
Well 382404075355401	Local number WI Ce	204	433
Well 382429075344501	Local number WI Cf	147	434
Well 382037075310801	Local number WI Cf	3	435
Well 382329075263701	Local number WI Cg	20	436

GROUND-WATER LEVELS-Continued

Page

MARYLAND-Continued:**WORCHESTER COUNTY**

Well 382621075174201	Local number WO Ae	23.....	437
Well 382621075174202	Local number WO Ae	24.....	438
Well 382621075174203	Local number WO Ae	25.....	439
Well 382632075031801	Local number WO Ah	6.....	440-441
Well 382635075030601	Local number WO Ah	35.....	442
Well 382635075030602	Local number WO Ah	36.....	443
Well 382635075030603	Local number WO Ah	37.....	444
Well 382022075072401	Local number WO Bg	1.....	445
Well 382359075094501	Local number WO Bg	15.....	446
Well 382358075094501	Local number WO Bg	45.....	447
Well 382358075094502	Local number WO Bg	46.....	448
Well 382325075063301	Local number WO Bg	47.....	449-450
Well 382325075063302	Local number WO Bg	48.....	451-452
Well 382038075065901	Local number WO Bg	49.....	453-454
Well 382215075041801	Local number WO Bh	31.....	455-456
Well 382443075033501	Local number WO Bh	34.....	457-458
Well 382215075041901	Local number WO Bh	84.....	459
Well 382215075041902	Local number WO Bh	85.....	460
Well 382215075041903	Local number WO Bh	89.....	461-462
Well 382127075043802	Local number WO Bh	98.....	463-464
Well 381939075052101	Local number WO Cg	72.....	465
Well 381037075234301	Local number WO Dd	7.....	466
Well 381457075174101	Local number WO De	36.....	467
Well 381427075081102	Local number WO Dg	21.....	468
Well 380408075335701	Local number WO Fb	2.....	469

QUALITY OF GROUND WATER

Page

DELAWARE:**NEWCASTLE COUNTY**

Well 394807075411001	Local number	Bb24-06	471-477
Well 394735075415001	Local number	Bb34-57	471-477
Well 394644075423801	Local number	Bb43-28	471-477
Well 394627075413301	Local number	Bb44-29	471-477
Well 393150075440401	Local number	Eb41-13	471-477
Well 393104075425001	Local number	Eb43-04	471-477
Well 393120075424701	Local number	Eb43-09	471-477
Well 393106075422201	Local number	Eb43-11	471-477
Well 393110075422101	Local number	Eb43-12	471-477
Well 393113075421901	Local number	Eb43-13	471-477
Well 393100075420501	Local number	Eb43-14	471-477
Well 393144075403501	Local number	Eb45-26	471-477
Well 393143075403401	Local number	Eb45-27	471-477
Well 393013075445201	Local number	Eb51-10	471-477
Well 393018075433401	Local number	Eb52-11	471-477
Well 393008075432201	Local number	Eb52-12	471-477
Well 393028075434701	Local number	Eb52-13	471-477
Well 393032075423801	Local number	Eb53-15	471-477
Well 393007075410601	Local number	Eb54-05	471-477
Well 393054075415701	Local number	Eb54-09	471-477
Well 393212075396701	Local number	Ec31-21	471-477
Well 393254075384801	Local number	Ec32-16	471-477
Well 393248075365501	Local number	Ec34-03	471-477
Well 393139075375001	Local number	Ec43-07	471-477
Well 393141075372501	Local number	Ec43-08	471-477
Well 393111075374301	Local number	Ec43-09	471-477
Well 393013075393501	Local number	Ec51-15	471-477
Well 393037075391301	Local number	Ec51-16	471-477
Well 392959075385401	Local number	Ec52-09	471-477
Well 393053075374001	Local number	Ec53-05	471-477
Well 393314075345501	Local number	Ed21-20	471-477
Well 393058075344601	Local number	Ed51-10	471-477
Well 392935075461001	Local number	Fa15-05	471-477
Well 392751075453401	Local number	Fa35-08	471-477
Well 392938075455801	Local number	Fa55-07	471-477
Well 392948075433901	Local number	Fb12-10	471-477
Well 392847075433401	Local number	Fb22-10	471-477
Well 392854075400901	Local number	Fb25-10	471-477
Well 392713075430003	Local number	Fb33-12	471-477
Well 392708075425701	Local number	Fb33-24	471-477
Well 392708075425702	Local number	Fb33-25	471-477
Well 392755075404701	Local number	Fb35-24	471-477
Well 392655075430801	Local number	Fb42-03	471-477
Well 392617075424801	Local number	Fb43-03	471-477
Well 392908075400101	Local number	Fc11-19	471-477
Well 392913075394601	Local number	Fc11-20	471-477
Well 392927075391601	Local number	Fc11-21	471-477
Well 392926075391401	Local number	Fc11-22	471-477
Well 393000075382601	Local number	Fc12-13	471-477
Well 392953075381501	Local number	Fc12-14	471-477
Well 392913075361301	Local number	Fc14-06	471-477
Well 392045075443501	Local number	Gb41-06	471-477
Well 392120075441001	Local number	Gb41-12	471-477
Well 392120075434402	Local number	Gb42-05	478-484
Well 392118075434701	Local number	Gb42-06	478-484
Well 392120075434301	Local number	Gb42-07	478-484
Well 392120075434403	Local number	Gb42-08	478-484
Well 392120075434301	Local number	Gb42-09	478-484
Well 392120075434501	Local number	Gb42-10	478-484

QUALITY OF GROUND WATER--Continued

Page

MARYLAND:**ANNE ARUNDEL COUNTY**

Well 391010076374601	Local number AA Ad	1	485-490
Well 391013076375001	Local number AA Ad	41	485-491
Well 391014076374501	Local number AA Ad	67	485-490
Well 391006076380601	Local number AA Ad	68	485-490
Well 391032076385904	Local number AA Ad	102	485-490
Well 391032076385905	Local number AA Ad	104	485-490
Well 391032076385906	Local number AA Ad	108	485-490
Well 390700076412702	Local number AA Bc	210	485-490
Well 390843076362502	Local number AA Bd	36	485-490
Well 390951076384201	Local number AA Bd	55	485-490
Well 390950076384001	Local number AA Bd	56	485-490
Well 390852076365202	Local number AA Bd	61	485-490
Well 390952076390210	Local number AA Bd	64	485-490
Well 390949076392002	Local number AA Bd	66	485-490
Well 390950076391101	Local number AA Bd	91	485-490
Well 390949076392401	Local number AA Bd	92	485-491
Well 390921076393202	Local number AA Bd	97	485-490
Well 390855076373402	Local number AA Bd	101	485-490
Well 390935076364302	Local number AA Bd	103	485-490
Well 390810076380702	Local number AA Bd	105	485-490
Well 390801076372302	Local number AA Bd	107	485-490
Well 390845076385801	Local number AA Bd	109	485-490
Well 390802076392802	Local number AA Bd	122	485-490
Well 390908076394402	Local number AA Bd	160	485-490
Well 390127076240301	Local number AA Cg	25	485-490
Well 385623076274401	Local number AA Df	103	485-490
Well 385710076282401	Local number AA Df	150	485-490

BALTIMORE COUNTY

Well 392931076410301	Local number BA Dc	444	492
Well 392511076351001	Local number BA Dd	299	492

CALVERT COUNTY

Well 382343076302901	Local number CA Fc	13	493-498
Well 382343076302902	Local number CA Fc	14	493-497
Well 382340076303001	Local number CA Fc	15	493-498
Well 382340076303002	Local number CA Fc	16	493-498
Well 382343076303801	Local number CA Fc	17	493-498
Well 382340076303801	Local number CA Fc	18	493-498
Well 382337076303701	Local number CA Fc	19	493-498
Well 382337076303702	Local number CA Fc	20	493-498
Well 382342076303401	Local number CA Fc	21	493-498
Well 382340076303201	Local number CA Fc	22	493-498
Well 382340076303401	Local number CA Fc	28	493-497
Well 382340076303402	Local number CA Fc	29	493-497
Well 382340076303403	Local number CA Fc	30	493-497
Well 382340076303802	Local number CA Fc	31	493-497
Well 382340076303803	Local number CA Fc	32	499-500
Well 382339076304201	Local number CA Fc	33	499-501
Well 382339076304202	Local number CA Fc	34	499-501

CAROLINE COUNTY

Well 385302075540101	Local number CO Dc	146	502
Well 385009075445002	Local number CO De	16	502

CARROLL COUNTY

Well 393754076512401	Local number CL Bf	184	503
----------------------	--------------------	-----	-----

CECIL COUNTY

Well 393459076045001	Local number CE Cc	40	504-505
Well 392544075574803	Local number CE Dd	102	504-505

CHARLES COUNTY

Well 383505077101006	Local number CH Bb	6	506-509
Well 383505077101007	Local number CH Bb	7	506-509
Well 383505077101009	Local number CH Bb	9	506-509
Well 383524077111802	Local number CH Bb	17	506-509
Well 383533077104002	Local number CH Bb	19	506-509
Well 383507077094903	Local number CH Bc	3	506-509
Well 383631077083501	Local number CH Bc	6	506-509
Well 383545077095501	Local number CH Bc	23	506-509
Well 383540077090701	Local number CH Bc	49	506-509
Well 383606077092101	Local number CH Bc	67	506-509
Well 383610077081001	Local number CH Bc	68	506-509
Well 383554077085702	Local number CH Bc	70	506-509
Well 383548077091101	Local number CH Bc	72	506-509
Well 383422077114601	Local number CH Cb	7	506-509
Well 383354077121501	Local number CH Cb	9	506-509
Well 383313077125401	Local number CH Cb	11	506-509
Well 383412077112802	Local number CH Cb	18	506-509
Well 383448077105202	Local number CH Cb	19	506-509
Well 383315077131401	Local number CH Cb	28	506-509
Well 383451077102601	Local number CH Cb	29	506-509
Well 383427077121001	Local number CH Cb	34	506-509
Well 383407077120501	Local number CH Cb	35	506-509
Well 383328077114201	Local number CH Cb	38	506-509
Well 383332077111501	Local number CH Cb	39	506-509
Well 383308077110301	Local number CH Cb	40	506-509
Well 382103076560201	Local number CH Ee	16	506-509
Well 382456076562201	Local number CH Ee	90	506-509

QUALITY OF GROUND WATER--Continued

Page

MARYLAND:**DORCHESTER COUNTY**

Well 383218075522802 Local number DO Cg 46..... 510

FREDERICK COUNTY

Well 394200077190701 Local number FR Af 27..... 511-512

Well 393218077271001 Local number FR Cd 38..... 511-512

Well 392552077262201 Local number FR Dd 178..... 511-512

Well 392517077190401 Local number FR Df 35..... 511-512

Well 391846077370501 Local number FR Fb 12..... 511-512

GARRETT COUNTY

Well 394202079093901 Local number GA Ae 50..... 513-515

Well 393930079264301 Local number GA Ba 1..... 513-515

Well 392959079252402 Local number GA Da 17..... 513-515

Well 392420079221701 Local number GA Eb 72..... 513-515

HARFORD COUNTY

Well 394153076325701 Local number HA Aa 9..... 516-517

Well 393757076240101 Local number HA Bc 30..... 516-517

Well 393158076302601 Local number HA Ca 23..... 516-517

Well 392721076150302 Local number HA Dd 92..... 516-517

Well 392455076192103 Local number HA Ed 49..... 516-517

HOWARD COUNTY

Well 391440076555401 Local number HO Cd 20..... 518-524

Well 39144076554701 Local number HO Cd 25..... 518-524

Well 391447076554702 Local number HO Cd 28..... 518-524

Well 391442076554702 Local number HO Cd 29..... 518-524

Well 391440076555402 Local number HO Cd 78..... 518-524

Well 391445076555101 Local number HO Cd 79..... 518-524

Well 391439076555601 Local number HO Cd 80..... 518-524

Well 391439076555602 Local number HO Cd 81..... 518-524

Well 391447076554703 Local number HO Cd 253..... 518-524

Well 391447076554704 Local number HO Cd 290..... 518-524

Well 391447076554705 Local number HO Cd 291..... 518-524

Well 391447076554706 Local number HO Cd 292..... 518-524

Well 391447076554707 Local number HO Cd 341..... 518-524

Well 391489076555001 Local number HO Cd 342..... 525

Well 391441076555301 Local number HO Cd 390..... 525

Well 391441076555302 Local number HO Cd 391..... 525

KENT COUNTY

Well 391832075560802 Local number KE Be 47..... 526-533

Well 391851075561801 Local number KE Be 50..... 526-533

Well 391810075555801 Local number KE Be 52..... 526-533

Well 391832075560803 Local number KE Be 59..... 526-533

Well 391810075555803 Local number KE Be 61..... 526-533

Well 391742075554801 Local number KE Be 62..... 526-533

Well 391721075554501 Local number KE Be 63..... 526-533

Well 391721075554502 Local number KE Be 64..... 526-533

Well 391720075554601 Local number KE Be 159..... 526-533

Well 391720075554602 Local number KE Be 160..... 526-533

Well 391720075554603 Local number KE Be 161..... 526-533

Well 391742075554802 Local number KE Be 162..... 526-533

Well 391742075554803 Local number KE Be 163..... 526-533

Well 391742075554804 Local number KE Be 164..... 526-533

Well 391838075560901 Local number KE Be 165..... 526-533

Well 391838075560902 Local number KE Be 166..... 526-533

Well 391838075560903 Local number KE Be 167..... 526-533

Well 391719075554701 Local number KE Be 169..... 526-533

Well 391720075554701 Local number KE Be 170..... 526-533

MONTGOMERY COUNTY

Well 390802077283801 Local number MO Db 68..... 534

PRINCE GEORGES COUNTY

Well 385920076571701 Local number PG Bc 37..... 535

Well 383258076412101 Local number PG Hf 45..... 535

Well 383259076412701 Local number PG Hf 46..... 535

QUEEN ANNES COUNTY

Well 390841075515201 Local number QA Cg 1..... 536-540

Well 390055076184501 Local number QA Db 14..... 536-540

Well 390022076191801 Local number QA Db 15..... 536-540

Well 390059076191801 Local number QA Db 17..... 536-540

Well 390033076184501 Local number QA Db 23..... 536-540

Well 390117076191301 Local number QA Db 27..... 536-540

Well 390201076182701 Local number QA Db 30..... 536-540

Well 390201076182703 Local number QA Db 32..... 536-540

Well 390023076174301 Local number QA Db 34..... 536-540

Well 390119076191001 Local number QA Db 35..... 536-540

Well 390201076182704 Local number QA Db 36..... 536-540

Well 390023076174302 Local number QA Db 37..... 536-540

Well 385825076202901 Local number QA Ea 39..... 536-540

Well 385820076202501 Local number QA Ea 42..... 536-540

Well 385554076213801 Local number QA Ea 45..... 536-540

Well 385825076201201 Local number QA Ea 48..... 536-540

Well 385505076215001 Local number QA Ea 59..... 536-540

Well 385701076212501 Local number QA Ea 60..... 536-540

Well 385812076202801 Local number QA Ea 61..... 536-540

QUALITY OF GROUND WATER--Continued

Page

QUEEN ANNES COUNTY--Continued

Well 385742076205801	Local	number	QA Ea	71	536-540
Well 385718076211501	Local	number	QA Ea	77	536-540
Well 385718076211502	Local	number	QA Ea	78	536-540
Well 385757076200101	Local	number	QA Ea	79	541-543
Well 385757076200102	Local	number	QA Ea	80	541-543
Well 385718076211503	Local	number	QA Ea	81	541-543
Well 385705076212002	Local	number	QA Ea	82	541-543
Well 385705076212001	Local	number	QA Ea	83	541-543
Well 385852076195201	Local	number	QA Eb	156	541-543
Well 385852076195202	Local	number	QA Eb	157	541-543
Well 385354076212701	Local	number	QA Fa	49	541-543
Well 385024076222501	Local	number	QA Fa	54	541-543
Well 385133076201201	Local	number	QA Fa	58	541-543
Well 385254076201901	Local	number	QA Fa	60	541-543
Well 385434076215601	Local	number	QA Fa	63	541-543
Well 385454076214901	Local	number	QA Fa	64	541-543
Well 385236076215201	Local	number	QA Fa	66	541-543
Well 385023076222201	Local	number	QA Fa	67	541-543
Well 385254076201301	Local	number	QA Fa	72	541-543
Well 385227076215401	Local	number	QA Fa	74	541-543
Well 385155076200401	Local	number	QA Fa	75	541-543

ST. MARYS COUNTY

Well 381052076253001	Local	number	SM Ef	80	544
----------------------	-------	--------	-------	----	-----

SOMERSET COUNTY

Well 381141075415602	Local	number	SO Be	112	545
----------------------	-------	--------	-------	-----	-----

TALBOT COUNTY

Well 384643076043801	Local	number	TA Ce	7	546
----------------------	-------	--------	-------	---	-----

WASHINGTON COUNTY

Well 394223078182101	Local	number	WA Ab	3	547-550
Well 394149078052801	Local	number	WA Ad	101	547-550
Well 394115077461501	Local	number	WA Ah	63	547-550
Well 394219077335301	Local	number	WA Ak	99	547-550
Well 392836077442701	Local	number	WA Di	103	547-550

WICOMICO COUNTY

Well 382511075203601	Local	number	WI Bh	2	551-558
Well 382511075203602	Local	number	WI Bh	3	551-558
Well 382543075212201	Local	number	WI Bh	4	551-558
Well 382543075212202	Local	number	WI Bh	5	551-558
Well 382609075210501	Local	number	WI Bh	8	551-558
Well 382609075210502	Local	number	WI Bh	9	551-558
Well 382626075201801	Local	number	WI Bh	11	551-558
Well 382549075204101	Local	number	WI Bh	12	551-558
Well 382329075412002	Local	number	WI Cd	71	551-558
Well 382150075352101	Local	number	WI Ce	13	551-558
Well 382452075202901	Local	number	WI Ch	56	551-558
Well 382452075202902	Local	number	WI Ch	57	551-558

WORCESTER COUNTY

Well 382632075031901	Local	number	WO Ah	34	559-564
Well 382332075141802	Local	number	WO Bf	87	559-564
Well 382359075094501	Local	number	WO Bg	15	559-564
Well 382358075094501	Local	number	WO Bg	45	559-564
Well 382358075094502	Local	number	WO Bg	46	559-564
Well 382325075063301	Local	number	WO Bg	47	559-564
Well 382325075063302	Local	number	WO Bg	48	559-564
Well 382214075041901	Local	number	WO Bh	28	559-564
Well 382443075033501	Local	number	WO Bh	34	559-564
Well 382215075041901	Local	number	WO Bh	84	559-564
Well 382215075041902	Local	number	WO Bh	85	559-564
Well 382215075041903	Local	number	WO Bh	89	559-564
Well 382235075040901	Local	number	WO Bh	91	559-564
Well 382304075040601	Local	number	WO Bh	93	559-564
Well 382447075033702	Local	number	WO Bh	94	559-564
Well 382304075040602	Local	number	WO Bh	95	559-564
Well 382235075041902	Local	number	WO Bh	96	559-564
Well 382127075043803	Local	number	WO Bh	97	559-564
Well 382127075043802	Local	number	WO Bh	98	559-564
Well 382127075043802	Local	number	WO Bh	98	559-564
Well 381543075273802	Local	number	WO Cc	3	559-564
Well 381941075052201	Local	number	WO Cg	32	559-564
Well 381939075052102	Local	number	WO Cg	75	559-564
Well 381427075081102	Local	number	WO Dg	21	559-564

THIS IS A BLANK PAGE.

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1991

VOLUME 2. GROUND-WATER DATA

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Maryland and Delaware each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Maryland and Delaware."

This series of annual reports for Maryland and Delaware began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. In the 1989 water year, the report format was changed to two volumes. Both volumes contained data on quantities of surface water, quality of surface and ground water, and ground-water levels. Volume 1 contained data on the Atlantic Slope Basins (Delaware River thru Patuxent River) and Volume 2 contained data on the Monongahela and Potomac River basins. Beginning with the 1991 water year, Volume 1 contains all information on quantities of surface water and surface-water-quality data and Volume 2 contains ground-water levels and ground-water-quality data.

This report is Volume 2 in our 1991 series and includes records of water levels and water quality of ground-water wells and springs. It contains records for water levels at 366 observation wells, discharge data for 4 springs, and water quality at 276 wells. Location of ground-water level wells are shown on figures 3 and 4. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Maryland and Delaware.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Maryland and Delaware were published in U.S. Geological Survey Water-Supply Papers. Data on water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Books and Open-File Reports Section, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report MD-DE-91-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1991 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (301) 828-1535. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

COOPERATION

The U.S. Geological Survey and agencies of the State of Maryland have had cooperative agreements for the collection of water-resource records from 1896 to 1909 and since 1924. Similar cooperative agreements have been had between the Survey and agencies of the State of Delaware since 1943. Organizations that assisted in collecting the data in this report through cooperative agreements with the Survey are:

E. T. Cleaves
Maryland Geological Survey, ~~K. N. Weaver~~, director.

Delaware Geological Survey, R. R. Jordan, State geologist.

Maryland Department of Environment; Chesapeake Bay and
Special Projects Program, R. M. Summers, Division Chief.

U.S. Army, Aberdeen Proving Ground, Support Activity, Environmental Management Division.

U.S. Navy, Naval Ordnance Station, Indian Head.

The following organizations aided in collecting records:

Delaware: State Department of Natural Resources and Environmental Control,
Water Resources Agency for New Castle County.

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Ground-Water Levels

Ground-water levels in water-table and artesian observation wells, in Maryland and Delaware fluctuate with response to precipitation and ground-water withdrawal. Water-table levels for most of Maryland and Delaware were at normal or below normal levels at the beginning of the 1991 water year. In the most western county of Maryland, water levels were at record high's (fig. 1), for the start of water year 1991. In the bi-state area water levels declined throughout the water year. Several major storm events caused water-table levels to quickly rise above normal, only to decline rapidly due to a limited amount of surficial recharge. Due to below average precipitation, the water levels remained below average throughout most of the water year in Maryland and Delaware. Water levels in the confined aquifer systems of Maryland and Delaware, which are the main municipal source for water supply, either sustained their water levels or declined to record lows. Water-level conditions are summarized below for each of the physiographic provinces in the bi-state area.

Appalachian Plateau.-- Water-table levels at the beginning of October were at record high levels. Levels dropped only slightly by the middle of December and remained in the above normal range. Water levels remained above normal until the middle of May when the effects of a moderate drought resulted in water levels falling to the below normal range by June. Water levels remained below normal for the rest of the water year with no record lows being recorded.

Valley and Ridge.-- Water-table levels began the water year below normal. Water levels began to rise above normal by late October with a decline to normal levels in December. These levels rose to near record highs in February only to decline to below normal by April. Water levels remained below normal through the rest of the 1991 water year with no record lows being recorded.

Blue Ridge.-- Water-table levels were above normal at the beginning of the water year and remained above normal through January. In February, water levels returned to normal; rising slightly in March, only to decline throughout the remainder of the 1991 water year. Water levels dropped to below normal in July with no record lows being recorded.

Piedmont.-- Water-table levels were at normal levels at the beginning of the water year and rose to above normal levels in January. By February, levels had returned to normal. Levels rose to above normal in April and peaked in May. By June, water levels had declined to below normal and remained below normal for the remainder of the water year with no record lows being recorded.

Coastal Plain.-- Water-table levels were at normal levels at the beginning of the water year except for the southeastern most part of Maryland where water levels were below normal. Water-table levels rose slightly in February, but declined to below normal and remained below normal to the end of the water year. No record lows were recorded. Artesian aquifers (identified in parenthesis) in the following areas of Maryland and Delaware continued to decline due to increases in ground-water withdrawals: Dover (Piney Point), Elkton (Potomac), Leonardtown (Aquia), Lexington Park (Aquia), Potomac Heights (Patapsco), Prince Frederick (Aquia), and Solomons Island (Aquia).

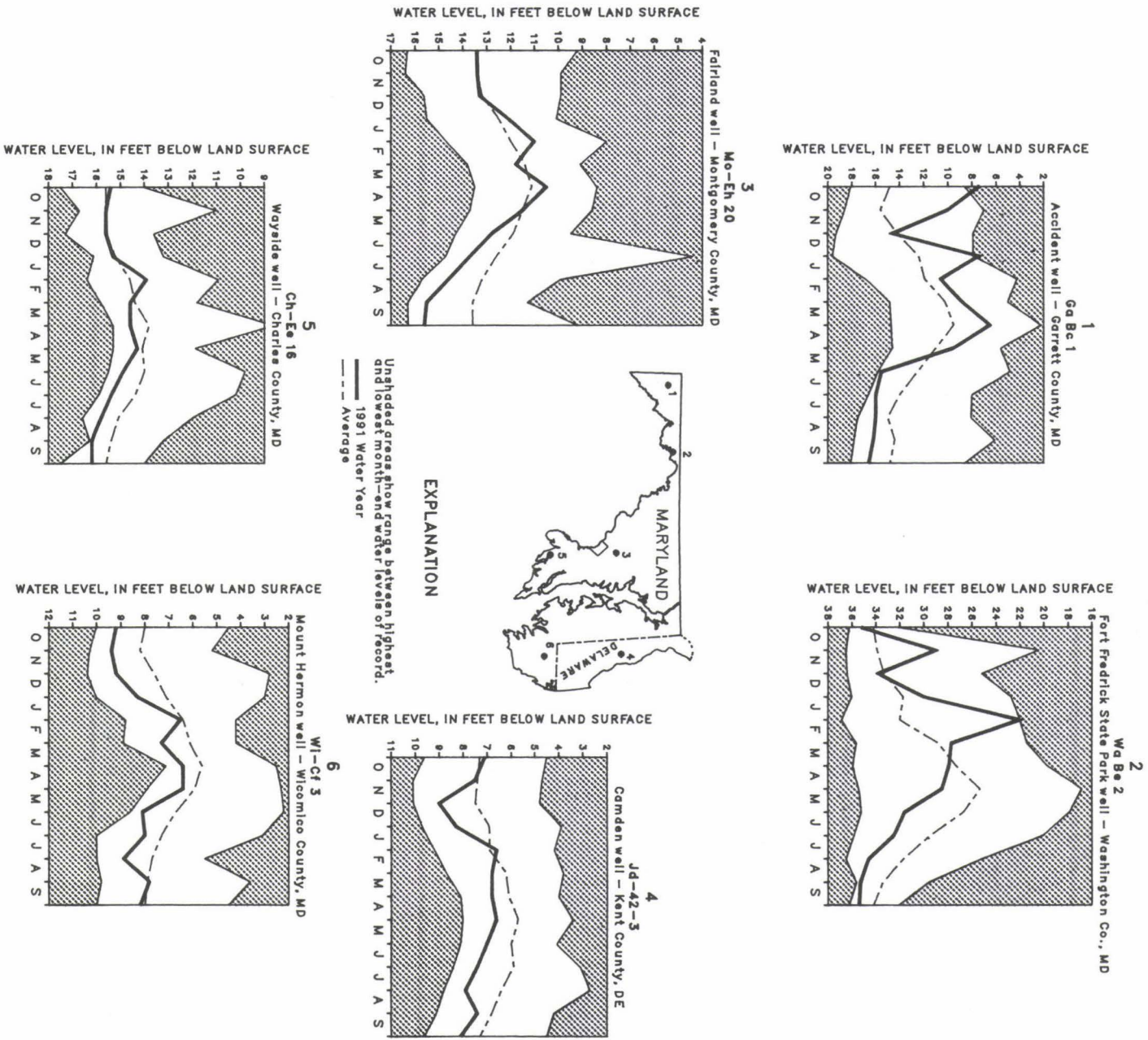


Figure 1.—Monthly ground-water levels at key observation wells.

EXPLANATION OF THE RECORDS

The ground water and quality-of-ground-water records published in this report are for the 1991 water year that began October 1, 1990, and ended September 30, 1991. A calendar of the water year is provided on the inside of the front cover. The records contain ground-water-level data and water-quality data for ~~surface~~ ground water. The locations of the wells where the data were collected are shown in figures 4 and 5. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

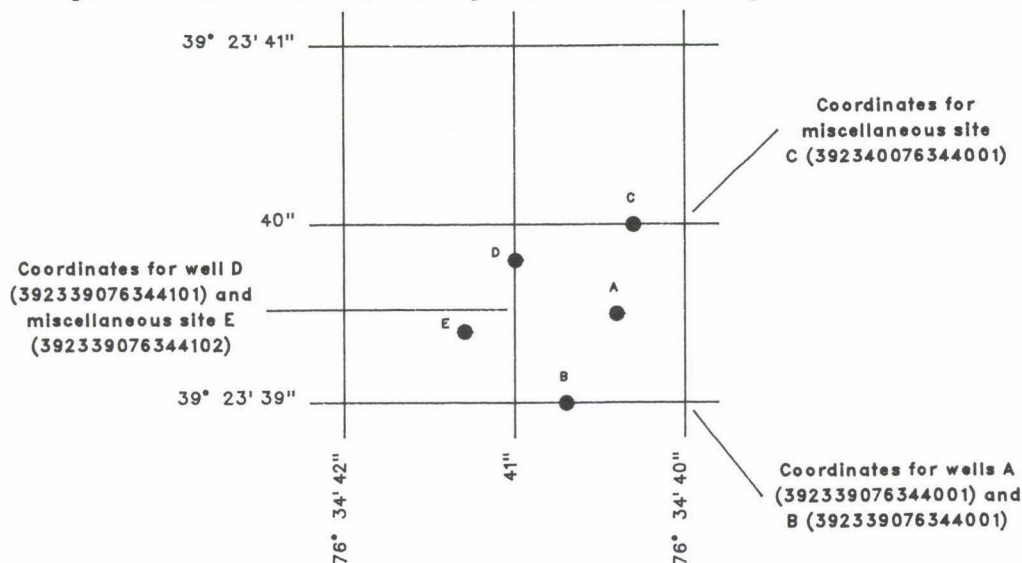


Figure 2. System for numbering wells and miscellaneous sites (latitude and longitude)

Station Identification Numbers

Each well in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given well and to no other. The number usually is assigned when a well is first established and is retained for that well indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for ground-water well sites is on geographic location. The "latitude-longitude" system is used for wells.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the **LOCATION** paragraph of the station description. (See figure 2 above.)

Records of Ground-water Levels

Water-level data from the Maryland and Delaware Observation-Well Networks and observation wells from 10 ground-water projects are reported. These data are intended to provide historical water-level information for ground-water management and identify ground-water conditions in project areas. The observation well networks were established to observe ground-water level fluctuations through time and to identify areas of man-induced stress on the ground-water flow system. The locations of these observation wells in Maryland and Delaware are shown in figure 3. The locations of project wells are shown in figure 4.

Data Collection and Computation

Measurements of water levels are made in many types of water wells under various conditions. These methods of measurement are standardized to incorporate continuous precision. The equipment and measuring techniques used at each observation well ensures that the measurements at each well are of consistent accuracy and reliability.

The water-level data tables and hydrographs are presented in alphabetical order by counties. The primary identification number is the state well number that appears in the upper left hand corner (see Latitude-Longitude System section on page 5). The secondary identification number is the 15-digit number.

Water levels are measured manually by steel tape or by an electric sensing device approximately every 4 to 6 weeks; some wells are equipped with continuous graph or punch tape water-level recorders to observe daily fluctuations. The water levels are reported to the nearest hundredth of a foot above or below land-surface datum (lsd) or sea level. Land-surface datum is a datum plane that is approximately at land surface at each well. The elevation of the land-surface datum and the height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels for wells equipped with graphic or digital recorders report the daily maximum and minimum values.

Data Presentation

A description of each observation well precedes the water-level tables and hydrographs. The following information is given in the description:

WELL NUMBER.--(See Latitude -Longitude System section on page 4.)

SITE ID.--A 15-digit number: the first 6 digits are the latitude, the next 7 digits are the longitude, and the last 2 digits refer to the sequence number for identifying one or more wells at a particular latitude and longitude. The site ID is the best location at the time of inventory. The actual latitude and longitude may be slightly different as a result of more up-to-date knowledge of location. The site ID is basically used as an identification number and not an exact location.

PERMIT NUMBER.--The permit number is the state permit number required for drilling wells in Maryland and Delaware. Upon completion of the well, the driller must submit a completion report which documents specific data on the construction of the well.

LOCATION.--The location is the latitude and longitude in the appropriate designation of degrees, minutes, and seconds. The hydrologic unit is a code for the river basin where the well is located (U.S. Geological Survey, 1974: Hydrologic Unit Map). Also a brief local description of the location is given along with the well-owner's name.

AQUIFER.--The aquifer is the geologic formation from which the well receives its water supply. Each aquifer is identified by its geologic age and its U. S. Geological Survey data base system code.

WELL CHARACTERISTICS.--This describes the type of well, the physical characteristics of the well, and the known construction information.

INSTRUMENTATION.--This provides information on the frequency of measurement of water levels and the equipment used.

DATUM.--This lists the altitude of land surface above sea level at the well to the nearest 10 feet as determined from a 7-1/2 minute quadrangle topographic map, or to the nearest hundredth of a foot as determined from surveying. The measuring point (MP) is the distance above or below the land surface at the point, at which the measurements are made.

REMARKS.--This section gives important miscellaneous data relevant to the well site.

PERIOD OF RECORD.--The period of record lists the beginning and ending month and year of water-level record or "current year" if the records are to be continued into the following year.

EXTREMES FOR PERIOD OF RECORD.--The extremes for period identify the date or dates of highest and lowest water-level measurements.

Water-Level Tables

A table of water levels follows the station description for each well. Water levels are reported in either of the following table formats:

Hand-held measurements.--If the data are collected by hand held measurements, the data appears in a tabling format of date and water level with the datum in reference to land surface. These values are reported to the nearest hundredth of a foot.

Recorder.--Water levels are presented in a two page 6-month format by water year with columns for daily maximums and minimums. These data are reported in reference to either land surface or sea level datum. The daily maximum column for land surface data represents the lowest daily water level recorded. The daily minimum column for land surface data represents the highest water level recorded. For sea level data, the daily maximum column represents highest daily water level recorded. The daily minimum column represents the lowest daily water level recorded. Missing data for sea level data are represented by dashes in the table.

Hydrographs

The hydrographs are a graphic display of water level fluctuations over a period of time. In this report a 5-year hydrograph is shown starting October 1, 1986 through September 30, 1991. Those hydrographs which display hand measured values are referenced to land surface datum. Each measurement is indicated by a circle and connected with a dashed line to indicate the trend from one measurement to the next. The trend line should be interpreted as a general direction of water level movement. Actual water levels may deviate from this line. The trend line is not drawn if the measurements are greater than 60 days apart. Recorder data are graphed as a continuous line using the lowest water level recorded for each day. Missing data are indicated by a blank space. Missing data result from recorder malfunctions, battery or clock failures, and mechanical problems related to the response of water level movement in a well.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

or chloride

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled **QUALITY OF GROUND WATER** immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well or spring number (**Well Number**). The prime identification number for wells or springs sampled is the 15-digit (**site ID**) number derived from the latitude-longitude locations. The site ID includes a two digit sequence number for use at locations having multiple sites. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

PRINTED OUTPUT**REMARK**

E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National **Water Data Storage and Retrieval System (WATSTORE)** was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using **WATSTORE**. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- * **Station Header File** - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- * **Daily Values File** - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperature, specific conductance, sediment concentrations, sediment discharges, and ground-water levels.
- * **Peak Flow File** - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- * **Water Quality File** - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, radio-chemical characteristics of both surface and ground water.
- * **Ground-Water Site Inventory Data Base** - Contains inventory data for more than 900,000 well, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened **WATSTORE** to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to **WATSTORE**. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to **WATSTORE**, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on **CD-ROM** discs. Beginning with the 1991 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (**CD-ROM**). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single **CD-ROM** disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of **CD-ROM** discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

Terms related to water-quality and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Dissolved refers to that material in a representative water sample which passes through a 0.45 μ m membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram ($\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter ($\mu\text{g/L}$, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, **WATSTORE**, to uniquely identify a specific constituent. The codes used in **WATSTORE** are the same as those used in the U.S. Environmental Protection Agency data system, **STORET**. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg C}/(\text{m}^3 \cdot \text{time})$] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg O}_2/(\text{m}^3 \cdot \text{time})$] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom.....	Animal
Phylum.....	Arthropoda
Class.....	Insecta
Order.....	Ephemeroptera
Family.....	Ephemeridae
Genus.....	<u>Hexagenia</u>
Species.....	<u>Hexagenia limbata</u>

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1985, is called the "1985 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

THIS IS A BLANK PAGE.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

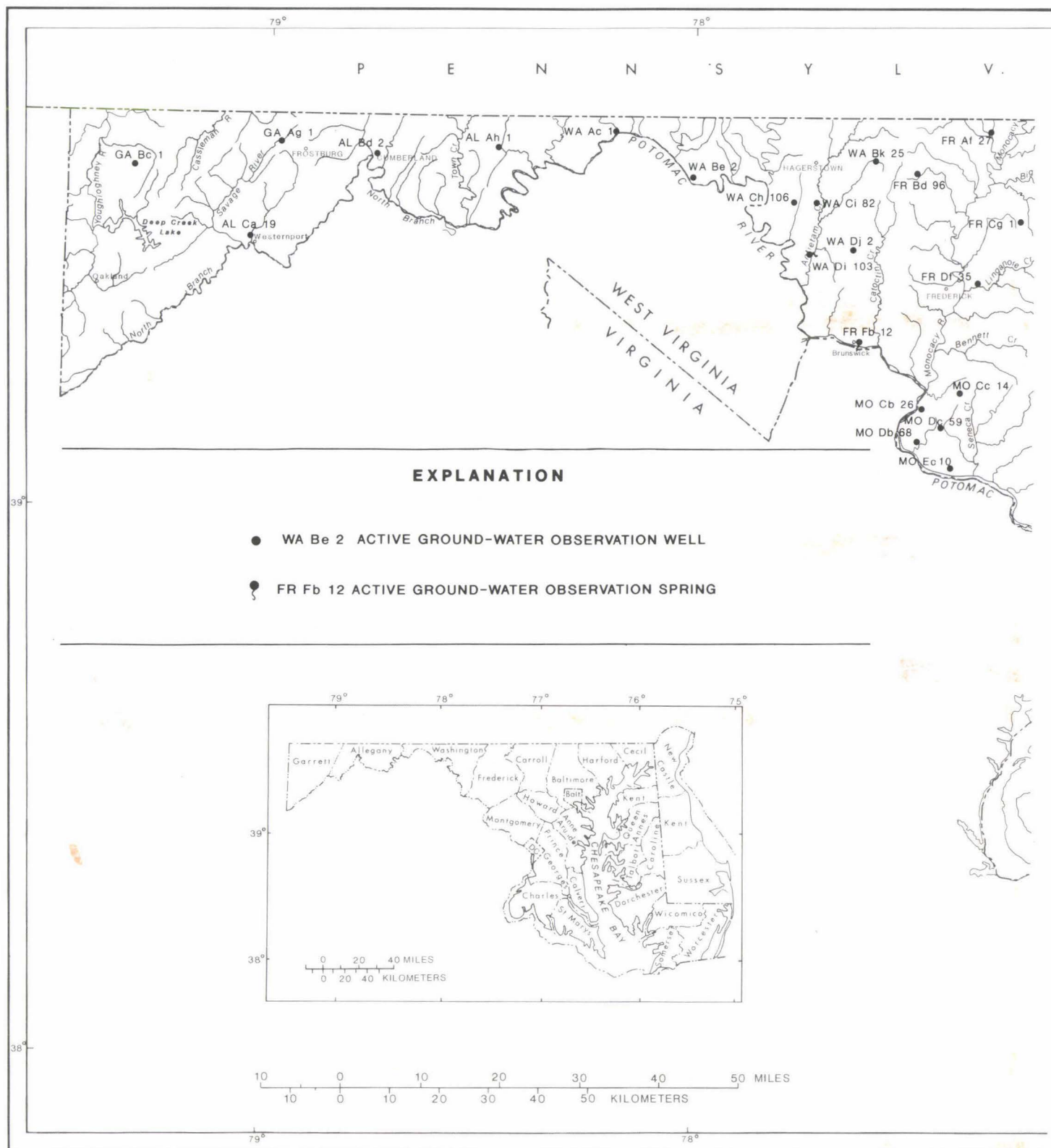
The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. **Water temperature--influential factors, field measurements, and data presentation**, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. **Guidelines for collection and field analysis of ground-water samples for selected unstable constituents**, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. **Application of surface geophysics to ground-water investigations**, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. **Application of seismic-refraction techniques to hydrologic studies**, by F. P. Haeni: USGS--TWRI Book 2, Chapter d2. 1988. 86 pages.
- 2-E1. **Application of borehole geophysics to water-resources investigations**, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. **Borehole geophysics applied to ground-water investigations**, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. **Application of drilling, coring, and sampling techniques to test holes and wells**, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. **General field and office procedures for indirect discharge measurements**, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. **Measurement of peak discharge by the slope-area method**, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. **Measurement of peak discharge at culverts by indirect methods**, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. **Measurement of peak discharge at width contractions by indirect methods**, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. **Measurement of peak discharge at dams by indirect methods**, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. **General procedure for gaging streams**, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. **Stage measurements at gaging stations**, T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. **Discharge measurements at gaging stations**, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. **Measurement of time of travel and dispersion in streams by dye tracing**, by F. A. Kilpatrick, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. **Discharge ratings at gaging stations**, E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. **Measurement of discharge by moving-boat method**, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. **Fluorimetric procedures for dye tracing**, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.
- 3-A13. **Computation of continuous records of streamflow**, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. **Use of flumes in measuring discharge**, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. **Computation of water-surface profiles in open channels**, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. **Measurement of discharge using tracers**, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. **Acoustic velocity meter systems**, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 3-A18. **Determination of stream reaeration coefficients by use of tracers**, by F. A. Kilpatrick, R. E. Rathbun, N. Yotsukura, G. W. Parker, and L. L. Delong: USGS--TWRI Book 3, Chapter 18A. 1989. 52 pages.
- 3-A19. **Levels of streamflow gaging stations**, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.

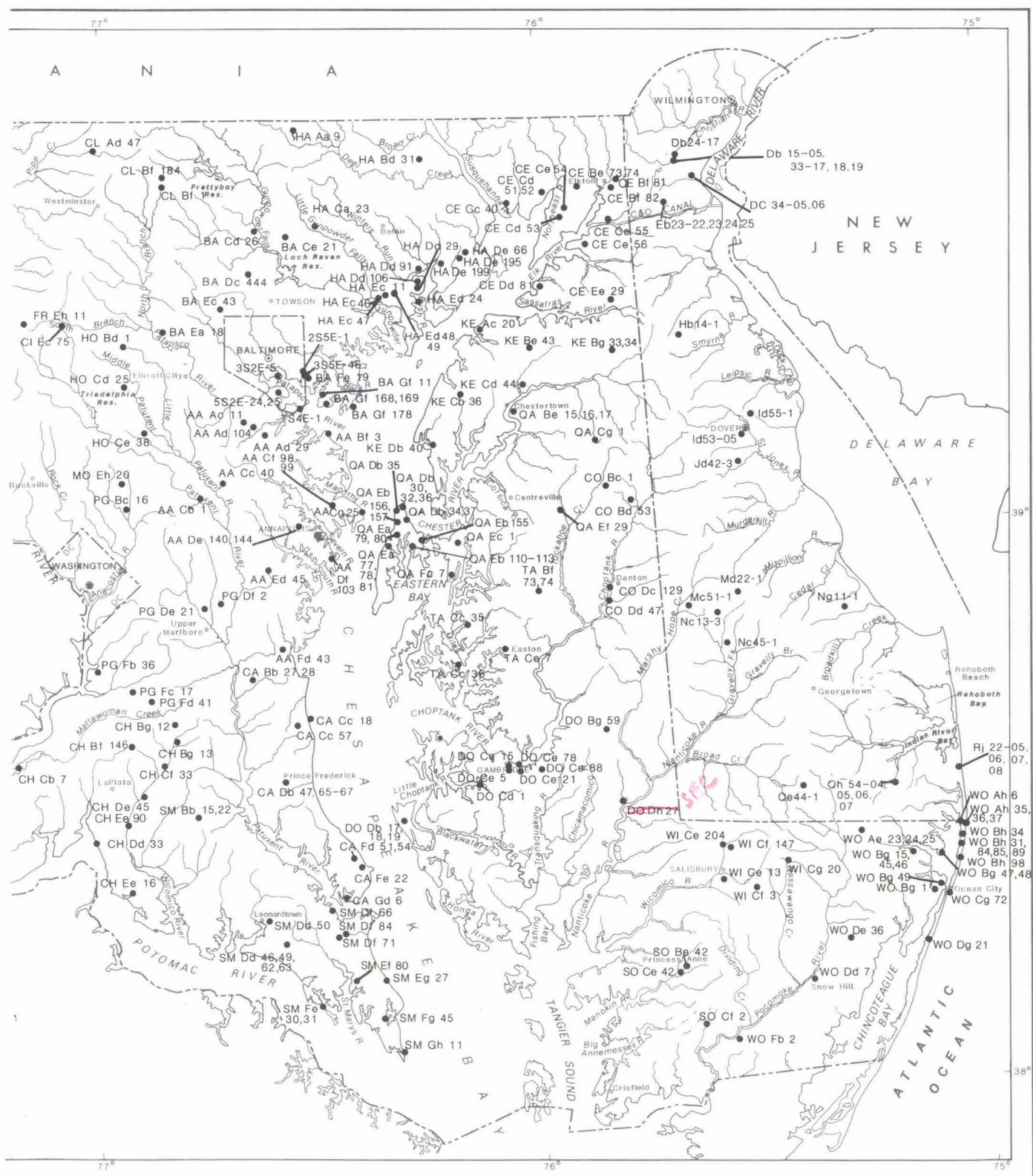
PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

- 3-B1. **Aquifer-test design, observation, and data analysis**, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pgs.
- 3-B2. **Introduction to ground-water hydraulics, a programmed text for self-instruction**, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. **Type curves for selected problems of flow to wells in confined aquifers**, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. **Regression modeling of ground-water flow**, by Richard L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B5. **Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction**, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. **The principle of superposition and its application in ground-water hydraulics**, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-C1. **Fluvial sediment concepts**, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. **Field methods of measurement of fluvial sediment**, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. **Computation of fluvial-sediment discharge**, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. **Some statistical tools in hydrology**, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. **Frequency curves**, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. **Low-flow investigations**, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. **Storage analyses for water supply**, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. **Regional analyses of streamflow characteristics**, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. **Computation of rate and volume of stream depletion by wells**, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. **Methods for determination of inorganic substances in water and fluvial sediments**, by M. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. **Determination of minor elements in water by emission spectroscopy**, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. **Methods for determination of organic substances in water and fluvial sediments**, by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 5-A4. **Methods for collection and analysis of aquatic biological and microbiological samples**, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
- 5-A5. **Methods for determination of radioactive substances in water and fluvial sediments**, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. **Quality assurance practices for the chemical and biological analyses of water and fluvial sediments**, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. **Laboratory theory and methods for sediment analysis**, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. **A modular three-dimensional finite-difference ground-water flow model**, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
- 7-C1. **Finite difference model for aquifer simulation in two dimensions with results of numerical experiments**, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. **Computer model of two-dimensional solute transport and dispersion in ground water**, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. **A model for simulation of flow in singular and interconnected channels**, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. **Methods of measuring water levels in deep wells**, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. **Installation and service manual for U. S. Geological Survey manometers**, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. **Calibration and maintenance of vertical-axis type current meters**, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.



Base map modified from U.S. Geological Survey 1:500,000

Figure 3. Map of Maryland and Delaware showing location of ground-water observation wells.



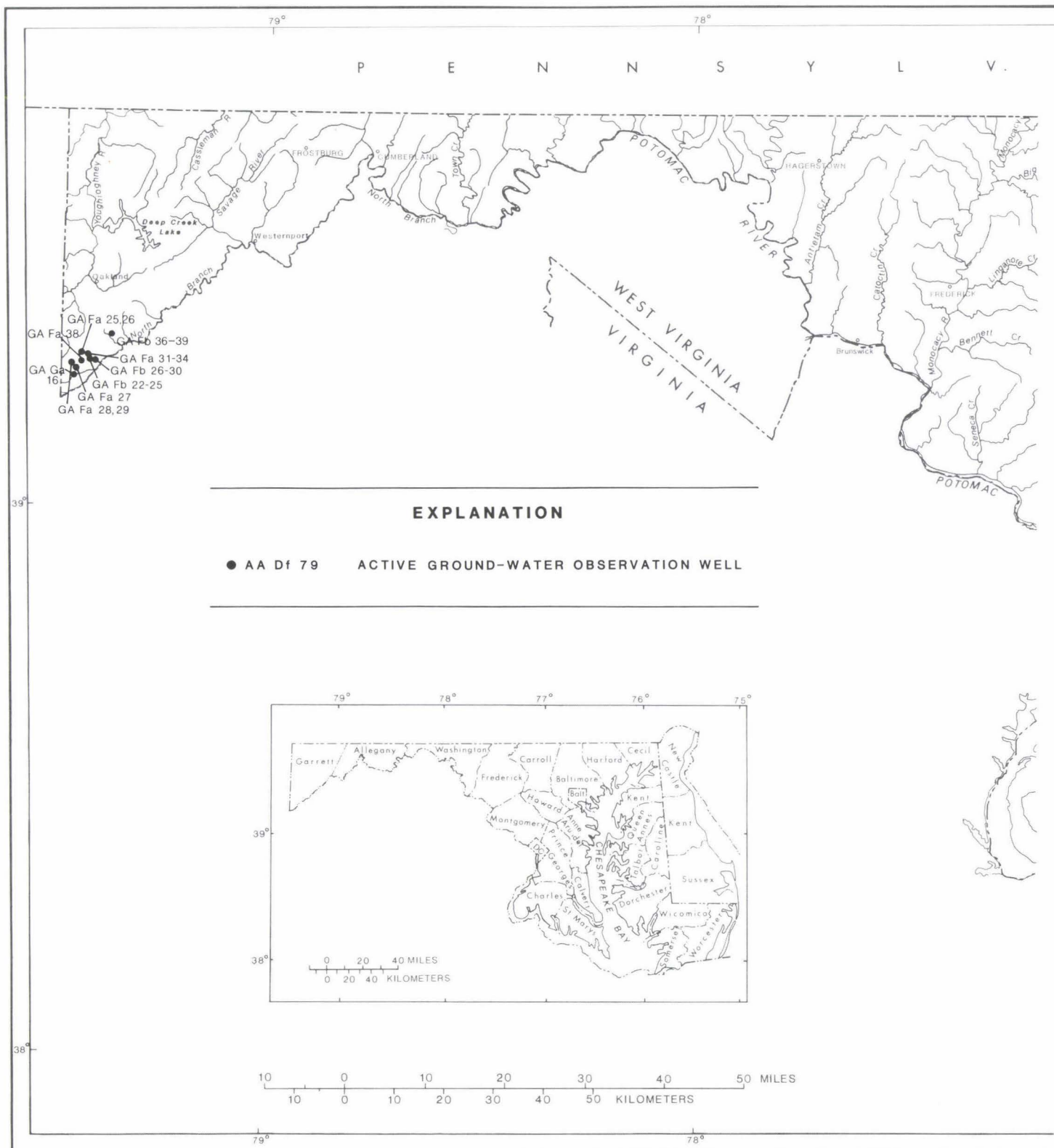
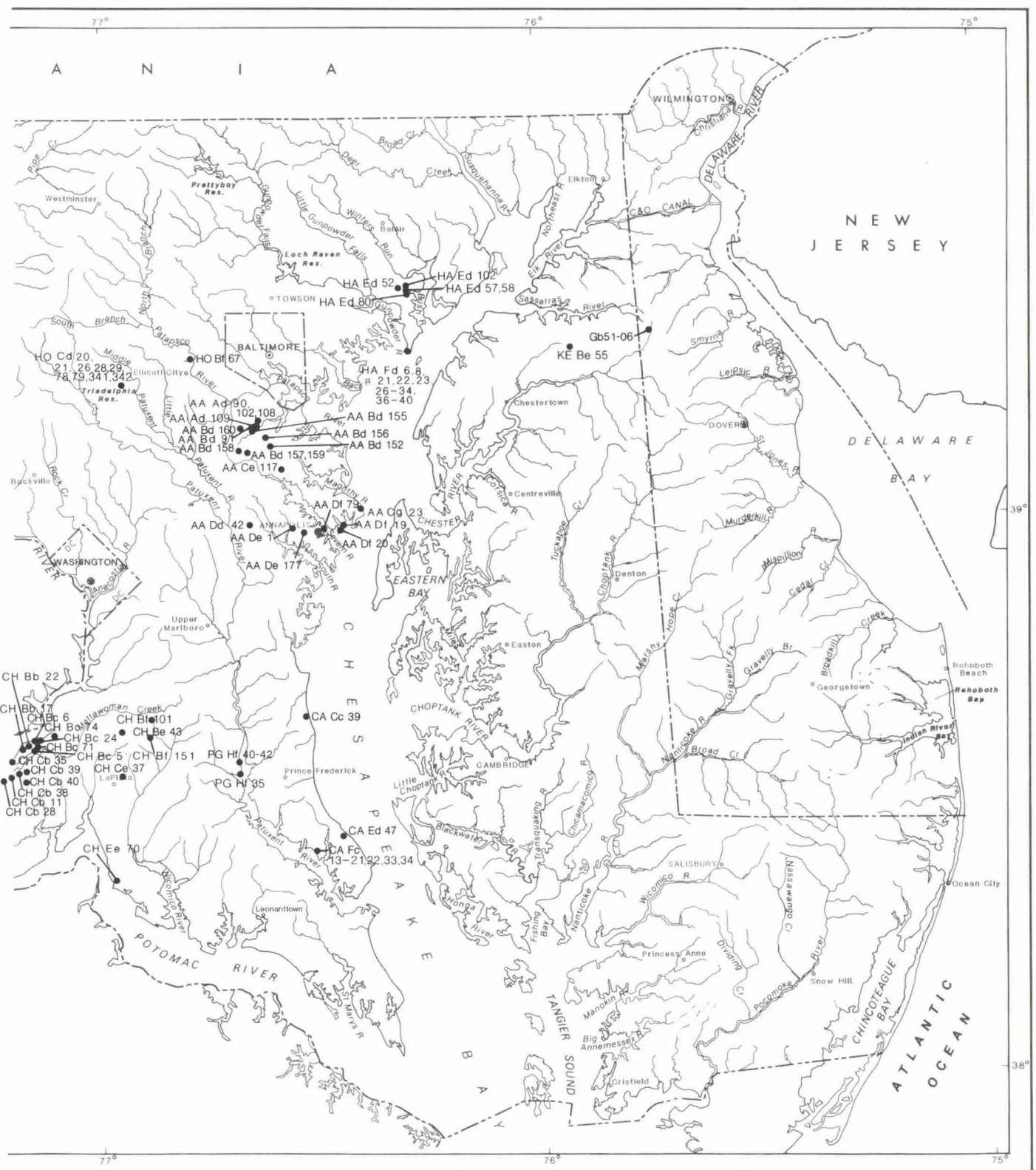


Figure 4. Map of Maryland and Delaware showing location of project ground-water observation wells.



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER SPRING DISCHARGE

MARYLAND--Continued

FREDERICK COUNTY

SPRING NUMBER.--FR Fb 12. SITE ID.--391846077370501.

LOCATION.--Lat 39°18'46", long 77°37'05", Hydrologic Unit 02070008, at Brunswick, off Park Ave., 300 ft north of intersection of Potomac St.

Owner: Town of Brunswick.

AQUIFER.--Precambrian Erathem of Precambrian age. Aquifer code: 400PCMB.

SPRING IMPROVEMENTS.--2 in. outflow pipe.

INSTRUMENTATION.--Monthly volumetric measurements by USGS personnel.

DATUM.--Elevation of land surface is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperatures are available.

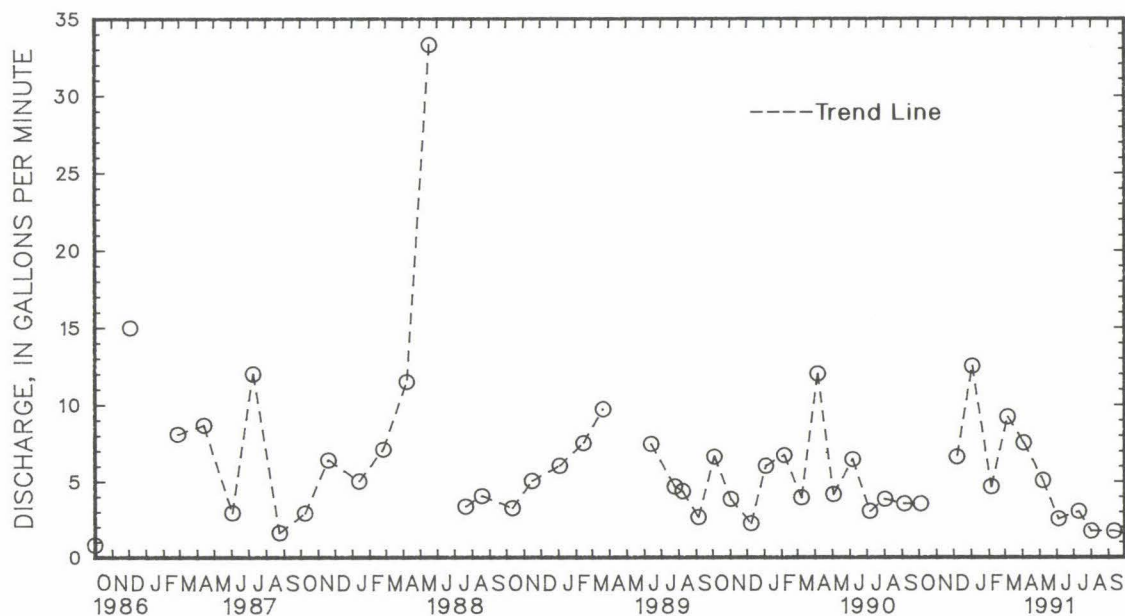
PERIOD OF RECORD.--January 1960 to April 1964, March 1965, August 1967, December 1968, July 1972,

April 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 36.0 gal/min, April 30, 1964;
minimum discharge measured, 0.8 gal/min, Oct. 1, 1986.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 4	3.5	FEB 5	4.6	APR 3	7.5	JUN 4	2.5	AUG 1	1.7
DEC 7	6.6	MAR 6	9.2	MAY 7	5.0	JUL 10	3.0	SEP 11	1.7
JAN 3	12.5								



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY

WELL NUMBER.--Id53-05. SITE ID.--391039075325501.
 LOCATION.--Lat 39°10'39", long 75°32'55", Hydrologic Unit 02040207, 700 ft southwest of State College Rd. and Penn Central Railroad.
 Owner: City of Dover.
 AQUIFER.--Fredrica aquifer of Miocene age. Aquifer code: 122FRDC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 47 ft; casing diameter 6 in., to 44 ft; screen diameter 4 in. from 44 to 47 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from March 21, 1973 to current year.
 DATUM.--Elevation of land surface is 36 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.7 ft above land surface.
 REMARKS.--Water levels affected by nearby pumping. Minor variations in water levels are caused by trains passing on nearby tracks. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--March 21, 1973 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.25 ft below land surface, March 29, 1978; lowest measured, 12.23 ft below land surface, Dec. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.86	6.81	---	---	7.68	7.65	6.90	6.82	4.89	4.83	5.08	4.99
2	6.90	6.84	---	---	7.69	7.65	6.81	6.76	4.85	4.82	5.03	4.90
3	6.93	6.90	---	---	7.69	7.60	6.76	6.75	4.84	4.81	4.94	4.86
4	6.91	6.88	---	---	7.62	7.59	6.77	6.75	4.84	4.83	---	---
5	6.94	6.90	---	---	7.64	7.62	6.77	6.73	4.85	4.83	---	---
6	6.98	6.94	---	---	7.66	7.62	6.74	6.71	4.86	4.85	---	---
7	7.01	6.98	---	---	7.67	7.62	6.73	6.72	4.85	4.81	4.95	4.90
8	7.04	7.00	---	---	7.66	7.64	6.74	6.66	4.84	4.81	4.98	4.95
9	7.07	7.04	---	---	7.69	7.65	6.65	6.31	4.84	4.81	5.00	4.95
10	7.08	7.06	---	---	7.68	7.65	6.30	6.17	4.86	4.82	4.96	4.94
11	7.09	7.06	---	---	7.72	7.68	6.16	5.76	4.91	4.85	4.98	4.95
12	7.11	7.07	---	---	7.71	7.68	5.72	5.35	4.95	4.91	4.99	4.97
13	7.09	7.07	---	---	7.72	7.68	5.34	5.19	4.91	4.81	4.98	4.93
14	7.13	7.09	7.53	7.51	7.77	7.72	5.18	5.07	4.81	4.78	4.93	4.91
15	7.19	7.13	7.54	7.51	7.76	7.64	5.07	5.00	4.92	4.81	4.94	4.91
16	7.23	7.20	7.52	7.48	7.67	7.62	4.99	4.77	5.01	4.92	4.96	4.92
17	7.25	7.23	7.54	7.48	7.69	7.65	4.76	4.73	5.04	4.99	4.93	4.86
18	7.23	7.07	7.57	7.54	7.64	7.60	4.73	4.67	5.07	5.03	4.86	4.64
19	7.09	7.08	7.58	7.56	7.71	7.62	4.69	4.62	5.03	4.95	4.64	4.63
20	7.12	7.10	7.60	7.58	7.74	7.71	4.62	4.60	4.97	4.94	4.64	4.63
21	7.13	7.11	7.60	7.58	7.70	7.63	4.64	4.55	4.99	4.94	4.63	4.57
22	7.13	7.10	7.59	7.55	7.63	7.61	4.69	4.63	4.94	4.91	4.59	4.57
23	7.10	7.05	7.55	7.52	7.61	7.51	4.70	4.65	5.01	4.94	4.57	4.29
24	7.11	7.09	7.58	7.53	7.50	7.46	4.69	4.64	5.01	4.96	4.28	4.21
25	7.11	7.09	7.61	7.57	7.48	7.42	4.76	4.69	4.98	4.95	4.22	4.19
26	7.18	7.11	7.65	7.61	7.42	7.41	4.76	4.68	4.97	4.96	4.21	4.15
27	7.21	7.18	7.66	7.63	7.42	7.32	4.73	4.67	5.02	4.97	4.14	4.04
28	7.24	7.20	7.64	7.62	7.31	7.20	4.73	4.67	5.07	5.02	4.09	4.03
29	---	---	7.66	7.62	7.20	7.06	4.77	4.73	---	---	4.08	3.92
30	---	---	7.69	7.66	7.05	6.92	4.73	4.68	---	---	3.91	3.87
31	---	---	---	---	6.94	6.91	4.83	4.67	---	---	3.88	3.80
MONTH	7.25	6.81	7.69	7.48	7.77	6.91	6.90	4.55	5.07	4.78	5.08	3.80

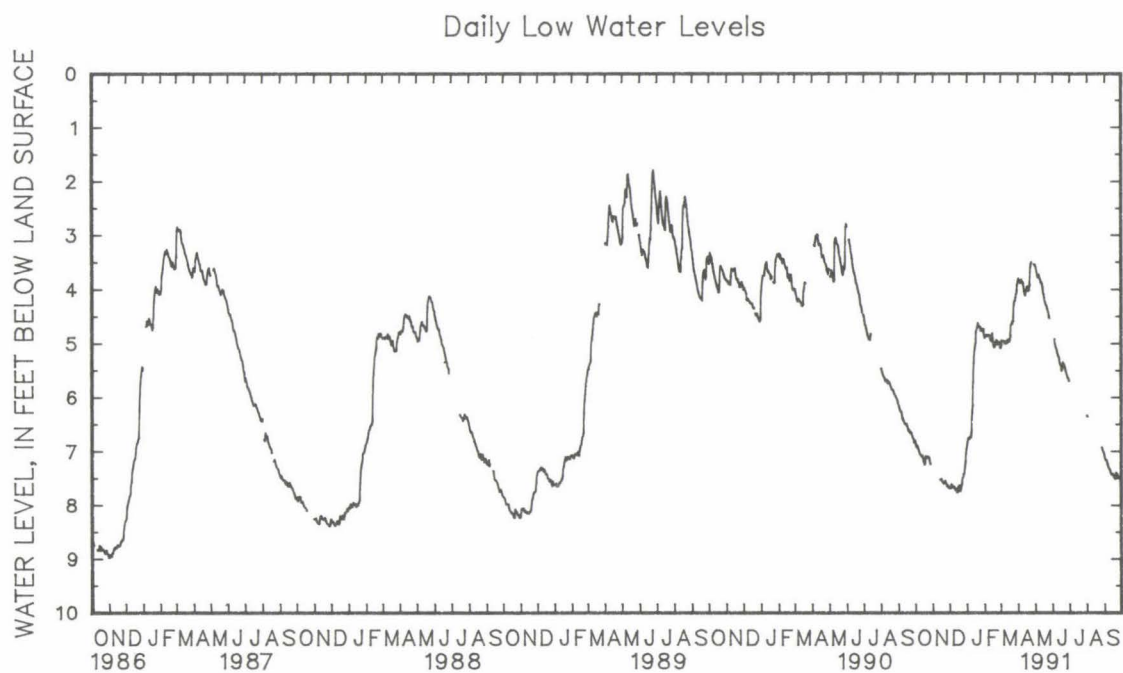
GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY

Id53-05--continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.80	3.78	3.57	3.51	---	---	---	---	6.35	6.29	7.13	7.06
2	3.83	3.77	3.61	3.55	---	---	---	---	6.36	6.32	7.17	7.13
3	3.86	3.82	3.67	3.60	---	---	---	---	---	---	7.17	7.14
4	3.88	3.83	3.74	3.67	4.92	4.84	---	---	---	---	7.17	7.15
5	3.84	3.78	3.78	3.74	5.01	4.92	---	---	---	---	7.21	7.17
6	3.82	3.79	3.77	3.70	5.06	5.01	---	---	---	---	7.24	7.21
7	3.84	3.81	3.73	3.69	5.09	5.05	---	---	---	---	7.27	7.23
8	3.87	3.84	3.77	3.74	5.12	5.08	---	---	---	---	7.30	7.26
9	3.87	3.85	3.80	3.76	5.18	5.13	---	---	---	---	7.33	7.29
10	3.93	3.85	3.83	3.79	5.22	5.17	---	---	---	---	7.34	7.32
11	4.04	3.94	3.88	3.83	5.24	5.18	---	---	---	---	7.38	7.32
12	4.09	4.04	3.87	3.85	5.27	5.22	---	---	---	---	7.41	7.37
13	4.11	4.02	3.90	3.85	5.34	5.27	---	---	---	---	7.44	7.39
14	4.04	4.00	3.95	3.88	5.39	5.32	---	---	---	---	7.44	7.39
15	4.00	3.91	4.07	3.94	5.40	5.35	---	---	---	---	7.42	7.40
16	3.95	3.90	4.09	4.07	5.46	5.38	---	---	---	---	7.45	7.42
17	3.94	3.91	4.15	4.08	5.51	5.44	---	---	---	---	7.49	7.44
18	3.98	3.93	4.23	4.15	5.46	5.34	---	---	---	---	7.50	7.44
19	4.03	3.95	4.27	4.23	5.35	5.33	---	---	---	---	7.52	7.45
20	4.01	3.94	4.29	4.26	5.37	5.33	---	---	---	---	7.46	7.37
21	3.93	3.60	4.31	4.28	5.39	5.35	---	---	---	---	7.40	7.39
22	3.59	3.52	4.36	4.32	5.42	5.37	---	---	---	---	7.42	7.40
23	3.53	3.50	4.40	4.37	5.47	5.40	---	---	---	---	7.43	7.41
24	3.50	3.42	4.43	4.40	5.51	5.48	---	---	---	---	7.47	7.43
25	---	---	4.48	4.44	5.56	5.51	---	---	---	---	7.48	7.47
26	---	---	4.53	4.49	5.59	5.54	---	---	---	---	7.50	7.48
27	---	---	---	---	5.63	5.58	---	---	6.94	6.91	7.50	7.47
28	---	---	---	---	5.65	5.59	---	---	6.97	6.93	7.51	7.50
29	3.54	3.48	---	---	5.67	5.61	---	---	7.00	6.96	7.52	7.45
30	3.54	3.52	---	---	5.70	5.64	---	---	7.02	6.97	7.44	7.42
31	---	---	---	---	---	---	---	---	7.06	6.99	---	---
MONTH	4.11	3.42	4.53	3.51	5.70	4.84	---	---	7.06	6.29	7.52	7.06



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE

KENT COUNTY--Continued

WELL NUMBER.--Id55-01. SITE ID.--391026075304901.

LOCATION.--Lat 39°10'26", long 75°30'49", Hydrologic Unit 02040207, White Oak Rd. at Dover.

Owner: City of Dover.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 349 ft; casing diameter 2.5 in., to 329 ft; screened from 329 to 349 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 1, 1984 to current year.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.0 ft above land surface.

REMARKS.--Water level affected by pumping in the Dover area. No record from Dec. 22, 1989 to Jan. 2, 1990, due to recorder malfunction.

PERIOD OF RECORD.--August 1969 to current year.

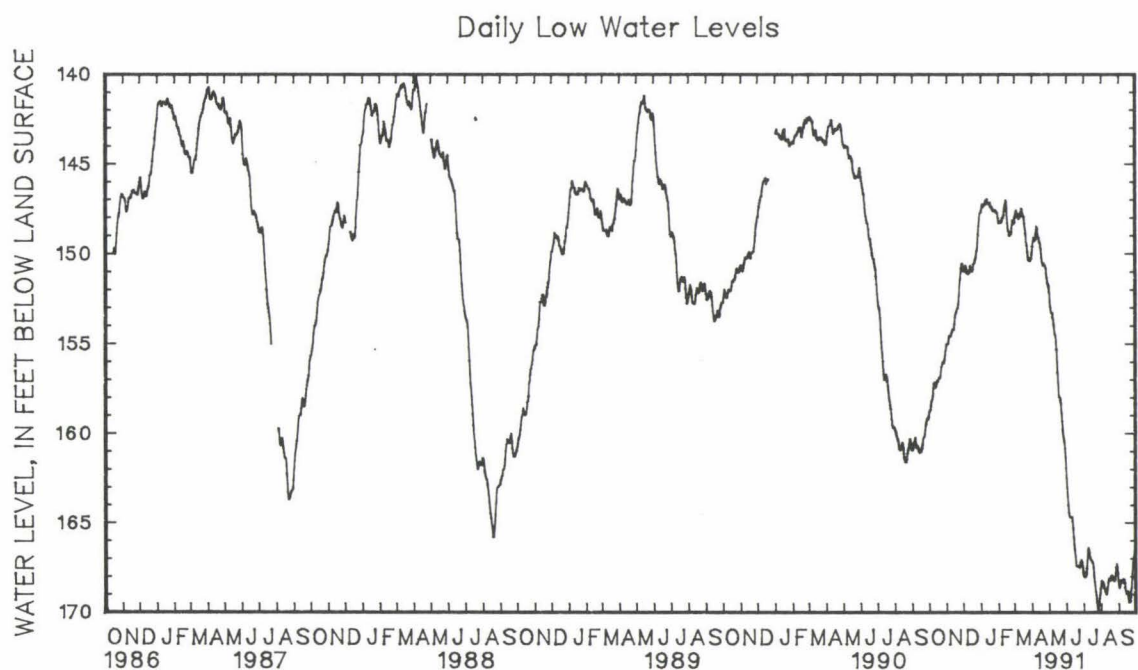
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.40 ft below land surface, May 5, 1970; lowest measured, 169.91 ft below land-surface datum, July 26, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	158.85	158.73	155.02	154.89	150.87	150.78	147.67	147.48	148.29	148.03	148.26	148.00
2	158.73	158.68	155.01	154.97	150.97	150.87	147.47	147.19	148.30	148.25	148.00	147.71
3	158.71	158.51	155.00	154.94	150.97	150.71	147.24	147.18	148.27	148.20	147.73	147.52
4	158.49	158.18	154.95	154.69	150.68	150.56	147.35	147.25	148.21	148.16	147.59	147.44
5	158.23	158.12	154.68	154.48	150.68	150.65	147.37	147.29	148.26	148.17	147.78	147.59
6	158.13	157.96	154.57	154.46	150.85	150.65	147.29	147.28	148.27	148.19	147.78	147.52
7	157.96	157.54	154.57	154.39	151.06	150.86	147.28	147.25	148.18	148.03	147.77	147.52
8	157.53	157.25	154.52	154.39	151.06	151.05	147.26	147.08	148.03	148.01	147.97	147.77
9	157.24	157.11	154.56	154.41	151.11	151.05	147.07	146.88	148.02	147.85	148.07	147.97
10	157.18	157.11	154.39	154.12	151.04	150.90	147.01	146.88	147.84	147.55	148.05	147.93
11	157.38	157.19	154.31	154.14	151.06	150.95	147.03	146.76	147.53	147.30	147.93	147.77
12	157.45	157.39	154.20	154.13	150.94	150.67	146.93	146.75	147.30	147.16	147.77	147.66
13	157.39	157.32	154.21	154.14	150.68	150.52	147.21	146.93	147.14	146.90	147.66	147.47
14	157.30	157.08	154.20	153.92	150.95	150.70	147.22	147.14	147.03	146.80	147.47	147.40
15	157.06	156.97	153.90	153.54	150.95	150.82	147.21	147.15	147.44	147.05	147.70	147.46
16	157.10	157.01	153.52	153.30	150.96	150.83	147.15	146.75	147.87	147.46	147.83	147.70
17	157.05	156.90	153.32	153.24	150.96	150.86	147.14	146.81	148.31	147.88	147.91	147.84
18	156.90	156.63	153.32	153.22	150.84	150.52	147.35	147.15	148.63	148.32	147.92	147.81
19	156.88	156.75	153.21	152.98	150.56	150.53	147.43	147.36	148.75	148.64	148.31	147.86
20	156.92	156.85	153.02	152.99	150.55	150.46	147.39	147.31	148.96	148.75	148.66	148.32
21	156.85	156.52	153.02	152.81	150.46	150.32	147.44	147.28	149.02	148.89	148.88	148.67
22	156.51	156.29	152.80	152.34	150.32	150.27	147.61	147.45	148.88	148.73	149.36	148.88
23	156.29	156.12	152.31	151.76	150.26	149.93	147.61	147.53	148.92	148.85	149.54	149.36
24	156.12	156.01	151.75	151.43	149.89	149.75	147.58	147.53	148.83	148.42	149.87	149.55
25	156.01	155.89	151.41	151.05	149.83	149.44	147.63	147.58	148.40	148.11	150.19	149.87
26	155.99	155.89	151.04	150.83	149.41	149.00	147.62	147.54	148.15	148.09	150.37	150.19
27	156.06	155.97	150.81	150.59	148.98	148.50	147.59	147.54	148.28	148.15	150.37	150.15
28	155.95	155.62	150.58	150.37	148.46	148.14	147.64	147.50	148.33	148.24	150.35	150.12
29	155.61	155.39	150.55	150.35	148.11	147.76	147.71	147.65	---	---	150.41	150.31
30	155.38	155.18	150.79	150.55	147.73	147.43	147.70	147.55	---	---	150.32	150.25
31	155.17	155.00	---	---	147.67	147.40	148.01	147.55	---	---	150.27	149.97
MONTH	158.85	155.00	155.02	150.35	151.11	147.40	148.01	146.75	149.02	146.80	150.41	147.40

GROUND-WATER LEVELS
DELAWARE--Continued
KENT COUNTY--Continued
Id55-01--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	149.96	149.60	152.14	151.79	162.52	161.98	167.94	167.73	168.24	168.10	168.59	168.27
2	149.60	149.36	152.61	152.17	163.07	162.54	168.02	167.94	168.23	168.13	168.63	168.51
3	149.35	149.10	152.99	152.62	163.54	163.10	168.02	167.97	168.28	168.23	168.50	168.22
4	149.13	149.08	153.26	153.01	164.01	163.57	167.97	167.88	168.31	168.28	168.20	168.15
5	149.19	149.12	153.32	153.27	164.43	164.04	167.87	167.58	168.46	168.31	168.26	168.15
6	149.26	149.20	153.29	153.27	164.63	164.44	167.57	167.08	168.64	168.47	168.32	168.26
7	149.22	148.90	153.52	153.29	164.70	164.64	167.05	166.48	168.74	168.64	168.31	168.25
8	148.89	148.49	153.62	153.53	164.70	164.64	166.45	166.26	168.84	168.74	168.25	168.15
9	148.48	148.28	153.91	153.62	164.71	164.64	166.39	166.27	168.89	168.84	168.15	168.12
10	148.54	148.24	154.26	153.91	164.68	164.63	166.45	166.38	168.99	168.89	168.16	168.12
11	148.90	148.56	154.45	154.27	164.89	164.68	166.61	166.45	168.96	168.68	168.32	168.16
12	149.07	148.91	154.53	154.45	165.29	164.91	166.87	166.62	168.66	168.33	168.57	168.34
13	149.11	149.06	154.83	154.53	165.82	165.31	167.01	166.87	168.32	168.16	168.80	168.58
14	149.36	149.10	155.32	154.84	166.23	165.84	167.06	167.02	168.16	168.07	168.96	168.80
15	149.40	149.33	155.97	155.34	166.50	166.24	167.13	167.06	168.09	168.04	168.97	168.81
16	149.65	149.41	156.62	155.99	166.82	166.53	167.21	167.14	168.17	168.10	168.81	168.74
17	149.99	149.66	157.20	156.64	167.18	166.83	167.26	167.20	168.20	168.16	168.91	168.74
18	150.25	150.01	157.92	157.24	167.40	167.20	167.55	167.27	168.17	167.97	169.16	168.87
19	150.51	150.25	158.03	157.93	167.44	167.39	167.94	167.56	167.95	167.84	169.43	169.17
20	150.66	150.52	158.03	158.02	167.40	167.35	168.31	167.96	167.93	167.89	169.45	169.38
21	150.64	150.52	158.14	158.02	167.38	167.35	168.59	168.32	168.01	167.92	169.37	169.15
22	150.56	150.52	158.38	158.14	167.47	167.38	168.85	168.59	168.10	168.01	169.13	168.66
23	150.65	150.57	158.88	158.39	167.51	167.44	169.09	168.86	168.19	168.10	168.62	168.17
24	150.66	150.57	159.34	158.90	167.44	167.21	169.45	169.10	168.24	168.19	168.14	167.69
25	150.77	150.64	159.81	159.36	167.20	167.08	169.78	169.47	168.18	167.95	167.65	167.18
26	151.08	150.78	160.16	159.82	167.07	167.01	169.91	169.79	167.95	167.51	167.17	166.96
27	151.34	151.09	160.29	160.16	167.08	167.01	169.85	169.56	167.49	167.27	166.97	166.83
28	151.62	151.34	160.47	160.29	167.21	167.08	169.54	169.22	167.28	167.22	166.83	166.57
29	151.69	151.62	160.84	160.48	167.44	167.21	169.21	168.99	167.48	167.29	166.56	165.97
30	151.78	151.69	161.34	160.86	167.72	167.45	168.99	168.71	167.78	167.50	165.97	165.48
31	---	---	161.96	161.37	---	---	168.69	168.25	168.24	167.80	---	---
MONTH	151.78	148.24	161.96	151.79	167.72	161.98	169.91	166.26	168.99	167.22	169.45	165.48



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

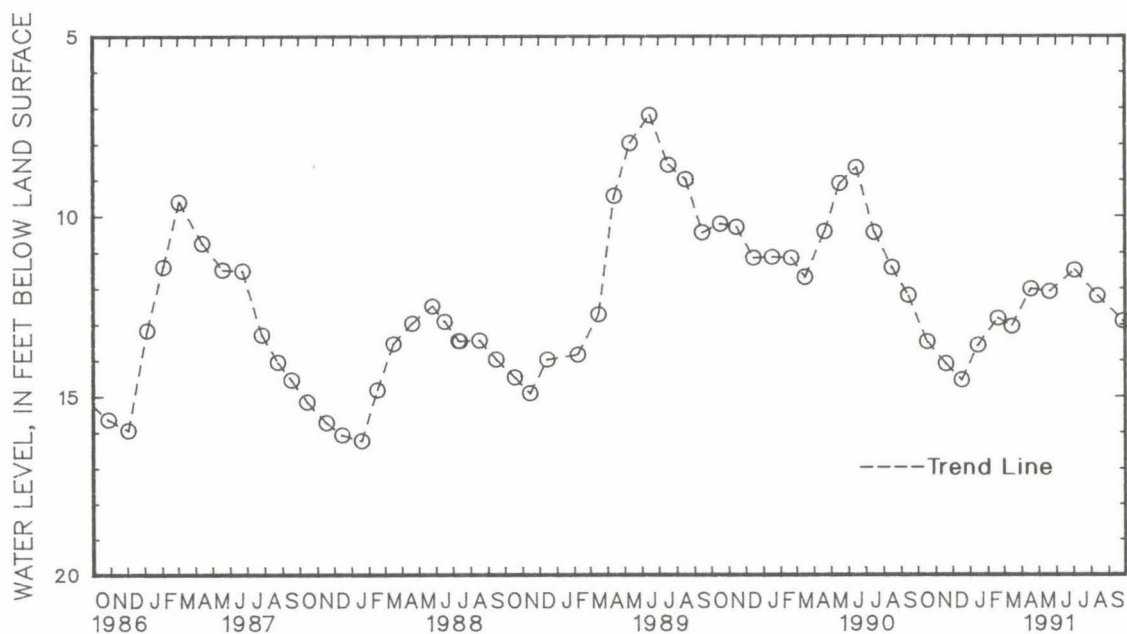
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
KENT COUNTY--Continued

WELL NUMBER.--Mc51-01. SITE ID.--385041075395601.
LOCATION.--Lat 38°50'41", long 75°39'56", Hydrologic Unit 02060008, 1.3 mi northeast of Adamsville.
Owner: Delaware Department of Transportation.
AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 2 in., to 15 ft; well point from 15 to 19 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing at land surface.
PERIOD OF RECORD.--September 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.28 ft below land surface, May 31, 1984; lowest measured, 16.29 ft below land surface, Jan. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 17	13.54	DEC 17	14.61	FEB 19	12.85	APR 17	12.03	JUL 3	11.51	SEP 26	12.95	
NOV 19	14.16	JAN 15	13.62	MAR 15	13.08	MAY 20	12.11	AUG 12	12.24			
WATER YEAR 1991		HIGHEST	11.51	JUL 3, 1991		LOWEST	14.61	DEC 17, 1990				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--Md22-01. SITE ID.--385310075331301. PERMIT NUMBER.--10221.

LOCATION.--Lat 38°53'10", long 75°33'13", Hydrologic Unit 02040207, 2.4 mi west of Williamsville.

Owner: Delaware Department of Transportation.

AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 17 ft; casing diameter 1 in., to 14 ft; well point from 14 to 17 ft.

INSTRUMENTATION.--Bimonthly measurements with chalked steel tape by USGS and Delaware Geological Survey personnel.
DATUM.--Elevation of land surface is 58 ft above National Geodetic Vertical Datum of 1929, from topographic map.

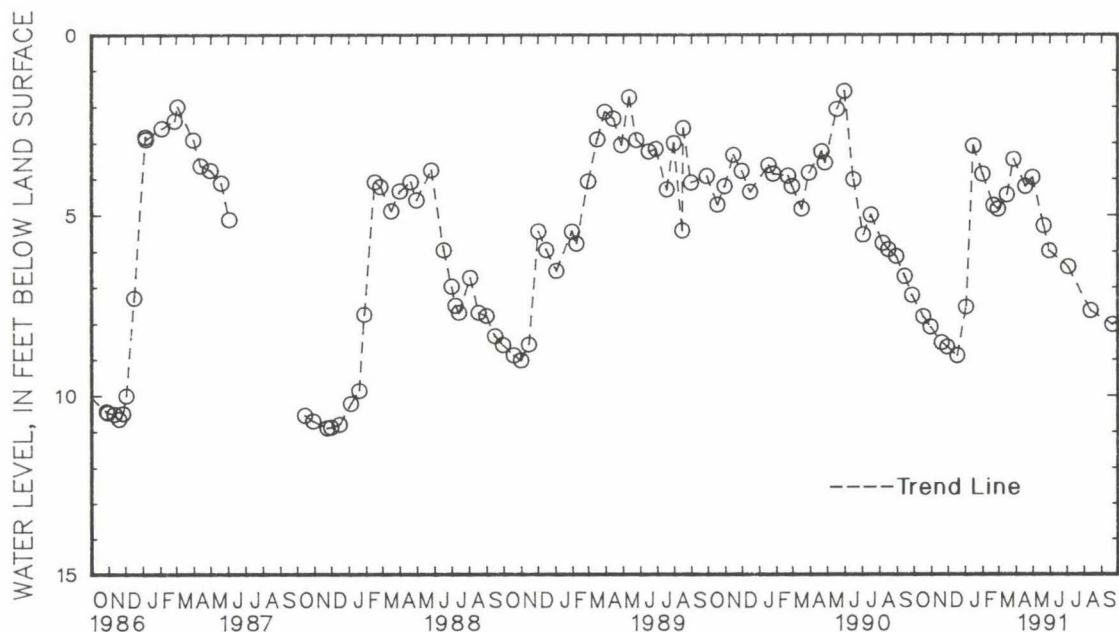
Measuring point: Top of casing at land surface.

PERIOD OF RECORD.--September 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.07 ft below land surface, July 14, 1975;
lowest measured, 11.14 ft below land surface, Jan. 6, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	7.87	DEC 17	8.96	FEB 19	4.76	APR 17	4.23	JUL 3	6.48
30	8.16	JAN 2	7.58	27	4.86	30	3.98	AUG 12	7.70
NOV 19	8.60	15	3.09	MAR 15	4.46	MAY 20	5.33	SEP 20	8.09
29	8.72	31	3.88	27	3.47	30	6.03		
WATER YEAR 1991		HIGHEST	3.09	JAN 15, 1991		LOWEST	8.96	DEC 17, 1990	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

LOCATION.--Lat 39°39'17", long 75°40'16", Hydrologic Unit 02040205, Smalley's Dam,
at the Wilmington Suburban Water Co. plant.

Owner: Wilmington Suburban Water Co.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 306 ft; casing diameter 12 in., to 215.5 ft, and 238.5 to 273.5 ft, screened from 215.5 to 238.5 ft and 273.5 to 306 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.

Equipped with graphic water-level recorder from March 1979 to November 1981.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

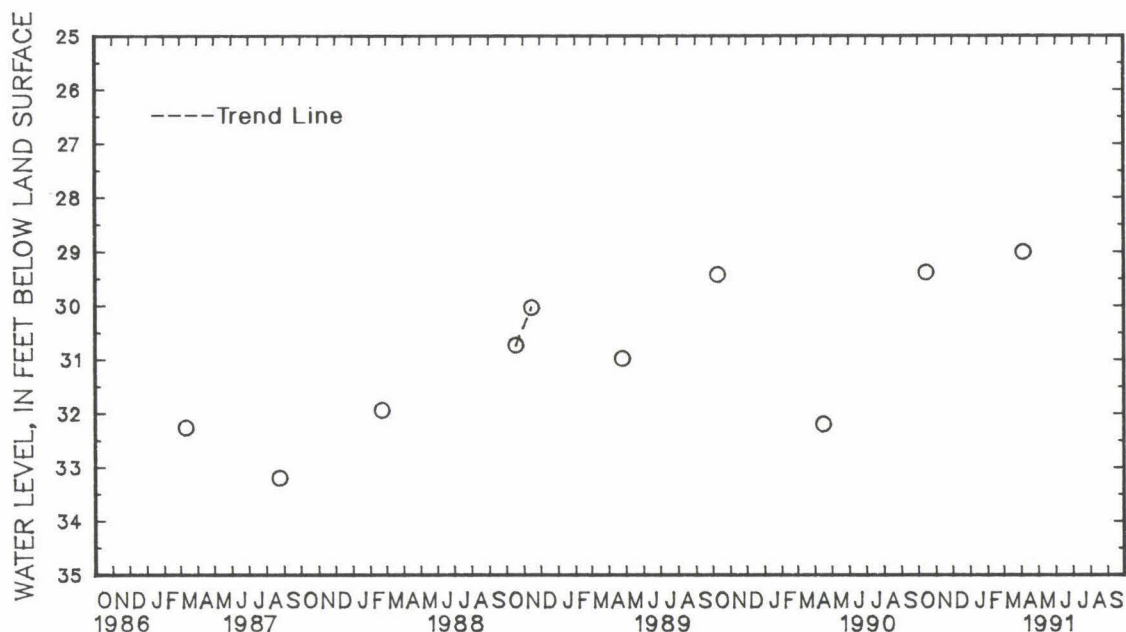
Measuring Point: Top of 12 in. casing, 1.5 ft above land surface.

PERIOD OF RECORD.--March 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.60 ft below land surface, Oct. 10, 1984;
lowest measured, 39.31 ft below land surface, Sept. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL			
OCT 15	29.38	APR 5	29.00			
WATER YEAR 1991	HIGHEST	29.00	APR 5, 1991	LOWEST	29.38	OCT 15, 1990



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

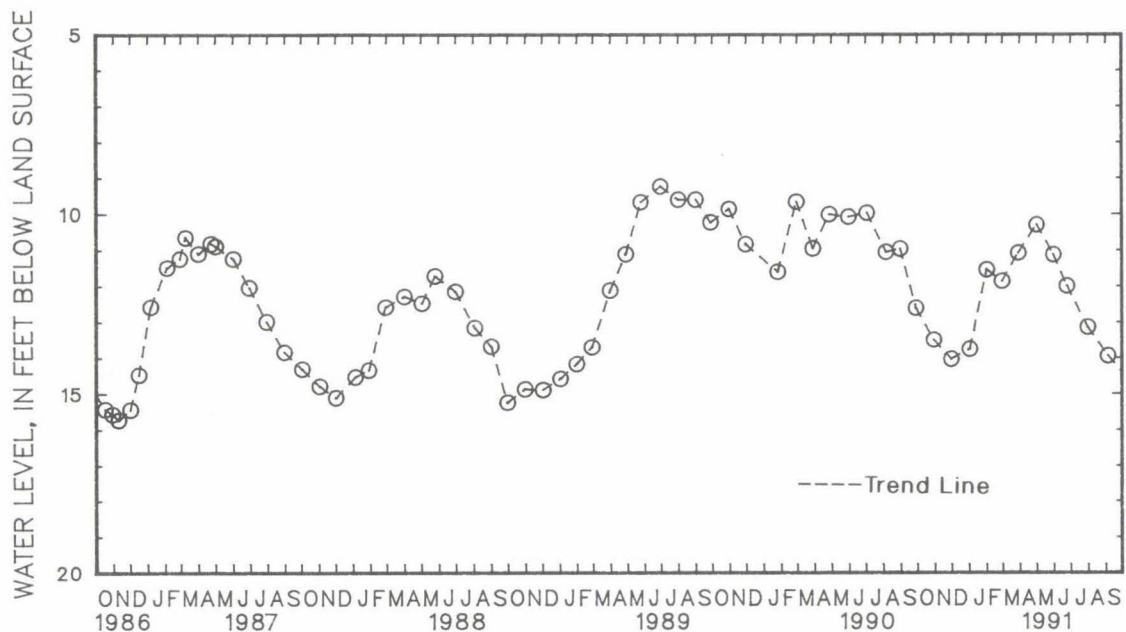
DELAWARE--Continued

NEW CASTLE COUNTY

WELL NUMBER.--Db24-17. SITE ID.--393856075415402. PERMIT NUMBER.--65430.
LOCATION.--Lat 39°38'56", long 75°41'54", Hydrologic Unit 02040205, 2 mi south of Ogletown.
Owner: Delaware Department of Transportation.
AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22 ft; casing diameter 2 in., to 17 ft;
screened from 17 to 22 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.
DATUM.--Elevation of land surface is 77 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 0.55 ft above land surface.
REMARKS.--Water-level measurements furnished by Delaware Geological Survey.
PERIOD OF RECORD.--June 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.23 ft below land surface, June 30, 1989;
lowest measured, 15.74 ft below land surface, Nov. 10, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 30	13.51	JAN 2	13.77	FEB 28	11.87	MAY 1	10.30	JUN 24	12.00	SEP 5	13.96				
NOV 30	14.05	FEB 1	11.55	MAR 29	11.08		11.13	JUL 31	13.15						
WATER YEAR 1991		HIGHEST	10.30	MAY 1, 1991		LOWEST	14.05	NOV 30, 1990							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

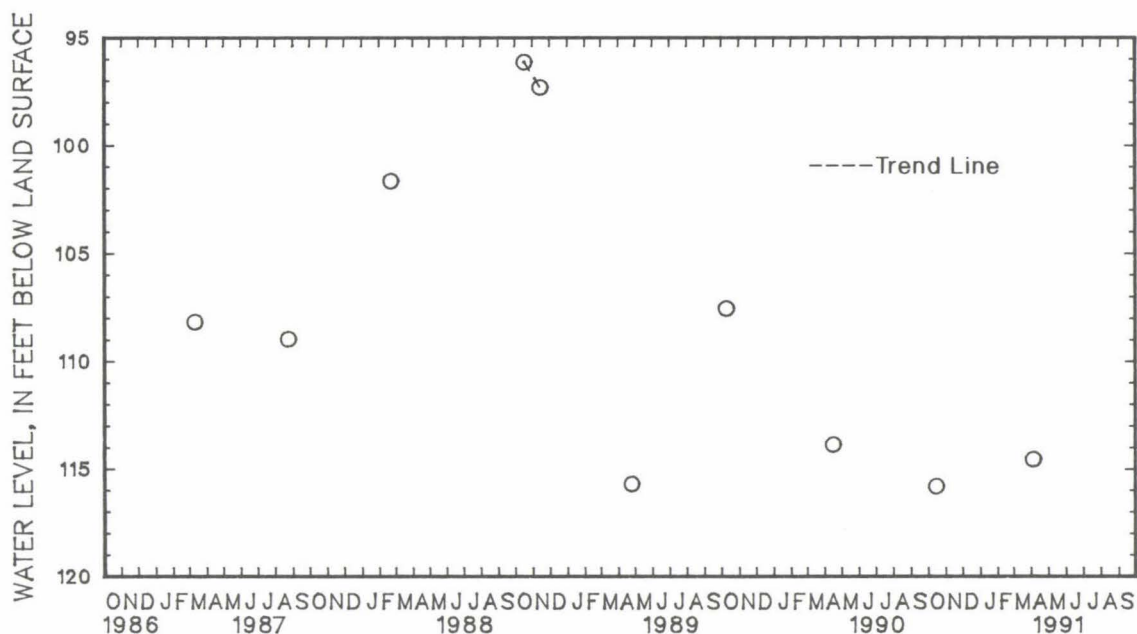
DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db33-17. SITE ID.--393734075371103. PERMIT NUMBER--44612.
 LOCATION.--Lat 39°37'34", long 75°37'11", Hydrologic Unit 02040205, off Salem Church Rd., near Beck's Pond.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 189 ft; casing diameter 2 in., to 185 ft; screened from 185 to 189 ft. Installed in a 8 in. borehole with Db33-18, and Db33-19.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from October 1980 to November 1981.
 DATUM.--Elevation of land surface is 48 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of coupling, 1.75 ft above land surface.
 PERIOD OF RECORD.--October 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 96.13 ft below land surface, Oct. 18, 1988; lowest measured, 115.82 ft below land surface, Oct. 15, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	115.82	APR 5	114.56
WATER YEAR 1991 HIGHEST 114.56 APR 5, 1991 LOWEST 115.82 OCT 15, 1990			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

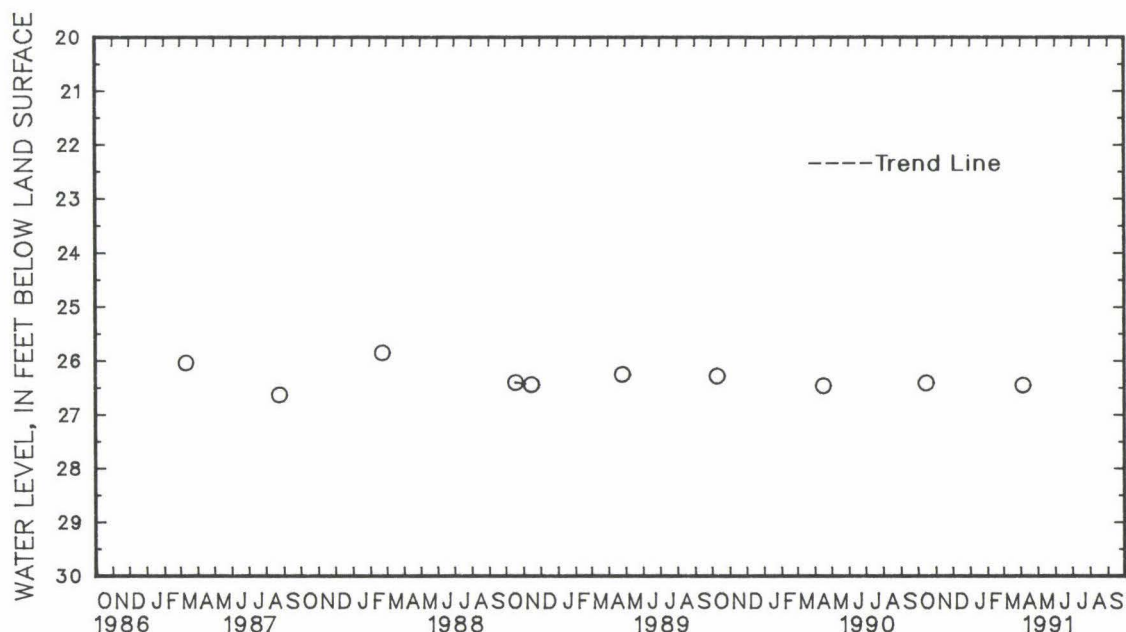
DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db33-19. SITE ID.--393734075371101. PERMIT NUMBER--44612.
LOCATION.--Lat 39°37'34", long 75°37'11", Hydrologic Unit 02040205, off Salem Church Rd., near Beck's Pond.
Owner: U.S. Geological Survey,
AQUIFER.--Unconfined aquifer.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 39 ft; casing diameter 2 in; to 35 ft;
screened from 35 to 39 ft. Installed in a 8 in. borehole with Db33-17, and Db33-18.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from
October 1980 to November 1981.
DATUM.--Elevation of land surface is 48 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of coupling, 1.75 ft above land surface.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.35 ft below land surface, July 14, 1981;
lowest measured 28.23 ft below land surface, April 3, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL			
OCT 15	26.42	APR 5	26.46			
WATER YEAR 1991	HIGHEST	26.42	OCT 15, 1990	LOWEST	26.46	APR 5, 1991



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Dc34-05. SITE ID.--393755075364801.

LOCATION.--Lat 39°37'55", long 75°36'48", Hydrologic Unit 02040205, east side of Rt. 9, at National Guard Rifle Range.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 579 ft; casing diameter 2 in., to 574 ft; screened from 574 to 579 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from November 1975 to November 1981.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.

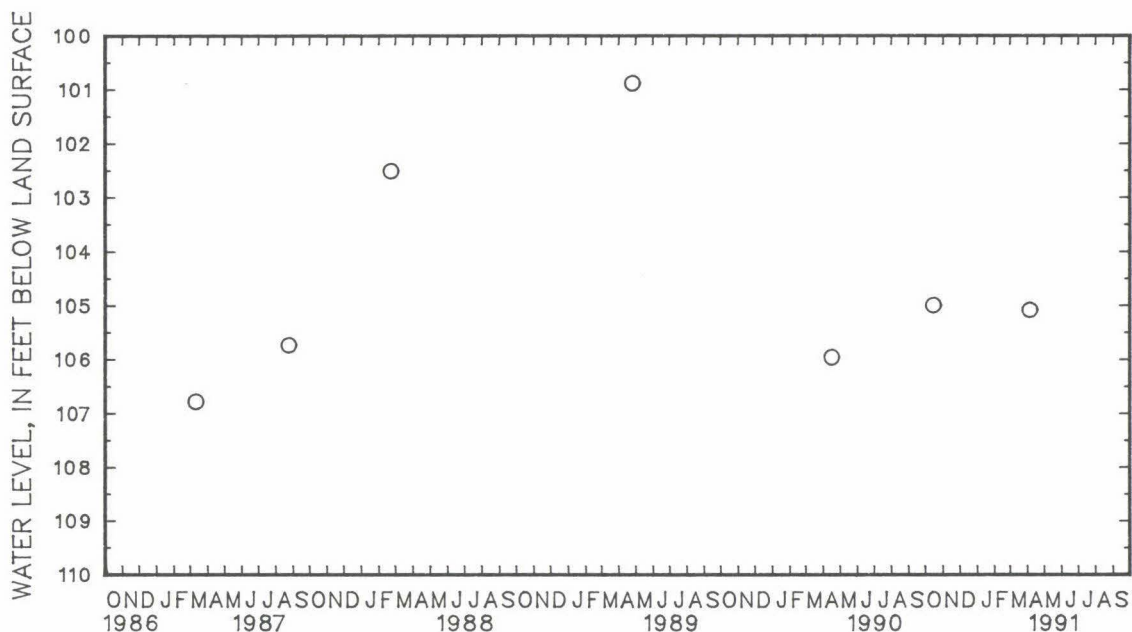
Measuring Point: Top of coupling, 2.1 ft above land surface.

PERIOD OF RECORD.--November 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.38 ft below land surface, Oct. 10, 1984; lowest measured, 130.62 ft below land surface, May 5, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15 1986	105.00	APR 5 1987	105.09
WATER YEAR 1991	HIGHEST 105.00	OCT 15, 1990	LOWEST 105.09
		APR 5, 1991	



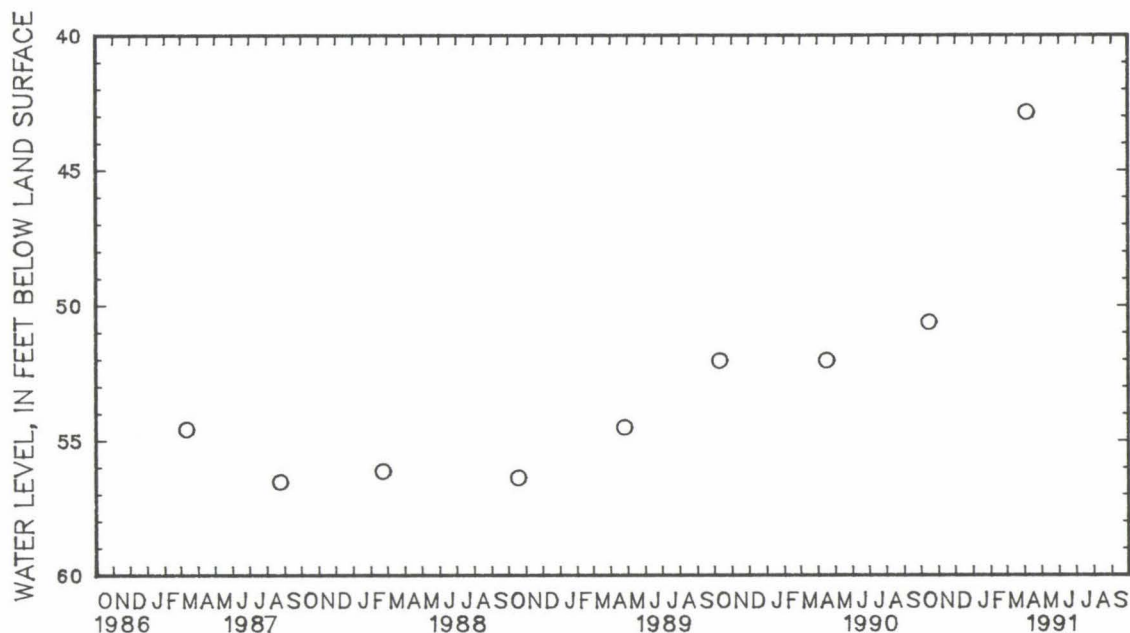
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
NEW CASTLE COUNTY--Continued

WELL NUMBER.--Dc34-06. SITE ID.--393755075364802.
LOCATION.--Lat 39°37'55", long 75°36'48", Hydrologic Unit 02040205, east side of Rt. 9,
at National Guard Rifle Range.
Owner: U.S. Geological Survey,
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 188 ft; casing diameter 2 in., to 183 ft;
screened from 183 to 188 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-
level recorder from November 1975 to October 1982. Beginning March 1982, water-level measured semi-annually.
DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of 6 in casing, 2.0 ft above land surface.
PERIOD OF RECORD.--November 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.94 ft below land surface, Feb. 15, 1976;
lowest measured, 62.37 ft below land surface, Oct. 15, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	50.61	APR 5	42.85
WATER YEAR 1991 HIGHEST 42.85 APR 5, 1991 LOWEST 50.61 OCT 15, 1990			



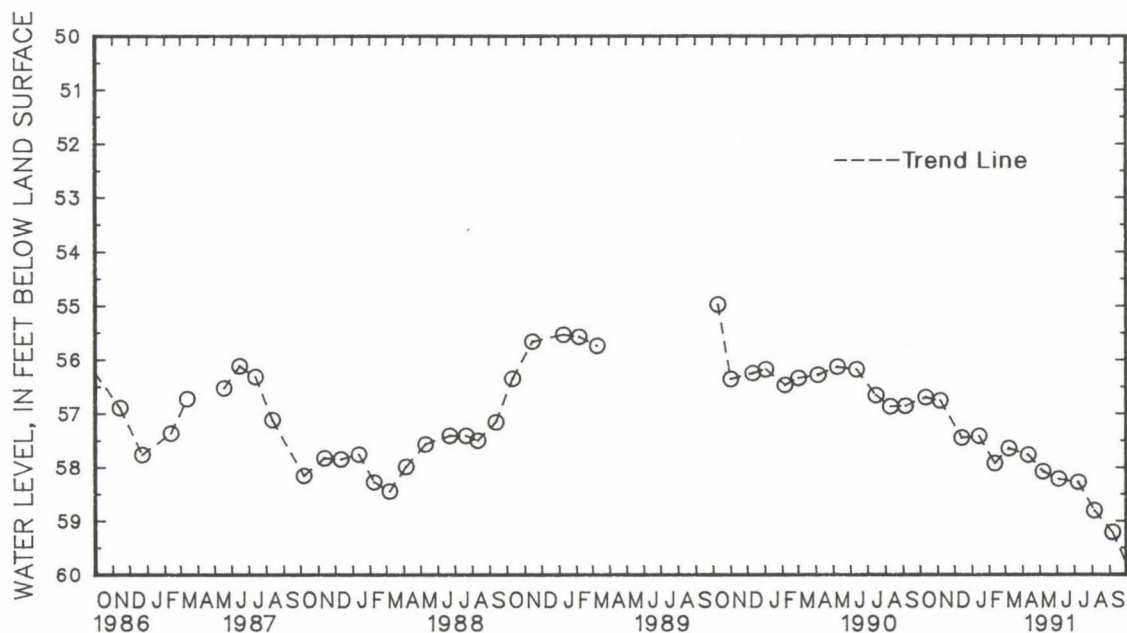
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-23 . SITE ID.--393316075421602.
LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 292 ft; casing diameter 2 in., to 288 ft, screened from 288 to 292 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.5 ft above land surface.
PERIOD OF RECORD.--November 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.38 ft below land surface, Oct. 12, 1982; lowest measured, 59.21 ft below land surface, Sept. 6, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	56.70	DEC 14	57.45	FEB 11	57.93	APR 11	57.77	JUN 4	58.22	AUG 5	58.81
NOV 6	56.76	JAN 14	57.42	MAR 8	57.65	MAY 7	58.08	JUL 8	58.28	SEP 6	59.21
WATER YEAR 1991		HIGHEST	56.70	OCT 11, 1990	LOWEST	59.21	SEP 6, 1991				



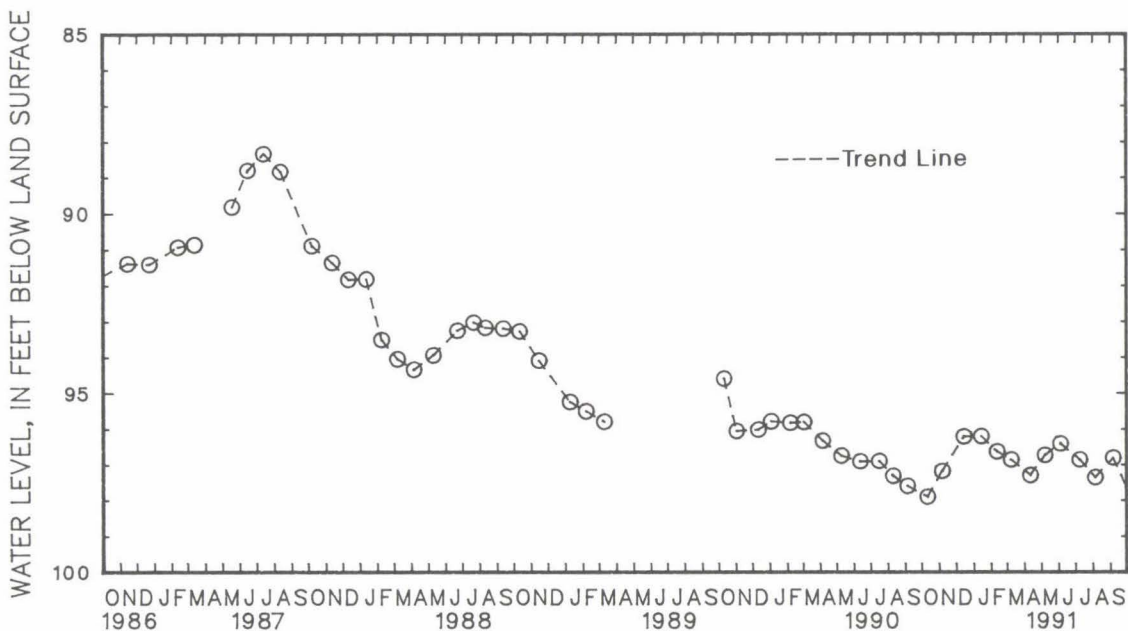
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-24 SITE ID.--393316075421603.
LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 436 ft; casing diameter 2 in., to 432 ft, screened from 432 to 436 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.5 ft above land surface.
PERIOD OF RECORD.--November 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.17 ft below land surface, Nov. 13, 1980; lowest measured, 97.90 ft below land surface, Oct. 11, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	97.90	DEC 14	96.21	FEB 11	96.63	APR 11	97.30	JUN 4	96.41	AUG 5	97.36
NOV 6	97.18	JAN 14	96.20	MAR 8	96.86	MAY 7	96.73	JUL 8	96.86	SEP 6	96.81
WATER YEAR 1991		HIGHEST	96.20	JAN 14, 1991		LOWEST	97.90	OCT 11, 1990			



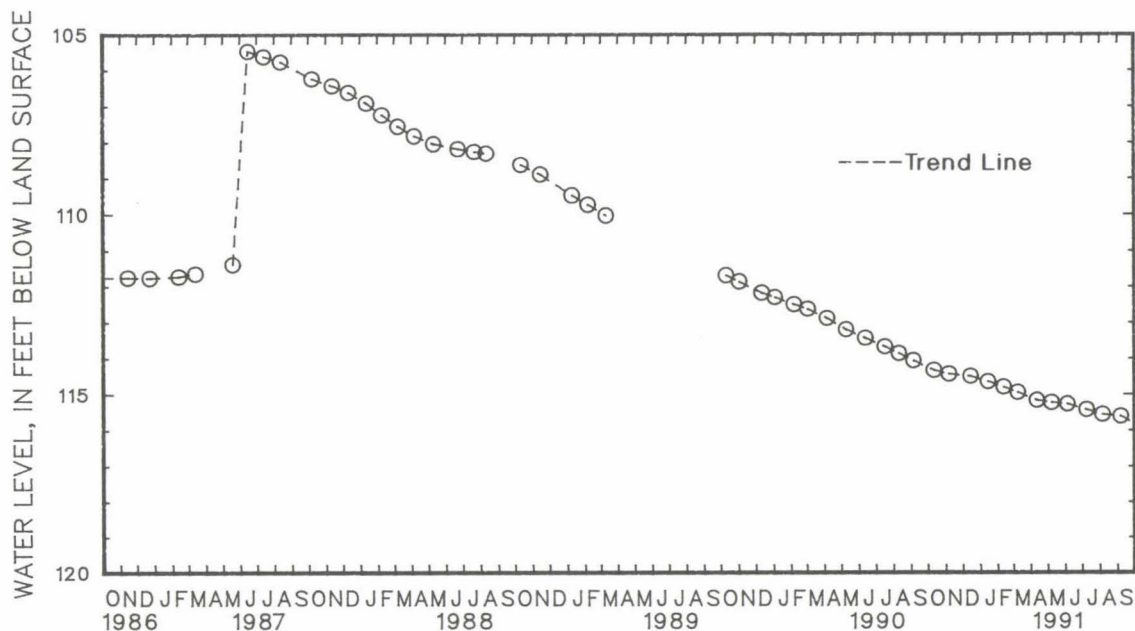
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-25. SITE ID.--393316075421604.
LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 604 ft; screen diameter 2 in., to 600 ft, screened from 600 to 604 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.5 ft above land surface.
PERIOD OF RECORD.--November 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.07 ft below land surface, April 20, 1982; lowest measured, 115.67 ft below land surface, Sept. 6, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	114.40	DEC 14	114.56	FEB 11	114.86	APR 11	115.23	JUN 4	115.33	AUG 5	115.62
NOV 6	114.50	JAN 14	114.71	MAR 8	115.01	MAY 7	115.29	JUL 8	115.49	SEP 6	115.67
WATER YEAR 1991		HIGHEST	114.40	OCT 11, 1990	LOWEST	115.67	SEP 6, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Gb51-06. SITE ID.--392055075443501. PERMIT NUMBER.--70417.
 LOCATION.--Lat 39°20'55", long 75°44'35", Hydrologic Unit 0206002, at Vandyke Tract, Blackbird State Forest, near Vandyke.
 Owner: U.S. Geological Survey.
 AQUIFER.--Pleistocene-Pliocene Formation Series of Pleistocene age. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 12.5 ft, casing diameter 2 in., to 10 ft; screen diameter 2 in. from 10 to 12.5 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from Apr. 4, 1987 to current year.
 DATUM.--Elevation of land surface is 80.82 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 4.24 ft above land surface.
 REMARKS.--National Water Quality Assessment Project observation well.
 PERIOD OF RECORD.--April 1987 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.14 ft above sea level, May 6, and 7, 1989; lowest measured, 71.66 ft above sea level, Nov. 11, 1987.

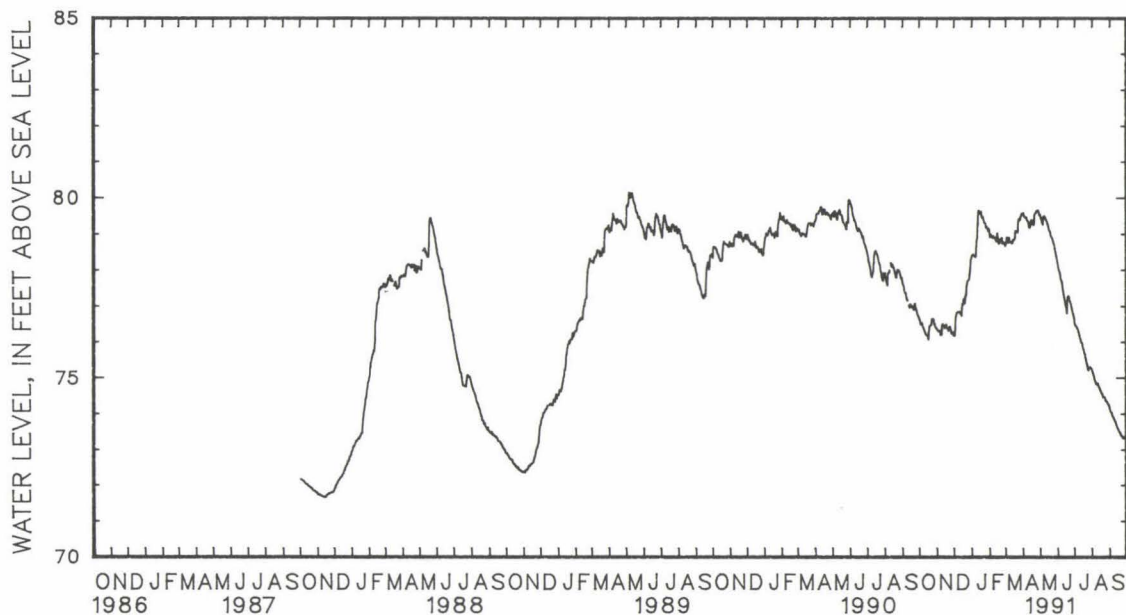
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	76.61	76.60	76.32	76.30	76.18	76.14	78.39	78.29	78.92	78.91	78.71	78.64
2	76.60	76.48	76.32	76.29	76.16	76.13	78.43	78.40	78.98	78.92	78.78	78.72
3	76.48	76.47	76.29	76.28	76.32	76.13	78.43	78.40	78.97	78.93	78.90	78.68
4	76.50	76.47	76.28	76.28	76.69	76.35	78.40	78.36	78.94	78.91	78.90	78.76
5	76.52	76.49	76.29	76.27	76.76	76.70	78.38	78.36	78.91	78.89	78.76	78.71
6	76.49	76.41	76.30	76.16	76.81	76.76	78.38	78.34	78.89	78.87	78.89	78.71
7	76.41	76.37	76.19	76.16	76.81	76.81	78.36	78.34	78.94	78.88	78.89	78.76
8	76.37	76.33	76.18	76.12	76.83	76.81	78.38	78.35	78.90	78.88	78.77	78.75
9	76.33	76.28	76.19	76.12	76.83	76.80	78.80	78.38	78.90	78.88	78.79	78.76
10	76.28	76.24	76.47	76.21	76.84	76.80	78.87	78.80	78.88	78.85	78.78	78.76
11	76.24	76.19	76.49	76.39	76.80	76.77	79.28	78.89	78.85	78.80	78.76	78.73
12	76.19	76.19	76.46	76.42	76.82	76.78	79.64	79.34	78.80	78.79	78.74	78.72
13	76.19	76.18	76.44	76.38	76.83	76.73	79.65	79.61	78.92	78.81	78.75	78.73
14	76.18	76.18	76.38	76.34	76.72	76.69	79.61	79.57	79.02	78.88	78.83	78.76
15	76.18	76.10	76.40	76.35	77.05	76.69	79.57	79.50	78.88	78.77	78.83	78.80
16	76.10	76.07	76.46	76.40	77.07	77.01	79.62	79.50	78.77	78.73	78.85	78.80
17	76.06	76.06	76.47	76.38	77.04	77.01	79.61	79.47	78.73	78.71	78.88	78.83
18	76.32	76.06	76.38	76.36	77.19	77.05	79.47	79.43	78.74	78.71	79.09	78.88
19	76.42	76.34	76.37	76.36	77.11	77.03	79.45	79.40	78.85	78.74	79.09	79.06
20	76.44	76.42	76.36	76.30	77.08	77.03	79.47	79.40	78.86	78.77	79.06	79.01
21	76.46	76.44	76.30	76.29	77.27	77.08	79.41	79.32	78.82	78.77	79.07	79.02
22	76.47	76.46	76.34	76.29	77.32	77.27	79.32	79.32	78.88	78.74	79.05	78.99
23	76.63	76.47	76.41	76.35	77.56	77.32	79.32	79.28	78.74	78.68	79.36	78.98
24	76.64	76.62	76.41	76.32	77.66	77.60	79.28	79.18	78.77	78.69	79.42	79.36
25	76.62	76.62	76.32	76.24	77.70	77.61	79.18	79.15	78.77	78.75	79.38	79.36
26	76.62	76.48	76.24	76.19	77.72	77.70	79.21	79.15	78.75	78.74	79.39	79.36
27	76.48	76.45	76.22	76.19	77.74	77.71	79.20	79.14	78.73	78.66	79.48	79.39
28	76.49	76.41	76.25	76.22	77.90	77.79	79.16	79.08	78.67	78.64	79.48	79.36
29	76.41	76.37	76.25	76.17	78.06	77.91	79.09	79.05	---	---	79.56	79.36
30	76.38	76.36	76.17	76.14	78.29	78.07	79.15	79.09	---	---	79.54	79.50
31	76.38	76.32	---	---	78.35	78.26	79.12	78.92	---	---	79.58	79.50
MONTH	76.64	76.06	76.49	76.12	78.35	76.13	79.65	78.29	79.02	78.64	79.58	78.64

GROUND-WATER LEVELS
DELAWARE--Continued
NEW CASTLE COUNTY--Continued
Gb51-06--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	79.59	79.54	79.50	79.42	78.11	78.02	76.50	76.43	75.19	75.14	74.12	74.06
2	79.54	79.48	79.43	79.39	78.02	77.96	76.45	76.43	75.14	75.08	74.06	74.04
3	79.48	79.45	79.39	79.33	77.96	77.93	76.44	76.41	75.08	75.03	74.04	74.02
4	79.46	79.44	79.33	79.26	77.93	77.82	76.41	76.38	75.04	74.96	74.02	73.98
5	79.46	79.46	79.26	79.23	77.82	77.74	76.38	76.35	74.95	74.90	73.98	73.93
6	79.46	79.41	79.47	79.23	77.74	77.69	76.35	76.28	74.90	74.85	73.93	73.90
7	79.41	79.37	79.48	79.45	77.69	77.63	76.28	76.25	74.85	74.81	73.90	73.86
8	79.37	79.35	79.50	79.47	77.63	77.53	76.28	76.20	74.81	74.77	73.86	73.83
9	79.35	79.33	79.47	79.44	77.53	77.41	76.20	76.13	74.81	74.77	73.83	73.79
10	79.33	79.19	79.45	79.38	77.41	77.32	76.13	76.07	74.84	74.80	73.79	73.77
11	79.19	79.16	79.38	79.36	77.32	77.22	76.07	75.98	74.80	74.77	73.77	73.70
12	79.17	79.12	79.36	79.31	77.22	77.14	75.98	75.95	74.77	74.74	73.70	73.66
13	79.22	79.15	79.31	79.25	77.14	77.05	75.98	75.95	74.74	74.69	73.66	73.62
14	79.25	79.23	79.25	79.20	77.05	76.99	75.95	75.86	74.69	74.65	73.62	73.57
15	79.39	79.26	79.20	79.11	76.99	76.92	75.86	75.80	74.65	74.61	73.57	73.55
16	79.37	79.34	79.11	79.08	76.92	76.79	75.80	75.75	74.61	74.58	73.55	73.52
17	79.36	79.31	79.08	79.05	76.79	76.69	75.75	75.68	74.58	74.54	73.52	73.45
18	79.31	79.26	79.05	78.95	77.23	76.69	75.68	75.64	74.54	74.50	73.47	73.46
19	79.25	79.25	78.95	78.93	77.27	77.24	75.64	75.55	74.54	74.45	73.47	73.41
20	79.27	79.25	78.93	78.90	77.28	77.24	75.55	75.48	74.46	74.42	73.41	73.39
21	79.55	79.27	78.90	78.85	77.24	77.14	75.48	75.38	74.46	74.46	73.39	73.36
22	79.58	79.55	78.85	78.79	77.14	77.11	75.39	75.36	74.46	74.44	73.36	73.34
23	79.59	79.58	78.79	78.73	77.10	77.06	75.36	75.24	74.44	74.39	73.34	73.31
24	79.64	79.59	78.73	78.70	77.06	76.98	75.24	75.20	74.39	74.35	73.31	73.30
25	79.65	79.62	78.70	78.59	76.98	76.91	75.20	75.18	74.35	74.34	73.34	73.29
26	79.65	79.63	78.59	78.52	76.91	76.83	75.23	75.18	74.34	74.32	73.32	73.31
27	79.65	79.61	78.52	78.46	76.83	76.77	75.27	75.20	74.32	74.29	73.31	73.31
28	79.61	79.52	78.46	78.37	76.77	76.70	75.29	75.27	74.29	74.25	73.31	73.30
29	79.53	79.51	78.37	78.29	76.70	76.62	75.27	75.27	74.25	74.22	73.30	73.29
30	79.54	79.50	78.30	78.21	76.62	76.50	75.27	75.23	74.23	74.19	73.29	73.29
31	---	---	78.21	78.11	---	---	75.24	75.19	74.19	74.12	---	---
MONTH	79.65	79.12	79.50	78.11	78.11	76.50	76.50	75.18	75.19	74.12	74.12	73.29

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Hb14-01. SITE ID.--391949075410701.

LOCATION.--Lat 39°19'49", long 75°41'07", Hydrologic Unit 02040205, at Prices Corners.

Owner: Delaware Department of Transportation.

AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 1 in., to 16 ft; well point from 16 to 19 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape or electric sensing device by USGS and Delaware Geological Survey personnel.

DATUM.--Elevation of land surface is 72 ft above National Geodetic Vertical Datum of 1929, from topographic map.

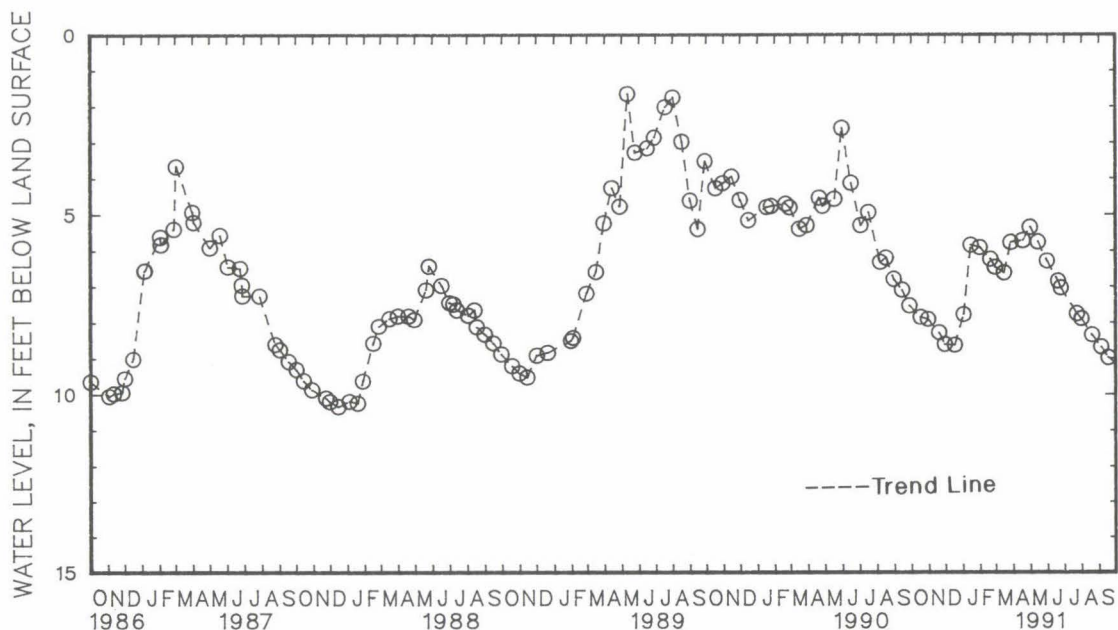
Measuring point: Top of casing at land surface.

PERIOD OF RECORD.--October 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.49 ft below land surface, April 7, 1958; lowest measured, 11.95 ft below land surface, Aug. 31, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	7.91	DEC 17	8.70	FEB 19	6.26	APR 17	5.74	JUN 19	6.89	AUG 19	8.41
30	7.97	JAN 2	7.82	27	6.49	30	5.37	24	7.08	SEP 4	8.75
NOV 19	8.35	15	5.86	MAR 15	6.65	MAY 14	5.78	JUL 23	7.81	17	9.05
29	8.68	31	5.93	27	5.79	30	6.32	31	7.95		
WATER YEAR 1991		HIGHEST	5.37	APR 30, 1991	LOWEST	9.05	SEP 17, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY

WELL NUMBER.--Nc13-03. SITE ID.--384930075370201. PERMIT NUMBER.--10233.
 LOCATION.--Lat 38°49'30", long 75°37'02", Hydrologic Unit 02060008, 2.0 mi northwest of Greenwood.
 Owner: University of Delaware.
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, casing diameter 6 in., to 630 ft,
 screened diameter 3 in. from 620 to 630 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-
 level recorder--60-minute recorder interval from Oct. 1, 1983 to current year.
 DATUM.--Elevation of land surface is 62.5 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.0 ft above land surface.
 PERIOD OF RECORD.--December 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 69.70 ft below land surface, Jan. 1, 1971;
 lowest measured, 86.40 ft below land surface, Sept. 22, 1991 and Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	85.68	85.62	85.85	85.82	86.03	85.97	85.99	85.93	85.91	85.84	85.81	85.71
2	85.76	85.62	85.85	85.82	86.04	85.96	85.93	85.82	85.91	85.83	85.70	85.50
3	85.81	85.75	85.84	85.81	86.04	85.83	85.89	85.83	85.83	85.78	85.53	85.30
4	85.76	85.57	85.81	85.75	85.81	85.68	85.93	85.90	85.78	85.78	85.43	85.22
5	85.69	85.66	85.75	85.64	85.85	85.81	85.94	85.88	85.78	85.72	85.58	85.46
6	85.71	85.69	85.80	85.63	85.85	85.83	85.88	85.87	85.72	85.72	85.58	85.39
7	85.73	85.71	85.84	85.79	85.88	85.84	85.91	85.88	85.72	85.60	85.53	85.38
8	85.73	85.72	85.87	85.79	85.88	85.83	85.93	85.84	85.61	85.60	85.65	85.53
9	85.72	85.69	85.91	85.78	85.90	85.84	85.82	85.70	85.59	85.55	85.70	85.65
10	85.72	85.69	85.78	85.42	85.87	85.79	85.87	85.76	85.57	85.55	85.69	85.64
11	85.72	85.71	85.77	85.61	85.93	85.87	85.87	85.45	85.65	85.57	85.68	85.66
12	85.72	85.67	85.81	85.71	85.93	85.88	85.44	85.38	85.71	85.65	85.70	85.67
13	85.66	85.56	85.90	85.80	85.89	85.77	85.63	85.44	85.70	85.43	85.68	85.58
14	85.65	85.58	85.97	85.90	86.06	85.90	85.63	85.59	85.39	85.21	85.60	85.51
15	85.76	85.63	85.97	85.91	86.06	85.79	85.65	85.62	85.52	85.30	85.79	85.60
16	85.86	85.76	85.91	85.77	85.90	85.76	85.63	85.33	85.71	85.54	85.83	85.79
17	85.87	85.83	85.81	85.69	85.90	85.87	85.57	85.37	85.82	85.73	85.82	85.75
18	85.83	85.52	85.83	85.81	85.83	85.58	85.57	85.55	85.82	85.79	85.72	85.40
19	85.70	85.61	85.83	85.79	86.02	85.70	85.60	85.51	85.79	85.67	85.51	85.40
20	85.84	85.73	85.89	85.80	86.09	86.04	85.49	85.38	85.70	85.61	85.63	85.52
21	85.84	85.78	85.91	85.89	86.07	85.90	85.52	85.36	85.72	85.68	85.67	85.63
22	85.78	85.72	85.91	85.79	85.90	85.86	85.63	85.52	85.68	85.53	85.70	85.63
23	85.72	85.51	85.77	85.60	85.84	85.69	85.64	85.61	85.83	85.65	85.70	85.50
24	85.61	85.52	85.73	85.60	85.80	85.56	85.64	85.61	85.83	85.72	85.58	85.44
25	85.61	85.57	85.80	85.73	85.92	85.80	85.76	85.64	85.72	85.64	85.72	85.58
26	85.70	85.57	85.93	85.80	86.02	85.92	85.76	85.67	85.66	85.61	85.76	85.71
27	85.82	85.70	85.93	85.90	86.11	86.00	85.67	85.62	85.71	85.64	85.71	85.49
28	85.80	85.70	85.90	85.83	85.97	85.88	85.68	85.53	85.82	85.71	85.52	85.41
29	85.83	85.77	85.95	85.83	85.92	85.82	85.71	85.68	---	---	85.52	85.38
30	85.88	85.83	86.03	85.95	85.82	85.63	85.68	85.48	---	---	85.71	85.37
31	85.84	85.82	---	---	85.96	85.64	85.84	85.48	---	---	85.79	85.71
MONTH	85.88	85.51	86.03	85.42	86.11	85.56	85.99	85.33	85.91	85.21	85.83	85.22

GROUND-WATER LEVELS

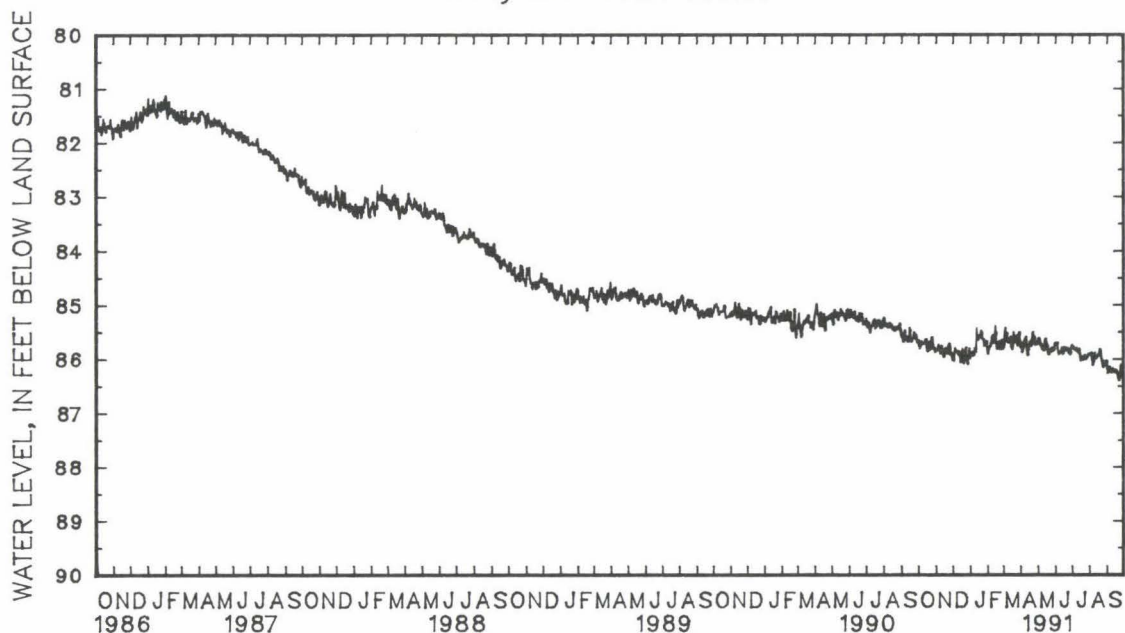
DELAWARE--Continued

SUSSEX COUNTY

Nc13-03--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	85.71	85.66	85.64	85.56	85.75	85.71	85.81	85.75	85.92	85.90	86.18	86.07
2	85.79	85.69	85.63	85.57	85.74	85.72	85.80	85.72	85.92	85.90	86.27	86.18
3	85.88	85.80	85.68	85.62	85.72	85.60	85.79	85.72	85.91	85.87	86.25	86.16
4	85.88	85.82	85.72	85.68	85.71	85.59	85.83	85.80	85.90	85.86	86.16	86.08
5	85.82	85.68	85.76	85.72	85.83	85.72	85.80	85.78	86.01	85.91	86.16	86.07
6	85.68	85.67	85.73	85.62	85.89	85.83	85.83	85.79	86.12	86.01	86.22	86.14
7	85.67	85.63	85.77	85.65	85.92	85.88	85.85	85.76	86.12	86.06	86.24	86.19
8	85.64	85.61	85.83	85.78	85.88	85.80	85.81	85.74	86.07	86.00	86.25	86.22
9	85.60	85.55	85.84	85.80	85.90	85.82	85.85	85.76	86.01	85.80	86.26	86.23
10	85.70	85.52	85.82	85.78	85.90	85.82	85.87	85.80	85.90	85.79	86.25	86.13
11	85.85	85.70	85.85	85.77	85.86	85.77	85.87	85.79	85.98	85.90	86.19	86.13
12	85.94	85.85	85.77	85.62	85.80	85.74	85.89	85.84	86.00	85.97	86.23	86.20
13	85.93	85.77	85.68	85.60	85.89	85.79	85.83	85.75	85.98	85.93	86.23	86.20
14	85.84	85.76	85.64	85.60	85.92	85.88	85.91	85.79	85.96	85.95	86.21	86.16
15	85.78	85.58	85.72	85.62	85.88	85.78	86.00	85.92	85.95	85.88	86.25	86.21
16	85.70	85.62	85.80	85.73	85.79	85.77	86.04	86.00	85.93	85.90	86.24	86.19
17	85.68	85.60	85.77	85.70	85.85	85.79	86.01	85.94	85.94	85.89	86.22	86.18
18	85.73	85.63	85.89	85.70	85.85	85.83	85.96	85.92	85.91	85.86	86.24	86.18
19	85.76	85.73	85.92	85.89	85.85	85.83	85.97	85.93	85.83	85.71	86.26	86.20
20	85.72	85.55	85.92	85.90	85.85	85.79	86.02	85.96	85.85	85.81	86.29	86.24
21	85.53	85.36	85.90	85.85	85.81	85.76	86.02	85.96	85.92	85.85	86.36	86.28
22	85.51	85.37	85.85	85.80	85.81	85.72	86.01	85.94	85.99	85.92	86.40	86.34
23	85.59	85.51	85.86	85.82	85.82	85.70	85.94	85.88	86.04	85.97	86.35	86.28
24	85.60	85.48	85.87	85.79	85.88	85.82	85.98	85.90	86.11	86.03	86.33	86.18
25	85.70	85.60	85.81	85.76	85.90	85.86	86.01	85.92	86.16	86.10	86.16	86.02
26	85.74	85.68	85.85	85.80	85.90	85.86	85.98	85.92	86.14	86.09	86.12	85.98
27	85.69	85.61	85.86	85.78	85.92	85.87	85.98	85.93	86.11	86.06	86.19	86.13
28	85.70	85.61	85.84	85.78	85.88	85.79	85.96	85.93	86.10	86.05	86.31	86.20
29	85.73	85.70	85.84	85.76	85.80	85.76	85.94	85.91	86.09	86.03	86.36	86.29
30	85.71	85.62	85.77	85.69	85.76	85.71	85.92	85.90	86.05	85.97	86.40	86.34
31	---	---	85.72	85.70	---	---	85.92	85.90	86.05	85.97	---	---
MONTH	85.94	85.36	85.92	85.56	85.92	85.59	86.04	85.72	86.16	85.71	86.40	85.98

Daily Low Water Levels



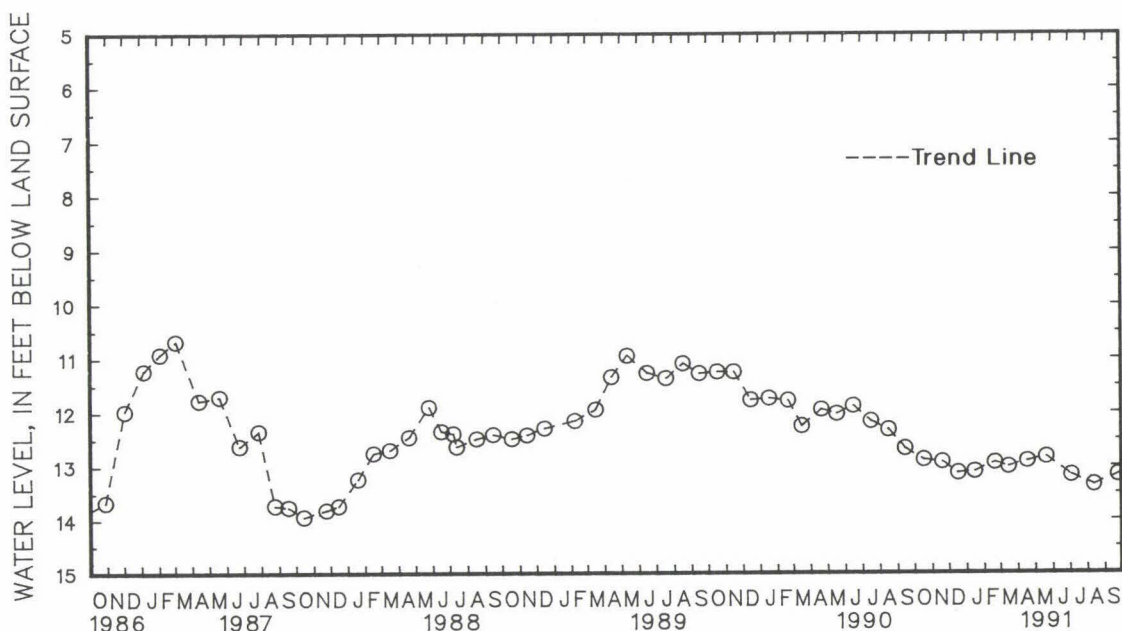
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Nc45-01. SITE ID.--384639075353101. PERMIT NUMBER.--10226.
LOCATION.--Lat 38°46'39", long 75°35'31", Hydrologic Unit 02060008, 2.0 mi south of Greenwood.
Owner: P. H. Cannon.
AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 15 ft; casing diameter 1 in., to 14 ft; screened from 14 to 15 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 43 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 1.0 ft above land surface.
PERIOD OF RECORD.--October 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.82 ft below land surface, April 9, 1958;
lowest measured, 14.66 ft below land surface, Dec. 11, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	12.91	DEC 17	13.16	FEB 19	12.96	APR 17	12.93	JUL 3	13.20	SEP 24	13.19
NOV 19	12.95	JAN 15	13.13	MAR 15	13.04	MAY 20	12.85	AUG 12	13.38		
WATER YEAR 1991		HIGHEST	12.85	MAY 20, 1991		LOWEST	13.38	AUG 12, 1991			



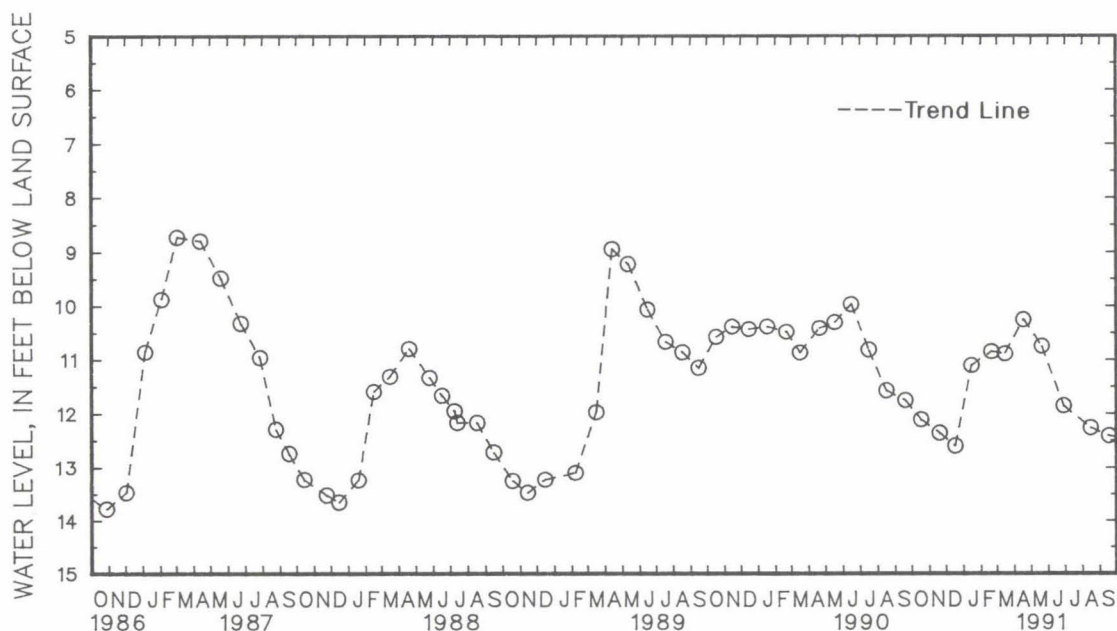
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Ng11-01. SITE ID.--384955075192801. PERMIT NUMBER.--10227.
LOCATION.--Lat 38°49'55", long 75°19'28", Hydrologic Unit 02040207, 1.2 mi east of Jefferson Crossroads.
Owner: Delaware Department of Transportation.
AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 1 in., to 16 ft; well point from 16 to 19 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing at land surface.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.91 ft below land surface, April 10, 1984; lowest measured, 14.64 ft below land surface, Jan. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	12.15	DEC 17	12.64	FEB 19	10.86	APR 17	10.26	JUN 28	11.89	SEP 17	12.45
NOV 19	12.40	JAN 15	11.12	MAR 15	10.90	MAY 20	10.77	AUG 15	12.30		
WATER YEAR 1991		HIGHEST	10.26	APR 17, 1991	LOWEST	12.64	DEC 17, 1990				

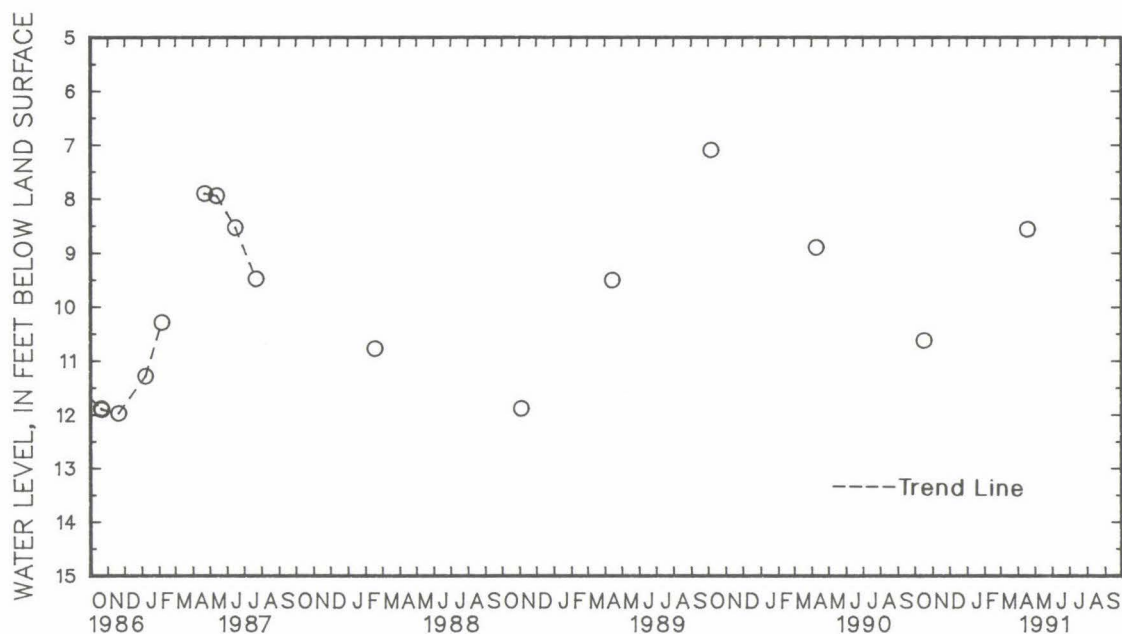


GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Oh54-01. SITE ID.--384038075110001.
LOCATION.--Lat 38°40'38", long 75°11'00", Hydrologic Unit 02060010, at intersection of Rts. 24 and 277, near Angola.
Owner: U.S. Geological Survey.
AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 2 in., to 280 ft; screen diameter 2 in., from 280 to 290 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from November 1977 to December 1979; twice yearly from March 1980 to October 1984. Measured monthly by USGS and Delaware Geological Survey personnel from February 1985 to July 1987.
DATUM.--Elevation of land surface is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of steel casing, 1.5 ft above land surface.
PERIOD OF RECORD.--November 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.35 ft below land surface, April 4, 1984; lowest measured, 11.98 ft below land surface, Nov. 20, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	10.63	APR 18	8.56
WATER YEAR 1991 HIGHEST 8.56 APR 18, 1991 LOWEST 10.63 OCT 17, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

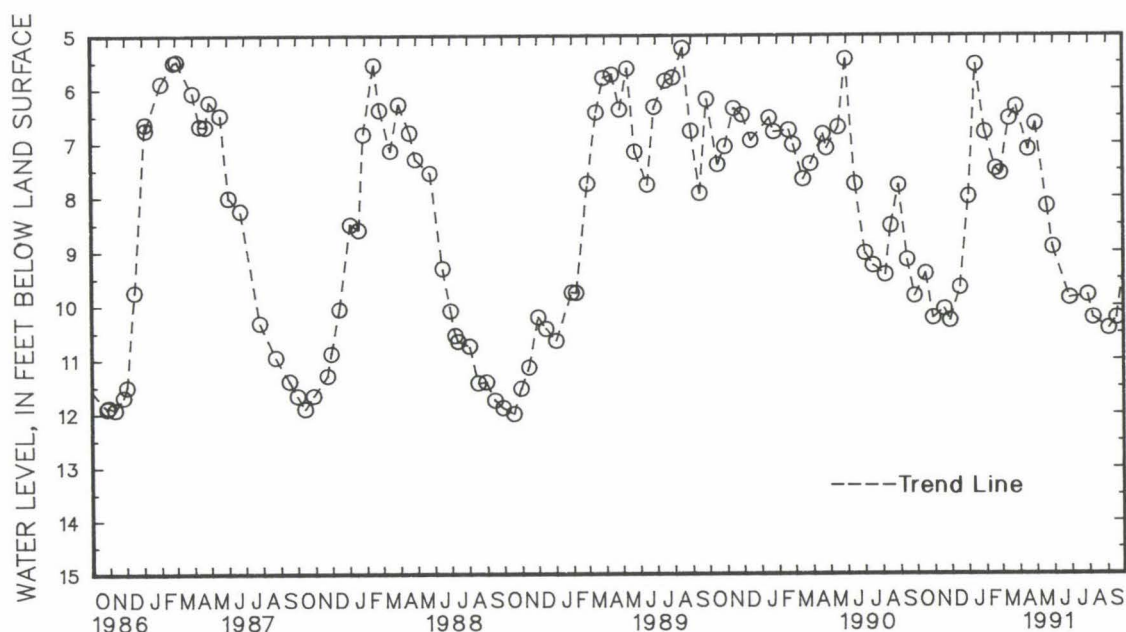
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE-- Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Qe44-01. SITE ID.--383138075260201. PERMIT NUMBER.--49320.
LOCATION.--Lat 38°31'38", long 75°26'02", Hydrologic Unit 02060008, 1.0 mi east of Whaleys Crossroads.
Owner: Delaware Department of Transportation.
AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 1 in., to 22 ft; well point from 22 to 25 ft.
INSTRUMENTATION.--Bimonthly measurements with chalked steel tape by USGS and Delaware Geological Survey personnel.
DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing at land surface.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.92 ft below land surface, Feb. 9, 1973 and March 15, 1984; lowest measured, 12.22 ft below land surface, Dec. 2, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	9.44	DEC 17	9.69	FEB 19	7.51	APR 17	7.14	JUN 28	9.90	SEP 18	10.27
30	10.27	JAN 2	8.00	27	7.59	30	6.66	JUL 30	9.84		
NOV 19	10.10	15	5.55	MAR 15	6.56	MAY 20	8.20	AUG 8	10.27		
29	10.32	31	6.82	27	6.34	30	8.96	SEP 4	10.47		
WATER YEAR 1991		HIGHEST	5.55	JAN 15, 1991	LOWEST	10.47	SEP 4, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-04. SITE ID.--383050075105201.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010, at Pyle Center at Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 328 ft; casing diameter 2 in., to 324 ft; screen diameter 2 in., from 324 to 328 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from November 1978 to December 1979. Intermittent measurements March 1980 to February 1985. Measured monthly from April 1985 to November 1988.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

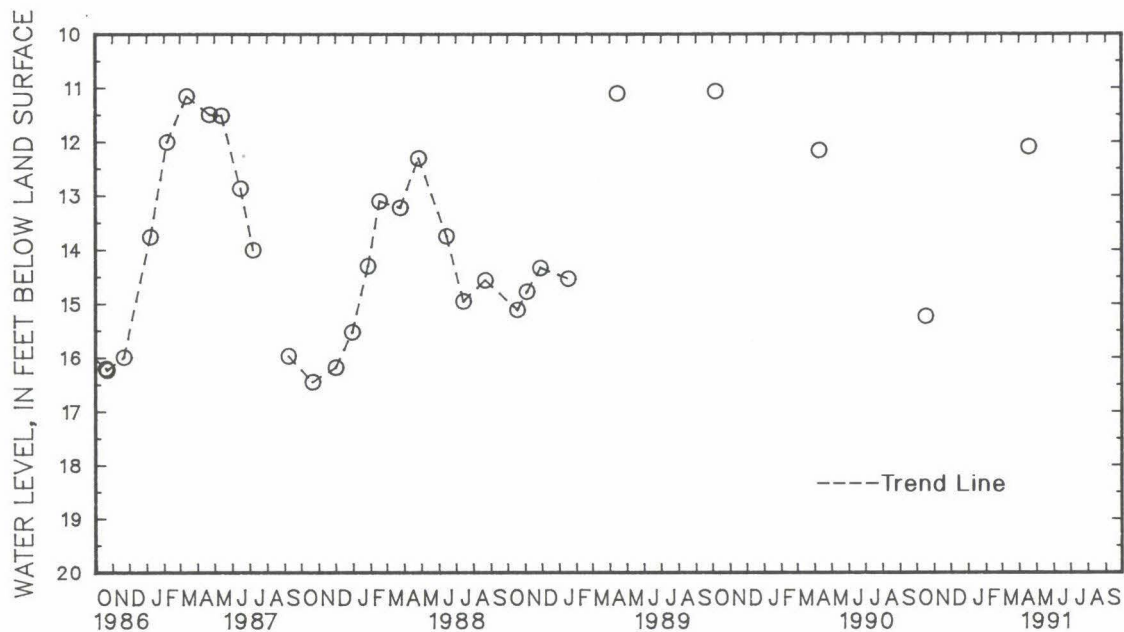
Measuring Point: Top of casing, 2.0 ft above land surface.

PERIOD OF RECORD.--November 1978 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.07 ft below land surface, April 2, 1979; lowest measured, 16.46 ft below land surface, Oct. 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	15.24	APR 18	12.09
WATER YEAR 1991 HIGHEST 12.09 APR 18, 1991 LOWEST 15.24 OCT 17, 1990			



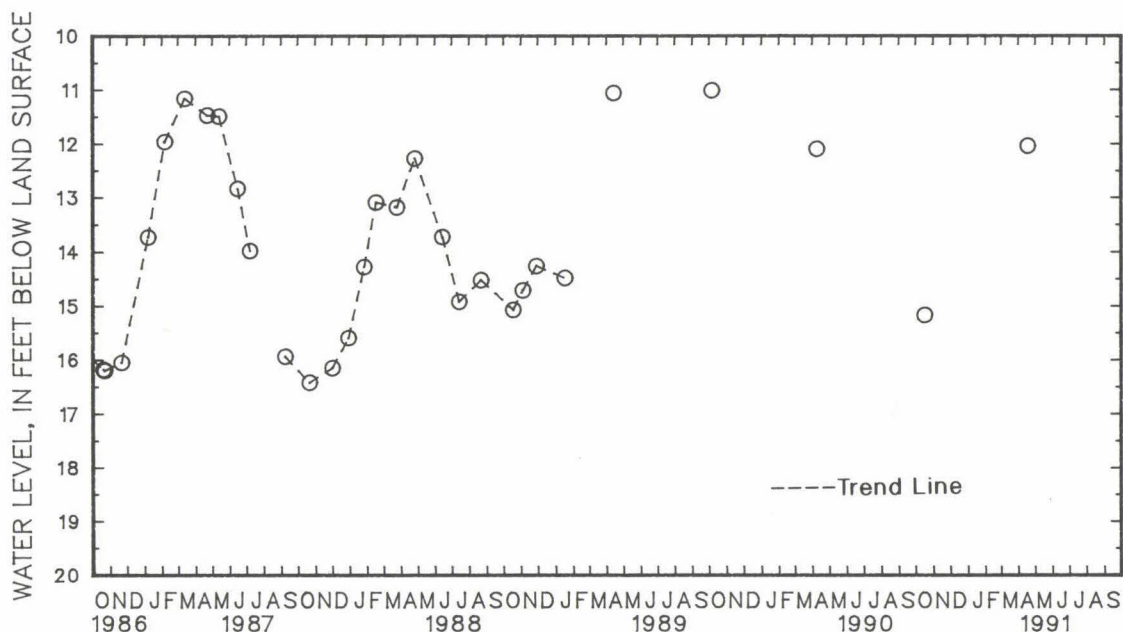
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-05. SITE ID.--383050075105202.
LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010, at Pyle Center at Omar.
Owner: U.S. Geological Survey.
AQUIFER.--Ocean City aquifer of Miocene age. Aquifer code: 122OCNC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 232 ft; casing diameter 2 in., to 229 ft; screen diameter 2 in., from 229 to 232 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from November 1978 to December 1979. Intermittent measurements March 1980 to February 1985. Measured monthly from April 1985 to November 1988.
DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.0 ft above land surface.
PERIOD OF RECORD.--November 1978 to present.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.63 ft below land surface, March 1, 1979; lowest measured, 16.43 ft below land surface, Oct. 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	15.18	APR 18	12.04
WATER YEAR 1991 HIGHEST 12.04 APR 18, 1991 LOWEST 15.18 OCT 17, 1990			



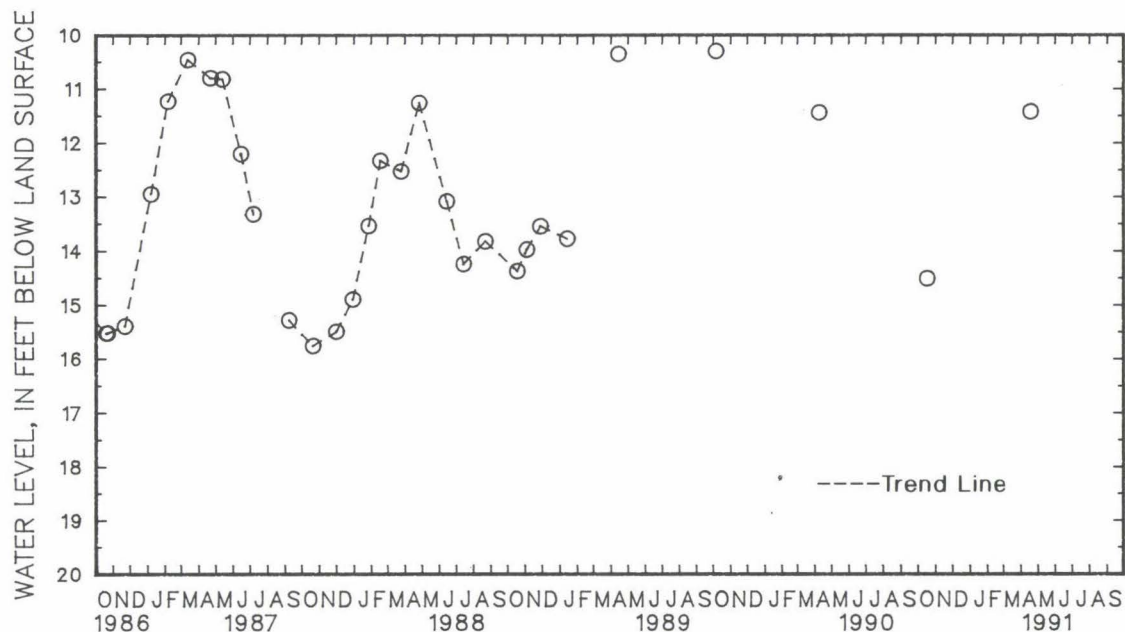
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-06. SITE ID.--383050075105203.
LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010 , at Pyle Center at Omar.
Owner: U.S. Geological Survey.
AQUIFER.--Pocomoke aquifer of Miocene age. Aquifer code: 122PCMK.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 148 ft; casing diameter 2 in., to 144 ft; screen diameter 2 in., from 144 to 148 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from November 1978 to December 1979. Intermittent measurements March 1980 to February 1985. Measured monthly from April 1985 to November 1988.
DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.0 ft above land surface.
PERIOD OF RECORD.--November 1978 to present.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.95 ft below land surface, March 1, 1979; lowest measured, 17.10 ft below land surface, July 24, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	14.52	APR 18	11.42
WATER YEAR 1991 HIGHEST 11.42 APR 18, 1991 LOWEST 14.52 OCT 17, 1990			



GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-07. SITE ID.--383050075105204.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010, at Pyle Center at Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Columbia group of pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 108 ft; casing diameter 2 in., to 104 ft; screen diameter 2 in., from 104 to 108 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from November 1978 to December 1979. Intermittent measurements March 1980 to February 1985. Measured monthly from April 1985 to November 1988.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

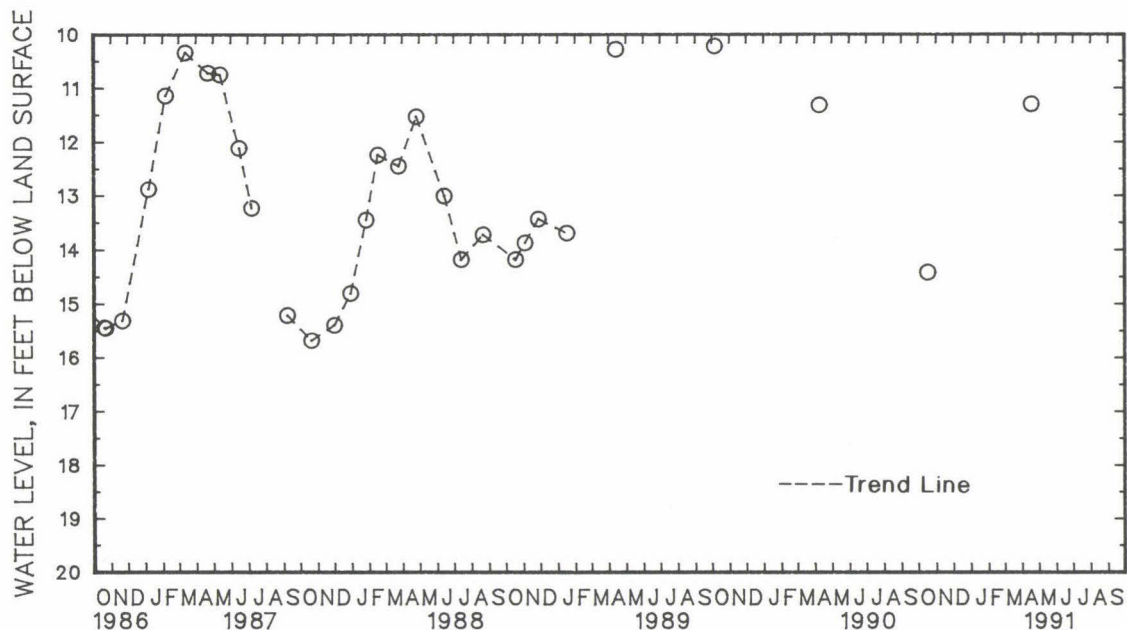
Measuring Point: Top of casing, 2.0 ft above land surface.

PERIOD OF RECORD.--November 1978 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.83 ft below land surface, March 1, 1979; lowest measured, 15.69 ft below land surface, Oct. 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

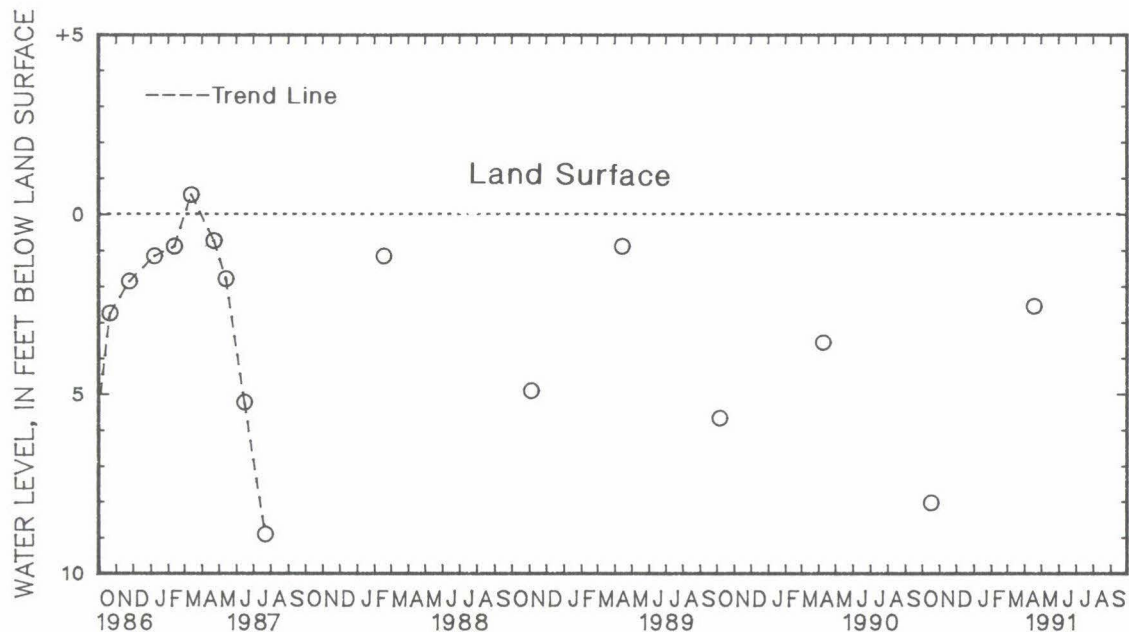
DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	14.43	APR 18	11.30
WATER YEAR 1991 HIGHEST 11.30 APR 18, 1991 LOWEST 14.43 OCT 17, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--Rj22-05. SITE ID.--382808075030501.
LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010 , at Fenwick Island State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 455 ft; casing diameter 1.25 in., to 450 ft ;
screen diameter 2 in., from 450 to 455 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from
April 1977 to March 1980. Intermittent measurements from September 1980 to February 1985.
Monthly measurements from April 1985 to July 1987.
DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 1.0 ft above land surface.
PERIOD OF RECORD.--April 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .80 ft above land surface, April 4, 1984;
lowest measured, 9.97 ft below land surface, Aug. 28, 1985.

DATE	WATER LEVEL	DATE	WATER LEVEL			
OCT 17	8.03	APR 18	2.54			
WATER YEAR 1991	HIGHEST	2.54	APR 18, 1991	LOWEST	8.03	OCT 17, 1990



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-06. SITE ID.--382808075030502.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 295 ft; casing diameter 1.25 in., to 290 ft; screen diameter 2 in., from 290 to 295 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from April 1977 to March 1980. Intermittent measurements from September 1980 to February 1985. Monthly measurements from April 1985 to July 1987.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

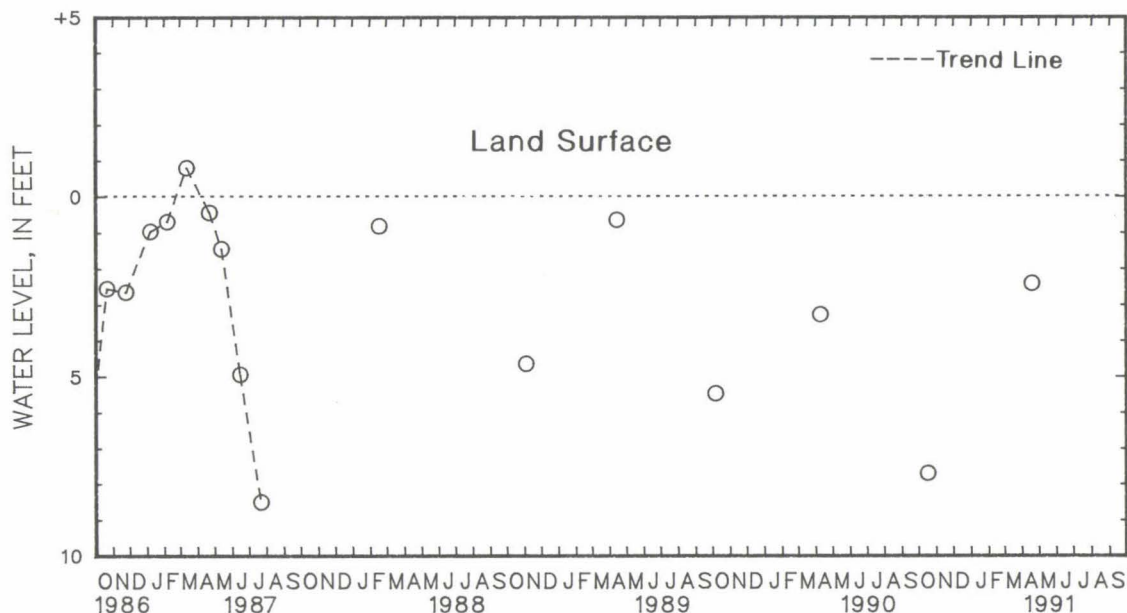
Measuring Point: Top of casing, 1.0 ft above land surface.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.00 ft above land surface, April 2, 1979, and April 4, 1984; lowest measured, 9.52 ft below land surface, Aug. 26, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	7.70	APR 18	2.40
WATER YEAR 1991 HIGHEST 2.40 APR 18, 1991 LOWEST 7.70 OCT 17, 1990			

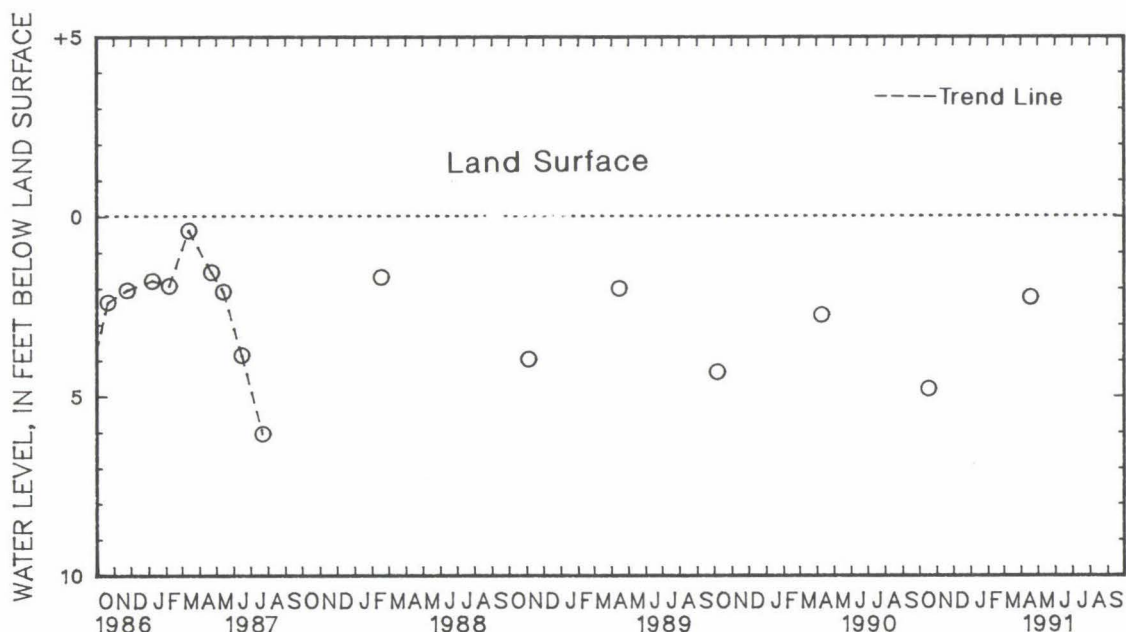


5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--Rj22-07. SITE ID.--382808075030503.
LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010 , at Fenwick Island State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Ocean City aquifer of Miocene age. Aquifer code: 1220CNC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 185 ft; casing diameter 1.25 in., to 180 ft; screen diameter 2 in., from 180 to 185 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from April 1977 to March 1980. Intermittent measurements from September 1980 to February 1985. Monthly measurements from April 1985 to July 1987.
DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 1.0 ft above land surface.
PERIOD OF RECORD.--April 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .33 ft above land surface, Feb. 20, 1986; lowest measured, 8.63 ft below land surface, Aug 26, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL			
OCT 17	4.80	APR 18	2.24			
WATER YEAR 1991	HIGHEST	2.24	APR 18, 1991	LOWEST	4.80	OCT 17, 1990



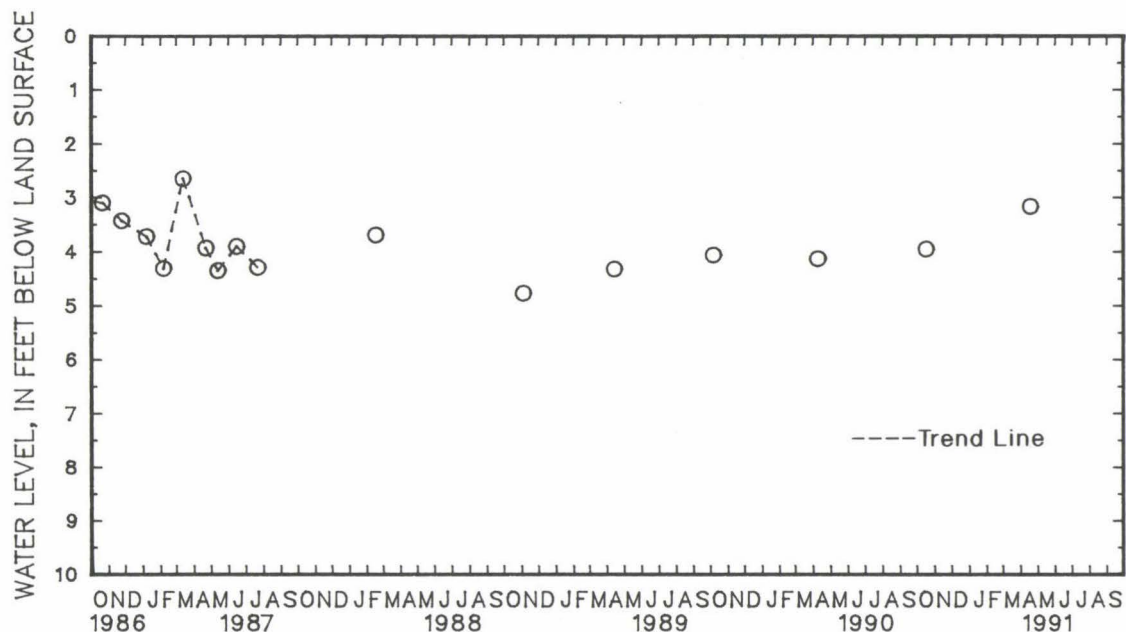
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-08. SITE ID.--382808075030504.
LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010 , at Fenwick Island State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Pleistocene-Pliocene Formation of Pleistocene age. Aquifer code: 112PCPC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 1.25 in., to 110 ft; screen diameter 2 in., from 110 to 115 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from April 1977 to March 1980. Intermittent measurements from September 1980 to February 1985. Monthly measurements from April 1985 to July 1987.
DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 1.0 ft above land surface.
PERIOD OF RECORD.--April 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .28 ft below land surface, March 27, 1978; lowest measured, 5.39 ft below land surface, July 24, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	3.96	APR 18	3.17
WATER YEAR 1991	HIGHEST	3.17	APR 18, 1991
		LOWEST	3.96 OCT 17, 1990



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND

ALLEGANY COUNTY

WELL NUMBER.--AL Ah 1. SITE ID.--394024078273401.

LOCATION.--Lat 39°40'24", long 78°27'34", Hydrologic Unit 02070003, near Fifteen Mile Creek, 2.8 mi southeast of Pratt.

Owner: Green Ridge State Forest.

AQUIFER.--Jennings Formation of Upper Devonian Age. Aquifer code: 341JNGS.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, reported depth 300 ft, measured depth 113 ft; casing diameter 8 in. to unknown depth; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of sanitary seal in casing, 0.3 ft above land surface.

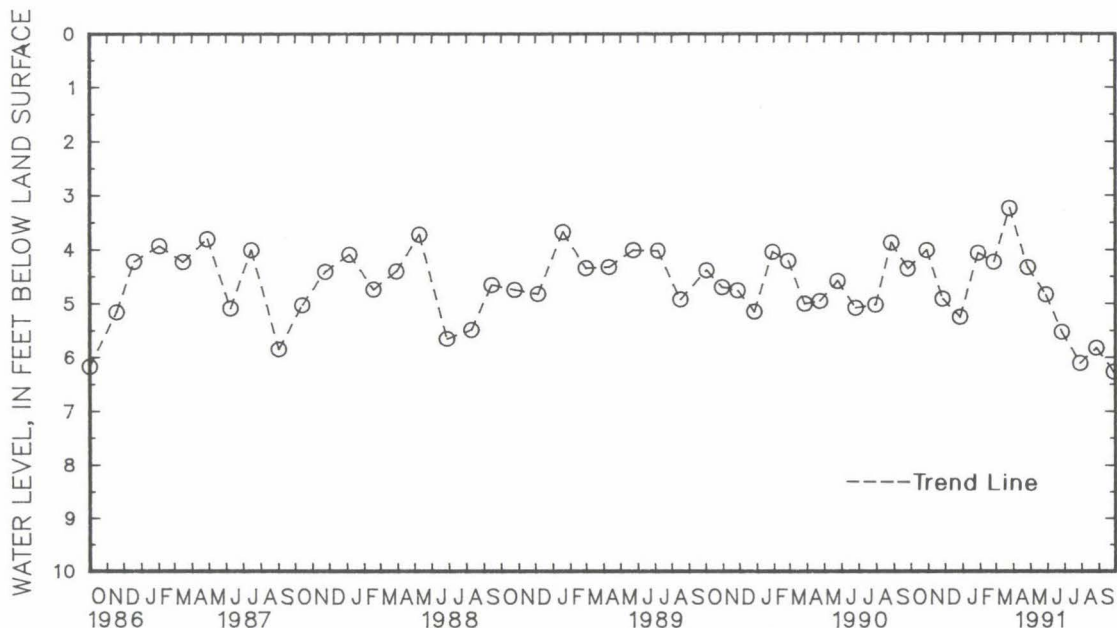
REMARKS.--Maryland Water-Level Network observation well. Water level was more than 40 ft below land surface on Nov. 19, 1969, and Feb. 12, 1970, when well was being pumped. Water levels may be affected by nearby pumping.

PERIOD OF RECORD.--December 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.80 ft below land surface, May 18, 1978; lowest measured 19.75 ft below land surface, July 17, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	4.02	DEC 27	5.28	FEB 25	4.24	APR 26	4.35	JUN 26	5.56	AUG 27	5.86
NOV 26	4.94	JAN 28	4.07	MAR 25	3.24	MAY 28	4.86	JUL 29	6.15	SEP 27	6.31
WATER YEAR 1991		HIGHEST	3.24	MAR 25, 1991	LOWEST	6.31	SEP 27, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
ALLEGANY COUNTY--Continued

WELL NUMBER.--AL Bd 2. SITE ID.--393930078460901.

LOCATION.--Lat 39°39'30", long 78°46'09", Hydrologic Unit 02070002, at Henderson Ave. and Valley St., Cumberland.

Owner: formerly Cumberland Brewing Company.

AQUIFER.--Tonoloway Limestone of Upper Silurian age. Aquifer code: 351TNLY.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 100 ft; casing diameter 6 in. to unknown depth; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

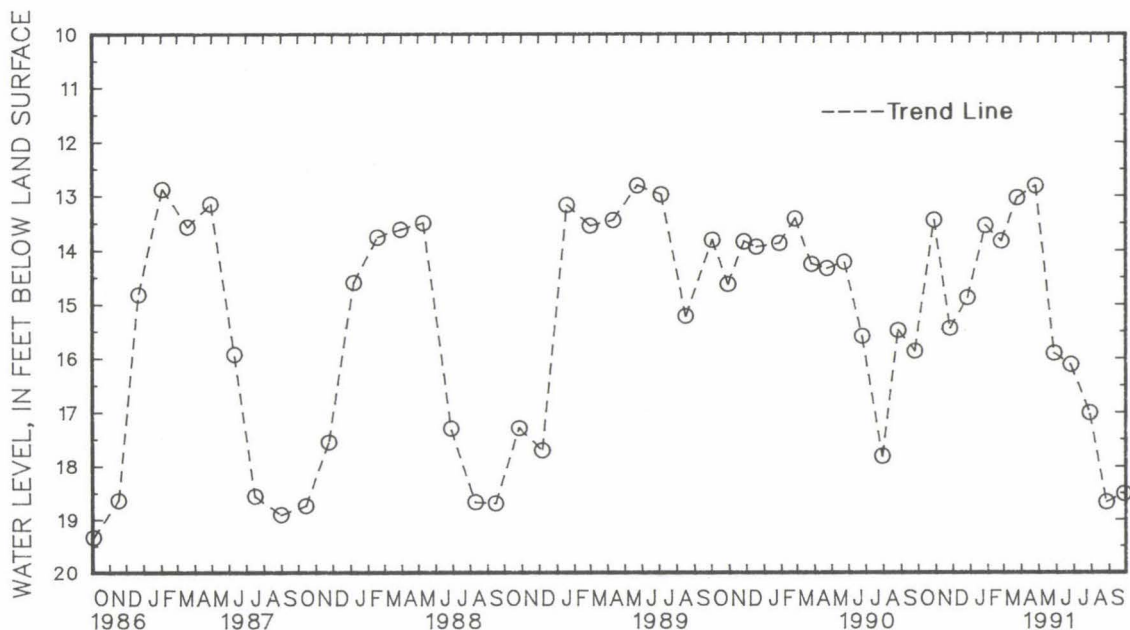
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.24 ft below land surface, Feb. 8, 1973; lowest measured, 32.55 ft below land surface, Sept. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	13.45	DEC 27	14.90	FEB 25	13.84	APR 26	12.82	JUN 26	16.16	AUG 27	18.70
NOV 26	15.48	JAN 28	13.55	MAR 25	13.04	MAY 28	15.95	JUL 29	17.05	SEP 27	18.54
WATER YEAR 1991		HIGHEST	12.82	APR 26, 1991	LOWEST	18.70	AUG 27, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY

WELL NUMBER.--AA Ac 11. SITE ID.--391101076404001. PERMIT NUMBER.--AA-00-2445.

LOCATION.--Lat 39°11'01", long 76°40'40", Hydrologic Unit 02060003, west end of runway 15, Baltimore-Washington International Airport.

Owner: Maryland Department of Transportation.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 320 ft; casing diameter 6 in., to 312 ft; screened from 312 to 320 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 136.9 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.0 above land surface.

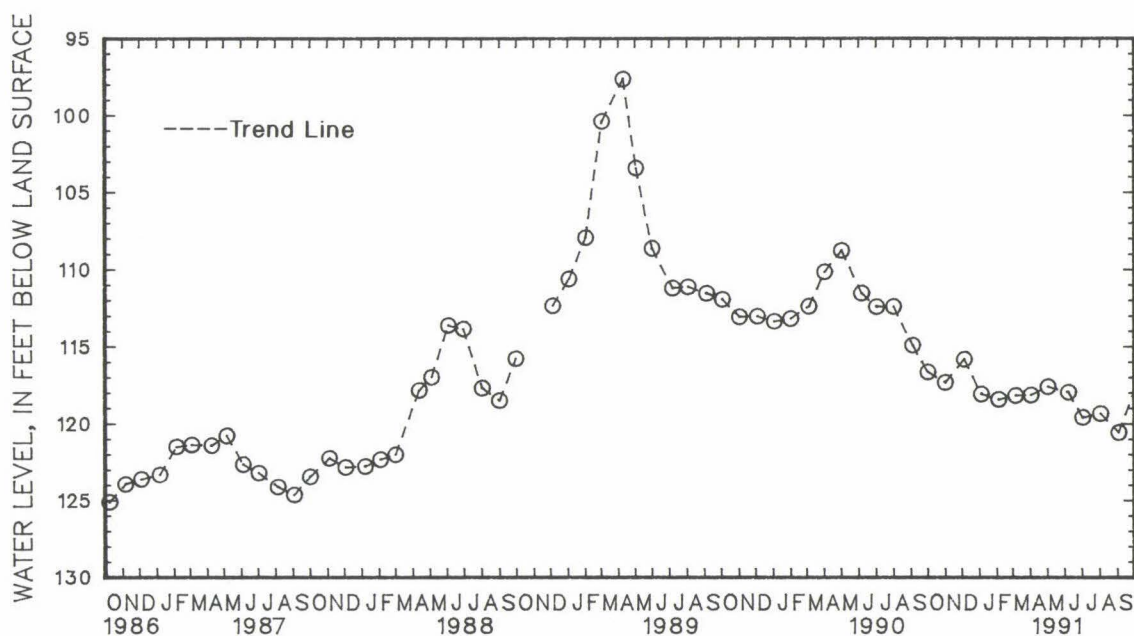
REMARKS.--Maryland Water-Level Network observation well. Well used during construction of airport. Water level reported by driller 90 ft below land surface, April 23, 1948.

PERIOD OF RECORD.--June 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.60 ft below land surface, March 9, 1965; lowest measured, 125.12 ft below land surface, Oct. 9, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	116.68	DEC 5	115.85	FEB 4	118.45	APR 2	118.17	JUN 7	117.99	AUG 2	119.37
NOV 1	117.36	JAN 4	118.11	MAR 6	118.20	MAY 2	117.63	JUL 2	119.62	SEP 3	120.60
WATER YEAR 1991		HIGHEST	115.85	DEC 5, 1990	LOWEST	120.60	SEP 3, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 29. SITE ID.--391015076373501.

LOCATION.--Lat 39°10'15", long 76°37'35", Hydrologic Unit 02060003, near Linden Lane, Glen Burnie, near the Anne Arundel County Department of Public Works office.

Owner: Anne Arundel County Department of Public Works.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 500 ft; casing diameter 3 in., to 395 ft and from 400 to 420 ft; casing diameter 2 in. from 420 to 460 ft; screened with 3 in. slotted pipe from 395 to 400 ft; screened with 2 in. slotted pipe from 460 to 500 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from July 19, 1948 to Jan. 18, 1968.

DATUM.--Elevation of land surface is 37 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.47 ft above land surface.

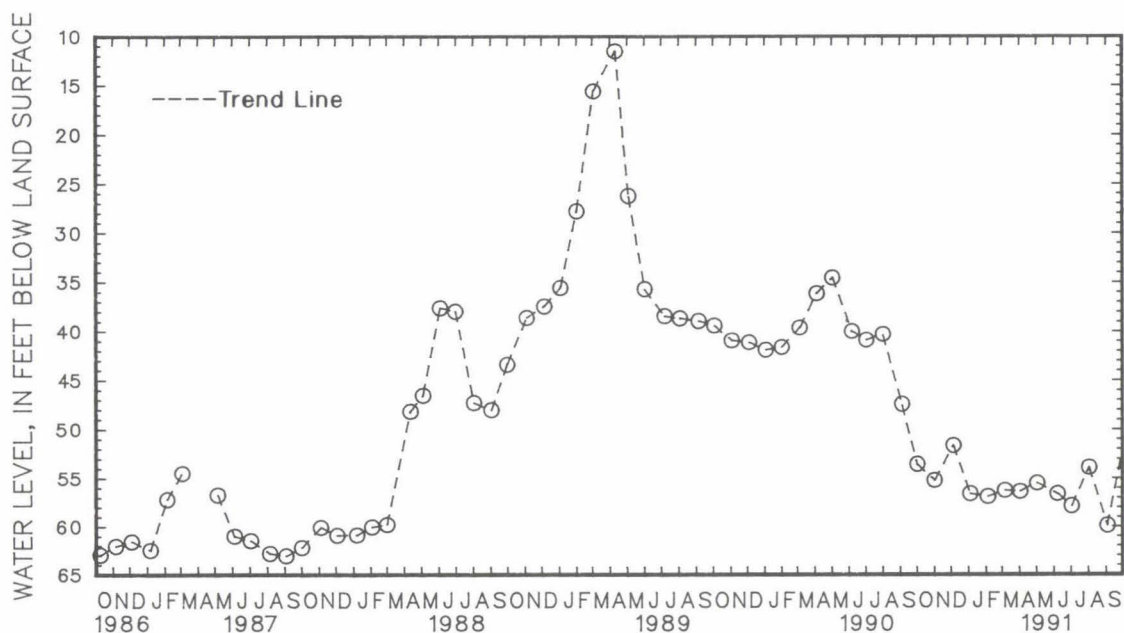
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--June 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.04 ft above land surface, Sept. 2, 1952; lowest measured, 63.63 ft below land surface, July 30, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	53.78	DEC 5	51.77	FEB 4	57.06	APR 2	56.53	JUN 7	56.77	AUG 2	54.00
NOV 1	55.41	JAN 4	56.78	MAR 6	56.42	MAY 2	55.65	JUL 2	58.03	SEP 3	60.01
WATER YEAR 1991		HIGHEST	51.77	DEC 5, 1990	LOWEST	60.01	SEP 3, 1991				



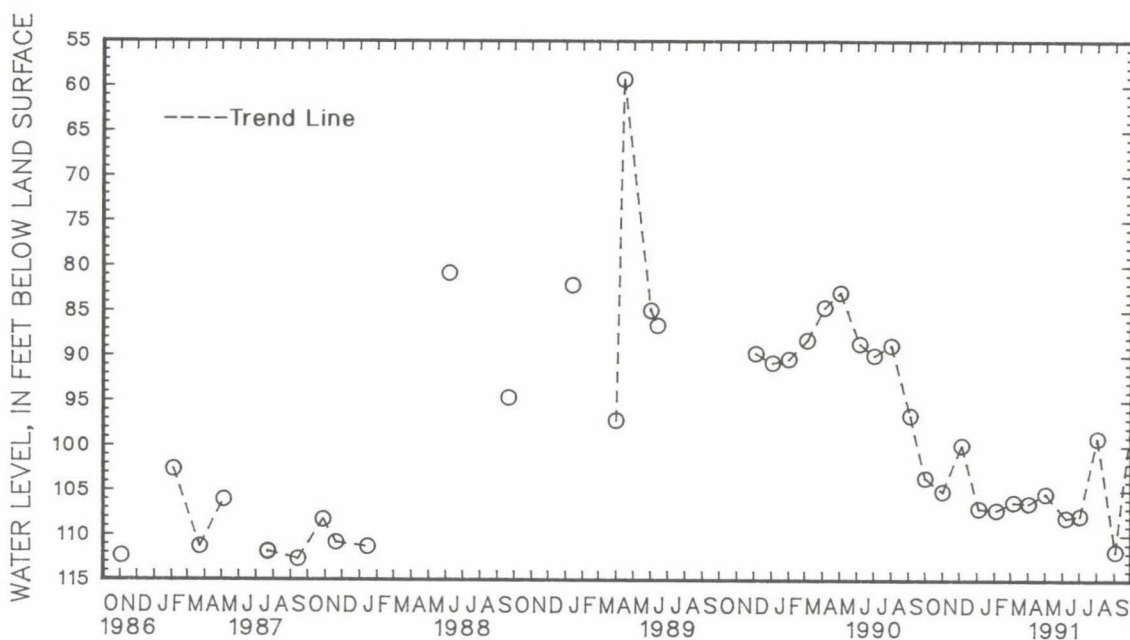
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 90. SITE ID.--391032076385902. PERMIT NUMBER.--AA-04-0298.
LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Hammonds Ferry Rd.,
0.5 mi north of Dorsey Rd. intersection.
Owner: U.S. Geological Survey.
AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 453 ft; casing diameter 6 in., to 443 ft;
screen diameter 6 in. from 443 to 453 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-
level recorder from Aug. 19, 1977 to Sept. 4, 1979. Periodic measurements from September 1979 to March 1980.
Equipped with digital water-level recorder--30--minute recorder interval from March 1980 to Dec. 31, 1984, and
August 1989 to current year.
DATUM.--Elevation of land surface is 77.85 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder platform, 2.2 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--August 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.98 ft below land surface, Nov. 20, 1978;
lowest measured, 113.46 ft below land surface, Aug. 25, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	103.61	DEC 5	99.93	FEB 4	107.17	APR 2	106.41	JUN 7	108.02	AUG 2	99.12
NOV 1	105.12	JAN 4	107.00	MAR 6	106.29	MAY 2	105.35	JUL 2	107.79	SEP 3	111.76
WATER YEAR 1991		HIGHEST	99.12	AUG 2, 1991		LOWEST	111.76	SEP 3, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

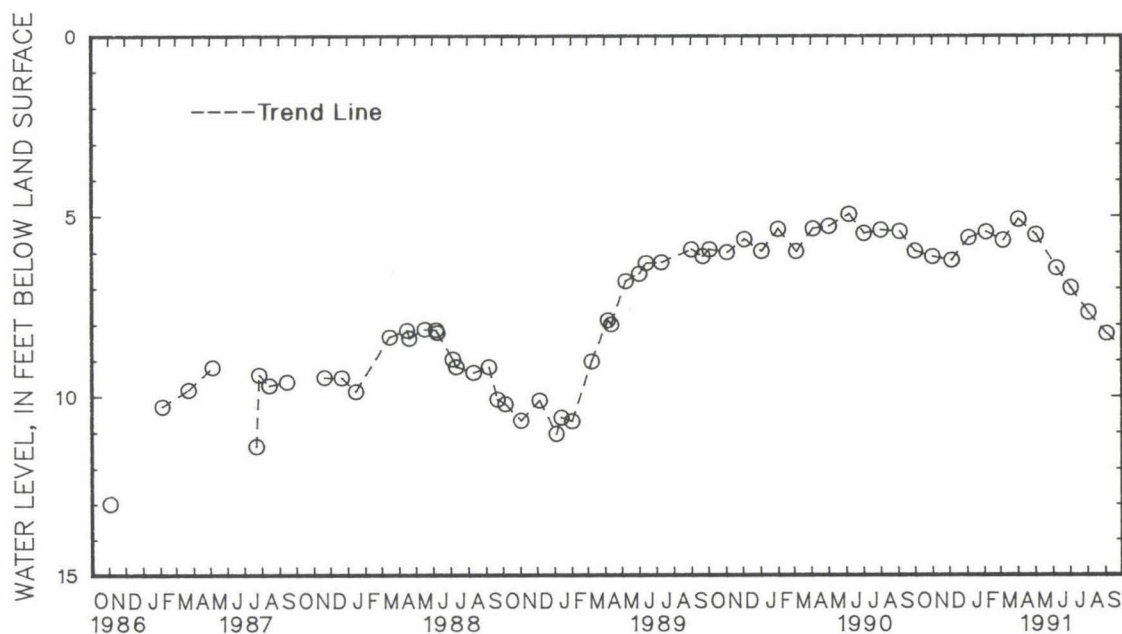
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 104. SITE ID.--391032076385905. PERMIT NUMBER.--AA-81-2760.
 LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Hammonds Ferry Rd.,
 0.5 mi north of Dorsey Rd. intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 29 ft; casing diameter 4 in., to 19 ft;
 screen diameter 4 in. from 19 to 29 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--30-minute recorder interval from November 1985 to Oct 30, 1990.
 DATUM.--Elevation of land surface is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 2.9 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well and Glen Burnie Project observation well. Water levels
 before Feb. 23, 1986 are not currently available.
 PERIOD OF RECORD.--February 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.95 ft below land surface, June 6, 1990;
 lowest measured, 13.09 ft below land surface, Oct. 31, and Nov. 1 and 2, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	5.98	DEC 5	6.24	FEB 4	5.45	APR 2	5.10	JUN 7	6.47	AUG 2	7.71
NOV 1	6.14	JAN 4	5.61	MAR 6	5.68	MAY 2	5.53	JUL 2	7.02	SEP 3	8.30
WATER YEAR 1991		HIGHEST	5.10	APR 2, 1991	LOWEST	8.30	SEP 3, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

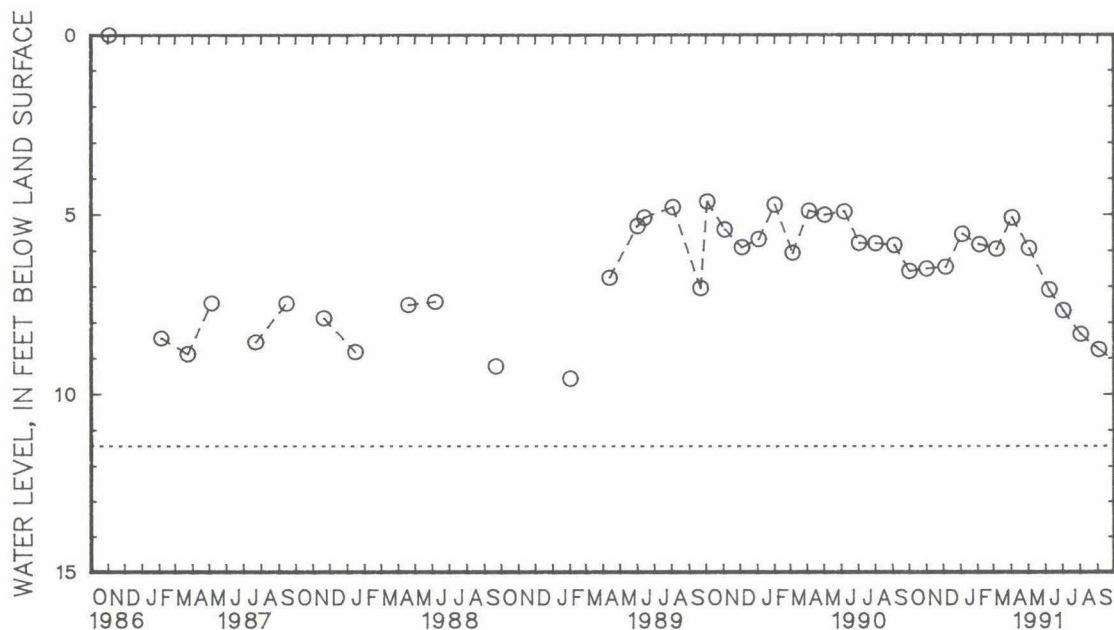
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 108. SITE ID.--391032076385906. PERMIT NUMBER.--AA-81-3475.
 LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Hammonds Ferry Rd.,
 0.5 mi north of Dorsey Rd. intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PFSC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 11.5 ft; casing diameter 4 in., to 6 ft;
 screen diameter 4 in. from 6 to 11 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval from Feb. 23, 1986 to Sept. 30, 1990.
 DATUM.--Elevation of land surface is 78 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 3.7 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Glen Burnie Project observation well. Water levels
 before Feb. 23, 1986 are not currently available.
 PERIOD OF RECORD.--August 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.46 ft below land surface, Aug. 7, 1989;
 lowest measured, Dry on Aug. 22, 1985; Jan. 17, 1986; May 20, 1986; July 8, 1986 and Nov. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	6.61	DEC 5	6.49	FEB 4	5.85	APR 2	5.10	JUN 7	7.13	AUG 2	8.38
NOV 1	6.54	JAN 4	5.56	MAR 6	5.98	MAY 2	5.96	JUL 2	7.71	SEP 3	8.82
WATER YEAR 1991		HIGHEST	5.10	APR 2, 1991	LOWEST	8.82	SEP 3, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 109. SITE ID.--391006076380101. PERMIT NUMBER.--AA-81-4890.
 LOCATION.--Lat 39°10'06", long 76°38'01", Hydrologic Unit 02060003, 0.05 mi south of Dorsey Rd.,
 0.17 mi west of MD Rt. 648.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 46 ft; casing diameter 4 in., to 36 ft;
 screen diameter 4 in. from 36 to 46 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval from October 1985 to current year.
 DATUM.--Elevation of land surface is 35.78 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 4.3 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1985 to current year.
 REMARKS.--Glen Burnie Project observation well. Water levels before Feb. 23, 1986 are not currently available.
 Missing data due to recorder malfunction.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.07 ft above sea level, April 21, 1991;
 lowest measured, 20.20 ft above sea level, Oct. 15, 1987.

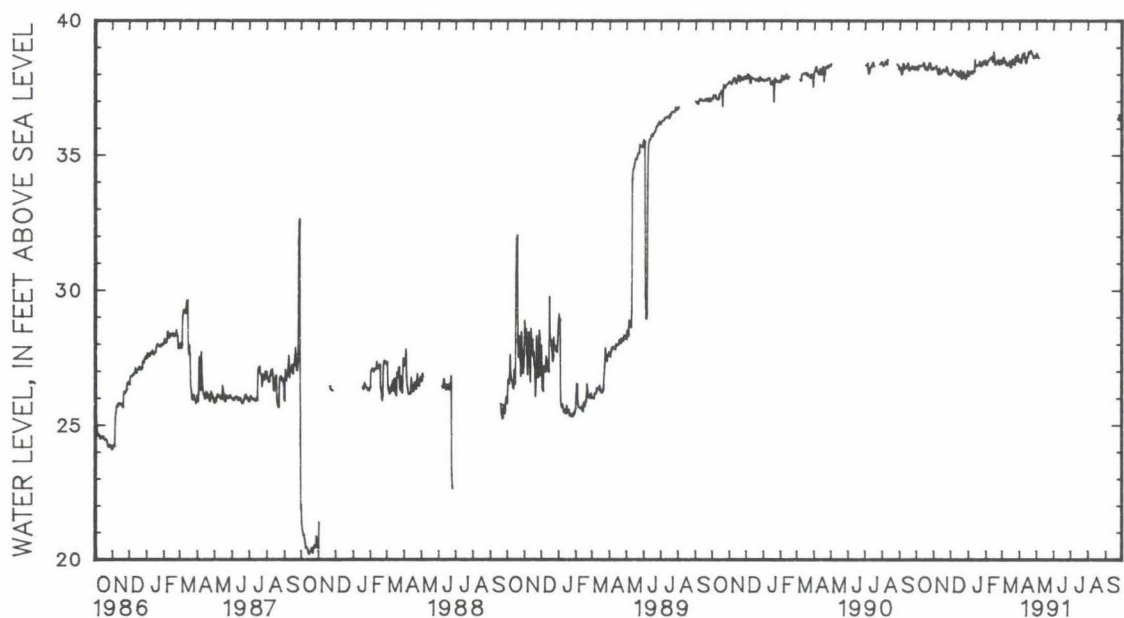
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	38.35	38.30	38.26	38.23	38.10	37.98	38.06	37.96	38.37	38.37	38.51	38.41
2	38.36	38.23	38.27	38.25	38.11	38.04	38.17	38.07	38.47	38.37	38.75	38.53
3	38.25	38.18	38.27	38.25	38.31	38.04	38.17	38.11	38.52	38.47	38.81	38.64
4	38.48	38.26	38.33	38.27	38.43	38.20	38.10	38.04	38.53	38.52	38.90	38.61
5	38.41	38.34	38.47	38.33	38.20	38.14	38.14	38.04	38.60	38.53	38.59	38.45
6	38.35	38.33	38.47	38.18	38.19	38.14	38.16	38.13	38.59	38.57	38.72	38.44
7	38.33	38.31	38.24	38.17	38.16	38.13	38.13	38.09	38.71	38.58	38.73	38.48
8	38.33	38.32	38.22	38.05	38.16	38.13	38.12	38.05	38.66	38.63	38.47	38.37
9	38.36	38.33	38.18	38.01	38.14	38.10	38.21	38.13	38.71	38.65	38.41	38.34
10	38.36	38.33	38.56	38.21	38.19	38.12	38.21	38.12	38.70	38.66	38.46	38.42
11	38.34	38.33	38.42	38.23	38.11	38.01	38.56	38.12	38.66	38.56	38.45	38.41
12	38.43	38.33	38.29	38.05	38.16	38.08	38.56	38.56	38.55	38.48	38.42	38.37
13	38.50	38.44	38.12	38.05	38.21	38.06	38.55	38.31	38.83	38.57	38.54	38.42
14	38.49	38.42	38.07	38.04	38.04	37.93	38.35	38.31	39.00	38.84	38.57	38.51
15	38.42	38.28	38.15	38.06	38.27	37.95	38.35	38.33	38.84	38.61	38.50	38.30
16	38.27	38.19	38.30	38.15	38.27	38.09	38.56	38.35	38.61	38.38	38.30	38.26
17	38.28	38.21	38.33	38.19	38.14	38.07	38.56	38.36	38.40	38.38	38.43	38.30
18	38.56	38.28	38.18	38.16	38.37	38.15	38.38	38.36	38.40	38.38	38.77	38.45
19	38.52	38.23	38.22	38.17	38.23	37.90	38.47	38.35	38.55	38.41	38.76	38.57
20	38.23	38.17	38.19	38.12	37.89	37.85	38.56	38.49	38.62	38.51	38.57	38.44
21	38.28	38.20	38.14	38.12	38.06	37.89	38.56	38.35	38.53	38.47	38.49	38.40
22	38.36	38.28	38.28	38.14	38.10	38.06	38.35	38.32	38.70	38.54	38.49	38.38
23	38.57	38.36	38.44	38.29	38.23	38.10	38.50	38.32	38.54	38.38	38.80	38.37
24	38.57	38.44	38.44	38.26	38.31	37.96	38.50	38.44	38.52	38.38	38.82	38.66
25	38.45	38.43	38.26	38.17	37.95	37.90	38.43	38.38	38.55	38.52	38.66	38.54
26	38.45	38.30	38.16	38.03	37.95	37.88	38.54	38.38	38.57	38.54	38.56	38.49
27	38.29	38.19	38.05	38.03	37.96	37.84	38.59	38.50	38.55	38.46	38.84	38.57
28	38.34	38.24	38.15	38.05	38.04	37.97	38.64	38.52	38.45	38.40	38.88	38.73
29	38.27	38.20	38.15	38.01	38.14	38.01	38.52	38.46	---	---	38.84	38.73
30	38.28	38.19	38.01	37.97	38.33	38.14	38.75	38.53	---	---	38.84	38.52
31	38.28	38.26	---	---	38.34	37.96	38.75	38.38	---	---	38.57	38.47
MONTH	38.57	38.17	38.56	37.97	38.43	37.84	38.75	37.96	39.00	38.37	38.90	38.26

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Ad 109--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	38.66	38.57	38.84	38.78	---	---	---	---	---	---	---	---
2	38.61	38.50	38.82	38.75	---	---	---	---	---	---	---	---
3	38.50	38.44	38.77	38.69	---	---	---	---	---	---	---	---
4	38.60	38.48	38.68	38.63	---	---	---	---	---	---	---	---
5	38.76	38.60	38.66	38.62	---	---	---	---	---	---	---	---
6	38.78	38.75	---	---	---	---	---	---	---	---	---	---
7	38.79	38.76	---	---	---	---	---	---	---	---	---	---
8	38.81	38.77	---	---	37.93	37.89	---	---	---	---	---	---
9	38.84	38.81	---	---	37.92	37.87	---	---	---	---	---	---
10	38.83	38.64	---	---	37.90	37.86	---	---	---	---	---	---
11	38.62	38.53	---	---	---	---	---	---	---	---	---	---
12	38.52	38.42	---	---	---	---	---	---	---	---	---	---
13	38.72	38.48	---	---	---	---	---	---	---	---	---	---
14	38.72	38.63	---	---	---	---	---	---	---	---	---	---
15	38.89	38.66	---	---	---	---	---	---	---	---	---	---
16	38.87	38.82	---	---	---	---	---	---	---	---	---	---
17	38.92	38.85	---	---	---	---	---	---	---	---	---	---
18	38.87	38.80	---	---	---	---	---	---	---	---	---	---
19	38.81	38.79	---	---	---	---	---	---	---	---	---	---
20	38.89	38.81	---	---	---	---	---	---	---	---	---	---
21	39.07	38.90	---	---	---	---	---	---	---	---	---	---
22	39.05	38.83	---	---	---	---	---	---	---	---	---	---
23	38.82	38.78	---	---	---	---	---	---	---	---	36.40	36.34
24	38.82	38.73	---	---	---	---	---	---	---	---	36.50	36.35
25	38.72	38.63	---	---	---	---	---	---	---	---	36.59	36.51
26	38.67	38.62	---	---	---	---	---	---	---	---	36.56	36.43
27	38.80	38.69	---	---	---	---	---	---	---	---	36.42	36.30
28	38.80	38.67	---	---	---	---	---	---	---	---	36.30	36.25
29	38.67	38.65	---	---	---	---	---	---	---	---	36.31	36.25
30	38.81	38.68	---	---	---	---	---	---	---	---	36.28	36.22
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	39.07	38.42	38.84	38.62	37.93	37.86	---	---	---	---	36.59	36.22

Daily Low Water Levels



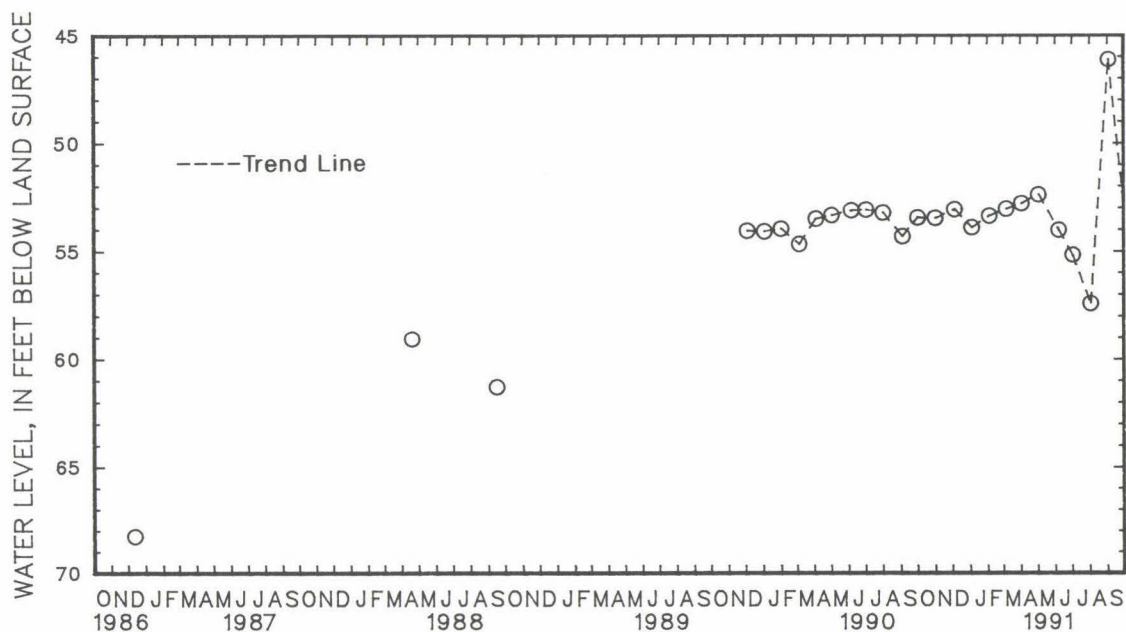
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL			
OCT	1	53.46	DEC	5	53.08	FEB	4	53.38	APR	2	52.81	JUN	7	54.05	AUG	2	57.49
NOV	1	53.48	JAN	4	53.92	MAR	6	53.06	MAY	2	52.40	JUL	2	55.22	SEP	3	46.14
WATER YEAR 1991		HIGHEST		46.14		SEP 3, 1991		LOWEST		57.49		AUG 2, 1991					



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 152. SITE ID.--390821076365401. PERMIT NUMBER.--AA-81-3463.
 LOCATION.--Lat 39°08'21", long 76°36'54", Hydrologic Unit 02060003, 100 ft north of MD Rt 100,
 0.2 mi east of Oakwood Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 103 ft; casing diameter 6 in., to 90 ft;
 screen diameter 4 in. from 90 to 100 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval from March 14, 1985 to current year.
 DATUM.--Elevation of land surface is 53 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 3.0 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well and Glen Burnie Project observation well. Water levels
 before Feb. 23, 1986 are not currently available.
 PERIOD OF RECORD.--March 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.12 ft above sea level, Feb 14,, 1991;
 lowest measured, 19.88 ft above sea level, Aug. 21, 1987.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	23.17	22.94	22.72	22.62	23.46	22.95	23.70	23.28	24.22	23.91	24.47	24.11
2	22.94	22.67	22.66	22.56	23.43	22.89	23.83	23.57	24.42	23.91	24.81	24.29
3	22.68	22.63	22.73	22.54	22.89	22.76	23.93	23.61	24.35	23.90	24.54	24.41
4	22.87	22.63	23.03	22.63	23.24	22.86	23.74	23.48	24.29	23.86	24.79	24.47
5	22.87	22.72	23.24	22.82	22.91	22.69	23.53	23.37	24.53	24.08	24.58	24.22
6	22.95	22.70	23.06	22.68	22.94	22.65	23.49	23.29	24.48	24.27	24.44	24.17
7	23.08	22.71	22.68	22.57	22.94	22.68	23.36	23.26	24.66	24.34	24.54	24.12
8	22.77	22.64	22.57	22.35	23.30	22.91	23.68	23.31	24.63	24.42	24.18	23.98
9	22.82	22.63	22.50	22.30	23.18	22.80	23.68	23.56	24.84	24.43	24.23	23.94
10	22.69	22.61	23.27	22.53	22.87	22.67	23.54	23.37	24.67	24.33	24.19	24.00
11	22.69	22.60	23.03	22.79	22.68	22.58	23.84	23.30	24.45	24.29	24.01	23.89
12	23.33	22.60	22.95	22.69	22.87	22.57	24.41	23.87	24.53	24.33	24.06	23.87
13	23.30	22.99	22.67	22.44	22.92	22.72	24.18	23.83	24.84	24.48	24.11	23.93
14	23.60	22.97	22.58	22.41	22.77	22.44	24.06	23.77	25.12	24.79	24.04	23.90
15	23.16	22.76	22.53	22.36	23.10	22.43	23.96	23.82	24.77	24.28	23.96	23.86
16	22.74	22.63	22.58	22.44	23.20	22.82	24.17	23.78	24.52	24.10	23.99	23.85
17	22.86	22.61	22.77	22.52	22.93	22.75	24.11	23.80	24.42	24.04	23.96	23.79
18	23.10	22.72	22.65	22.46	23.44	22.94	23.82	23.72	24.35	24.01	24.28	23.90
19	23.13	22.76	22.57	22.46	23.38	22.91	24.23	23.70	24.43	24.08	24.26	23.84
20	23.04	22.73	22.56	22.43	22.93	22.83	24.56	24.09	24.56	24.36	23.80	23.63
21	22.96	22.68	22.48	22.38	23.36	22.94	24.14	23.75	24.65	24.28	23.94	23.64
22	22.79	22.70	22.83	22.43	23.42	23.23	23.90	23.64	24.50	24.16	24.11	23.89
23	23.18	22.71	23.31	22.85	23.80	23.23	23.87	23.62	24.17	23.91	24.67	23.90
24	23.03	22.92	23.13	22.80	23.71	23.24	23.85	23.63	24.06	23.89	24.76	24.32
25	23.10	22.99	23.06	22.75	23.34	23.11	23.73	23.44	24.18	23.98	24.29	23.88
26	22.98	22.70	22.94	22.59	23.44	23.11	23.73	23.40	24.68	24.06	23.87	23.78
27	22.96	22.64	22.57	22.46	23.24	23.01	23.72	23.52	24.46	24.18	24.21	23.79
28	23.64	22.77	22.97	22.46	23.53	23.19	23.76	23.55	24.16	24.03	24.18	23.90
29	23.36	22.89	22.94	22.67	23.63	23.28	24.03	23.47	---	---	24.01	23.89
30	22.92	22.78	23.10	22.63	23.71	23.43	24.59	24.05	---	---	23.99	23.76
31	22.87	22.64	---	---	23.57	23.28	24.70	24.06	---	---	24.06	23.76
MONTH	23.64	22.60	23.31	22.30	23.80	22.43	24.70	23.26	25.12	23.86	24.81	23.63

GROUND-WATER LEVELS

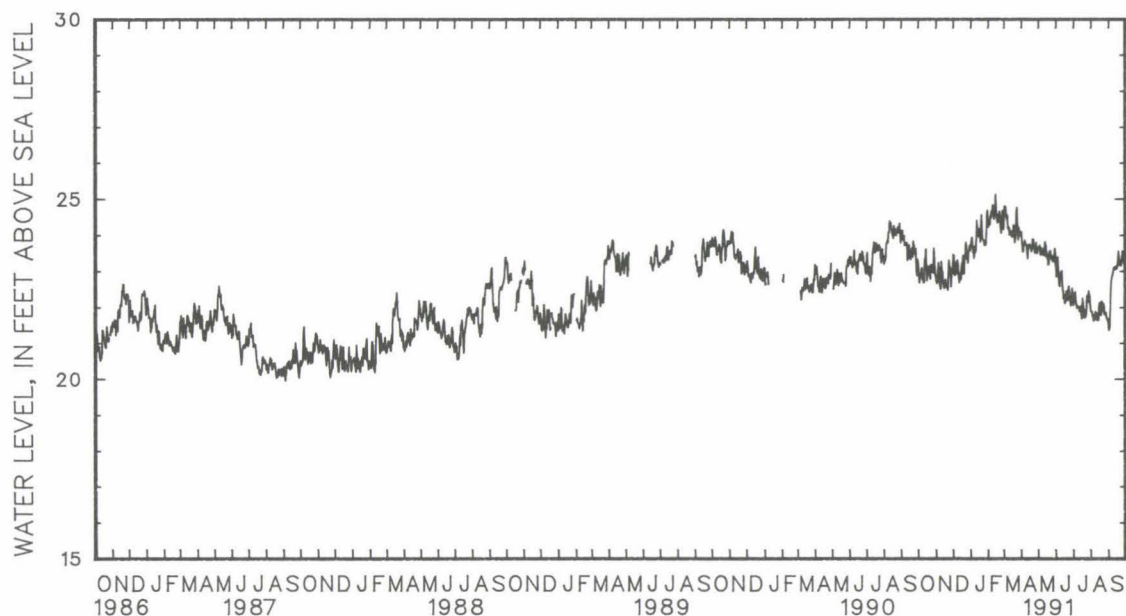
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 152--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	24.08	23.84	23.64	23.56	23.12	22.89	22.06	21.97	21.89	21.82	21.53	21.34
2	23.82	23.56	23.63	23.53	22.87	22.80	22.22	21.95	21.88	21.80	21.35	21.29
3	23.55	23.46	23.71	23.58	23.16	22.85	22.21	21.98	21.85	21.78	21.45	21.33
4	23.54	23.45	23.57	23.46	23.39	22.91	22.42	21.98	21.78	21.73	21.94	21.44
5	23.69	23.54	23.46	23.42	23.01	22.72	22.19	22.07	21.72	21.61	22.56	21.99
6	23.76	23.69	23.64	23.47	22.70	22.55	22.07	21.98	21.62	21.51	22.74	22.57
7	23.85	23.73	23.62	23.47	22.58	22.41	21.98	21.93	21.66	21.61	22.84	22.74
8	23.76	23.70	23.46	23.38	22.73	22.40	22.03	21.94	21.65	21.61	22.90	22.83
9	23.73	23.70	---	---	22.93	22.57	21.99	21.91	21.87	21.64	22.97	22.88
10	23.73	23.52	23.51	23.42	22.98	22.74	21.98	21.91	21.83	21.70	23.09	22.97
11	23.50	23.35	23.44	23.36	23.00	22.63	21.96	21.86	21.70	21.61	23.11	23.07
12	23.35	23.26	23.59	23.44	22.60	22.39	21.89	21.85	21.65	21.54	23.07	23.05
13	23.71	23.30	23.81	23.56	22.46	22.25	22.02	21.89	21.66	21.62	23.11	23.05
14	23.65	23.57	23.69	23.55	22.24	22.13	21.97	21.78	21.64	21.62	23.13	23.06
15	23.74	23.57	23.55	23.42	22.33	22.12	21.78	21.63	22.06	21.64	23.07	23.03
16	23.72	23.67	23.41	23.30	22.23	22.04	21.68	21.62	22.12	21.90	23.11	23.06
17	23.70	23.64	23.45	23.30	22.11	21.98	22.24	21.67	22.08	21.83	23.27	23.11
18	23.66	23.53	23.44	23.17	22.27	21.96	22.12	21.85	21.83	21.74	23.55	23.30
19	23.55	23.51	23.18	23.14	22.43	22.16	21.96	21.74	21.78	21.68	23.37	23.17
20	23.66	23.54	23.38	23.18	22.45	22.24	21.73	21.65	22.17	21.72	23.18	23.14
21	23.88	23.67	23.52	23.33	22.23	22.12	21.70	21.62	22.12	21.88	23.16	23.13
22	23.87	23.65	23.56	23.42	22.20	22.10	21.71	21.60	21.89	21.85	23.15	23.07
23	23.64	23.53	23.43	23.28	22.57	22.11	21.76	21.66	22.09	21.83	23.22	23.16
24	23.63	23.51	23.41	23.27	22.46	22.23	21.94	21.77	22.03	21.81	23.37	23.19
25	23.50	23.39	23.36	23.29	22.23	22.11	22.32	21.78	21.80	21.76	23.55	23.40
26	23.55	23.39	23.36	23.25	22.10	22.02	22.30	22.07	21.82	21.76	23.54	23.41
27	23.79	23.51	23.28	23.23	22.04	21.99	22.14	22.00	21.84	21.77	23.40	23.23
28	23.67	23.47	23.29	23.23	22.06	21.97	22.45	22.15	21.76	21.68	23.23	23.18
29	23.49	23.43	23.44	23.23	22.51	22.08	22.37	22.13	21.68	21.62	23.25	23.14
30	23.60	23.47	23.63	23.35	22.39	22.08	22.32	22.09	21.67	21.59	23.33	23.16
31	---	---	23.44	23.14	---	---	22.08	21.89	21.66	21.55	---	---
MONTH	24.08	23.26	23.81	23.14	23.39	21.96	22.45	21.60	22.17	21.51	23.55	21.29

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 155. SITE ID.--390938076383701. PERMIT NUMBER.--AA-81-3460.
 LOCATION.--Lat 39°09'38", long 76°38'37", Hydrologic Unit 02060003, 200 ft off MD Rt. 3,
 0.4 mi south of MD Rt. 176 intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 159 ft; casing diameter 6 in., to 145 ft.
 screen diameter 4 in. from 145 to 155 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval from Oct. 23, 1984 to current year.
 DATUM.--Elevation of land surface is 57 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 2.5 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1984 to current year
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.31 ft above sea level, Oct. 13, 1990;
 lowest measured, 31.54 ft above sea level, Oct. 10, 1986.

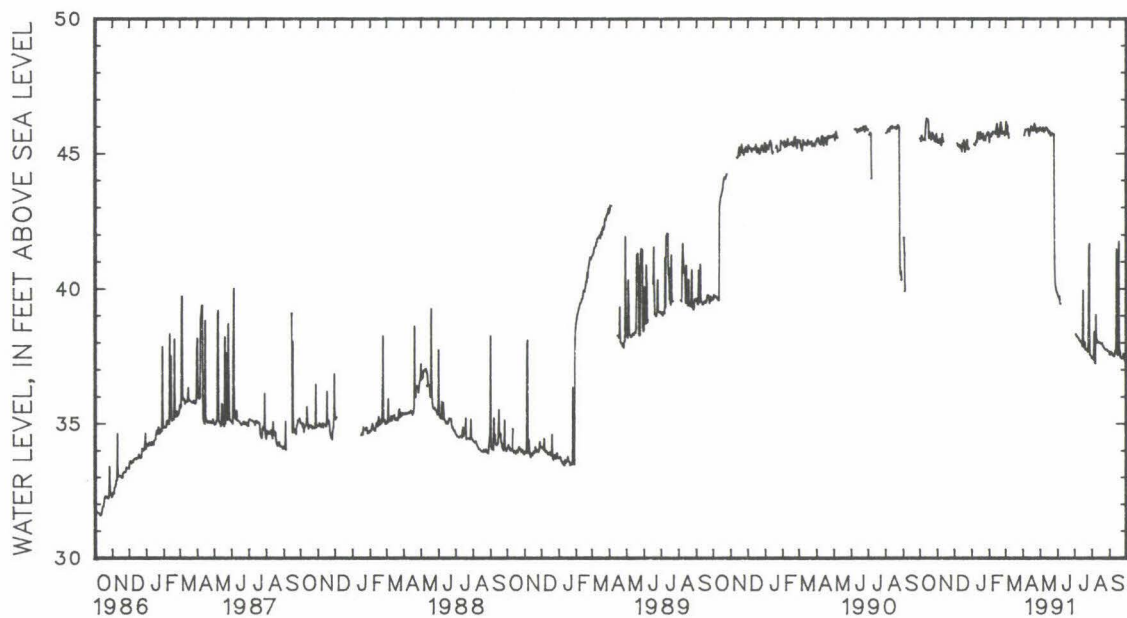
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	45.57	44.74	45.43	45.38	---	---	---	---	45.42	45.36	45.73	45.62
2	45.57	45.40	45.41	45.36	---	---	---	---	45.60	45.43	46.18	45.75
3	45.47	45.37	45.39	45.35	---	---	---	---	45.64	45.59	45.99	45.82
4	45.67	45.47	45.44	45.38	---	---	---	---	45.64	45.60	46.05	45.71
5	45.56	45.51	45.54	45.42	---	---	45.35	45.23	45.76	45.65	45.71	45.62
6	45.53	45.48	45.54	45.25	45.38	45.30	45.37	45.29	45.73	45.67	45.76	45.59
7	45.51	45.47	45.36	45.25	45.29	45.25	45.30	45.25	45.82	45.74	45.58	45.54
8	45.55	45.47	45.31	45.19	45.31	45.25	45.39	45.24	45.79	45.72	---	---
9	45.54	45.50	45.39	44.96	45.26	45.18	45.48	45.39	45.81	45.76	---	---
10	45.50	45.47	45.74	45.41	45.32	45.22	45.44	45.34	45.80	45.76	---	---
11	45.97	45.47	45.50	45.35	45.21	45.12	45.77	45.34	45.76	45.65	---	---
12	46.22	45.99	45.45	40.22	45.26	45.18	45.80	45.68	45.73	45.60	---	---
13	46.31	46.23	---	---	45.29	45.11	45.68	45.48	45.98	45.74	---	---
14	46.27	46.22	---	---	45.07	44.97	45.57	45.48	46.11	45.92	---	---
15	46.28	46.14	---	---	45.38	45.04	45.54	45.49	45.91	45.63	---	---
16	46.14	45.59	---	---	45.38	45.15	45.80	45.54	45.62	45.52	---	---
17	45.58	45.46	---	---	45.28	45.14	45.74	45.51	45.63	45.56	---	---
18	45.82	45.57	---	---	45.50	45.30	45.56	45.35	45.64	45.56	---	---
19	45.67	45.44	---	---	45.31	45.00	45.67	45.52	45.79	45.65	---	---
20	45.59	45.43	---	---	45.06	44.97	45.73	45.67	46.01	45.79	---	---
21	45.53	45.47	---	---	45.26	45.07	45.74	45.49	46.16	45.73	---	---
22	45.56	45.51	---	---	45.29	45.26	45.49	45.44	46.00	45.74	---	---
23	45.79	45.56	---	---	45.43	45.29	45.61	45.45	45.73	45.59	---	---
24	45.73	45.60	---	---	45.51	45.12	45.60	45.51	45.78	45.62	---	---
25	45.65	45.60	---	---	45.16	45.11	45.50	45.42	45.81	45.76	---	---
26	45.62	45.43	---	---	45.16	45.06	45.66	45.48	45.81	45.75	---	---
27	45.47	45.37	---	---	45.19	45.02	45.67	45.56	45.75	45.65	---	---
28	45.55	45.43	---	---	---	---	45.73	45.54	45.68	45.59	---	---
29	45.44	45.38	---	---	---	---	45.79	45.50	---	---	---	---
30	45.74	45.38	---	---	---	---	45.80	45.74	---	---	---	---
31	45.60	45.42	---	---	---	---	45.79	45.36	---	---	---	---
MONTH	46.31	44.74	45.74	40.22	45.51	44.97	45.80	45.23	46.16	45.36	46.18	45.54

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Bd 155--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	45.98	45.87	39.75	39.67	---	---	37.41	37.39	37.55	37.50
2	---	---	45.91	45.84	39.67	39.62	---	---	37.39	37.35	37.54	37.50
3	45.68	45.57	45.91	45.84	39.62	39.55	38.29	38.21	37.38	37.35	37.64	37.52
4	45.78	45.68	45.84	45.79	39.69	39.44	38.22	38.20	37.35	37.29	37.63	37.58
5	45.89	45.78	45.86	45.79	39.43	39.33	38.22	38.19	38.38	37.25	37.61	37.53
6	45.88	45.84	45.97	45.86	39.43	39.27	38.19	38.14	37.24	37.19	37.55	37.51
7	45.89	45.85	45.85	44.65	---	---	38.16	38.12	37.22	37.18	37.52	37.48
8	45.90	45.83	45.80	45.71	---	---	38.14	38.09	39.03	37.20	37.50	37.45
9	45.92	45.87	45.94	45.75	---	---	38.09	38.03	38.12	37.96	37.48	37.45
10	45.92	45.69	45.87	45.79	---	---	38.05	38.02	38.08	37.99	37.58	37.45
11	45.70	45.62	45.87	45.76	---	---	38.03	37.96	37.99	37.94	37.69	37.58
12	45.66	45.56	45.98	45.87	---	---	38.00	37.95	37.99	37.93	37.60	37.50
13	45.87	45.66	45.95	45.90	---	---	38.03	37.96	38.01	37.97	41.46	37.49
14	45.86	45.76	45.93	45.87	---	---	37.95	37.85	37.99	37.96	37.98	37.51
15	46.02	45.83	45.86	45.72	---	---	37.85	37.81	37.99	37.95	37.51	37.48
16	45.93	45.86	45.75	45.69	---	---	39.93	37.80	37.96	37.93	38.65	37.47
17	45.96	45.77	45.84	45.74	---	---	37.88	37.83	37.97	37.92	41.76	37.75
18	45.87	45.78	45.81	45.60	---	---	37.82	37.78	37.95	37.92	37.72	37.56
19	45.85	45.78	45.66	45.58	---	---	37.99	37.73	37.96	37.86	37.66	37.43
20	45.97	45.86	45.70	45.64	---	---	37.73	37.70	37.89	37.83	37.45	37.40
21	46.11	45.98	45.75	45.69	---	---	37.73	37.68	37.85	37.79	37.41	37.36
22	46.07	45.86	45.76	45.72	---	---	37.74	37.70	37.81	37.77	37.40	37.34
23	45.86	45.81	45.72	45.67	---	---	37.75	37.65	37.78	37.74	37.40	37.35
24	45.93	45.78	45.73	45.65	---	---	37.65	37.60	37.74	37.69	37.47	37.35
25	45.78	45.72	45.72	41.38	---	---	37.68	37.53	37.72	37.67	37.57	37.48
26	45.84	45.75	41.16	40.25	---	---	41.50	37.50	37.73	37.68	37.50	37.37
27	45.94	45.84	40.24	40.09	---	---	41.65	37.59	37.73	37.68	37.37	37.31
28	45.89	45.78	40.08	39.95	---	---	37.58	37.51	37.71	37.66	37.31	37.28
29	45.84	45.78	39.95	39.89	---	---	37.52	37.50	37.67	37.65	37.34	37.27
30	45.93	45.84	39.89	39.83	---	---	37.50	37.46	37.66	37.62	37.29	37.23
31	---	---	39.82	39.75	---	---	37.46	37.41	37.65	37.56	---	---
MONTH	46.11	45.56	45.98	39.75	39.75	39.27	41.65	37.41	39.03	37.18	41.76	37.23

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 156. SITE ID.--390922076371001. PERMIT NUMBER.--AA-81-3462.
 LOCATION.--Lat 39°09'22", long 76°37'10", Hydrologic Unit 02060003, off Wardour Rd.,
 0.3 mi north of Aquahart Rd. intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 173 ft; casing diameter 6 in., to 160 ft;
 screen diameter 4 in. from 160 to 170 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--30-minute recorder interval from October 1984 to current year.
 DATUM.--Elevation of land surface is 69 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 2.7 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well and Glen Burnie Project observation well.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1984 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.57 ft above sea level, Oct. 28, 1990;
 lowest measured, 12.47 ft above sea level, Feb. 10, 1988.

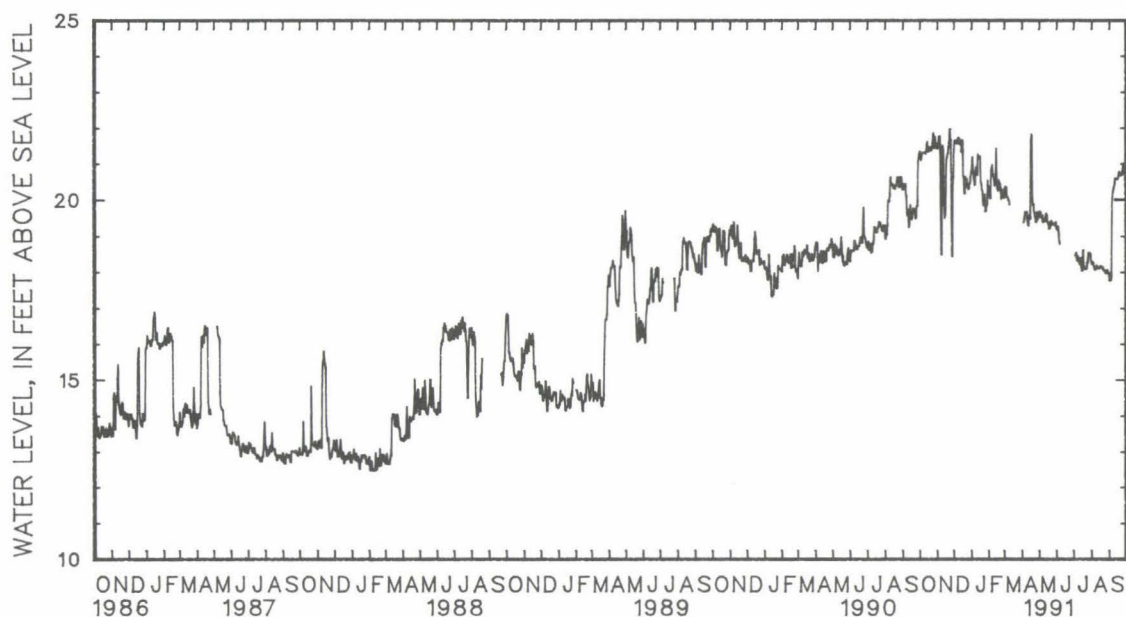
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.13	21.35	21.93	21.43	23.13	21.43	21.62	20.83	21.33	20.37	21.17	20.09
2	21.76	21.11	22.10	21.52	23.09	21.65	22.34	21.18	21.64	20.09	20.84	20.36
3	21.56	21.10	21.95	21.52	21.99	21.63	21.74	20.84	21.56	20.03	20.62	20.34
4	21.75	21.16	22.43	21.75	22.62	21.65	21.59	20.62	21.26	20.03	21.20	20.33
5	21.78	21.31	22.75	21.76	22.13	21.57	21.15	20.52	21.96	20.77	20.75	20.06
6	21.91	21.30	22.30	21.42	22.16	21.57	21.19	20.40	21.83	20.90	20.85	20.06
7	22.06	21.31	21.85	19.90	22.25	21.61	20.98	20.41	22.14	20.97	20.67	20.02
8	21.81	21.31	19.87	18.49	22.70	21.72	21.51	20.81	22.15	20.72	20.39	19.98
9	21.84	21.31	21.05	18.46	22.64	21.72	21.44	20.90	22.30	20.64	20.31	19.96
10	21.74	21.29	22.27	21.06	22.15	21.64	21.19	20.69	22.10	20.57	20.25	19.86
11	21.77	21.28	22.19	21.52	21.92	21.54	21.34	20.68	21.69	20.38	---	---
12	22.42	21.36	22.23	21.38	22.22	21.54	22.43	21.27	21.82	20.42	---	---
13	22.10	21.55	21.56	19.98	22.18	21.67	22.09	21.16	22.07	20.59	---	---
14	23.15	21.61	21.62	19.48	21.85	21.35	21.93	21.17	22.57	21.43	---	---
15	22.23	21.34	21.42	19.55	22.39	21.35	21.69	21.20	22.07	20.65	---	---
16	21.76	21.34	21.48	19.75	22.76	21.65	21.95	21.18	22.07	20.30	---	---
17	22.01	21.37	21.78	20.97	22.15	20.64	22.01	20.47	21.85	20.24	---	---
18	22.09	21.46	21.75	21.17	21.36	20.64	20.83	20.44	21.73	20.24	---	---
19	22.28	21.42	21.71	21.24	21.39	20.16	21.16	20.26	21.83	20.55	---	---
20	22.16	21.38	21.74	21.31	20.66	20.16	21.24	20.23	21.95	20.46	---	---
21	22.10	21.37	21.94	21.46	21.35	20.63	21.01	19.84	21.53	20.44	---	---
22	21.93	21.43	22.32	21.64	21.20	20.57	20.14	19.83	21.10	20.33	---	---
23	22.11	21.49	22.81	21.96	21.95	20.57	20.65	20.08	20.64	20.01	---	---
24	22.21	21.63	22.43	21.69	21.51	20.35	20.69	20.13	20.28	20.05	---	---
25	22.41	21.85	22.45	21.65	21.02	20.33	20.56	19.67	20.42	20.17	---	---
26	22.12	21.47	22.44	19.52	21.16	20.29	20.36	19.67	21.75	20.27	---	---
27	22.16	21.44	19.52	18.42	20.90	20.28	20.43	19.75	20.58	20.05	---	---
28	23.57	21.75	21.93	18.42	21.14	20.45	21.92	19.86	20.29	20.04	---	---
29	22.70	21.56	22.49	20.47	21.35	20.45	20.59	19.86	---	---	---	---
30	22.11	21.55	22.28	20.63	21.33	20.66	21.75	20.53	---	---	---	---
31	22.01	21.44	---	---	21.05	20.75	21.76	20.37	---	---	---	---
MONTH	23.57	21.10	22.81	18.42	23.13	20.16	22.43	19.67	22.57	20.01	21.20	19.86

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Bd 156--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	19.80	19.66	19.44	19.17	---	---	18.39	18.21	17.93	17.75
2	---	---	20.21	19.65	19.42	19.18	---	---	18.60	18.21	17.88	17.76
3	19.46	19.36	19.93	19.65	19.65	19.24	18.87	18.45	18.44	18.27	17.94	17.76
4	19.54	19.41	19.77	19.51	20.09	19.08	19.50	18.46	18.45	18.22	19.42	17.86
5	19.70	19.54	19.69	19.51	19.12	18.85	18.79	18.53	18.28	18.10	20.05	19.43
6	19.75	19.65	19.70	19.55	18.88	18.77	18.66	18.30	18.16	18.06	20.21	20.05
7	19.75	19.62	19.64	19.37	---	---	18.53	18.30	18.14	18.06	20.10	20.20
8	19.72	19.62	19.57	19.37	---	---	18.59	18.43	18.25	18.13	20.31	20.30
9	19.76	19.65	19.79	19.44	---	---	18.55	18.37	18.34	18.16	20.45	20.36
10	19.78	19.41	19.60	19.44	---	---	18.47	18.34	18.38	18.16	20.67	20.44
11	19.58	19.31	19.50	19.40	---	---	18.54	18.20	18.22	18.09	20.72	20.59
12	20.67	19.27	19.63	19.50	---	---	18.44	18.22	18.16	18.09	20.63	20.57
13	19.64	19.55	20.01	19.61	---	---	18.62	18.37	18.20	18.09	20.67	20.59
14	19.61	19.45	19.73	19.57	---	---	18.50	18.15	18.19	18.11	20.76	20.58
15	21.64	19.46	19.62	19.37	---	---	18.23	18.03	18.47	18.13	20.64	20.57
16	21.83	21.64	19.45	19.33	---	---	18.76	18.03	18.31	18.15	20.72	20.60
17	21.99	21.83	19.53	19.35	---	---	20.70	18.59	18.22	18.15	21.27	20.67
18	21.95	21.80	19.53	19.19	---	---	18.61	18.16	18.25	18.14	20.88	20.77
19	21.84	20.06	19.25	19.19	---	---	18.23	18.08	18.29	18.09	20.89	20.68
20	20.06	19.84	19.36	19.24	---	---	18.25	18.09	18.96	18.11	20.76	20.68
21	20.05	19.85	19.61	19.37	---	---	18.24	18.07	18.35	18.05	20.75	20.67
22	20.00	19.65	19.63	19.40	---	---	18.21	18.07	18.12	18.04	20.74	20.68
23	19.67	19.57	19.57	19.31	---	---	19.54	18.08	18.89	18.04	20.86	20.74
24	19.72	19.50	19.51	19.31	---	---	19.08	18.26	18.29	17.98	21.00	20.79
25	19.57	19.37	19.58	19.33	---	---	19.53	18.25	18.07	17.96	21.16	21.01
26	19.62	19.38	19.50	19.31	---	---	19.37	18.53	18.07	17.96	21.18	20.92
27	19.85	19.65	19.49	19.29	---	---	18.71	18.48	18.15	18.04	20.92	20.78
28	19.81	19.45	19.47	19.29	---	---	19.24	18.47	18.13	18.03	20.79	20.70
29	19.65	19.51	19.57	19.29	---	---	19.10	18.52	18.10	17.97	20.80	20.73
30	19.85	19.55	19.59	19.36	---	---	18.86	18.49	18.10	17.97	20.80	20.74
31	---	---	19.83	19.22	---	---	18.54	18.27	18.13	17.94	---	---
MONTH	21.99	19.27	20.21	19.19	20.09	18.77	20.70	18.03	18.96	17.94	21.27	17.75

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 157. SITE ID.--390737076374401. PERMIT NUMBER.--AA-81-3464.
 LOCATION.--Lat 39°07'37", long 76°37'44", Hydrologic Unit 02060003, off Nolfield Dr.,
 0.14 mi east of Phirne Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 6 in., to 167 ft;
 screen diameter 4 in. from 167 to 177 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval from March 1985 to current year.
 DATUM.--Elevation of land surface is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 2.5 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well and Glen Burnie Project observation well.
 PERIOD OF RECORD.--March 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.55 ft above sea level, Jan. 31, 1991;
 lowest measured, 33.79 ft above sea level, Dec. 12, and 22, 1988.

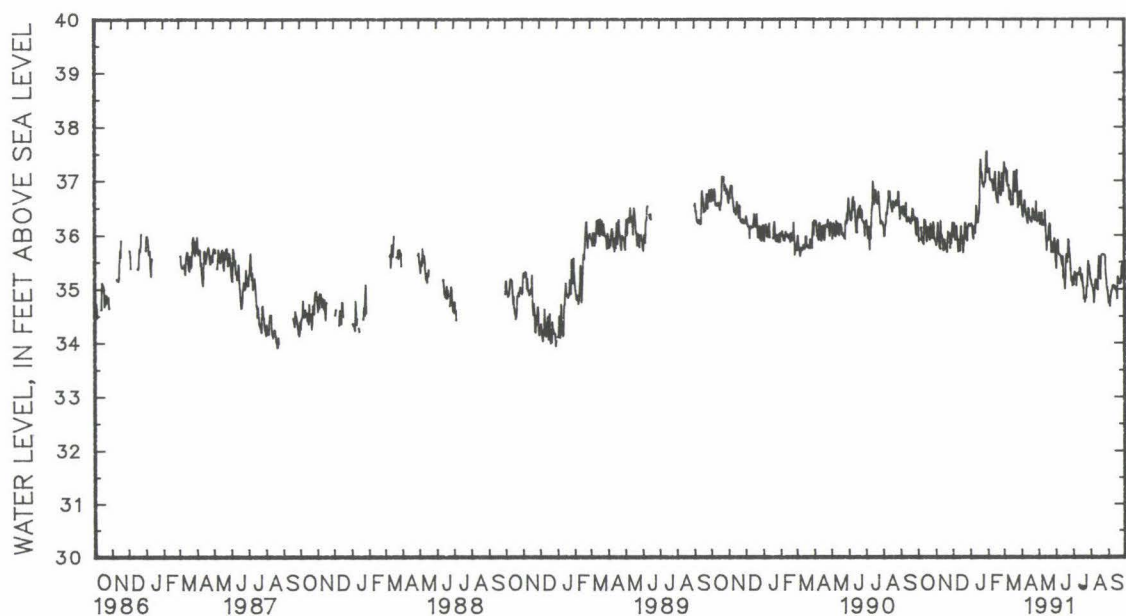
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	36.24	36.03	35.85	35.79	36.21	35.93	36.15	35.86	37.15	36.95	37.14	36.81
2	36.09	35.86	35.79	35.76	36.20	35.89	36.18	35.94	37.22	36.96	37.34	36.86
3	35.86	35.83	35.86	35.76	35.95	35.74	36.20	36.11	37.22	37.09	37.16	36.92
4	35.90	35.84	35.98	35.78	36.21	35.93	36.17	35.94	37.22	36.89	37.23	36.97
5	35.90	35.86	36.21	35.94	35.94	35.71	36.13	35.94	37.02	36.89	37.21	36.84
6	---	---	36.02	35.91	35.89	35.70	35.96	35.91	37.00	36.88	36.98	36.83
7	36.12	35.86	35.90	35.75	35.92	35.71	35.91	35.89	37.00	36.87	37.17	36.72
8	35.88	35.83	35.74	35.67	36.15	35.88	36.14	35.89	36.97	36.87	36.90	36.62
9	35.87	35.83	35.72	35.66	35.96	35.86	36.12	35.95	37.01	36.75	36.91	36.59
10	35.83	35.81	36.25	35.73	35.87	35.67	36.02	35.90	36.89	36.65	36.91	36.63
11	35.81	35.80	36.00	35.94	35.67	35.66	36.21	35.90	36.81	36.63	36.64	36.49
12	36.27	35.80	35.98	35.91	35.84	35.66	36.53	36.22	36.87	36.69	36.81	36.49
13	36.26	36.10	35.91	35.68	35.89	35.70	36.41	36.18	37.00	36.84	36.79	36.51
14	36.26	36.09	35.71	35.67	35.68	35.59	36.38	36.18	37.15	36.85	36.54	36.48
15	36.13	35.87	35.69	35.67	35.93	35.58	36.22	36.16	36.85	36.51	36.58	36.41
16	35.86	35.67	35.74	35.68	36.15	35.87	36.34	36.16	36.73	36.46	36.59	36.38
17	35.86	35.66	35.89	35.73	35.87	35.85	36.40	36.23	36.65	36.42	36.55	36.41
18	36.13	35.81	35.77	35.72	35.97	35.85	36.59	36.41	36.59	36.41	36.91	36.49
19	36.13	35.87	35.72	35.70	35.90	35.65	37.20	36.55	36.58	36.44	37.16	36.72
20	36.11	35.86	35.71	35.67	35.65	35.63	37.39	37.12	36.92	36.48	36.86	36.51
21	35.94	35.86	35.66	35.64	35.83	35.64	37.15	36.92	37.15	36.65	36.79	36.49
22	35.89	35.87	35.87	35.65	35.92	35.83	37.13	36.88	36.91	36.53	36.86	36.49
23	36.19	35.88	36.04	35.80	36.21	35.89	36.94	36.87	36.74	36.45	37.16	36.50
24	36.14	35.91	36.02	35.93	36.21	35.90	36.93	36.86	36.72	36.45	37.19	36.82
25	35.93	35.90	36.02	35.90	35.91	35.87	36.88	36.83	36.81	36.50	36.80	36.49
26	35.92	35.85	35.96	35.73	35.92	35.84	36.95	36.83	37.13	36.71	36.49	36.46
27	35.92	35.84	35.73	35.70	35.88	35.82	36.95	36.88	37.13	36.81	36.77	36.46
28	36.22	35.87	35.97	35.71	36.14	35.88	36.98	36.87	36.80	36.69	36.64	36.49
29	36.15	35.88	35.82	35.72	36.16	35.91	37.16	36.86	---	---	36.55	36.49
30	35.90	35.85	36.03	35.73	36.19	36.12	37.53	37.16	---	---	36.79	36.47
31	35.87	35.81	---	---	36.17	35.86	37.55	37.07	---	---	36.80	36.51
MONTH	36.27	35.66	36.25	35.64	36.21	35.58	37.55	35.86	37.22	36.41	37.34	36.38

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Bd 157--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	36.80	36.48	36.27	36.23	35.48	35.38	35.20	34.98	35.17	35.13	34.83	34.65
2	36.47	36.33	36.27	36.17	35.36	35.32	35.06	35.00	35.13	35.05	34.71	34.65
3	36.35	36.30	36.39	36.17	35.74	35.32	35.21	34.97	35.06	35.05	34.77	34.63
4	36.32	36.29	36.18	36.14	35.86	35.57	35.29	34.97	35.05	34.99	34.65	34.59
5	36.45	36.31	36.18	36.13	35.88	35.57	35.25	35.02	34.99	34.92	34.81	34.63
6	36.56	36.35	36.22	36.15	35.64	35.51	35.26	35.03	34.92	34.73	34.87	34.81
7	36.62	36.38	36.39	36.17	35.61	35.34	35.04	34.98	34.72	34.65	34.93	34.86
8	36.45	36.35	36.16	36.13	35.61	35.31	35.24	35.04	34.86	34.72	34.96	34.92
9	36.35	36.34	36.16	36.13	35.59	35.29	35.25	35.18	35.06	34.86	35.03	34.94
10	36.35	36.24	36.22	36.13	35.56	35.26	35.27	35.18	35.15	35.03	35.03	34.98
11	36.24	36.19	36.17	36.14	35.48	35.24	35.26	35.18	35.07	34.98	35.05	34.96
12	36.20	36.02	36.20	36.14	35.42	35.27	35.24	35.15	34.99	34.94	35.01	34.94
13	36.48	36.07	36.43	36.16	35.57	35.15	35.37	35.15	35.00	34.95	35.03	34.94
14	36.45	36.26	36.18	35.89	35.18	35.07	35.35	35.14	34.96	34.94	35.01	34.94
15	36.32	36.26	35.92	35.67	35.21	35.06	35.19	35.10	35.38	34.96	34.94	34.81
16	36.29	36.26	35.69	35.63	35.12	34.95	35.13	34.97	35.59	35.22	34.94	34.72
17	36.26	36.25	35.93	35.63	34.98	34.88	35.24	34.95	35.42	35.24	34.79	34.63
18	36.24	36.21	35.88	35.68	35.22	34.87	35.08	34.79	35.25	35.16	35.21	34.82
19	36.22	36.20	35.89	35.68	35.53	35.20	35.00	34.78	35.17	35.08	35.11	35.00
20	36.26	36.22	36.14	35.85	35.62	35.30	34.79	34.63	35.59	35.08	35.08	35.00
21	36.47	36.27	36.19	35.90	35.48	35.34	34.83	34.63	35.62	35.61	35.14	35.02
22	36.45	36.29	36.16	35.70	35.57	35.33	34.73	34.60	35.63	35.61	35.08	35.07
23	36.28	36.27	35.86	35.63	35.90	35.38	34.84	34.65	35.63	35.62	35.09	35.06
24	36.32	36.26	35.65	35.58	35.88	35.55	34.81	34.65	35.63	35.62	35.18	35.06
25	36.26	36.22	35.67	35.58	35.66	35.46	35.02	34.64	35.62	35.60	35.40	35.19
26	36.30	36.22	35.83	35.61	35.58	35.27	35.03	34.97	35.62	35.53	35.44	35.25
27	36.60	36.26	35.65	35.54	35.36	35.13	35.27	35.03	35.58	35.21	35.24	35.14
28	36.30	36.22	35.69	35.51	35.13	34.99	35.50	35.23	35.25	35.15	35.22	35.12
29	36.23	36.21	35.69	35.50	35.18	34.98	35.42	35.22	35.15	34.92	35.22	35.12
30	36.25	36.21	35.91	35.55	35.04	34.99	35.42	35.24	35.00	34.91	35.43	35.11
31	---	---	35.68	35.49	---	---	35.28	35.18	34.94	34.88	---	---
MONTH	36.80	36.02	36.43	35.49	35.90	34.87	35.50	34.60	35.63	34.65	35.44	34.50

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

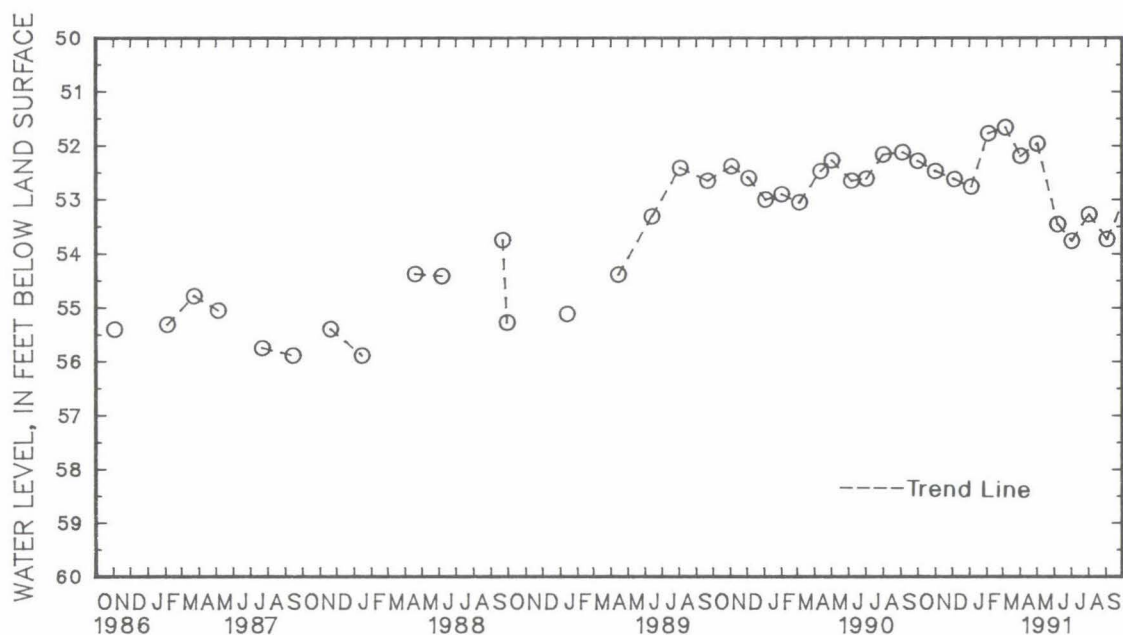
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 158. SITE ID.--390744076390001. PERMIT NUMBER.--AA-81-3459.
 LOCATION.--Lat 39°07'44", long 76°39'00", Hydrologic Unit 02060003, 0.05 mi off Stevenson Rd.,
 0.45 mi west of New Cut Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 187 ft; casing diameter 6 in., to 174 ft;
 screen diameter 4 in. from 174 to 184 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval from January 1985 to current year.
 DATUM.--Elevation of land surface is 108 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 2.7 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well and Glen Burnie Project observation well.
 PERIOD OF RECORD.--January 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.66 ft below land surface, March 6, 1991;
 lowest measured, 53.77 ft below land surface, July 2, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	52.28	DEC 5	52.62	FEB 4	51.77	APR 2	52.19	JUN 7	53.46	AUG 2	53.28
NOV 1	52.47	JAN 4	52.76	MAR 6	51.66	MAY 2	51.96	JUL 2	53.77	SEP 3	53.74
WATER YEAR 1991		HIGHEST	51.66	MAR 6, 1991		LOWEST	53.77	JUL 2, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 159. SITE ID.--390737076374402. PERMIT NUMBER.--AA-81-3949.

LOCATION.--Lat 39°07'37", long 76°37'44", Hydrologic Unit 02060003, off Nolfield Dr., 0.14 mi east of Phrine Rd.

0.14 mi east of Pine Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 100 ft; casing diameter 6 in., to 89 ft; screen diameter 4 in. from 89 to 99 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder with interval interval from March 1985 to July 24, 1989.

DATUM.--Elevation of land surface is 78.23 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.5 ft above land-surface datum.

Measuring Point: Top of casing, 2.5 ft above land-surface datum.

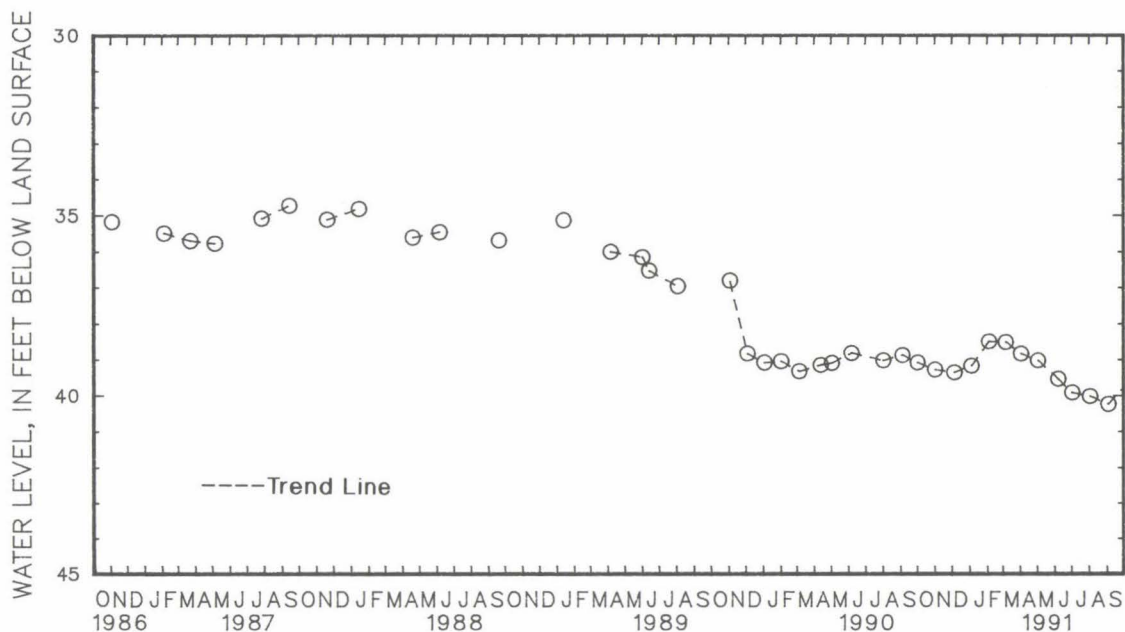
REMARKS.--Maryland Water-Level Network observation well and Glen Burnie Project observation well.

PERIOD OF RECORD.--March 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.77 ft below land surface, Sept. 14, 1987; lowest measured, 40.30 ft below land surface, Sept. 3, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL			
OCT	1	39.14	DEC	5	39.42	FEB	4	38.54	APR	2	38.89	JUN	7	39.60	AUG	2	40.08
NOV	1	39.34	JAN	4	39.23	MAR	6	38.56	MAY	2	39.08	JUL	2	39.98	SEP	3	40.30
WATER YEAR 1991		HIGHEST		38.54		FEB 4, 1991		LOWEST		40.30		SEP 3, 1991					



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 160. SITE ID.--390908076394402. PERMIT NUMBER.--AA-81-3461.
 LOCATION.--Lat 39°09'08", long 76°39'44", Hydrologic Unit 02060003, 0.08 mi north of Queenstown Rd.,
 0.41 mi. east of WB & A Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217FPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 118 ft; casing diameter 6 in., to 105 ft.
 screen diameter 4 in. from 105 to 115 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval from April 1985 to current year.
 DATUM.--Elevation of land surface is 88 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 2.5 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well and Glen Burnie Project observation well.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.68 ft above sea level, May 29, 1990;
 lowest measured, 68.57 ft above sea level, Oct. 7, 1986.

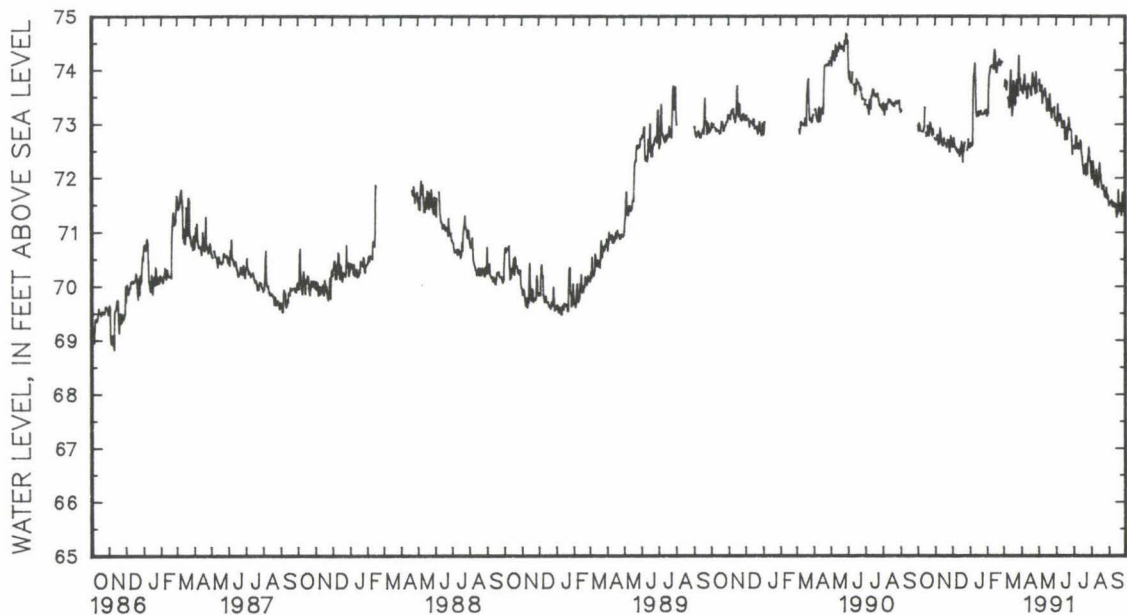
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	72.72	72.70	---	---	72.56	72.47	73.15	73.14	---	---
2	72.97	72.87	72.70	72.69	72.57	72.45	72.64	72.56	73.18	73.14	---	---
3	72.87	72.86	72.70	72.69	72.67	72.45	72.64	72.57	73.20	73.18	73.70	73.54
4	73.01	72.86	72.71	72.69	72.74	72.61	72.59	72.56	73.73	73.20	73.83	73.48
5	72.97	72.91	72.79	72.71	72.63	72.57	72.59	72.56	73.92	73.75	73.76	73.36
6	72.90	72.88	72.79	72.62	72.57	72.55	72.64	72.60	73.97	73.92	73.63	73.35
7	---	---	72.62	72.62	72.54	72.50	72.62	72.59	74.07	73.98	73.78	73.33
8	72.86	72.86	72.62	72.55	72.55	72.50	73.54	72.59	74.06	74.02	---	---
9	72.86	72.86	72.65	72.55	72.50	72.48	73.93	73.58	74.09	74.07	73.48	73.21
10	72.86	72.85	72.93	72.68	72.52	72.46	73.95	73.87	74.09	74.06	73.49	73.24
11	72.85	72.85	72.83	72.73	72.46	72.41	74.13	73.81	74.07	74.00	73.30	73.18
12	72.89	72.85	72.73	72.66	72.47	72.43	73.81	73.21	74.02	73.96	73.39	73.18
13	72.95	72.90	72.66	72.59	72.51	72.40	73.21	73.14	74.25	74.04	73.81	73.21
14	73.31	72.95	72.59	72.56	72.39	72.28	73.14	73.14	74.38	74.27	74.00	73.47
15	---	---	72.59	72.56	72.52	72.28	73.14	73.13	74.27	74.05	73.44	73.11
16	72.84	72.76	72.70	72.60	72.56	72.41	---	---	74.04	73.90	73.15	73.09
17	72.77	72.75	72.73	72.64	72.45	72.41	73.22	73.16	73.96	73.91	73.28	73.08
18	---	---	72.64	72.61	72.67	72.46	73.16	73.16	73.96	73.91	73.80	73.19
19	72.96	72.80	72.63	72.61	72.59	72.28	73.19	73.16	74.08	73.96	73.79	73.33
20	72.80	72.77	72.61	72.55	72.28	72.26	73.23	73.20	74.14	74.06	73.41	73.17
21	72.78	72.76	72.56	72.55	72.54	72.27	73.24	73.19	74.11	74.03	73.35	73.17
22	72.83	72.78	72.63	72.56	72.49	72.48	73.18	73.15	74.20	74.09	73.40	73.16
23	73.03	72.83	72.70	72.63	72.61	72.49	73.18	73.15	74.09	73.94	73.68	73.19
24	73.02	72.91	72.70	72.60	72.65	72.41	---	---	74.09	73.95	73.82	73.47
25	72.93	72.90	72.61	72.55	---	---	73.18	73.15	74.14	74.10	73.76	73.45
26	72.91	72.79	72.55	72.46	72.37	72.30	73.19	73.15	74.16	74.11	73.53	73.41
27	72.78	72.75	72.48	72.46	---	---	73.20	73.19	74.15	74.07	74.10	73.43
28	72.90	72.77	72.58	72.48	72.51	72.45	73.24	73.20	---	---	74.27	73.69
29	72.81	72.67	72.78	72.56	72.57	72.48	73.20	73.20	---	---	73.85	73.67
30	---	---	72.60	72.50	72.71	72.58	73.26	73.20	---	---	73.84	73.51
31	72.73	72.70	---	---	---	---	73.26	73.15	---	---	73.63	73.53
MONTH	73.31	72.67	72.93	72.46	72.74	72.26	74.13	72.47	74.38	73.14	74.27	73.08

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Bd 160--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	73.71	73.53	---	---	73.09	72.87	72.57	72.33	72.04	71.98	71.48	71.36
2	73.62	73.44	73.74	73.57	73.05	72.86	72.59	72.33	71.98	71.92	71.55	71.36
3	73.60	73.43	73.83	73.51	72.96	72.86	72.58	72.37	72.14	71.92	71.54	71.39
4	73.57	73.44	73.60	73.40	73.37	72.93	72.54	72.33	72.30	71.94	71.54	71.45
5	73.71	73.52	73.63	73.40	73.05	72.77	72.78	72.42	72.20	71.89	71.52	71.43
6	73.79	73.60	73.69	73.43	73.06	72.76	72.77	72.39	71.95	71.81	71.58	71.43
7	73.92	73.61	73.72	73.39	73.07	72.76	72.57	72.33	71.86	71.81	71.47	71.40
8	73.65	73.61	73.39	73.33	73.18	72.77	72.62	72.34	71.88	71.81	71.49	71.34
9	73.63	73.61	73.48	73.33	73.12	72.75	72.54	72.34	72.02	71.82	71.54	71.34
10	73.68	73.48	73.60	73.34	73.07	72.74	72.63	72.34	72.14	71.93	71.45	71.37
11	73.47	73.26	73.53	73.34	72.93	72.72	72.54	72.29	72.04	71.83	71.49	71.37
12	73.49	73.35	73.60	73.36	73.02	72.71	72.54	72.28	71.82	71.78	71.52	71.33
13	73.75	73.41	73.66	73.38	73.04	72.62	72.69	72.33	71.94	71.77	71.50	71.29
14	73.71	73.50	73.58	73.39	72.93	72.62	72.66	72.22	71.82	71.82	71.36	71.28
15	73.69	73.51	73.47	73.22	73.06	72.67	72.46	72.14	72.17	71.82	71.27	71.24
16	73.67	73.58	73.23	73.15	72.70	72.55	72.38	72.13	72.27	71.86	71.42	71.24
17	73.61	73.56	73.46	73.16	72.83	72.56	72.23	72.10	72.09	71.85	71.33	71.27
18	73.56	73.46	73.36	73.14	72.90	72.56	72.19	72.05	72.05	71.82	71.77	71.37
19	73.53	73.46	73.44	73.14	72.93	72.68	72.06	72.01	71.90	71.77	71.39	71.29
20	73.73	73.54	73.25	73.20	72.71	72.67	72.22	71.97	71.79	71.76	71.44	71.29
21	73.95	73.69	73.55	73.22	72.85	72.66	72.11	71.92	71.78	71.73	71.52	71.30
22	73.88	73.70	73.36	73.21	72.99	72.66	72.25	71.92	71.80	71.72	71.36	71.27
23	73.70	73.65	73.21	73.10	73.12	72.69	72.04	71.98	71.85	71.68	71.30	71.26
24	73.83	73.62	73.11	73.08	73.02	72.65	72.09	72.00	71.69	71.56	71.43	71.26
25	73.65	73.48	73.21	73.07	72.89	72.54	72.07	71.97	71.64	71.56	71.67	71.39
26	73.57	73.48	73.28	73.06	72.90	72.54	72.34	71.99	71.64	71.59	71.72	71.38
27	73.97	73.58	73.22	73.01	72.88	72.51	72.40	72.18	71.66	71.61	71.38	71.26
28	73.72	73.47	73.24	73.01	72.70	72.44	72.57	72.12	71.81	71.60	71.57	71.25
29	73.60	73.47	73.31	73.02	72.43	72.33	72.38	72.11	71.61	71.57	71.52	71.25
30	---	---	73.07	72.98	72.57	72.33	72.29	72.08	71.68	71.57	71.30	71.22
31	---	---	73.11	72.98	---	---	72.30	72.05	71.65	71.47	---	---
MONTH	73.97	73.26	73.83	72.98	73.37	72.33	72.78	71.92	72.30	71.47	71.77	71.22

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bf 3. SITE ID.--390945076285601.

LOCATION.--Lat 39°09'45", long 76°28'56", Hydrologic Unit 02060003, 8 mi east of Glen Burnie at Fort Smallwood Park.

Owner: Baltimore City Department of Recreation and Parks.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Dug, brick-lined, unused, water-table well, diameter 48 in., depth 22.8 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Hole in concrete cover at land surface.

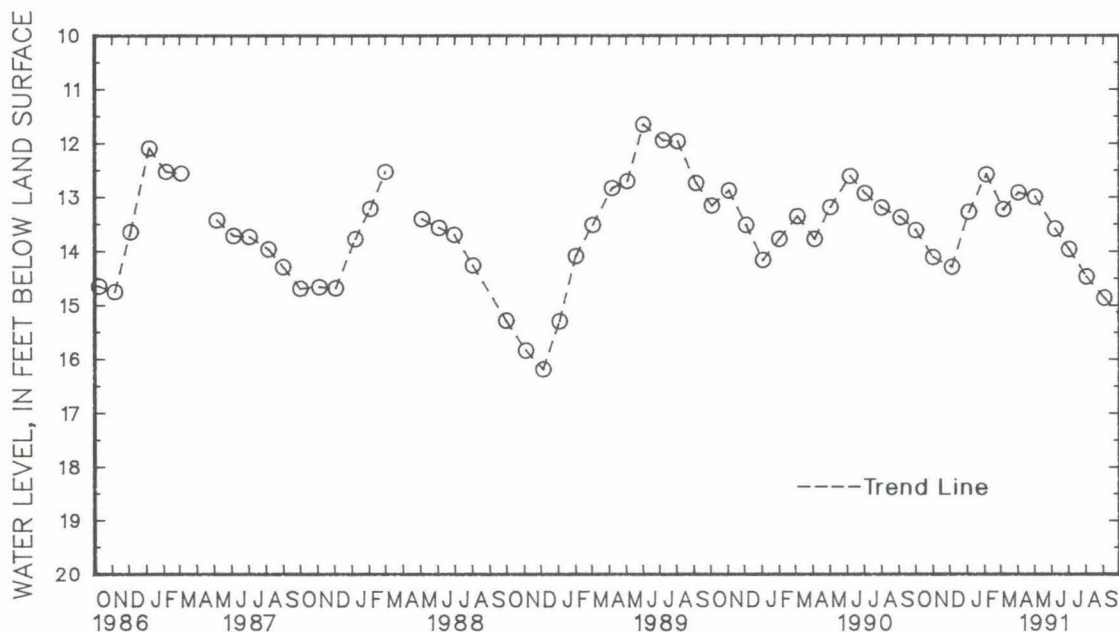
REMARKS.--Maryland Water-Level Network observation well. Water level measured 14.10 ft below land-surface datum, Jan. 27, 1944.

PERIOD OF RECORD.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.40 ft below land surface, March 31, 1958; lowest measured, 19.09 ft below land surface, Dec. 7, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	13.62	DEC 5	14.30	FEB 4	12.58	APR 2	12.92	JUN 7	13.59	AUG 2	14.48
NOV 1	14.12	JAN 4	13.28	MAR 6	13.23	MAY 2	13.00	JUL 2	13.97	SEP 3	14.87
WATER YEAR 1991		HIGHEST	12.58	FEB 4, 1991	LOWEST	14.87	SEP 3, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cb 1. SITE ID.--390303076463201. PERMIT NUMBER.--AA-03-5695.

LOCATION.--Lat 39°03'03", long 76°46'32", Hydrologic Unit 02060006, on Duvall Bridge Rd.,

Fort George G. Meade.

Owner: U.S. Army.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 505 ft; casing diameter 6 in. to 485 ft; screen diameter 6 in. from 485 to 505 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 2, 1984 to current year.

DATUM.--Elevation of land surface is 126 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top lip of 3 in. extension pipe, 3.35 ft above land surface.

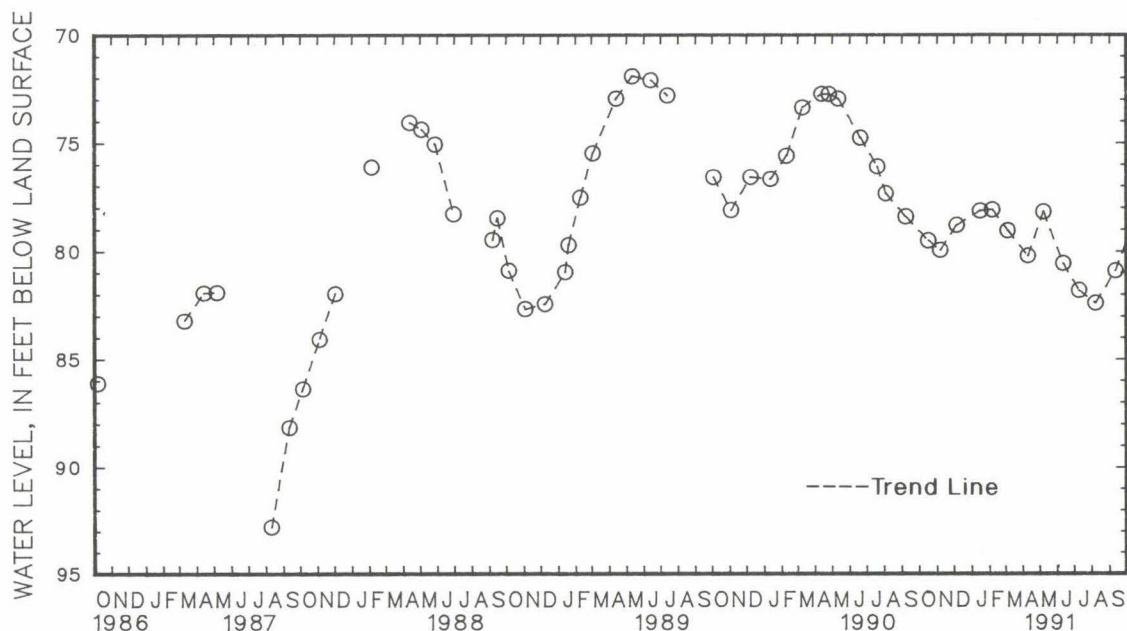
REMARKS.--Maryland Water-Level Network observation well and Glen Burnie Project observation well.

PERIOD OF RECORD.--March 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.60 ft below land surface, May 1, 1962; lowest measured, 92.84 ft below land surface, Aug. 10, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 16	79.60	DEC 5	78.87	FEB 5	78.15	APR 9	80.30	JUN 11	80.65	AUG 7	82.49	NOV 6	80.04	JAN 15	78.20
				MAR 4		MAY 7		JUL 9		SEP 11					
WATER YEAR 1991		HIGHEST		78.15		FEB 5, 1991		LOWEST		82.49		AUG 7, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ce 117. SITE ID.--390450076343402. PERMIT NUMBER.--AA-73-0172.
 LOCATION.--Lat 39°04'50", long 76°34'34", Hydrologic Unit 02060004, 0.1 mi southwest of intersection
 of Severndale Rd. and Southway Rd.
 Owner: Anne Arundel County Department of Public Utilities.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,060 ft; casing diameter 6 in., to 836 ft,
 851 to 870 ft, and 890 to 907 ft; screen diameter 6 in. from 836 to 851 ft, 870 to 890 ft, and 907 to 922 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--30-minute recorder interval from Aug. 18, 1977 to current year.
 DATUM.--Elevation of land surface is 85 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 0.5 ft above land surface.
 REMARKS.--Glen Burnie Project observation well.
 PERIOD OF RECORD.--August 1977 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.58 ft above sea level, March 27, 1978;
 lowest measured, 3.14 ft above sea level, Sept. 4, 1987.

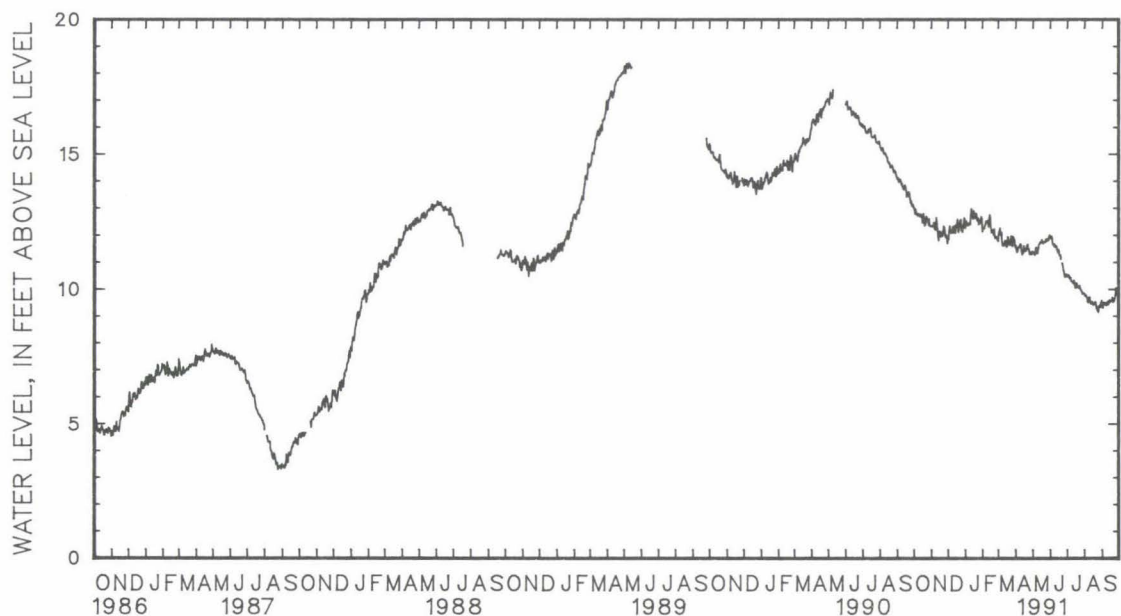
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.98	12.73	12.32	12.14	11.91	11.56	12.24	12.05	12.12	12.00	11.76	11.66
2	12.98	12.79	12.29	12.20	11.83	11.58	12.40	12.19	12.23	11.98	12.02	11.76
3	12.78	12.57	12.30	12.15	12.14	11.64	12.50	12.12	12.25	12.08	12.13	11.93
4	12.93	12.66	12.30	12.09	12.32	12.09	12.34	12.23	12.23	12.03	12.24	11.96
5	12.85	12.63	12.44	12.20	12.09	11.92	12.37	12.18	12.31	12.11	11.98	11.75
6	12.75	12.66	12.44	12.22	12.09	11.86	12.42	12.30	12.38	12.15	12.09	11.74
7	12.73	12.60	12.21	12.07	12.06	11.91	12.35	12.27	12.49	12.24	12.07	11.73
8	12.70	12.53	12.19	11.96	12.18	11.96	12.38	12.19	12.48	12.27	11.72	11.59
9	12.78	12.41	12.18	11.88	12.17	11.94	12.43	12.31	12.51	12.34	11.60	11.51
10	12.74	12.59	12.63	12.16	12.29	12.09	12.39	12.29	12.52	12.28	11.65	11.57
11	12.69	12.59	12.41	12.14	12.08	11.95	12.74	12.21	12.44	12.27	11.59	11.47
12	12.67	12.55	12.22	11.97	12.26	11.82	12.95	12.71	12.29	11.99	11.61	11.42
13	12.76	12.62	11.98	11.83	12.33	12.08	12.79	12.47	12.58	12.25	11.77	11.59
14	12.74	12.58	11.78	11.64	12.06	11.87	12.69	12.36	12.74	12.53	11.78	11.60
15	12.69	12.43	12.00	11.74	12.35	11.91	12.59	12.31	12.62	12.32	11.63	11.49
16	12.44	12.31	12.12	11.89	12.32	12.08	12.88	12.46	12.31	11.93	11.55	11.47
17	12.44	12.32	12.11	11.86	12.28	11.86	12.78	12.58	12.09	11.90	11.60	11.40
18	12.78	12.37	11.93	11.80	12.57	12.24	12.62	12.44	12.08	11.74	11.92	11.53
19	12.61	12.32	12.05	11.84	12.42	12.07	12.62	12.34	12.12	11.92	11.80	11.64
20	12.33	12.24	12.01	11.93	12.09	11.96	12.79	12.51	12.18	11.94	11.67	11.53
21	12.37	12.20	11.96	11.83	12.31	12.05	12.78	12.54	11.98	11.75	11.65	11.47
22	12.46	12.28	12.12	11.82	12.40	12.20	12.53	12.30	12.20	11.86	11.62	11.46
23	12.67	12.39	12.31	12.04	12.54	12.33	12.62	12.32	11.92	11.58	11.78	11.44
24	12.63	12.44	12.28	12.08	12.56	12.13	12.60	12.35	11.87	11.74	11.95	11.67
25	12.58	12.45	12.17	11.94	12.16	11.97	12.38	12.07	11.93	11.78	11.66	11.49
26	12.52	12.27	11.95	11.76	12.17	12.06	12.47	12.12	11.93	11.81	11.58	11.40
27	12.36	12.17	11.90	11.72	12.10	11.91	12.49	12.30	11.86	11.72	11.93	11.52
28	12.58	12.38	11.99	11.81	12.29	12.11	12.54	12.34	11.79	11.63	11.91	11.73
29	12.36	12.18	11.92	11.72	12.39	12.22	12.44	12.20	---	---	11.84	11.65
30	12.31	12.12	11.68	11.46	12.62	12.38	12.66	12.32	---	---	11.80	11.48
31	12.32	12.25	---	---	12.55	12.09	12.61	12.13	---	---	11.55	11.40
MONTH	12.98	12.12	12.63	11.46	12.62	11.56	12.95	12.05	12.74	11.58	12.24	11.40

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Ce 117--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.60	11.51	11.37	11.22	11.93	11.69	10.46	10.28	9.78	9.60	9.31	9.14
2	11.51	11.35	11.35	11.25	11.88	11.56	10.51	10.26	9.73	9.49	9.29	9.13
3	11.35	11.21	11.32	11.20	11.94	11.75	10.46	10.27	9.77	9.57	9.42	9.21
4	11.37	11.21	11.25	11.19	11.88	11.68	10.49	10.12	9.73	9.57	9.48	9.25
5	11.51	11.33	11.31	11.20	11.67	11.43	10.39	10.27	9.66	9.45	9.48	9.13
6	11.51	11.35	11.53	11.30	11.65	11.52	10.41	10.17	9.52	9.24	9.44	9.10
7	11.56	11.39	11.40	11.23	11.60	11.35	10.41	10.14	9.48	9.32	9.40	9.22
8	11.60	11.39	11.32	11.16	11.65	11.42	10.30	10.07	9.56	9.34	9.46	9.18
9	11.65	11.52	11.31	11.22	11.55	11.38	10.27	10.08	9.69	9.38	9.39	9.17
10	11.64	11.32	11.44	11.21	11.56	11.24	10.26	10.02	9.66	9.45	9.48	9.22
11	11.38	11.20	11.54	11.27	11.59	11.36	10.26	10.06	9.51	9.37	9.52	9.27
12	11.26	11.07	11.65	11.44	11.55	11.31	10.20	9.99	9.44	9.19	9.42	9.24
13	11.36	11.11	11.66	11.51	11.42	11.22	10.30	10.07	9.44	9.29	9.49	9.26
14	11.33	11.21	11.73	11.53	11.35	11.15	10.23	10.05	9.50	9.28	9.57	9.22
15	11.58	11.26	11.70	11.57	11.44	11.15	10.06	9.93	9.43	9.27	9.51	9.24
16	11.49	11.32	11.71	11.58	11.39	11.17	10.03	9.82	9.39	9.24	9.56	9.29
17	11.47	11.31	11.81	11.63	11.26	11.07	10.08	9.87	9.43	9.20	9.56	9.36
18	11.39	11.22	11.75	11.57	11.22	10.89	10.20	9.75	9.44	9.32	9.56	9.31
19	11.41	11.26	11.68	11.54	11.23	10.96	10.11	9.83	9.48	9.33	9.67	9.35
20	11.49	11.35	11.71	11.53	11.11	10.85	10.05	9.83	9.50	9.27	9.50	9.27
21	11.62	11.43	11.73	11.55	---	---	10.06	9.81	9.37	9.14	9.51	9.32
22	11.64	11.47	11.76	11.57	10.94	10.70	10.02	9.81	9.26	9.13	9.57	9.40
23	11.47	11.27	11.73	11.56	10.88	10.58	10.11	9.84	9.26	9.10	9.64	9.43
24	11.47	11.28	11.82	11.66	10.71	10.49	10.01	9.81	9.17	8.93	9.76	9.50
25	11.28	11.16	11.84	11.73	10.63	10.40	9.96	9.77	9.13	8.99	10.03	9.66
26	11.27	11.14	11.78	11.68	10.51	10.24	9.93	9.76	9.35	8.99	9.98	9.75
27	11.34	11.16	11.83	11.68	10.44	10.26	9.87	9.70	9.37	9.16	9.89	9.54
28	11.32	11.16	11.82	11.73	10.52	10.32	9.81	9.64	9.32	9.16	9.79	9.58
29	11.27	11.08	11.81	11.66	10.51	10.31	9.85	9.60	9.33	9.17	9.84	9.56
30	11.37	11.19	11.96	11.73	10.53	10.26	9.84	9.64	9.49	9.20	9.76	9.63
31	---	---	11.98	11.77	---	---	9.83	9.65	9.55	9.33	---	---
MONTH	11.65	11.07	11.98	11.16	11.94	10.24	10.51	9.60	9.78	8.93	10.03	9.10

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

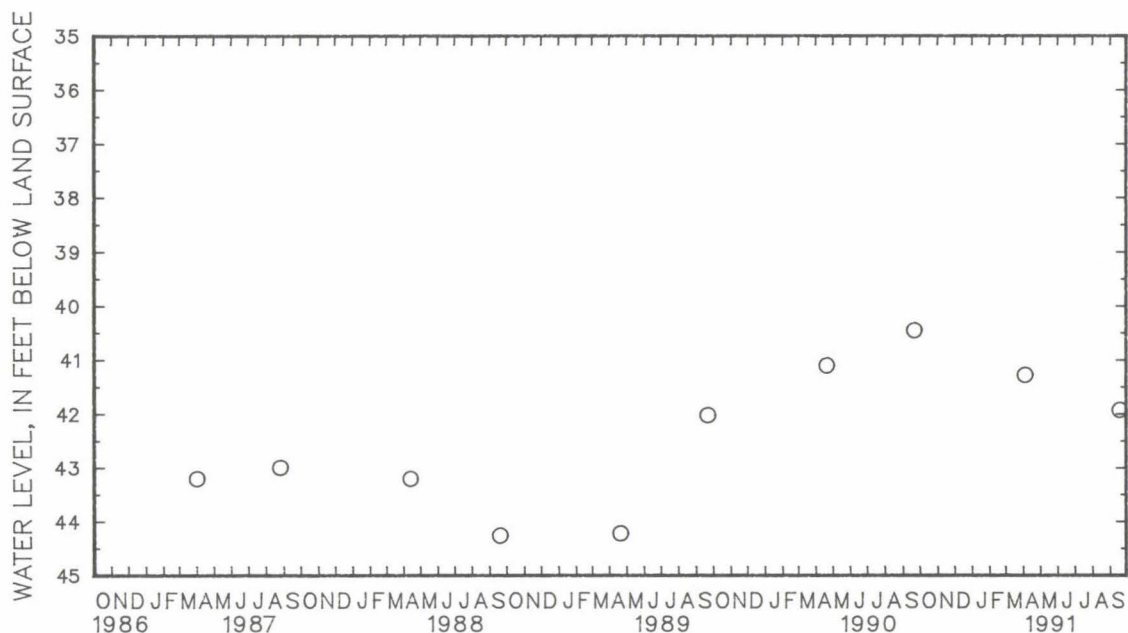
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cf 98. SITE ID.--390150076283003. PERMIT NUMBER.--AA-70-0099.
 LOCATION.--Lat 39°01'50", long 76°28'30", Hydrologic Unit 02060004, 3.1 mi northeast of Annapolis, at Broad Neck.
 Owner: Anne Arundel Co. of Recreation and Parks.
 AQUIFER.--Monmouth Formation of Upper Cretaceous age. Aquifer code: 211MNMT.
 WELL CHARACTERISTICS.--Drilled, artesian, observation well, depth 100 ft; casing diameter 2 in., to 90 ft;
 screen diameter 2 in. from 90 to 100 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 93.42 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.59 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--September 1962 to September 1986, April 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.14 ft below land surface, Aug. 3, 1972;
 lowest measured, 44.22 ft below land surface, April 2, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 4	41.28	SEP 18	41.93



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

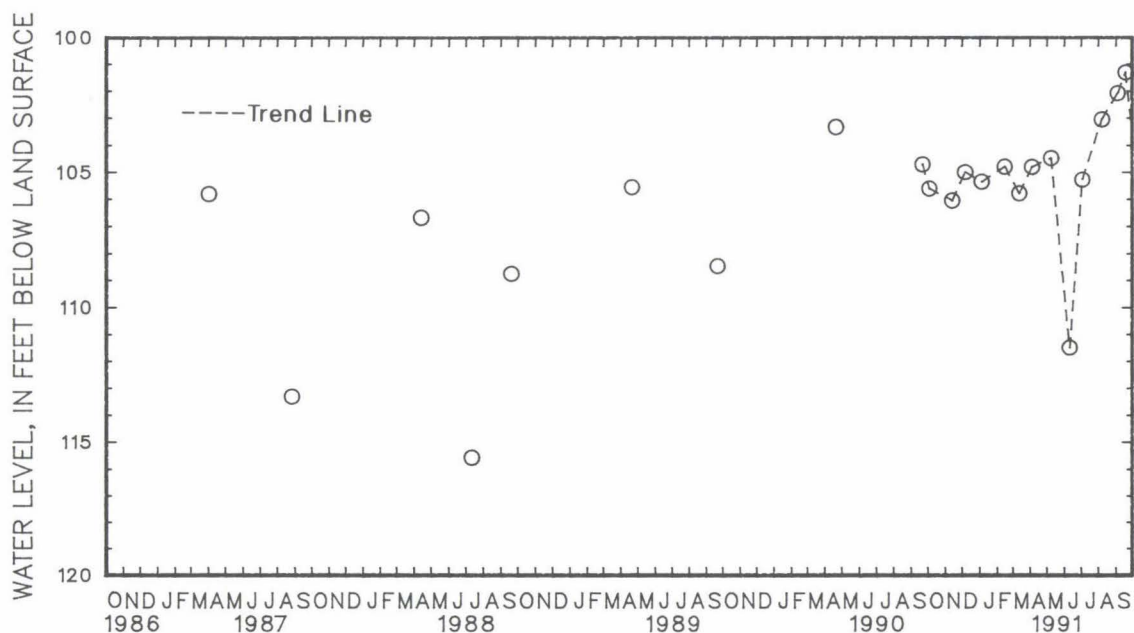
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cf 99. SITE ID.--390150076283002. PERMIT NUMBER.--AA-70-0099.
 LOCATION.--Lat 39°01'50", long 76°28'30", Hydrologic Unit 02060004, 3.1 mi northeast of Annapolis.
 Owner: Anne Arundel Co. of Recreation and Parks.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, artesian, observation well, depth 220 ft; casing diameter 2 in., to 210 ft; screen diameter 2 in. from 210 to 220 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from Sept. 28, 1969 to July 13, 1971.
 DATUM.--Elevation of land surface is 97.29 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.59 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--September 1969 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 90.08 ft below land surface, Dec. 10, 1971 and March 3, 1972; lowest measured, 115.65 ft below land surface, July 11, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	105.64	DEC 6	105.02	FEB 14	104.81	APR 4	104.82	JUN 10	111.58	AUG 7	103.05
NOV 13	106.09	JAN 4	105.38	MAR 12	105.82	MAY 8	104.49	JUL 3	105.28	SEP 4	102.08
WATER YEAR 1991		HIGHEST	102.08	SEP 4, 1991	LOWEST	111.58	JUN 10, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

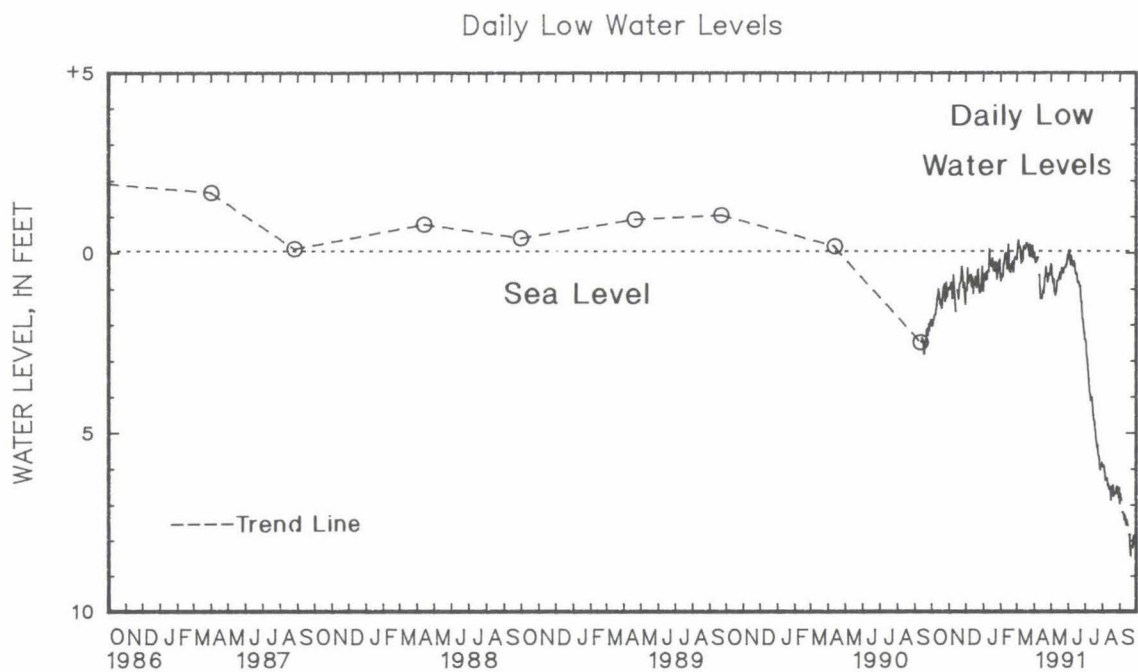
WELL NUMBER.--AA Cg 23. SITE ID.--390123076241602. PERMIT NUMBER.--AA-73-8959.
 LOCATION.--Lat 39°01'23", long 76°24'16", Hydrologic Unit 02060004, 1500 ft northeast of Oceanic Dr and South Beach Rd intersection in Sandy Point State Park.
 Owner: U.S. Geological Survey
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 986 ft; casing diameter 4 in., to 968 ft; screen diameter 4 in. from 968 to 978 ft.
 INSTRUMENTATION.-- Equipped with a graphic water-level recorder from Sept. 9, 1978 to Feb. 21, 1980. Equipped with digital water-level recorder--60-minute recorder interval from Sept. 11, 1990 to current year.
 DATUM.--Elevation of land surface is 12.67 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.43 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network.
 PERIOD OF RECORD.-- September 1978 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.07 ft above sea level, May 3, 1980; lowest measured, 8.45 ft below sea level, Sept. 20, 1991.

WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READING ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.83	2.05	.79	.98	.64	1.09	.67	1.08	.62	.79	+.05	.19
2	1.60	1.97	.82	1.03	.84	1.01	.44	.76	.48	.72	+.41	.01
3	1.78	2.04	.73	1.01	.36	1.05	.45	.60	.52	.64	+.50	+.22
4	1.33	1.89	.41	.87	+.00	.44	.57	.76	.54	.68	+.72	+.33
5	1.58	1.88	.44	.84	.48	.85	.43	.74	.25	.62	+.28	+.18
6	1.53	1.77	.76	.94	.56	.80	.43	.56	.16	.33	+.57	+.17
7	1.52	1.76	.79	1.29	.60	.77	.55	.75	+.01	.28	+.56	+.10
8	1.50	1.72	.64	1.13	.51	.65	.55	.74	+.01	.08	+.07	.10
9	1.35	1.59	.08	.63	.47	.72	.40	.52	+.13	.02	.02	.29
10	1.31	1.48	.50	.88	.32	.62	.33	.53	+.11	.04	+.12	.01
11	1.07	1.28	.69	1.21	.65	.95	+.10	.53	+.11	.15	+.00	.23
12	1.03	1.19	1.15	1.47	.41	.69	+.27	+.09	.19	.46	+.11	.19
13	.88	1.03	1.41	1.65	.39	.75	+.11	.33	+.31	.22	+.49	+.15
14	.88	1.14	---	---	.76	1.15	+.04	.33	+.65	+.22	+.46	+.18
15	.94	1.30	---	---	.40	.93	.12	.38	+.55	.04	+.31	+.14
16	1.24	1.44	.84	1.05	.40	.81	+.31	.33	.10	.51	+.28	+.10
17	1.10	1.36	.82	1.16	.66	.88	+.18	.17	.28	.51	+.34	+.13
18	.94	1.37	1.03	1.30	.07	.68	.16	.37	.33	.55	+.72	+.26
19	1.35	1.57	.56	1.04	.27	.80	.26	.50	.07	.40	+.70	+.26
20	1.17	1.47	.63	.85	.73	.97	+.04	.28	+.08	.32	+.42	+.19
21	.88	1.23	.68	.85	.40	.78	+.17	.33	.19	.46	+.32	+.15
22	.57	.97	.40	.75	.40	.54	.26	.51	+.02	.25	+.28	+.06
23	.63	1.02	.17	.39	.29	.47	+.15	.28	.25	.54	+.42	.09
24	.79	.88	.19	.49	.27	.92	+.13	.36	.02	.33	+.57	+.22
25	.80	1.37	.42	.67	.88	1.13	.40	.74	+.09	.18	+.22	.11
26	.72	1.29	.66	.97	.80	.95	.15	.54	+.08	.14	+.18	.11
27	.41	.84	.75	.98	.91	1.11	.13	.34	+.06	.12	+.50	+.14
28	.85	1.25	.58	.85	.60	.92	.01	.28	+.06	.14	+.57	+.18
29	.86	1.20	.62	1.24	.32	.73	.11	.41	---	---	+.38	+.19
30	.75	1.00	1.17	1.45	.07	.39	+.17	.21	---	---	+.41	.14
31	.74	1.00	---	---	.26	1.06	+.07	.58	---	---	+.14	.14
MONTH	.41	2.05	.08	1.65	+.00	1.15	+.31	1.08	+.65	.79	+.72	.29

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Cg 23--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+.24	+.00	.16	.33	+.04	.12	2.31	2.45	5.75	5.99	6.58	7.02
2	+.10	.18	.17	.39	+.13	.03	2.25	2.52	5.77	5.98	6.64	6.75
3	.14	.28	.41	.67	+.21	+.05	2.53	2.85	5.84	5.96	6.61	6.86
4	.13	.28	.69	.79	+.21	.19	2.81	2.99	5.78	6.00	6.67	6.92
5	+.02	.16	.75	.86	+.04	.33	2.84	3.15	5.84	6.16	---	---
6	.12	.22	.41	.76	+.12	.11	3.07	3.33	6.00	6.37	7.06	7.26
7	+.03	.15	.64	1.11	+.01	.27	3.18	3.55	6.12	6.30	7.03	7.29
8	+.01	.14	.96	1.11	.05	.25	3.35	3.75	6.08	6.33	7.09	7.31
9	---	---	1.00	1.20	.03	.38	3.53	3.93	5.83	6.31	7.16	7.46
10	.07	.63	.90	1.13	.10	.35	3.76	4.00	5.92	6.46	7.08	7.33
11	.63	.98	.74	1.04	+.10	.26	3.80	4.16	6.25	6.48	7.18	7.45
12	.88	1.31	.57	.79	+.05	.32	3.95	4.15	6.41	6.58	7.40	7.60
13	1.01	1.30	.58	.79	.19	.53	3.74	4.08	6.41	6.62	7.24	7.46
14	1.01	1.31	.47	.78	.34	.60	4.02	4.32	6.36	6.56	7.25	7.51
15	.88	1.25	.41	.69	.32	.58	4.33	4.57	6.37	6.60	7.42	7.60
16	.89	1.08	.41	.72	.43	.61	4.48	4.70	6.52	6.92	7.41	7.62
17	.87	1.08	.31	.57	.56	.78	4.50	4.72	6.53	6.69	---	---
18	.95	1.14	.39	.74	.65	.85	4.51	4.89	6.42	6.55	7.77	7.87
19	.67	.95	.30	.62	.65	.83	4.76	5.01	6.24	6.54	7.69	8.23
20	.50	.72	.28	.44	.65	.87	4.84	5.19	6.08	6.50	8.22	8.45
21	.34	.64	.38	.54	.66	.96	5.07	5.32	6.50	6.80	8.02	8.21
22	.14	.42	.36	.54	.73	.94	5.18	5.45	6.60	6.76	8.01	8.21
23	.42	.64	.37	.57	.82	1.26	5.22	5.40	6.54	6.75	7.93	8.16
24	.27	.59	.18	.46	1.07	1.40	5.27	5.63	6.54	6.71	7.95	8.21
25	.58	.82	.03	.42	1.26	1.68	5.40	5.71	6.44	6.73	7.56	7.95
26	.55	.73	.25	.42	1.46	1.87	5.61	5.79	6.31	6.57	7.75	7.89
27	.37	.61	.11	.41	1.73	1.98	5.74	6.04	6.37	6.54	7.87	8.04
28	.30	.62	.05	.35	1.85	2.10	5.84	6.08	6.47	6.62	7.89	8.12
29	.33	.63	.15	.36	1.97	2.24	5.78	5.97	6.56	6.71	7.79	8.01
30	.16	.43	+.04	.25	2.20	2.44	5.70	5.97	6.38	6.84	7.81	8.11
31	---	---	+.12	.07	---	---	5.71	5.88	6.39	6.58	---	---
MONTH	+.24	1.31	+.12	1.20	+.21	2.44	2.25	6.08	5.75	6.92	6.58	8.45



GROUND-WATER LEVELS

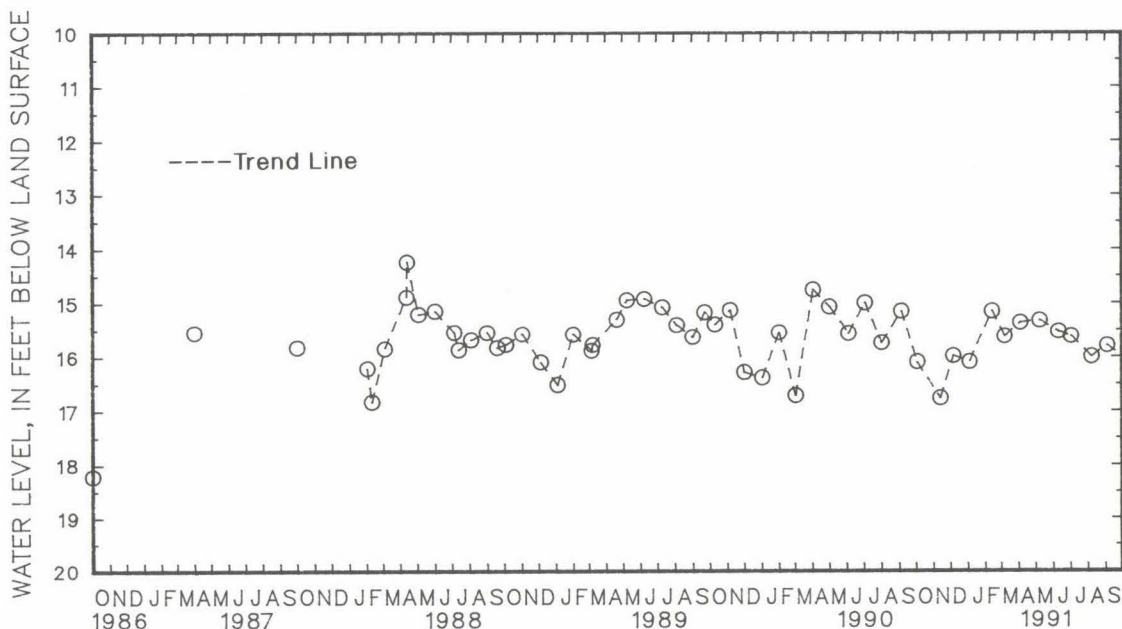
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cg 25. SITE ID.--390127076240301. PERMIT NUMBER.--AA-74-1240.
LOCATION.--Lat 39°01'27", long 76°24'03", Hydrologic Unit 02060004, at Sandy Point State Park, nr maintenance
area.
Owner: Maryland Department of Natural Resources.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 107 ft; casing diameter 3 in., to 100 ft;
screen diameter 3 in. from 100 to 107 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 17.33 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.1 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--April 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.24 ft below land surface, April 13, 1988;
lowest measured, 18.25 ft below land surface, Oct. 1, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 3	16.13	DEC 6	16.00	FEB 13	15.16	APR 4	15.38	JUN 10	15.55	AUG 7	16.03	NOV 13	15.82	FEB 13	15.64
NOV 13	16.80	JAN 4	16.11	MAR 7	15.64	MAY 8	15.34	JUL 2	15.64	SEP 4	15.82	NOV 13	15.82	FEB 13	15.64
WATER YEAR 1991		HIGHEST		15.16		FEB 13, 1991		LOWEST		16.80		NOV 13, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Dd 42. SITE ID.--385808076373502. PERMIT NUMBER.--AA-71-0231.
 LOCATION.--Lat 38°58'08", long 76°37'35", Hydrologic Unit 02060004, 30 ft south of MD Rt 50,
 0.5 mi from intersection with Howard Grove Rd. and Rutland Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 275 ft; casing diameter 4 in., to 190 ft;
 screen diameter 2 in. from 190 to 220 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
 water-level recorder from December 1971 to August 1975. Equipped with digital water-level recorder--30-minute
 recorder interval from August 1975 to current year.
 DATUM.--Elevation of land surface is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 1.0 ft above land surface.
 REMARKS.--Glen Burnie Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--December 1971 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.00 ft above sea level, Feb. 2, 1976;
 lowest measured, 11.67 ft above sea level, July 24, 1991.

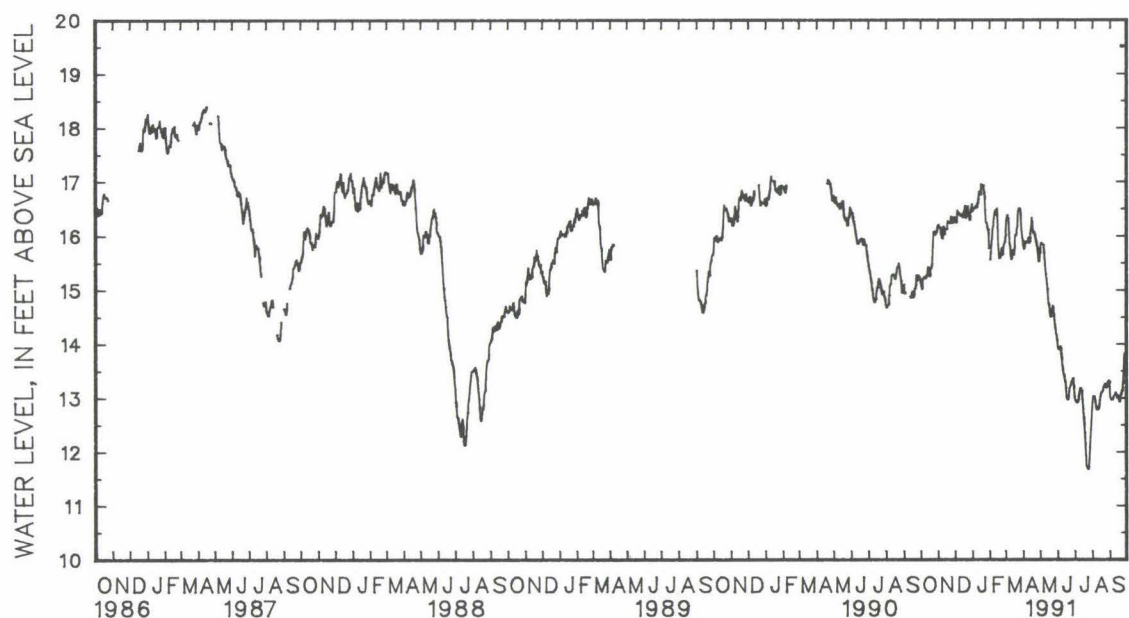
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.17	15.13	16.21	16.19	16.31	16.28	16.57	16.46	---	---	16.28	15.99
2	15.14	15.08	16.21	16.20	16.28	16.28	16.50	16.46	15.67	15.56	16.32	16.28
3	15.08	15.01	16.20	16.16	16.28	16.25	16.53	16.50	15.83	15.67	16.55	16.32
4	15.20	15.02	16.16	16.15	16.53	16.25	16.53	16.51	15.93	15.83	16.55	16.38
5	15.21	15.20	16.20	16.15	16.53	16.47	16.51	16.51	16.09	15.94	16.38	16.34
6	15.24	15.21	16.21	16.11	16.47	16.43	16.54	16.51	16.18	16.09	16.40	16.32
7	15.24	15.24	16.10	16.06	16.43	16.43	16.54	16.54	16.29	16.18	16.32	16.06
8	15.24	15.22	16.06	15.96	16.42	16.42	16.54	16.53	16.39	16.30	16.05	15.87
9	15.22	15.22	16.03	15.95	16.42	16.39	16.60	16.53	16.45	16.40	15.87	15.82
10	15.24	15.22	16.31	16.06	16.40	16.39	16.60	16.59	16.47	16.45	15.82	15.64
11	15.27	15.24	16.28	16.17	16.42	16.37	16.66	16.59	16.48	16.47	15.64	15.57
12	15.29	15.27	16.17	16.14	16.39	16.37	16.88	16.67	16.47	16.39	15.69	15.59
13	15.41	15.29	16.14	16.07	16.51	16.39	16.88	16.81	16.49	16.39	15.80	15.70
14	15.42	15.41	16.07	16.03	16.52	16.37	16.80	16.76	16.57	16.50	15.80	15.73
15	15.42	15.41	---	---	16.41	16.34	16.76	16.76	16.49	16.17	15.73	15.65
16	15.40	15.29	---	---	16.54	16.42	16.98	16.76	16.16	15.84	15.75	15.65
17	15.29	15.25	16.27	16.12	16.54	16.44	17.00	16.95	15.84	15.65	16.02	15.76
18	15.50	15.25	16.32	16.27	16.60	16.44	16.95	16.92	15.65	15.59	16.05	16.02
19	15.50	15.39	16.29	16.24	16.67	16.55	16.92	16.89	15.66	15.59	16.04	16.01
20	15.42	15.39	16.26	16.24	16.55	16.33	16.97	16.89	15.69	15.66	16.15	16.02
21	15.57	15.43	16.26	16.25	16.37	16.33	17.01	16.93	15.77	15.64	16.19	16.15
22	15.79	15.57	16.25	16.23	16.47	16.38	16.97	16.79	15.85	15.77	16.44	16.19
23	16.08	15.79	16.35	16.23	16.54	16.47	16.78	16.72	15.79	15.64	16.58	16.44
24	16.08	16.07	16.43	16.35	16.65	16.54	16.71	16.46	15.78	15.65	16.55	16.51
25	16.12	16.07	16.42	16.34	16.62	16.39	16.46	16.24	15.84	15.78	16.52	16.48
26	16.13	16.08	16.34	16.27	16.39	16.36	16.24	16.24	15.88	15.84	16.56	16.50
27	16.08	16.02	16.26	16.24	16.36	16.29	16.24	16.22	15.89	15.87	16.59	16.46
28	16.15	16.02	16.34	16.24	16.43	16.29	16.22	16.16	15.99	15.89	16.45	16.39
29	16.13	16.07	16.42	16.34	16.48	16.43	16.16	16.11	---	---	16.40	16.12
30	16.15	16.07	16.42	16.32	16.63	16.48	16.12	16.11	---	---	16.11	15.99
31	16.19	16.15	---	---	16.66	16.58	16.12	15.77	---	---	15.99	15.92
MONTH	16.19	15.01	16.42	15.95	16.67	16.25	17.01	15.77	16.57	15.56	16.59	15.57

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Dd 42--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.91	15.83	15.84	15.67	14.06	13.91	13.04	12.95	13.02	12.91	13.30	13.03
2	15.83	15.76	15.87	15.84	13.91	13.89	12.94	12.93	13.03	13.02	13.03	12.99
3	15.84	15.76	15.88	15.87	13.92	13.89	12.93	12.93	13.03	13.03	12.99	12.98
4	15.89	15.84	15.87	15.84	13.98	13.92	12.93	12.91	13.07	13.03	12.98	12.96
5	15.89	15.89	15.84	15.84	13.96	13.93	12.92	12.91	13.07	13.01	12.97	12.96
6	15.89	15.87	15.95	15.84	13.93	13.91	12.96	12.92	13.00	12.93	12.99	12.97
7	---	---	15.95	15.83	13.91	13.81	13.02	12.96	12.93	12.85	13.02	12.99
8	---	---	15.83	15.69	13.81	13.73	13.11	13.02	12.84	12.79	13.04	13.02
9	15.96	15.88	15.69	15.55	13.73	13.58	13.17	13.11	12.86	12.78	13.04	13.04
10	16.00	15.96	15.55	15.42	13.57	13.51	13.17	13.17	12.86	12.82	13.09	13.04
11	15.96	15.90	15.42	15.29	13.51	13.45	13.19	13.17	12.81	12.79	13.09	13.09
12	15.90	15.87	15.29	15.20	13.47	13.41	13.16	13.12	12.86	12.79	13.09	13.05
13	16.09	15.90	15.20	15.11	13.44	13.33	13.18	13.12	12.94	12.86	13.04	13.04
14	16.16	16.10	15.11	15.01	13.33	13.28	13.16	12.93	13.01	12.94	13.04	13.04
15	16.34	16.16	15.01	14.83	13.28	13.18	12.92	12.77	13.08	13.02	13.04	13.00
16	16.35	16.33	14.83	14.73	13.18	13.01	12.77	12.63	13.09	13.09	13.00	13.00
17	16.33	16.25	14.73	14.73	13.01	12.97	12.62	12.53	13.11	13.09	13.00	12.97
18	16.24	16.11	14.74	14.55	12.97	12.96	12.52	12.34	13.12	13.11	13.01	12.93
19	16.11	16.05	14.55	14.50	12.98	12.96	12.33	12.15	13.16	13.12	13.05	13.01
20	16.07	16.05	14.55	14.50	13.12	12.99	12.15	11.92	13.20	13.16	13.07	13.05
21	16.13	16.07	14.65	14.55	13.18	13.12	11.92	11.73	13.23	13.20	13.13	13.07
22	16.13	16.01	14.74	14.65	13.21	13.18	11.73	11.71	13.25	13.23	13.13	13.13
23	16.01	15.93	14.75	14.70	13.24	13.21	11.71	11.70	13.25	13.25	13.25	13.13
24	15.93	15.89	14.69	14.66	13.28	13.24	11.70	11.67	13.25	13.22	13.43	13.26
25	15.89	15.83	14.66	14.54	13.29	13.28	11.83	11.68	13.22	13.19	13.70	13.44
26	15.83	15.79	14.54	14.42	13.35	13.29	12.05	11.84	13.24	13.19	13.82	13.71
27	15.79	15.70	14.42	14.33	13.38	13.35	12.23	12.05	13.29	13.24	13.82	13.82
28	15.70	15.52	14.33	14.29	13.38	13.35	12.40	12.24	13.30	13.29	13.83	13.82
29	15.57	15.52	14.29	14.19	13.34	13.20	12.58	12.40	13.31	13.30	13.87	13.83
30	15.67	15.57	14.19	14.15	13.20	13.04	12.76	12.58	13.35	13.31	13.87	13.84
31	---	---	14.15	14.06	---	---	12.91	12.76	13.37	13.30	---	---
MONTH	16.35	15.52	15.95	14.06	14.06	12.96	13.19	11.67	13.37	12.78	13.87	12.93

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA De 1. SITE ID.--385915076340401.
 LOCATION.--Lat 38°59'15", long 76°34'04", Hydrologic Unit 02060004, 0.07 mi north of MD Rt 450,
 1.05 mi west of Generals Highway.
 Owner: U.S. Geological Survey.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 237 ft; casing diameter 10 in., to 207 ft;
 screen diameter 6 in. from 207 to 237 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
 water-level recorder from May 1969 to Dec. 28, 1977. Equipped with digital water-level recorder--15-minute
 recorder interval from December 1977 to current year.
 DATUM.--Elevation of land surface is 13.72 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 2.0 ft above land surface.
 REMARKS.--Glen Burnie Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--May 1969 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.25 ft above sea level, Nov. 14, 1988;
 lowest measured, 36.19 ft below sea level, Oct. 25, 1989.

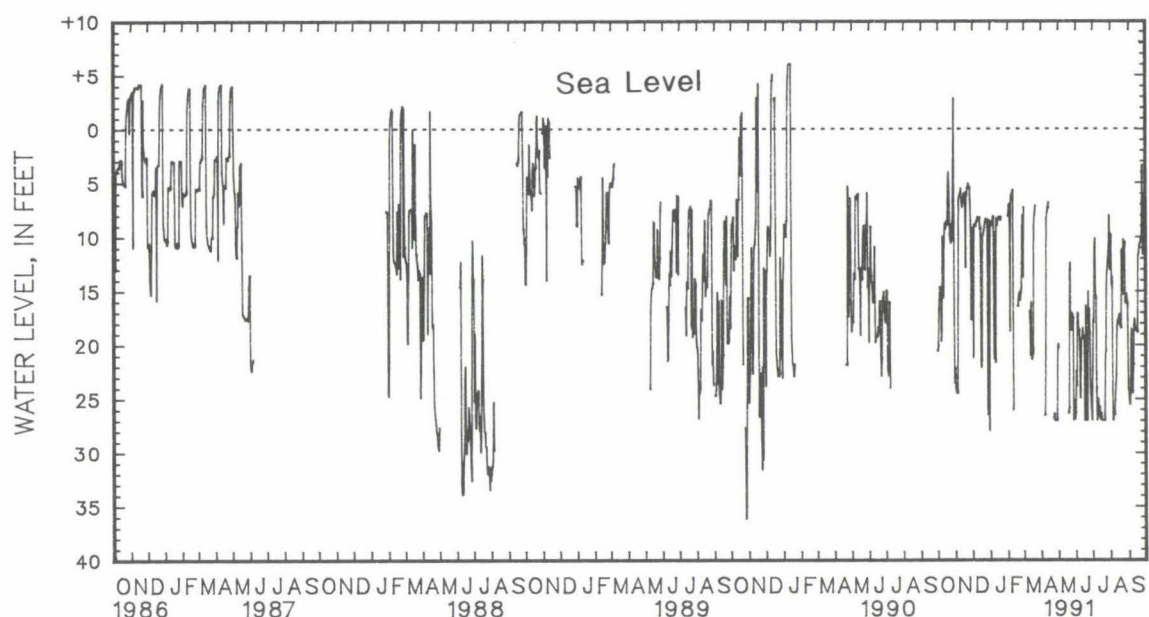
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.55	20.59	1.49	22.19	8.52	9.21	8.09	9.16	---	---	3.16	7.26
2	6.48	20.17	5.61	24.08	.89	9.13	+1.11	8.59	3.55	8.05	---	---
3	2.39	16.93	4.66	24.29	7.13	21.24	7.84	8.60	2.98	7.11	---	---
4	1.74	14.59	4.87	24.50	7.86	8.86	7.96	8.91	1.75	7.00	---	---
5	4.88	14.63	4.96	24.51	.27	8.86	.39	8.93	.80	18.80	---	---
6	14.35	14.72	5.42	14.52	8.44	8.91	+1.77	8.23	2.94	7.45	---	---
7	14.73	19.70	6.06	6.63	8.30	9.03	+2.25	8.07	2.04	6.18	---	---
8	9.81	18.63	5.88	6.21	.49	8.62	2.28	20.55	1.74	6.07	---	---
9	9.73	9.92	5.80	6.22	.47	8.42	1.55	21.37	1.48	6.00	---	---
10	9.90	14.44	1.25	5.92	+2.29	8.17	.91	9.54	1.58	5.66	---	---
11	10.48	15.64	5.38	5.50	7.83	8.31	3.31	21.67	5.23	26.07	---	---
12	2.71	10.65	5.35	6.87	+4.41	8.27	+0.06	8.37	---	---	15.78	16.93
13	1.24	8.75	2.71	7.30	7.66	8.17	7.44	8.25	---	---	8.81	21.04
14	8.73	9.29	1.79	6.92	8.10	9.28	7.61	8.95	---	---	8.66	16.04
15	4.68	9.14	1.95	6.55	.73	9.09	+0.08	8.38	---	---	8.74	21.38
16	6.53	8.54	4.33	6.01	8.10	21.69	7.46	8.27	---	---	8.35	21.39
17	3.70	8.79	1.82	6.77	2.46	22.15	+1.16	8.14	---	---	9.41	20.98
18	1.07	8.89	5.72	5.89	8.47	21.55	7.52	8.26	---	---	8.71	20.69
19	.45	5.48	4.21	12.85	.81	9.77	.09	8.43	15.66	16.44	4.54	9.12
20	+2.23	4.01	.84	6.26	8.82	9.82	+3.36	8.16	8.66	15.65	3.67	8.02
21	+2.25	5.41	.18	6.23	8.78	9.51	---	---	8.70	15.21	3.30	7.71
22	+8.66	9.84	1.08	5.54	.37	9.13	---	---	14.65	15.13	2.94	7.10
23	9.22	10.37	.93	5.38	7.82	8.63	---	---	14.76	15.91	---	---
24	+8.66	10.63	.52	5.07	+4.42	8.37	---	---	8.82	15.12	---	---
25	+2.73	8.84	5.08	5.41	+1.14	8.51	---	---	9.18	14.73	---	---
26	.67	10.46	+3.21	5.41	+3.47	8.35	---	---	4.81	9.17	---	---
27	+1.62	8.72	+4.13	6.54	+2.29	8.59	---	---	3.68	8.03	---	---
28	+2.90	3.70	+5.52	8.51	5.52	26.53	---	---	3.62	13.77	---	---
29	+3.73	+2.89	+2.44	17.75	.52	9.14	---	---	---	---	---	---
30	+4.21	17.52	8.50	9.48	1.19	8.44	---	---	---	---	---	---
31	7.81	23.61	---	---	.87	27.99	---	---	---	---	---	---
MONTH	+4.21	23.61	+4.13	24.51	+3.47	27.99	+1.77	21.67	.80	26.07	2.94	21.39

GROUND WATER LEVELS
MARYLAND Continued
ANNE ARUNDEL COUNTY Continued
AA De 1 Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	4.82	19.94	12.99	26.36	10.17	22.38	5.28	9.67	5.87	24.29
2	---	---	5.08	20.28	10.88	22.44	7.88	17.74	5.57	9.84	7.05	25.26
3	---	---	---	---	12.26	23.81	7.43	17.90	6.02	14.47	11.13	25.62
4	---	---	---	---	9.01	17.04	6.22	10.99	3.93	13.75	17.79	24.13
5	---	---	---	---	11.81	17.22	5.26	10.12	6.71	27.03	8.62	19.70
6	---	---	---	---	11.97	18.66	4.84	15.36	11.51	27.03	9.08	18.51
7	10.57	26.55	---	---	11.80	18.58	6.38	15.51	13.08	26.50	8.21	24.04
8	9.34	26.56	---	---	13.31	20.14	6.17	24.01	13.21	26.53	8.54	24.50
9	5.62	20.45	---	---	11.55	24.98	13.36	27.03	11.73	25.23	9.18	21.86
10	7.43	8.34	---	---	9.54	22.35	11.69	26.38	8.82	23.73	8.47	18.16
11	7.50	7.77	---	---	18.47	19.45	9.46	25.03	8.69	22.81	8.99	17.60
12	7.03	7.64	---	---	12.12	19.47	11.62	26.33	8.27	18.39	10.09	18.38
13	2.85	7.31	---	---	11.23	18.42	9.91	25.75	8.28	17.73	11.70	18.68
14	2.07	6.83	---	---	12.92	19.14	11.77	26.64	8.64	18.04	11.25	18.62
15	---	---	---	---	12.56	19.24	12.96	26.91	8.94	17.56	9.14	18.62
16	---	---	---	---	13.40	19.29	19.67	26.36	8.14	17.19	10.27	18.84
17	---	---	---	---	10.91	27.03	18.23	27.03	10.33	18.08	8.96	11.69
18	---	---	---	---	15.64	27.03	22.59	27.03	10.99	18.29	9.03	11.63
19	---	---	12.21	26.36	9.58	16.36	22.80	27.03	11.18	18.42	8.11	10.91
20	---	---	12.02	25.89	13.91	26.40	23.86	27.03	8.62	11.17	7.70	10.69
21	---	---	7.96	13.12	10.72	27.03	23.64	27.03	7.30	14.98	6.83	10.51
22	---	---	12.30	12.39	14.01	27.03	16.37	27.03	7.60	15.32	7.19	10.19
23	10.18	26.83	12.19	18.34	9.25	15.04	14.01	20.89	7.56	10.21	3.33	9.99
24	9.85	26.42	10.87	18.67	8.51	17.33	13.72	20.63	7.73	10.95	2.26	3.33
25	17.26	27.03	10.11	17.03	8.28	16.67	11.82	14.42	7.50	10.49	1.65	11.64
26	10.18	27.03	10.26	17.26	11.95	18.96	12.66	13.30	4.33	16.01	1.26	7.15
27	9.50	27.03	10.36	17.52	11.74	23.86	9.85	12.63	3.18	16.16	.99	6.03
28	11.06	27.03	13.22	27.03	12.85	24.85	11.37	12.05	2.84	15.24	1.10	6.70
29	9.87	27.03	13.02	25.13	14.05	25.95	7.13	11.36	3.07	15.78	.95	10.93
30	4.92	20.31	13.59	26.17	16.56	27.02	4.01	7.97	4.09	16.07	1.11	14.83
31	---	---	15.72	26.93	---	---	3.69	13.01	6.34	24.14	---	---
MONTH	2.07	27.03	4.82	27.03	8.28	27.03	3.69	27.03	2.84	27.03	.95	25.62

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA De 140. SITE ID.--385920076322401. PERMIT NUMBER.--AA-81-6267.
 LOCATION.--Lat 38°59'19", long 76°32'24", Hydrologic Unit 02040004, at Annapolis Mall.
 Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 45 ft; casing diameter 3 in., to 32 ft; screen diameter 3 in. from 32 to 42 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 85.03 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.82 ft above land surface.

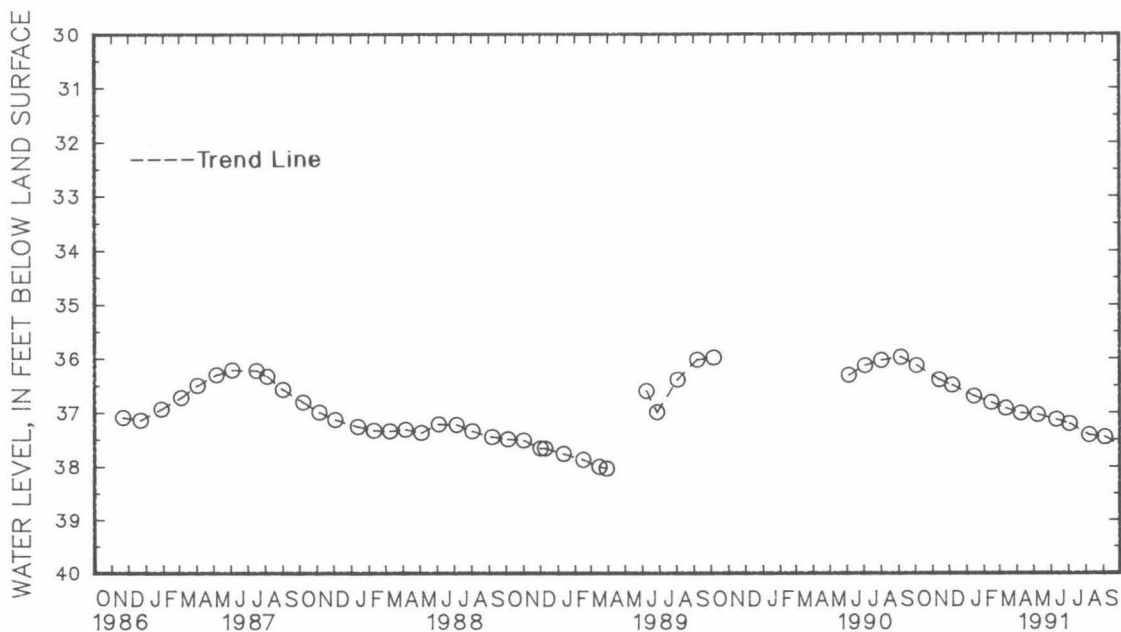
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.98 ft below land surface, Sept. 5, 1990;
 lowest measured, 38.07 ft below land surface, March 29, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	36.14	DEC 6	36.51	FEB 14	36.84	APR 8	37.04	JUN 10	37.16	AUG 7	37.45
NOV 13	36.41	JAN 14	36.72	MAR 12	36.95	MAY 8	37.07	JUL 3	37.24	SEP 4	37.49
WATER YEAR 1991		HIGHEST	36.14	OCT 3, 1990	LOWEST	37.49	SEP 4, 1991				



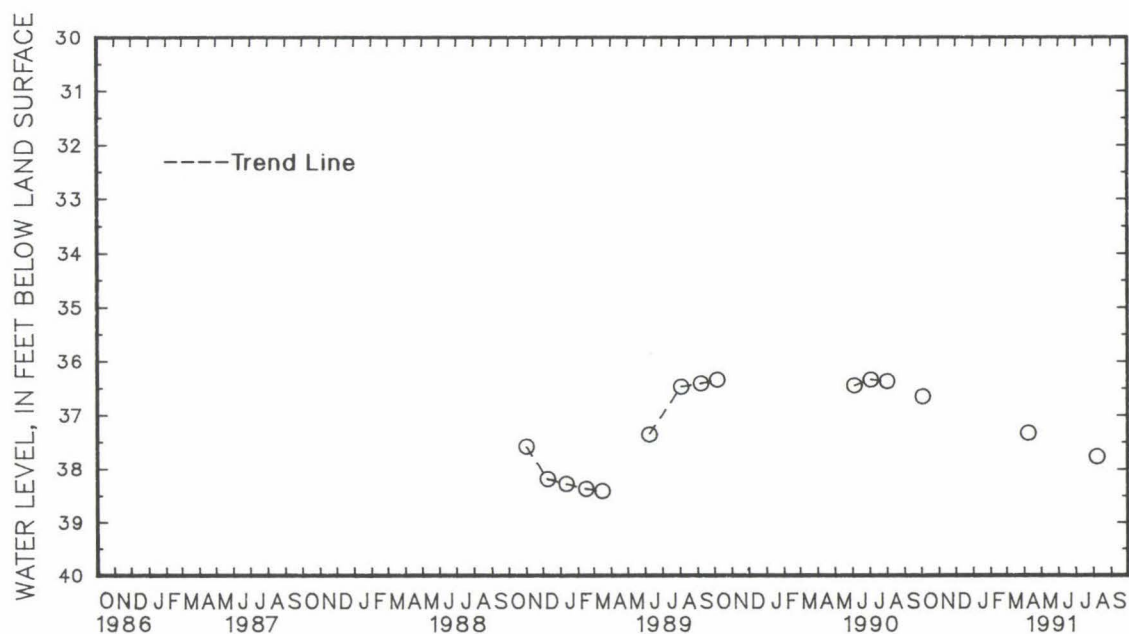
5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA De 144. SITE ID.--385920076322402. PERMIT NUMBER.--AA-81-6267.
LOCATION.--Lat 38°59'19", long 76°32'21", Hydrologic Unit 02040004, at Annapolis Mall.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 89 ft; casing diameter 3 in., to 71 ft; screen diameter 3 in. from 71 to 86 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 85.24 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.00 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--November 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.35 ft below land surface, Oct. 6, 1889, and July 3, 1990; lowest measured, 38.44 ft below land surface, March 16, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	36.67	APR 8	37.36	AUG 7	37.80
WATER YEAR 1991 HIGHEST 36.67 OCT 3, 1990 LOWEST 37.80 AUG 7, 1991					



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA De 177. SITE ID.--385852076333201. PERMIT NUMBER.--AA-81-9213.
 LOCATION.--Lat 38°58'52", long 76°33'32", Hydrologic Unit 02060004, at Broadcreek Water Treatment Plant, Harry Truman Parkway, Annapolis.
 Owner: Anne Arundel County Dept. of Public Works.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 974 ft; casing diameter 26 in., to 72 ft; casing diameter 18 in., to 800 ft; casing diameter 12 in. from 800 to 836 ft, 868 to 880 ft, 894 to 918 ft, and 964 to 974 ft; screen diameter 12 in. from 836 to 868 ft, 880 to 894 ft, and 918 to 964 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--30-minute recorder interval from Aug. 16, 1988 to current year.
 DATUM.--Elevation of land surface is 93.85 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 4.37 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--August 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.08 ft above sea level, April 1, 1991; lowest measured, 15.10 ft below sea level, Sept. 30, 1991.

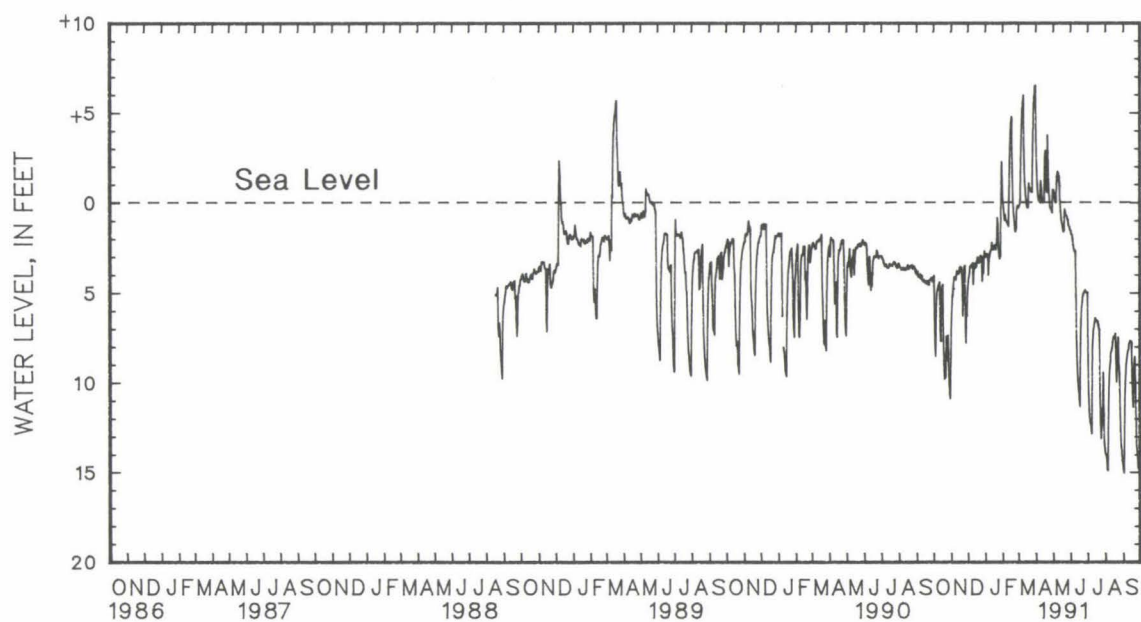
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3.85	4.05	5.59	6.69	4.08	4.47	2.87	2.98	+1.26	+ .21	+ .03	.29
2	3.81	5.99	5.07	5.60	3.73	4.13	2.47	2.92	+ .20	.26	+ .29	.20
3	5.02	7.90	4.61	5.15	3.52	3.93	2.61	2.83	.26	.60	+ .25	.10
4	6.11	8.54	4.20	4.75	3.33	3.52	2.80	2.96	.58	.97	+2.35	+ .14
5	5.08	6.08	3.85	4.37	3.19	3.55	2.56	2.96	+ .10	.68	+3.68	+2.41
6	4.78	5.14	3.71	4.10	3.33	3.45	2.64	4.00	.58	.94	+4.92	+3.70
7	4.62	4.87	3.98	4.13	3.39	3.50	2.75	3.22	.67	1.00	+5.23	+4.87
8	4.49	4.73	4.06	4.25	3.04	3.47	2.68	2.97	.79	1.09	+5.65	+5.20
9	4.40	4.61	3.98	4.26	2.97	3.33	2.36	2.75	.81	1.13	+5.98	+5.61
10	4.35	4.51	3.23	3.98	3.11	4.54	2.37	2.65	.88	1.19	+6.35	+5.99
11	4.27	4.40	3.55	3.78	3.55	3.76	2.15	2.60	+ .19	1.31	+6.37	+2.84
12	3.98	6.99	3.72	3.92	3.08	3.60	1.85	2.19	+2.13	+ .24	+2.76	+1.23
13	5.25	7.69	3.58	3.91	3.08	3.36	2.07	2.47	+3.52	+2.17	+1.62	+ .78
14	4.76	5.26	3.55	3.92	3.31	3.58	2.44	2.53	+4.37	+3.55	+1.17	+ .30
15	4.34	4.76	3.40	3.82	2.93	3.55	2.27	2.58	+4.66	+4.38	+ .58	.12
16	4.42	4.60	3.41	3.58	3.01	3.29	2.20	2.43	+4.80	+4.56	+ .39	.26
17	4.11	4.54	3.18	3.53	2.90	3.26	1.87	2.34	+5.11	+4.78	+ .14	.31
18	3.93	7.47	3.41	3.58	2.74	3.03	2.26	2.50	+5.12	+1.70	+1.20	.28
19	6.48	8.93	3.40	3.60	2.73	3.17	2.20	2.56	+1.64	+ .18	+1.38	+1.07
20	8.01	9.81	3.30	4.21	3.18	3.31	1.89	2.30	+ .52	.46	+1.26	+ .88
21	6.83	9.78	3.87	6.30	3.09	3.31	.83	2.14	.13	.77	+1.16	+ .79
22	7.43	9.67	4.13	5.40	2.73	3.17	+1.09	.81	.78	1.22	+1.02	+ .66
23	5.70	7.42	3.45	4.12	2.77	2.92	+1.50	1.23	1.23	1.60	+1.02	+ .59
24	5.33	7.93	3.13	3.53	2.54	2.97	1.28	2.60	1.08	1.62	+1.13	+ .65
25	7.23	8.76	3.26	3.48	2.76	2.95	2.43	3.00	.33	1.47	+2.84	+ .58
26	5.94	7.38	3.45	6.90	2.95	4.34	2.57	3.10	+ .09	.37	+4.39	+2.88
27	7.18	8.96	6.39	7.79	3.10	3.63	2.48	3.03	+ .22	.18	+5.47	+4.41
28	8.67	10.00	4.52	6.35	3.04	3.89	+ .40	2.93	+ .04	.27	+5.99	+5.48
29	9.78	10.70	4.50	6.25	2.60	3.09	+2.29	+ .46	---	---	+6.53	+5.99
30	8.74	10.89	4.46	4.88	2.33	2.67	+3.44	+2.31	---	---	+6.66	+6.51
31	6.64	8.73	---	---	2.47	2.95	+3.53	+1.32	---	---	+6.86	+6.53
MONTH	3.81	10.89	3.13	7.79	2.33	4.54	+3.53	4.00	+5.12	1.62	+6.86	.31

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA De 177--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+7.08	+3.58	+1.02	+ .72	1.18	1.58	4.80	8.54	12.87	13.96	14.04	14.92
2	+3.49	+1.97	+ .94	+ .61	1.36	1.75	8.60	10.57	13.14	14.05	11.52	15.04
3	+2.70	+1.05	+ .74	+ .40	1.56	1.81	10.42	11.50	13.52	14.25	10.01	11.48
4	+1.02	+ .50	+ .39	+ .06	1.65	1.99	11.30	12.00	14.23	14.83	9.38	10.06
5	+ .51	+ .17	+ .26	+ .02	2.01	2.35	10.91	12.24	11.45	14.91	8.90	9.43
6	+ .73	+ .09	+1.51	+ .01	2.33	2.53	11.67	12.31	10.01	11.44	8.59	9.00
7	+ .73	+ .05	+3.03	+1.43	2.53	2.70	11.90	12.68	9.29	10.00	8.32	8.69
8	+1.27	+ .02	+3.43	+1.20	2.40	2.66	8.10	12.84	8.84	9.28	8.08	8.39
9	+1.54	+1.21	+3.67	+1.73	2.57	2.72	7.46	8.06	8.26	8.91	7.94	8.22
10	+1.21	+ .77	+4.08	+1.64	1.92	5.09	6.96	7.50	8.02	8.31	7.70	8.13
11	+ .74	+ .27	+3.41	+1.49	5.18	7.76	6.73	7.06	7.79	8.23	7.54	7.83
12	+ .27	+ .03	+2.70	+1.08	7.66	8.96	6.46	6.81	7.66	8.08	7.43	7.75
13	+ .37	+ .01	+1.84	+ .12	8.63	9.74	6.17	6.57	7.23	7.74	7.48	7.66
14	+ .37	+ .07	+ .10	+ .49	9.46	10.21	6.17	6.38	7.26	7.54	7.40	7.69
15	+2.51	+ .13	+ .19	+ .86	9.62	10.52	6.17	6.45	7.11	7.44	7.41	7.75
16	+3.66	+2.57	+ .87	1.16	10.26	11.01	6.36	6.53	7.04	7.41	7.37	9.62
17	+4.37	+2.90	1.13	1.28	7.93	11.34	6.27	6.61	6.99	7.39	9.08	10.55
18	+4.29	+2.50	+ .89	1.51	6.68	7.85	6.37	6.56	7.06	7.27	9.23	11.35
19	+2.40	+ .71	1.04	1.64	5.79	6.62	6.53	6.72	6.86	8.64	8.89	9.85
20	+3.73	+ .58	+ .27	1.57	5.49	5.81	6.67	6.93	8.48	9.97	8.45	8.90
21	+5.32	+3.78	+ .02	+ .37	5.07	5.53	6.88	7.02	7.75	8.44	8.17	8.54
22	+5.55	+2.25	+ .19	+ .50	4.84	5.17	7.01	10.69	7.36	7.80	8.00	9.85
23	+2.20	+1.05	+ .46	+ .71	4.75	5.03	10.78	12.22	7.24	7.47	8.84	11.96
24	+1.49	+ .31	+ .36	+ .72	4.66	4.98	12.13	13.12	7.37	9.07	12.01	13.51
25	+ .29	+ .24	+ .54	+ .77	4.54	4.90	10.03	12.36	7.91	9.47	12.92	13.80
26	+ .19	+ .34	+ .69	+ .92	4.60	4.84	9.90	11.44	7.93	11.38	12.10	14.17
27	+ .30	+ .35	+ .72	+ .98	4.77	4.92	9.46	11.74	11.39	12.63	14.20	14.81
28	+ .20	+ .45	+ .88	1.24	4.84	4.95	8.69	9.44	12.65	13.50	12.59	14.42
29	+ .77	+ .56	1.12	1.32	4.72	5.00	8.53	11.65	13.02	13.78	14.02	14.86
30	+1.08	+ .69	1.11	1.37	4.69	4.96	11.72	13.35	13.84	14.40	11.55	15.10
31	---	---	1.35	1.56	---	---	12.98	13.73	13.31	14.49	---	---
MONTH	+7.08	+ .56	+4.08	1.64	1.18	11.34	4.80	13.73	6.86	14.91	7.37	15.10

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 19. SITE ID.--385921076270701.

LOCATION.--Lat 38°59'21", long 76°27'07", Hydrologic Unit 02060004, 200 ft east of intersection with McLean and Hooper Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 590 ft; casing diameter 10 in., to 565 ft; screen diameter 10 in. from 565 to 590 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from November 1979 to April 1980. Equipped with digital water-level recorder--60-minute recorder interval from May 1980 to current year.

DATUM.--Elevation of land surface is 15.91 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder platform, 2.5 ft above land surface.

REMARKS.--Southern Maryland Observation Well Network. Missing data due to recorder malfunction.

PERIOD OF RECORD.--January 1986 to current year

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.76 ft below sea level, May 14, 1980; lowest measured, 33.65 ft below sea level, Sept. 14, 1987.

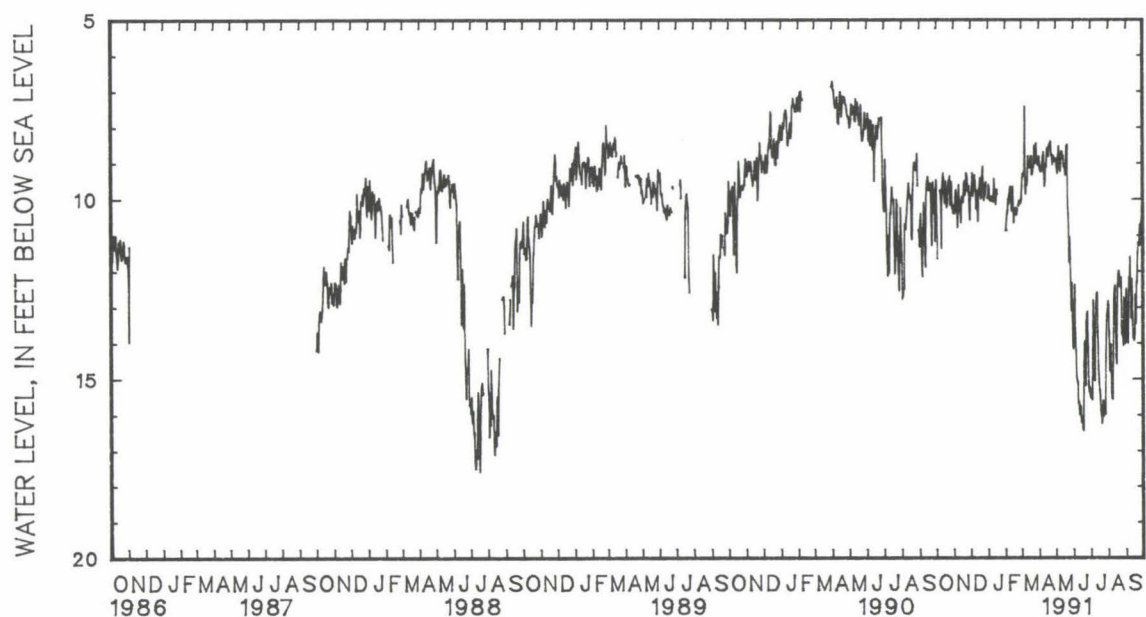
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.00	9.47	9.84	10.40	9.05	9.90	9.17	9.98	---	---	9.52	10.02
2	8.58	10.52	9.78	10.30	9.37	9.87	9.17	9.60	10.29	10.87	8.83	9.66
3	10.64	11.66	9.61	10.39	8.65	9.79	9.30	9.68	10.13	10.58	8.90	9.30
4	---	---	9.36	9.97	8.35	9.27	9.60	10.03	10.03	10.41	8.50	9.31
5	---	---	9.07	9.75	9.30	9.92	9.65	10.05	9.76	10.34	9.02	9.36
6	---	---	9.27	10.03	8.96	9.74	9.68	9.94	9.68	10.01	6.64	9.24
7	---	---	9.75	10.23	9.08	9.51	9.80	10.06	9.57	10.13	6.72	7.41
8	8.86	9.77	9.91	10.79	9.08	9.34	9.75	10.03	9.62	9.91	7.28	9.62
9	9.06	9.96	9.62	10.36	9.07	9.48	9.70	9.93	9.26	9.72	9.31	9.87
10	9.92	11.37	9.05	9.60	9.06	9.73	9.62	9.99	9.28	9.67	9.17	9.43
11	9.16	9.86	9.49	10.03	9.74	10.27	9.18	10.08	9.36	9.86	9.34	9.63
12	9.14	9.52	9.39	10.11	9.38	9.77	8.88	9.44	9.87	10.33	8.76	9.51
13	9.00	9.28	9.90	10.37	9.53	10.11	9.08	9.78	9.20	9.85	8.44	8.81
14	8.95	9.41	10.15	10.66	10.01	10.62	9.22	9.86	9.08	9.67	8.66	9.13
15	9.07	9.81	9.41	10.07	9.25	9.98	9.67	10.16	9.30	10.28	8.73	9.12
16	9.65	10.12	9.48	9.94	9.24	9.70	8.89	9.92	10.29	10.67	8.74	9.13
17	9.32	9.87	9.55	9.95	9.21	9.73	9.18	9.74	9.91	10.41	8.56	8.98
18	8.79	9.51	9.50	10.09	8.67	9.42	9.54	9.86	9.98	10.44	8.29	8.82
19	9.42	10.06	8.81	9.59	9.12	9.85	---	---	9.79	10.27	8.44	9.31
20	9.78	10.23	9.13	9.52	9.41	9.99	---	---	9.55	10.26	8.79	9.33
21	9.57	10.13	9.47	9.90	8.91	9.57	---	---	9.92	10.44	8.74	9.25
22	9.22	9.75	9.23	9.77	8.85	9.25	---	---	9.76	10.29	8.79	9.14
23	8.94	9.49	8.86	9.28	8.73	9.10	---	---	---	---	8.11	9.02
24	9.17	9.78	8.91	9.31	8.79	9.72	---	---	9.61	10.19	8.01	8.52
25	9.16	9.36	9.11	9.44	9.41	10.04	---	---	9.51	10.07	8.51	9.01
26	9.29	10.17	9.34	9.77	9.26	9.60	---	---	9.64	10.08	8.35	9.00
27	8.77	9.77	9.31	9.79	9.50	9.91	---	---	9.70	10.13	8.03	8.45
28	8.60	9.52	9.18	9.65	9.15	9.72	---	---	9.58	10.09	8.03	8.86
29	9.55	10.26	9.24	10.33	8.75	9.54	---	---	---	---	8.43	8.82
30	9.76	10.18	9.92	10.58	---	---	---	---	---	---	8.33	9.04
31	9.75	10.39	---	---	8.84	9.97	---	---	---	---	8.40	8.87
MONTH	8.58	11.66	8.81	10.79	8.35	10.62	8.88	10.16	9.08	10.87	6.64	10.02

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Df 19--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.25	8.83	8.52	8.89	12.83	14.17	15.16	15.53	12.50	12.95	11.60	12.49
2	8.50	9.12	8.52	9.03	12.24	13.17	15.04	15.52	12.54	13.69	11.55	13.23
3	8.87	9.20	8.77	9.22	11.90	12.38	14.29	15.58	13.82	14.79	12.57	13.76
4	8.84	9.24	8.67	9.29	11.88	13.76	12.72	14.24	13.21	14.71	12.69	14.00
5	8.68	9.09	8.53	8.87	13.29	14.24	12.43	12.81	12.96	14.05	12.31	12.89
6	8.93	9.23	8.03	8.53	13.81	14.93	12.40	14.03	14.03	15.38	11.58	12.17
7	8.63	9.00	8.59	9.14	13.97	15.05	13.92	14.95	14.92	15.56	11.34	12.37
8	8.51	8.83	8.80	9.15	14.24	15.13	13.81	15.05	14.55	15.58	11.00	11.61
9	8.38	8.69	8.86	9.23	14.77	15.71	13.05	13.57	12.59	14.32	10.96	12.45
10	8.55	9.28	8.57	8.91	15.17	15.66	12.50	12.91	12.29	12.81	12.22	13.30
11	9.21	9.65	8.19	8.68	15.08	16.00	12.18	12.65	11.98	12.53	11.50	12.22
12	8.98	9.50	7.96	8.68	14.97	16.01	12.02	12.59	11.96	12.41	11.58	13.22
13	8.59	9.02	8.19	8.82	14.07	15.78	11.59	13.69	12.00	13.43	13.32	13.86
14	8.51	9.10	8.26	8.79	15.48	16.19	13.79	14.66	13.60	14.42	13.00	13.83
15	8.05	8.60	8.31	9.10	15.66	16.23	14.55	15.10	12.85	14.59	13.29	13.93
16	8.10	8.57	8.51	9.06	15.17	16.07	14.89	15.32	12.27	12.96	12.22	13.77
17	8.09	8.75	8.58	9.12	15.69	16.39	15.04	15.52	11.79	12.40	11.92	12.65
18	8.39	8.81	8.91	9.34	14.66	16.44	15.12	15.88	11.73	12.08	12.01	13.47
19	8.02	8.53	8.33	8.94	13.80	14.59	15.55	15.99	11.25	11.99	11.71	12.30
20	8.04	8.46	8.14	8.54	13.52	13.96	15.63	16.26	11.08	12.08	11.62	12.32
21	7.96	8.59	8.17	8.50	13.40	14.62	14.39	16.00	11.96	12.43	10.99	11.52
22	7.82	8.39	8.18	10.24	13.51	15.19	13.91	15.63	11.93	12.36	10.88	11.21
23	8.21	8.79	9.33	10.44	13.12	13.46	15.34	16.05	11.83	12.18	10.80	11.24
24	8.12	8.76	10.47	11.77	12.77	13.19	14.59	15.95	11.65	13.76	10.67	11.28
25	8.59	9.04	10.39	11.07	12.72	13.12	13.85	15.96	12.44	13.79	10.02	10.73
26	8.48	8.84	10.40	11.67	12.52	14.12	14.37	15.98	11.82	13.77	10.30	10.71
27	8.35	8.81	10.46	12.33	14.12	15.16	13.59	14.40	12.67	14.07	10.29	10.83
28	8.37	8.95	12.24	13.10	14.20	15.36	12.98	13.75	11.95	12.73	10.03	10.62
29	8.43	8.87	11.31	12.34	13.42	15.25	12.73	13.22	11.95	13.05	10.06	10.45
30	8.29	8.88	10.93	13.25	15.05	15.50	12.46	13.10	13.22	14.03	10.15	10.89
31	---	---	13.21	14.11	---	---	12.47	12.83	12.32	13.98	---	---
MONTH	7.82	9.65	7.96	14.11	11.88	16.44	11.59	16.26	11.08	15.58	10.02	14.00

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 20. SITE ID.--385916076270702.

LOCATION.--Lat 38°59'16", long 76°27'07", Hydrologic Unit 02060004, off Hooper Rd, 400 ft from McLean Rd.

Owner: U.S. Navy.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 255 ft; casing diameter 10 in., to 233 ft; screen diameter 8 in. from 233 to 253 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from June 1969 to December 1977. Equipped with digital water-level recorder--30-minute recorder interval from December 1977 to current year.

DATUM.--Elevation of land surface is 22 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder platform, 3.0 ft above land surface.

REMARKS.--Glen Burnie Project observation well. Missing data due to recorder malfunction.

PERIOD OF RECORD.--June 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.91 ft below sea level, June 20, 1980; lowest measured, 13.77 ft below sea level, July 25, 1988.

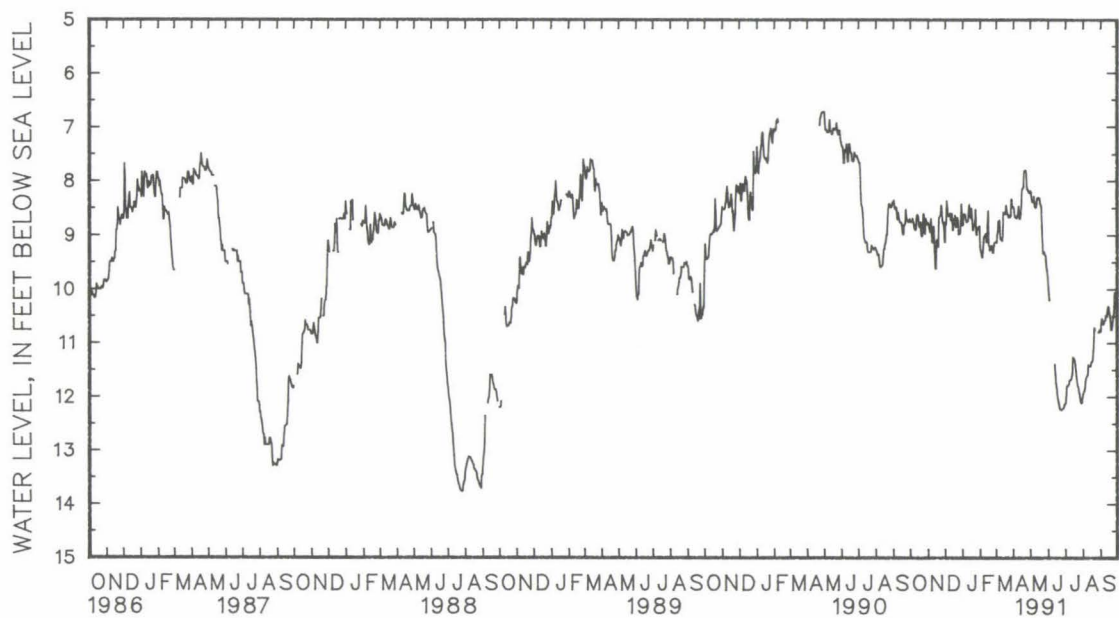
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.70	8.76	8.77	8.78	8.72	9.13	8.65	8.83	8.85	9.21	9.12	9.14
2	8.69	8.76	8.78	8.81	8.72	8.76	8.62	8.81	9.21	9.29	8.98	9.14
3	8.70	8.76	8.81	8.88	8.39	8.80	8.57	8.62	9.29	9.34	8.95	8.98
4	8.59	8.76	8.89	8.94	8.01	8.37	8.57	8.61	9.34	9.40	8.69	8.95
5	8.59	8.70	8.70	8.93	8.03	8.49	8.61	8.62	9.32	9.42	8.69	8.75
6	8.71	8.76	8.66	8.70	8.49	8.62	8.61	8.62	9.16	9.31	8.73	8.77
7	8.76	8.80	8.70	8.85	8.61	8.65	8.61	8.72	9.04	9.16	8.70	8.73
8	8.79	8.87	8.85	9.12	8.62	8.65	8.72	8.76	9.02	9.04	8.74	8.93
9	8.87	8.91	9.05	9.14	8.61	8.62	8.75	8.76	9.00	9.02	8.93	9.08
10	8.89	8.91	8.44	9.03	8.51	8.60	8.74	8.75	8.98	9.00	9.04	9.08
11	8.66	8.89	8.45	8.84	8.52	8.73	8.58	8.74	8.97	8.98	9.04	9.10
12	8.63	8.66	8.84	9.14	8.61	8.73	8.28	8.56	8.97	9.13	9.04	9.11
13	8.62	8.63	9.15	9.44	8.60	8.61	8.28	8.44	8.81	9.13	8.56	9.03
14	8.61	8.63	9.44	9.63	8.61	8.91	8.44	8.55	8.48	8.81	8.55	8.58
15	8.63	8.67	9.11	9.63	8.70	8.91	8.52	8.66	8.47	8.55	8.58	8.60
16	8.67	8.82	9.09	9.11	8.66	8.70	8.48	8.69	8.57	9.17	8.60	8.61
17	8.82	8.85	9.09	9.09	8.69	8.81	8.47	8.51	9.18	9.22	8.61	8.61
18	8.58	8.85	9.09	9.22	8.48	8.81	8.51	8.70	9.23	9.29	8.43	8.61
19	8.57	8.77	8.68	9.22	8.48	8.64	8.71	8.91	9.21	9.28	8.41	8.45
20	8.78	8.99	8.64	8.68	8.65	8.85	8.80	8.91	9.07	9.21	8.46	8.55
21	8.99	9.03	8.64	8.66	8.70	8.85	8.59	8.80	9.08	9.20	8.55	8.60
22	8.85	9.02	8.62	8.66	8.68	8.69	8.64	8.82	9.20	9.21	8.60	8.62
23	8.52	8.84	8.46	8.62	8.65	8.68	8.36	8.82	9.20	9.33	8.62	8.67
24	8.51	8.61	8.44	8.45	8.64	8.73	8.36	8.53	9.21	9.33	8.51	8.65
25	8.61	8.61	8.45	8.51	8.74	8.99	8.54	8.99	9.15	9.21	8.51	8.64
26	8.61	8.96	8.52	8.72	8.97	8.99	8.91	9.00	9.14	9.15	8.64	8.67
27	8.73	8.98	8.72	8.78	8.97	8.97	8.87	8.91	9.13	9.14	8.34	8.64
28	8.17	8.70	8.75	8.77	8.74	8.97	8.83	8.87	9.12	9.13	8.28	8.34
29	8.21	8.74	8.73	8.86	8.43	8.74	8.83	8.86	---	---	8.30	8.34
30	8.75	8.80	8.87	9.13	8.29	8.43	8.71	8.85	---	---	8.35	8.47
31	8.77	8.79	---	---	8.29	8.64	8.70	8.84	---	---	8.47	8.49
MONTH	8.17	9.03	8.44	9.63	8.01	9.13	8.28	9.00	8.47	9.42	8.28	9.14

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Df 20--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.45	8.48	8.18	8.19	9.78	9.96	12.01	12.13	11.93	11.95	10.63	10.79
2	8.45	8.51	8.18	8.20	9.96	10.12	11.80	12.00	11.89	11.92	10.54	10.63
3	8.51	8.63	8.21	8.32	10.12	10.21	11.79	11.80	11.85	11.89	10.53	10.54
4	8.64	8.67	8.32	8.39	---	---	11.80	11.80	11.71	11.84	10.53	10.61
5	8.65	8.67	8.39	8.39	---	---	11.78	11.80	11.65	11.71	10.61	10.65
6	8.65	8.69	8.03	8.39	---	---	11.76	11.78	11.63	11.65	10.63	10.65
7	8.66	8.69	8.03	8.29	---	---	11.70	11.76	11.61	11.63	10.59	10.63
8	8.61	8.65	8.29	8.39	---	---	11.69	11.70	11.60	11.61	10.57	10.59
9	8.47	8.61	8.39	8.48	---	---	11.68	11.69	11.41	11.60	10.48	10.57
10	8.46	8.47	8.48	8.49	---	---	11.67	11.69	11.39	11.41	10.47	10.48
11	8.47	8.62	8.43	8.49	---	---	11.62	11.67	11.41	11.42	10.47	10.50
12	8.62	8.70	8.29	8.43	11.29	11.41	11.57	11.62	11.42	11.43	10.38	10.50
13	8.62	8.70	8.29	8.32	11.41	11.60	11.27	11.57	11.43	11.43	10.30	10.37
14	8.49	8.62	8.31	8.33	11.61	11.76	11.27	11.27	11.38	11.43	10.30	10.32
15	8.17	8.49	8.28	8.31	11.77	11.83	11.27	11.28	11.35	11.37	10.31	10.32
16	8.14	8.17	8.30	8.32	11.83	11.90	11.28	11.30	11.34	11.35	10.32	10.42
17	8.11	8.14	8.31	8.32	11.90	11.99	11.30	11.33	11.33	11.35	10.42	10.48
18	8.12	8.13	8.31	8.43	12.00	12.06	11.33	11.40	11.16	11.32	10.48	10.53
19	7.82	8.12	8.38	8.44	12.06	12.11	11.40	11.50	10.99	11.16	10.54	10.76
20	7.77	7.82	8.38	8.48	12.11	12.17	11.50	11.62	10.55	10.96	10.69	10.76
21	7.77	7.81	8.49	8.85	12.17	12.23	11.62	11.72	10.56	10.72	10.60	10.69
22	7.67	7.80	8.85	9.15	12.23	12.24	11.73	11.80	10.72	10.76	10.48	10.60
23	7.68	7.81	9.16	9.35	12.24	12.25	11.80	11.82	---	---	10.45	10.48
24	7.81	7.86	9.32	9.35	12.24	12.25	11.82	11.89	---	---	10.06	10.45
25	7.87	8.12	9.23	9.32	12.23	12.24	11.89	11.94	---	---	10.05	10.06
26	8.13	8.16	9.26	9.37	12.22	12.23	11.94	12.01	---	---	10.05	10.06
27	8.15	8.16	9.37	9.38	12.20	12.22	12.01	12.07	---	---	10.06	10.07
28	8.16	8.20	9.38	9.47	12.15	12.20	12.08	12.11	10.76	10.80	10.05	10.06
29	8.21	8.22	9.47	9.61	12.14	12.15	12.11	12.12	10.76	10.80	10.04	10.08
30	8.18	8.21	9.61	9.67	12.13	12.14	12.01	12.11	10.73	10.76	9.94	10.08
31	---	---	9.67	9.78	---	---	11.95	12.01	10.73	10.79	---	---
MONTH	7.67	8.70	8.03	9.78	9.78	12.25	11.27	12.13	10.55	11.95	9.94	10.79

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 79. SITE ID.--385905076293601. PERMIT NUMBER.--AA-03-7867.
LOCATION.--Lat 38°59'05", long 76°29'36", Hydrologic Unit 02060004, off Creek Rd., 500 ft north
of MD Rt. 450.
Owner: U.S. Navy.
AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 705 ft; casing diameter 6 in., to 300 ft;
screen diameter 6 in. from 300 to 320 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
water-level recorder from May 20, 1969 to Dec. 19, 1977. Equipped with digital water-level recorder--60-minute
recorder interval from Dec. 19, 1977 to current year.
DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of recorder platform, 3.0 ft above land surface.
REMARKS.--Glen Burnie Project Observation Well. Missing data due to recorder malfunction.
PERIOD OF RECORD.--May 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.12 ft below sea level, Jan. 4, 1982;
lowest measured, 13.67 ft below sea level, Aug. 21 and 23, 1987.

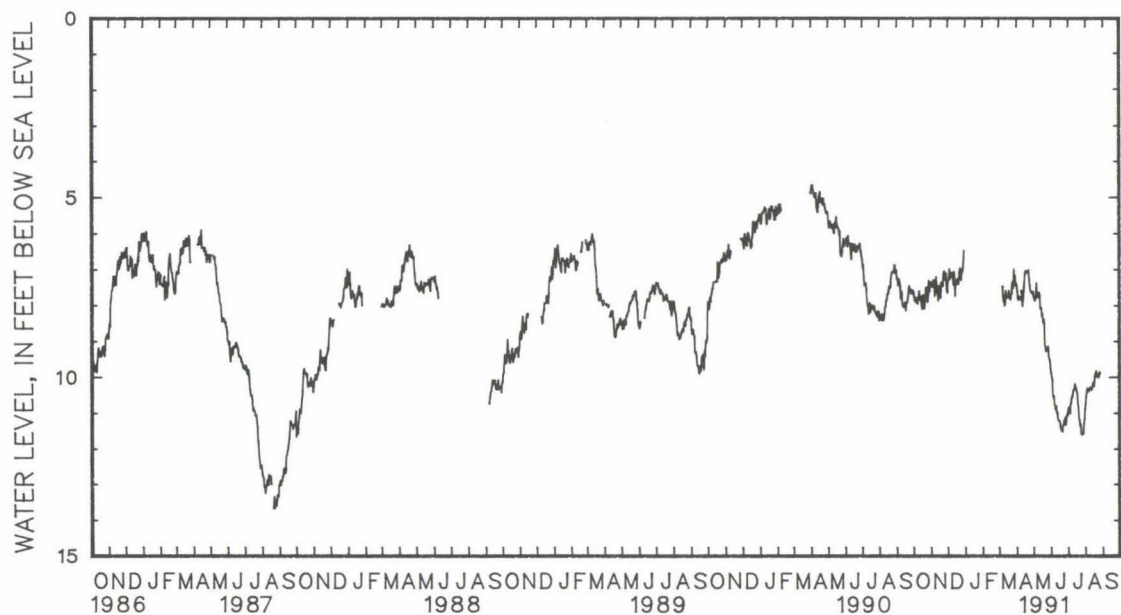
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.41	7.63	7.00	7.36	6.88	7.31	---	---	---	---	---	---
2	7.25	7.78	7.06	7.37	7.04	7.31	---	---	---	---	---	---
3	7.62	7.87	7.18	7.38	6.71	7.25	---	---	---	---	---	---
4	7.34	7.80	7.06	7.49	6.41	6.99	---	---	---	---	---	---
5	7.61	7.91	6.76	7.31	6.90	7.26	---	---	---	---	---	---
6	7.59	7.87	6.87	7.31	6.85	7.16	---	---	---	---	---	---
7	7.50	7.80	7.23	7.44	6.95	7.19	---	---	---	---	7.00	7.49
8	7.56	7.96	7.38	7.75	6.89	7.10	---	---	---	---	7.46	7.75
9	7.54	7.80	7.10	7.64	6.76	7.12	---	---	---	---	7.69	7.89
10	7.52	7.81	6.67	7.21	6.76	7.15	---	---	---	---	7.57	7.72
11	7.43	7.60	7.17	7.44	7.06	7.43	---	---	---	---	7.69	8.01
12	7.46	7.85	7.12	7.49	6.84	7.07	---	---	---	---	7.64	7.96
13	7.50	7.78	7.36	7.67	6.96	7.24	---	---	---	---	7.26	7.60
14	7.53	7.76	7.56	7.87	7.18	7.74	---	---	---	---	7.41	7.80
15	7.57	8.00	7.15	7.59	6.91	7.36	---	---	---	---	7.56	7.79
16	7.75	8.10	7.18	7.47	7.01	7.41	---	---	---	---	7.57	7.78
17	7.41	7.85	7.20	7.56	7.11	7.41	---	---	---	---	7.42	7.77
18	7.35	7.72	7.35	7.80	6.77	7.29	---	---	---	---	7.23	7.60
19	7.68	8.06	7.07	7.36	6.94	7.31	---	---	---	---	7.22	7.80
20	7.77	8.09	7.11	7.43	7.18	7.41	---	---	---	---	7.44	7.79
21	7.61	7.95	7.27	7.46	6.91	7.24	---	---	---	---	7.47	7.84
22	7.36	7.76	7.02	7.46	6.87	7.05	---	---	---	---	7.43	7.70
23	7.13	7.52	6.79	7.10	6.72	6.98	---	---	---	---	7.29	7.68
24	7.20	7.64	6.90	7.05	6.73	7.17	---	---	---	---	7.05	7.37
25	7.27	7.51	6.95	7.08	6.97	7.30	---	---	---	---	7.06	7.53
26	7.36	7.91	7.01	7.30	6.82	7.02	---	---	---	---	7.02	7.35
27	7.07	7.68	6.98	7.25	6.89	7.07	---	---	---	---	6.73	7.00
28	6.79	7.32	6.88	7.12	6.62	6.97	---	---	---	---	6.69	7.27
29	7.31	7.62	6.88	7.53	6.46	6.77	---	---	---	---	7.00	7.18
30	7.08	7.45	7.33	7.64	6.22	6.49	---	---	---	---	6.95	7.45
31	7.09	7.46	---	---	---	---	---	---	---	---	7.16	7.39
MONTH	6.79	8.10	6.67	7.87	---	---	---	---	---	---	---	---

GROUND-WATER LEVELS
MARYLAND--Continued
ANNE ARUNDEL COUNTY--Continued
AA Df 79--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.00	7.46	7.38	7.79	9.66	9.88	10.69	10.91	10.46	10.77	---	---
2	7.27	7.65	7.36	7.75	9.79	10.00	10.61	10.86	10.34	10.57	---	---
3	7.59	7.85	7.54	7.88	9.86	10.07	10.79	11.00	10.14	10.46	---	---
4	7.57	7.84	7.50	7.85	10.02	10.48	10.64	11.01	10.09	10.32	---	---
5	7.51	7.76	7.40	7.78	10.19	10.59	10.57	10.79	10.06	10.34	---	---
6	7.64	7.85	6.84	7.39	10.18	10.54	10.42	10.72	10.08	10.41	---	---
7	7.49	7.79	7.21	7.73	10.41	10.80	10.35	10.61	10.11	10.35	---	---
8	---	---	7.20	7.78	10.56	10.80	10.27	10.54	---	---	---	---
9	7.36	7.60	7.59	7.78	10.58	10.92	10.20	10.54	9.89	10.30	---	---
10	7.37	7.72	7.49	7.70	10.59	10.82	10.20	10.38	9.94	10.36	---	---
11	7.51	8.02	7.45	7.65	10.51	11.02	10.07	10.38	10.07	10.35	---	---
12	7.42	7.85	7.37	7.74	10.69	11.00	10.04	10.32	10.06	10.34	---	---
13	7.25	7.66	7.41	8.09	10.76	11.20	9.85	10.20	10.00	10.28	---	---
14	7.09	7.41	7.48	8.07	10.92	11.21	9.96	10.26	9.89	10.19	---	---
15	6.74	7.14	7.70	8.10	10.92	11.23	10.06	10.33	9.95	10.16	---	---
16	6.69	7.05	7.61	8.32	11.00	11.25	10.17	10.41	10.01	10.25	---	---
17	6.66	7.05	7.94	8.24	11.11	11.34	10.27	10.49	9.85	10.13	---	---
18	6.88	7.10	8.10	8.49	11.18	11.45	10.29	10.69	9.80	9.94	---	---
19	6.70	7.06	8.09	8.40	11.25	11.48	10.53	10.84	9.48	9.91	---	---
20	6.79	7.05	8.20	8.51	11.32	11.52	10.67	11.10	9.41	9.84	---	---
21	6.74	7.08	8.27	9.12	11.28	11.53	10.89	11.21	9.77	10.00	---	---
22	6.61	7.03	8.82	9.21	11.21	11.37	11.02	11.38	9.75	9.99	---	---
23	7.01	7.26	8.96	9.29	11.06	11.34	11.13	11.34	9.72	9.94	---	---
24	6.97	7.45	8.97	9.19	11.01	11.22	11.20	11.58	9.75	10.01	---	---
25	7.33	7.58	8.82	9.22	10.96	11.24	11.26	11.61	9.75	9.99	---	---
26	7.38	7.64	9.00	9.22	10.71	11.13	11.36	11.60	9.66	9.87	---	---
27	7.32	7.65	8.94	9.17	10.88	11.34	11.36	11.59	9.70	9.90	---	---
28	7.35	7.63	8.97	9.42	10.86	11.13	11.19	11.59	---	---	---	---
29	7.32	7.69	9.21	9.51	10.81	11.05	11.05	11.31	---	---	---	---
30	7.37	7.63	9.26	9.54	10.79	11.07	10.74	11.19	---	---	---	---
31	---	---	9.41	9.76	---	---	10.60	10.89	---	---	---	---
MONTH	---	---	6.84	9.76	9.66	11.53	9.85	11.61	---	---	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

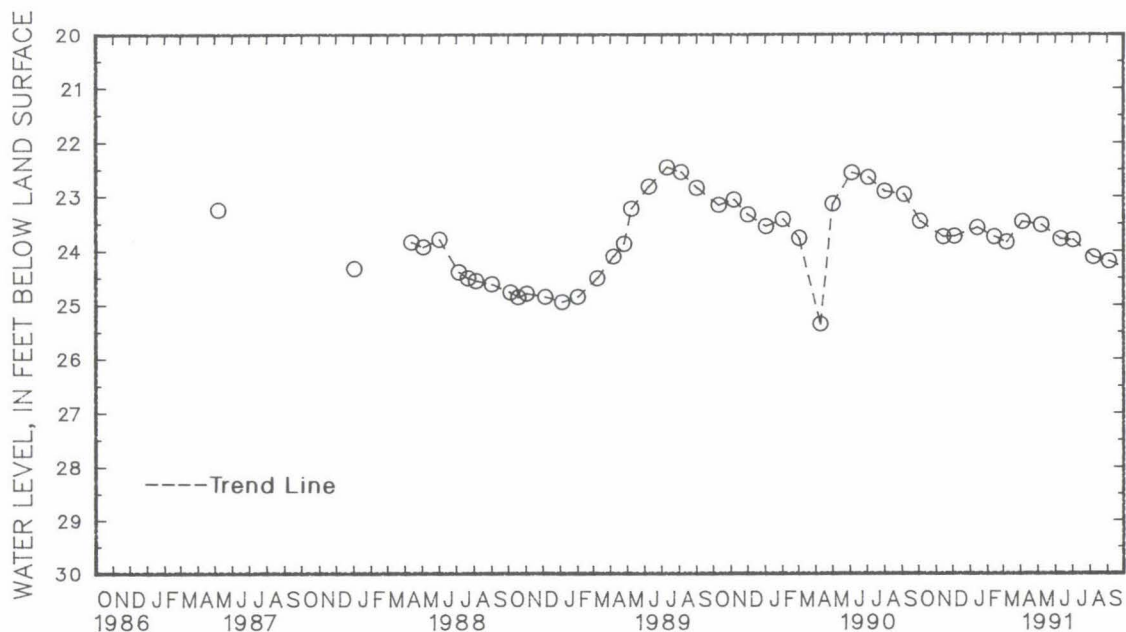
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 103. SITE ID.--385623076274401. PERMIT NUMBER.--AA-73-3315.
LOCATION.--Lat 38°56'23", long 76°27'44", Hydrologic Unit 02060004, off West Lake Dr, 900 ft north of intersection
with Farragut Rd.
Owner: Mildred Hudson.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 46 ft; casing diameter 4 in., to 39 ft;
screen diameter 2 in. from 39 to 46 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 26.5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.2 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--May 1987, January 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.46 ft below land surface, July 10, 1989;
lowest measured, 25.39 ft below land surface, April 9, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 3	23.47	DEC 4	23.75	FEB 13	23.76	APR 4	23.48	JUN 10	23.80	AUG 7	24.14
NOV 14	23.76	JAN 14	23.59	MAR 7	23.86	MAY 7	23.54	JUL 2	23.82	SEP 4	24.22
WATER YEAR 1991		HIGHEST	23.47	OCT 3, 1990		LOWEST	24.22	SEP 4, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ed 45. SITE ID.--385406076383901. PERMIT NUMBER.--AA-74-1005.

LOCATION.--Lat 38°54'06", long 76°38'39", Hydrologic Unit 02060006, at Anne Arundel County Police Academy, near Davidsonville.

Police Academy, near Davidsonville.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 157 ft; casing diameter 4 in., to 147 ft; screen diameter 2 in. from 147 to 157 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of coupling, 0.87 ft above land surface.

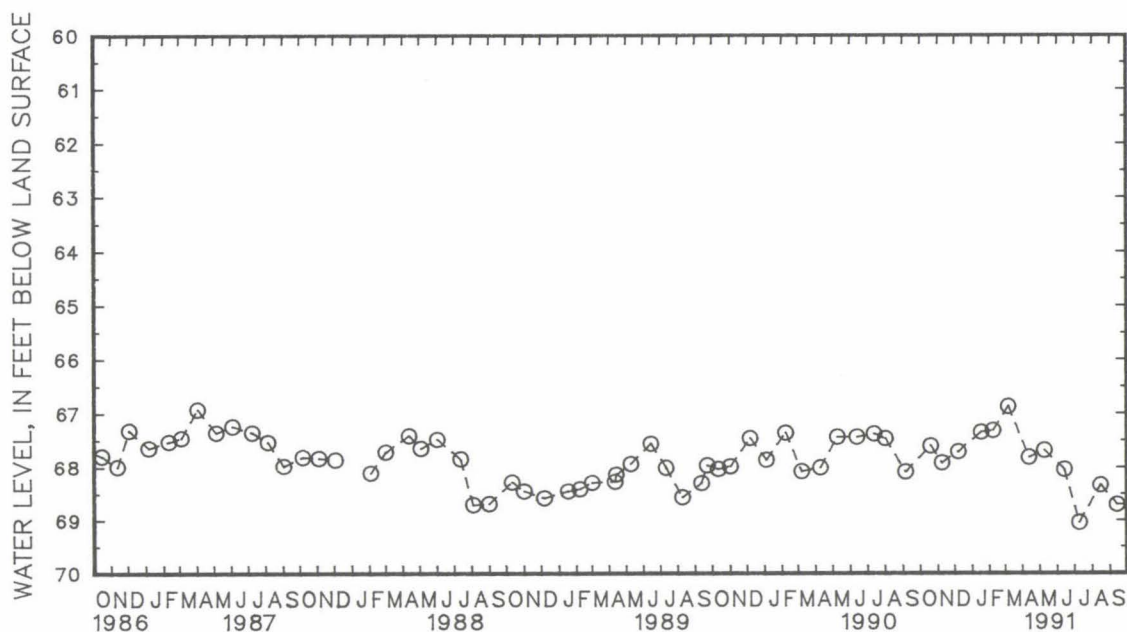
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.51 ft below land surface, May 6, 1980;
lowest measured, 69.06 ft below land surface, July 9, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 19	67.62	DEC 7	67.73	FEB 7	67.33	APR 12	67.84	JUN 13	68.07	AUG 15	68.35				
NOV 8	67.94	JAN 17	67.36	MAR 6	66.88	MAY 9	67.71	JUL 9	69.06	SEP 13	68.72				
WATER YEAR 1991		HIGHEST	66.88	MAR 6, 1991		LOWEST		69.06		JUL 9, 1991					



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Fd 43. SITE ID.--384646076352401. PERMIT NUMBER.--AA-74-1004.

LOCATION.--Lat 38°46'46", long. 76°35'24", Hydrologic Unit 02060004 at Tracys Landing Regional Park, 0.2 mi east of Tracys Landing.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 280 ft, casing diameter 4 in., to 231 ft; casing diameter 2 in. from 231 to 270 ft; screen diameter 2 in. from 270 to 280 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of coupling, 0.94 ft above land surface.

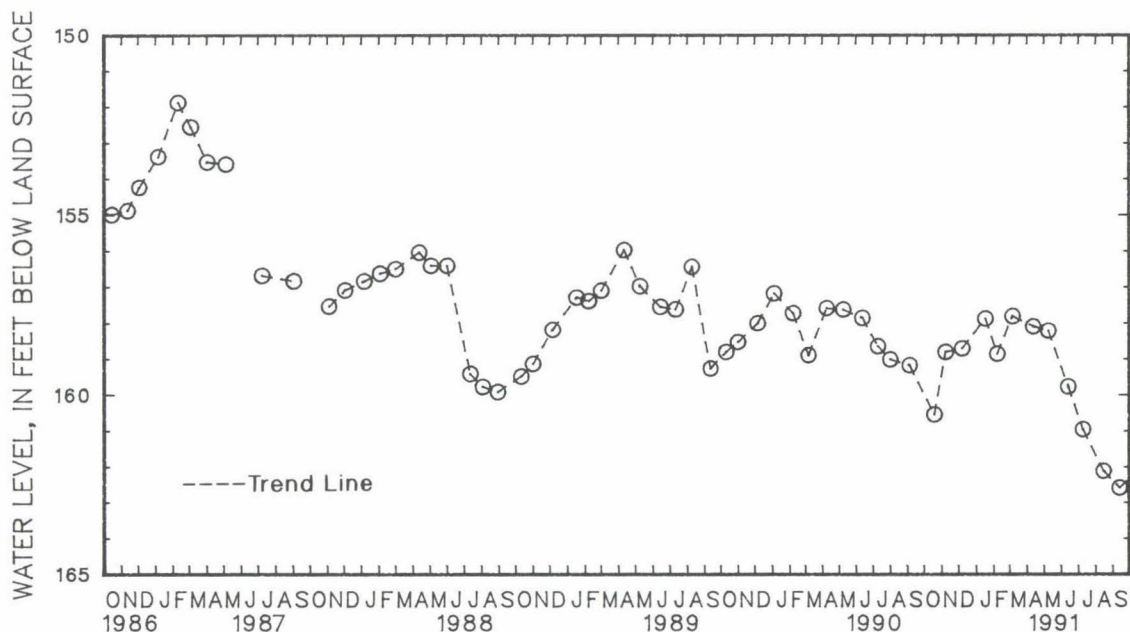
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 143.90 ft below land surface, May 6, 1980; lowest measured, 162.60 ft below land surface, Sept. 13, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	160.56	DEC 7	158.72	FEB 7	158.87	APR 12	158.10	JUN 13	159.78	AUG 15	162.13
NOV 8	158.82	JAN 17	157.88	MAR 6	157.81	MAY 9	158.22	JUL 9	160.97	SEP 13	162.60
WATER YEAR 1991		HIGHEST	157.81	MAR 6, 1991		LOWEST	162.60	SEP 13, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE CITY

WELL NUMBER.--2S5E- 1. SITE ID.--391617076322001.

LOCATION.--Lat 39°16'17", long 76°32'20", Hydrologic Unit 02060003, near Holabird Ave. and Pumphrey St. at Holabird Industrial Park.

Owner: City of Baltimore.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 13 in. to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: lip of discharge pipe, 2.0 ft above land-surface from April 1943 to April 1966;

top of casing extension, 1.8 ft above land surface from April 1966 to current year.

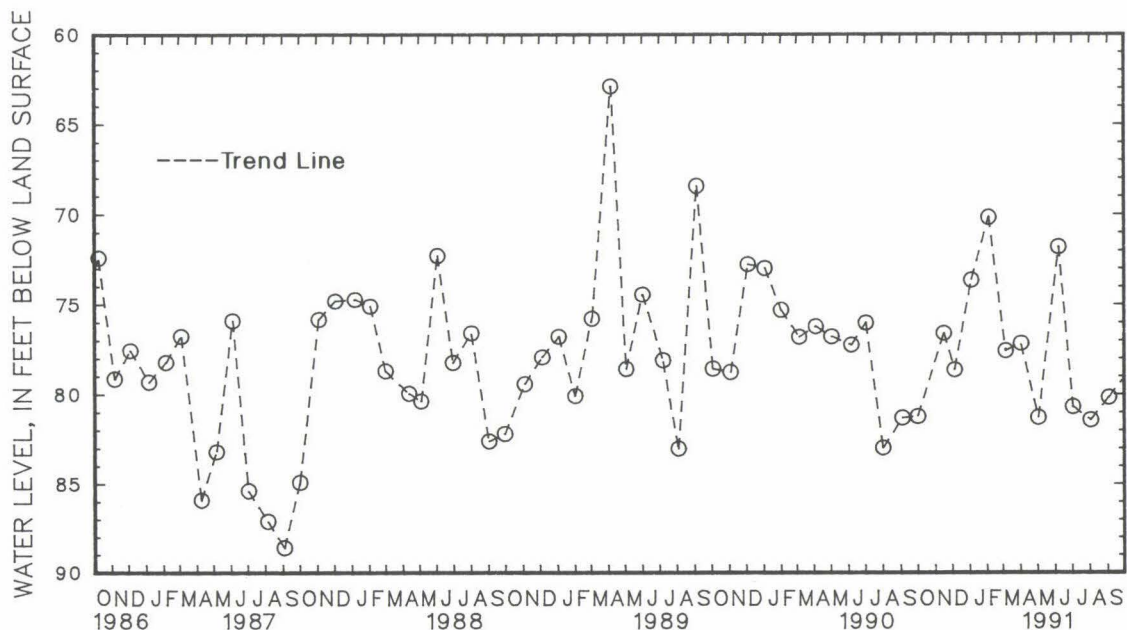
REMARKS.--Maryland Water-Level Network observation well. Water level reported 58 ft below land surface in 1934.

PERIOD OF RECORD.--April 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.15 ft below land surface, Sept. 27, 1976;
lowest measured, 103.70 ft below land surface, Oct. 15, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 1	81.31	DEC 5	78.70	FEB 4	70.18	APR 2	77.28	JUN 7	71.81	AUG 2	81.55	NOV 16	76.62	JAN 4	73.66
				MAR 6		MAY 2		JUL 2		SEP 3					
WATER YEAR 1991		HIGHEST 70.18		FEB 4, 1991		LOWEST 81.55		AUG 2, 1991							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

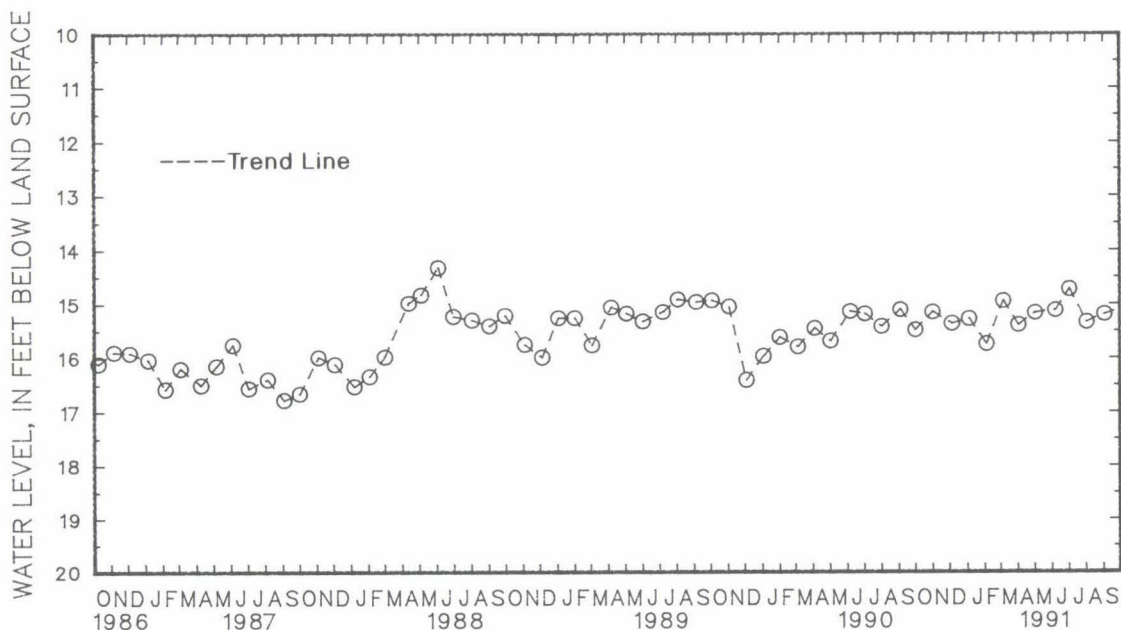
MARYLAND--Continued

BALTIMORE CITY--Continued

WELL NUMBER.--3S2E- 5. SITE ID.--391600076353301. PERMIT NUMBER.--BC-81-0087.
 LOCATION.--Lat 39°16'00", long 76°35'33", Hydrologic Unit 02060003, at Latrobe Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 136 ft; casing diameter 4 in., to 126 ft; screen diameter 4 in. from 126 to 136 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 20 ft. above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 0.6 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--January 1983 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.94 ft below land surface, Nov. 5, 1985; lowest measured, 17.71 ft below land surface, Dec. 30, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	15.51	DEC 5	15.39	FEB 4	15.78	APR 2	15.42	JUN 7	15.14	AUG 2	15.37
NOV 1	15.17	JAN 4	15.30	MAR 6	14.96	MAY 2	15.19	JUL 2	14.74	SEP 3	15.22
WATER YEAR 1991		HIGHEST	14.74	JUL 2, 1991		LOWEST	15.78	FEB 4, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE CITY--Continued

WELL NUMBER.--3S5E- 46. SITE ID.--391556076315301. PERMIT NUMBER.--BC-81-0088.

LOCATION.--Lat 39°15'56", long 76°31'53", Hydrologic Unit 02060003, at Holabird Industrial Park, near Colgate Creek.

Owner: U.S. Geological Survey.

AQUIFER.-- Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 75 ft; casing diameter 4 in., to 63 ft; screen diameter 4 in. from 63 to 73 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.8 ft above land surface.

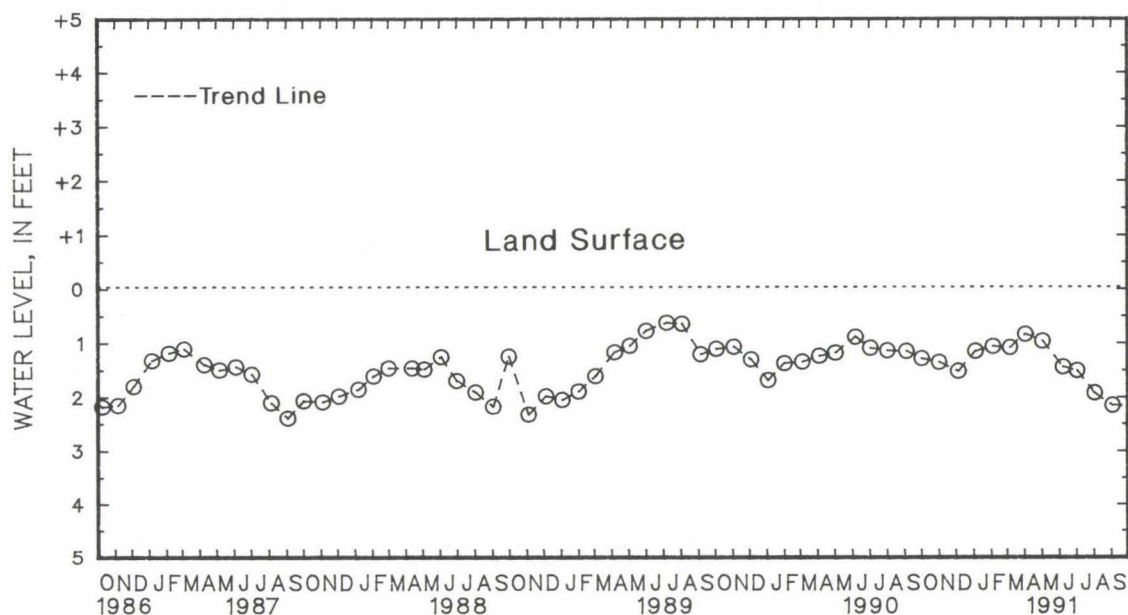
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.22 ft above land surface, May 5, 1983; lowest measured, 3.07 ft below land surface, July 8, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	1.31	DEC 5	1.55	FEB 4	1.08	APR 2	.85	JUN 7	1.47	AUG 2	1.96
NOV 1	1.38	JAN 4	1.17	MAR 6	1.10	MAY 2	.98	JUL 2	1.54	SEP 3	2.19
WATER YEAR 1991		HIGHEST .85		APR 2, 1991		LOWEST 2.19		SEP 3, 1991			



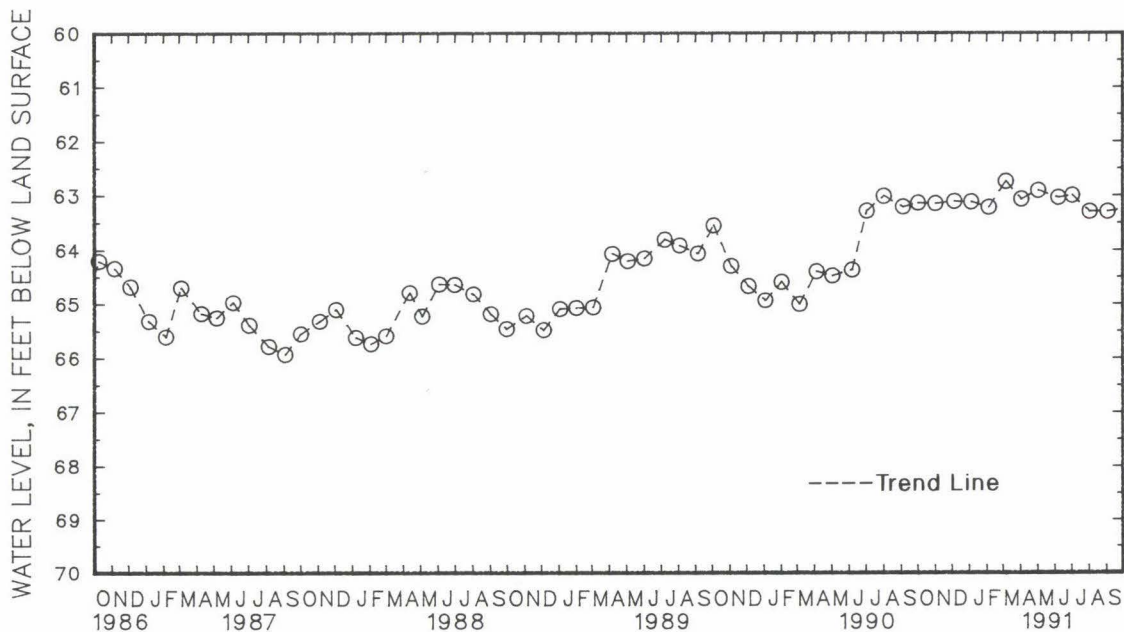
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
BALTIMORE CITY--Continued

WELL NUMBER.--5S2E- 24. SITE ID.--391349076354501. PERMIT NUMBER.--BC-81-0089.
LOCATION.--Lat 39°13'49", long 76°35'45", Hydrologic Unit 02060003, at Farrington Park.
Owner: U.S. Geological Survey.
AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 272 ft; casing diameter 4 in., to 262 ft; screen diameter 3 in. from 262 ft to 272 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 0.35 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--January 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.74 ft below land surface, Jan. 7, 1985; lowest measured, 66.36 ft below land surface, May 5, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	63.15	DEC 5	63.12	FEB 4	63.23	APR 2	63.08	JUN 7	63.05	AUG 2	63.31
NOV 1	63.16	JAN 4	63.13	MAR 6	62.75	MAY 2	62.92	JUL 2	63.01	SEP 3	63.31
WATER YEAR 1991		HIGHEST	62.75	MAR 6, 1991		LOWEST	63.31	AUG 2, 1991		SEP 3, 1991	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE CITY--Continued

WELL NUMBER.--5S2E- 25. SITE ID.--391349076354502. PERMIT NUMBER.--BC-81-0090.

LOCATION.--Lat 39°13'49", long 76°35'45", Hydrologic Unit 02060003, at Farrington Park.

Owner: U.S. Geological Survey.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 4 in., to 105 ft; screen diameter 3 in. from 105 to 115 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.17 ft above land surface.

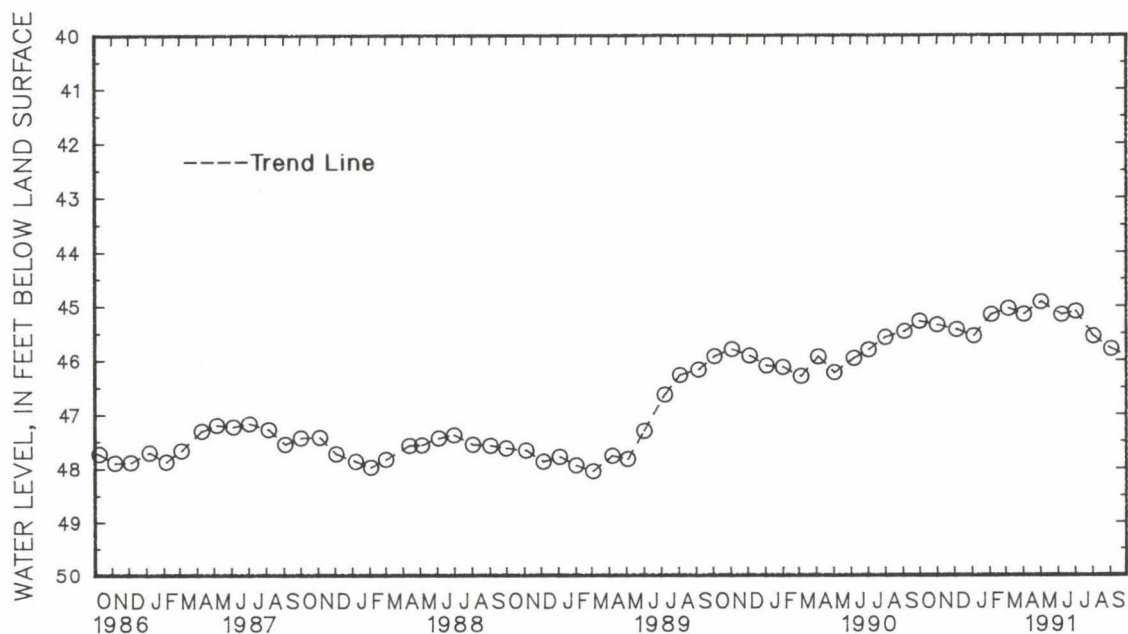
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.58 ft below land surface, May 2, 1984; lowest measured, 48.08 ft below land surface, March 3, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	45.28	DEC 5	45.44	FEB 4	45.16	APR 2	45.16	JUN 7	45.17	AUG 2	45.58
NOV 1	45.35	JAN 4	45.56	MAR 6	45.05	MAY 2	44.93	JUL 2	45.11	SEP 3	45.82
WATER YEAR 1991		HIGHEST	44.93	MAY 2, 1991	LOWEST	45.82	SEP 3, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY

WELL NUMBER.--BA Cd 26. SITE ID.--393129076384201. PERMIT NUMBER.--BA-02-8527.

LOCATION.--Lat 39°31'29", long 76°38'42", Hydrologic Unit, 02060003, 1.4 mi south of Sparks near York Rd.

Owner: Diecraft, Inc.

AQUIFER.--Baltimore Gneiss of Precambrian age. Aquifer code: 400BLMR.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 250 ft; casing diameter 6 in., to 19 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.30 ft above land surface.

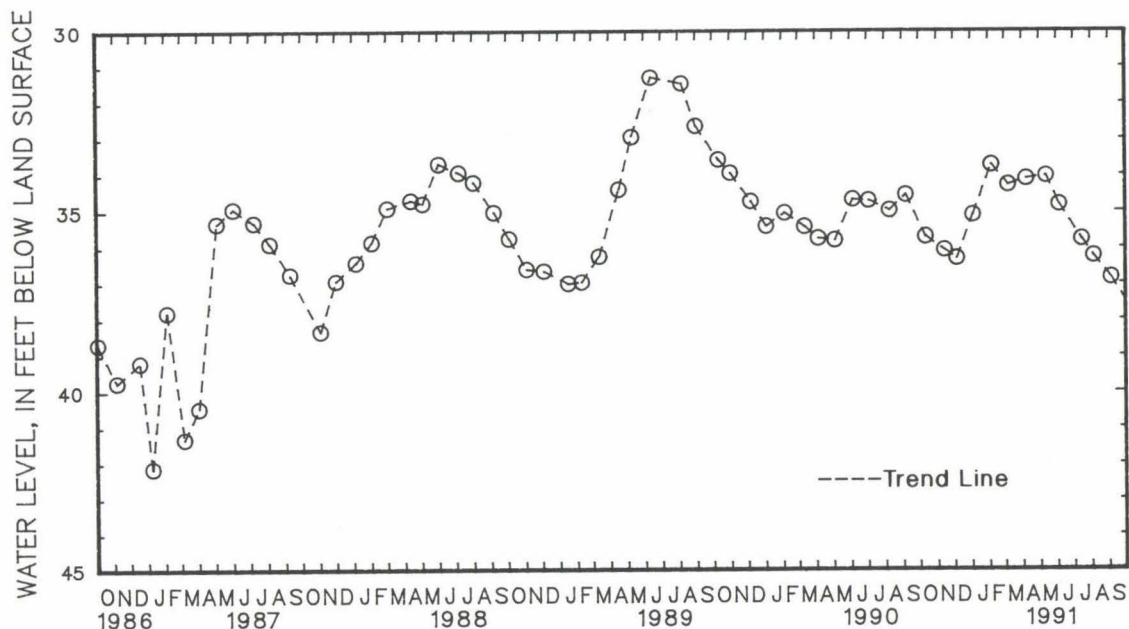
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.42 ft below land surface, Sept. 9, 1975; lowest measured, 80.20 ft below land surface, Dec. 23, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 12	35.76	DEC 6	36.37	FEB 6	33.75	APR 8	34.14	JUN 5	34.86	AUG 5	36.30	NOV 14	36.13	JAN 4	35.15
WATER YEAR 1991		HIGHEST 33.75		FEB 6, 1991		LOWEST 36.91		SEP 5, 1991							



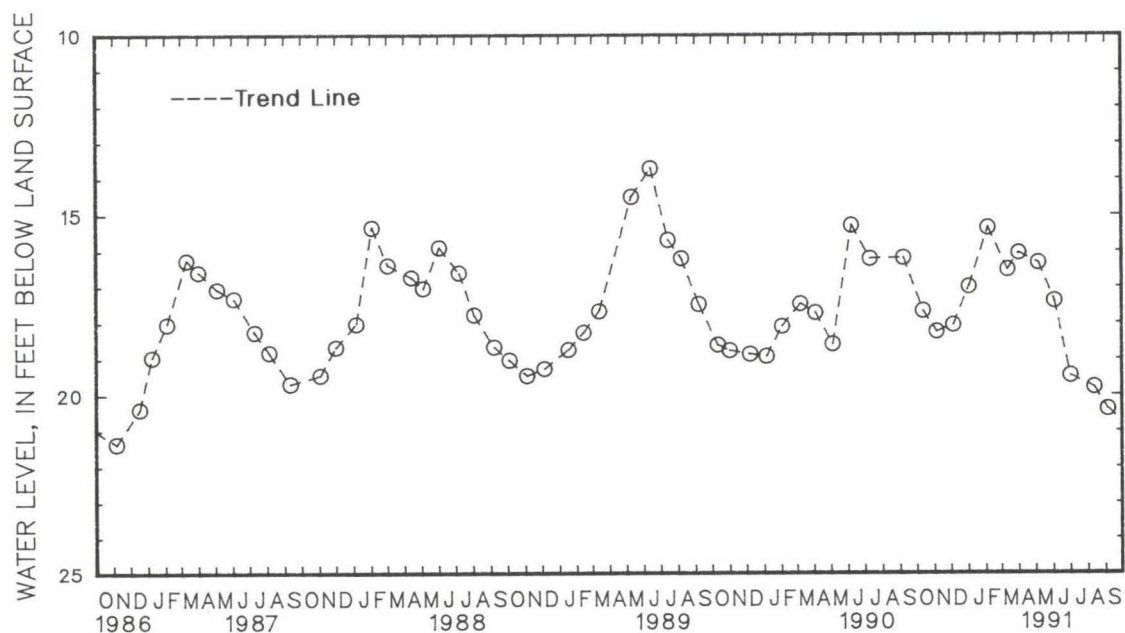
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ce 21. SITE ID.--393102076341801. PERMIT NUMBER.--BA-02-1266.
LOCATION.--Lat 39°31'02", long 76°34'18", Hydrologic Unit 02060003, on Paper Mill Rd., 0.6 mi west of Jacksonville.
Owner: Baltimore County.
AQUIFER.--Loch Raven Schist of Paleozoic Age. Aquifer code: 300LCRV.
WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 350 ft; casing diameter 10 in., to 12.4 ft; casing diameter 6 in., to 33.1 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 536 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--November and December 1955, November 1956 through September 1975, July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.60 ft below land surface, June 23, 1972; lowest measured, 21.54 ft below land surface, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	17.72	DEC 5	18.11	FEB 5	15.37	APR 1	16.08	JUN 3	17.44	AUG 12	19.85
NOV 5	18.30	JAN 2	17.02	MAR 12	16.55	MAY 6	16.36	JUL 1	19.53	SEP 5	20.46
WATER YEAR 1991		HIGHEST	15.37	FEB 5, 1991		LOWEST	20.46	SEP 5, 1991			

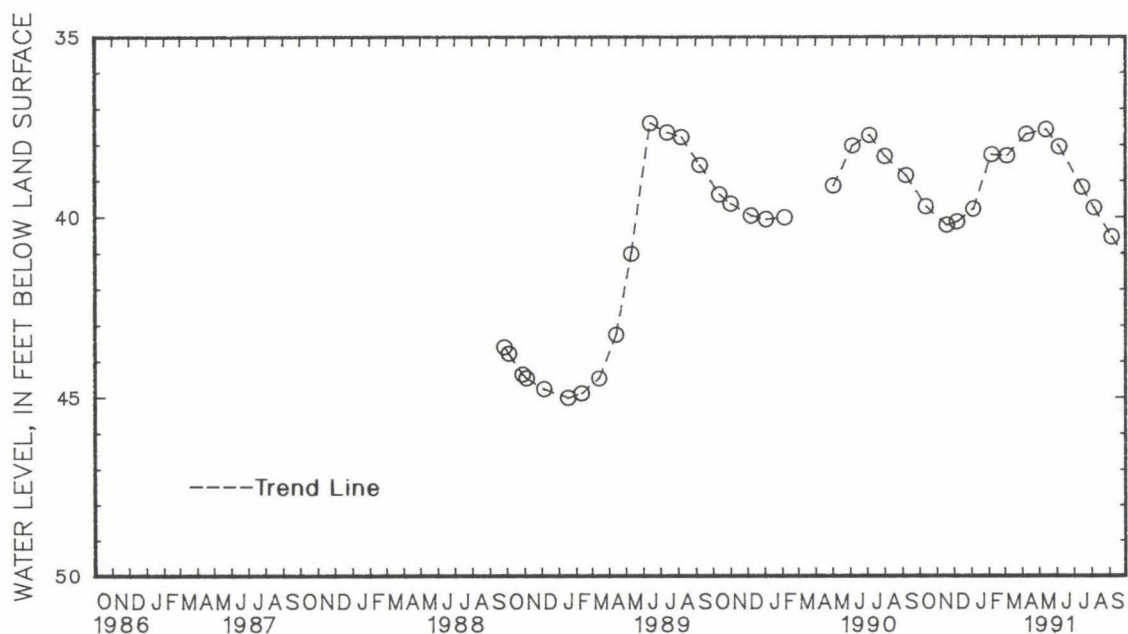


GROUND-WATER LEVELS
MARYLAND--Continued
BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Dc 444. SITE ID.--392931076410301. PERMIT NUMBER.--BA-81-4198.
LOCATION.--Lat 39°29'31", Long 76°41'03", Hydrologic Unit 02060003, Oregon Ridge Park.
Owner: Baltimore County Parks and Recreation.
AQUIFER.--Cockeysville Marble of Paleozoic age. Aquifer code: 300CCKV.
WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 300 ft; casing diameter 6 in., to 88 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 1.11 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--September 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.40 ft below land surface, June 13, 1989; lowest measured, 45.07 ft below land surface, Jan. 17, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	39.75	DEC 6	40.17	FEB 6	38.28	APR 8	37.71	JUN 5	38.06	AUG 5	39.78
NOV 18	40.26	JAN 4	39.81	MAR 5	38.31	MAY 13	37.58	JUL 15	39.20	SEP 5	40.59
WATER YEAR 1991		HIGHEST	37.58	MAY 13, 1991		LOWEST	40.59	SEP 5, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ea 18. SITE ID.--392045076512501. PERMIT NUMBER.--BA-01-8151.

LOCATION.--Lat 39°20'45", long 76°51'25", Hydrologic Unit 02060003, at Granite.

Owner: Maryland National Guard.

AQUIFER.--Woodstock Granite of Paleozoic age. Aquifer code: 300WDCK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 250 ft; casing diameter 10 in., to 50.7 ft; casing diameter 6 in. with depth to 71.3 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 491 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.5 ft above land surface.

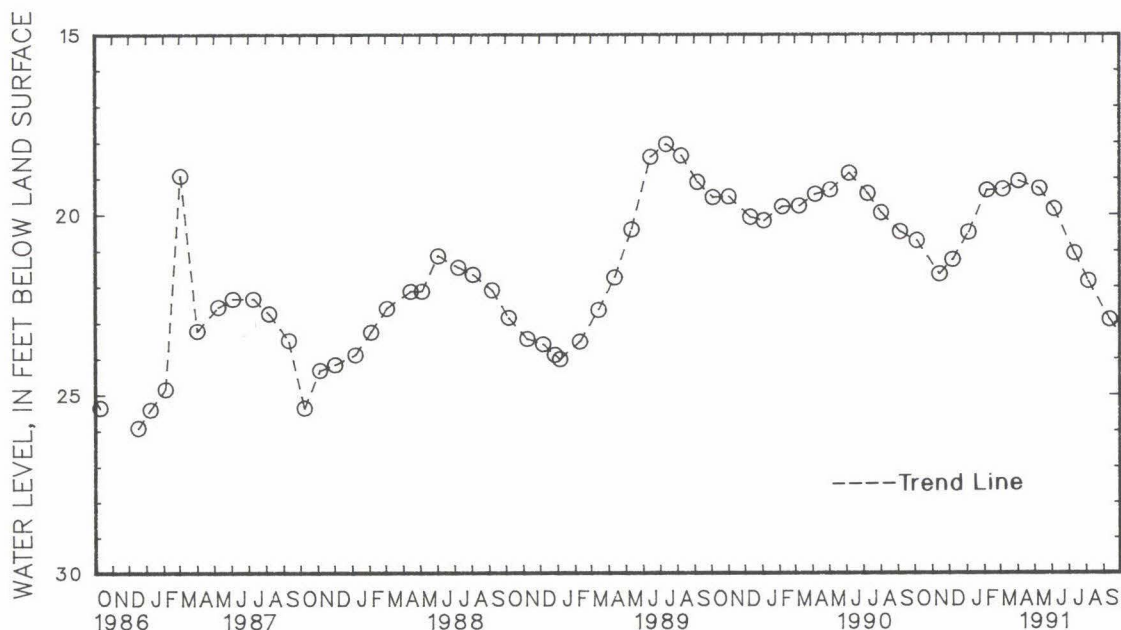
REMARKS.--Maryland Water-Level Network observation well. Water level measured 24 ft below land-surface datum, Dec. 20, 1954.

PERIOD OF RECORD.-- November 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.94 ft below land surface, June 24, 1972; lowest measured, 27.57 ft below land surface, Sept. 13, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	20.76	DEC 7	21.29	FEB 6	19.35	APR 3	19.09	JUN 5	19.87	AUG 5	21.89
NOV 14	21.70	JAN 4	20.52	MAR 6	19.32	MAY 10	19.30	JUL 11	21.11	SEP 12	22.97
WATER YEAR 1991		HIGHEST	19.09	APR 3, 1991	LOWEST	22.97	SEP 12, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ec 43. SITE ID.--392305076432001.

LOCATION.--Lat 39°23'05", long 76°43'20", Hydrologic Unit 02060003, near Pikesville at Druid Ridge Cemetery.

Owner: Druid Ridge Cemetery.

AQUIFER.--Baltimore Gneiss of Precambrian age. Aquifer code: 400BLMR.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 111 ft; casing diameter 6 in., to 40 ft; open hole.

DATUM.--Elevation of land surface is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.0 ft above land surface.

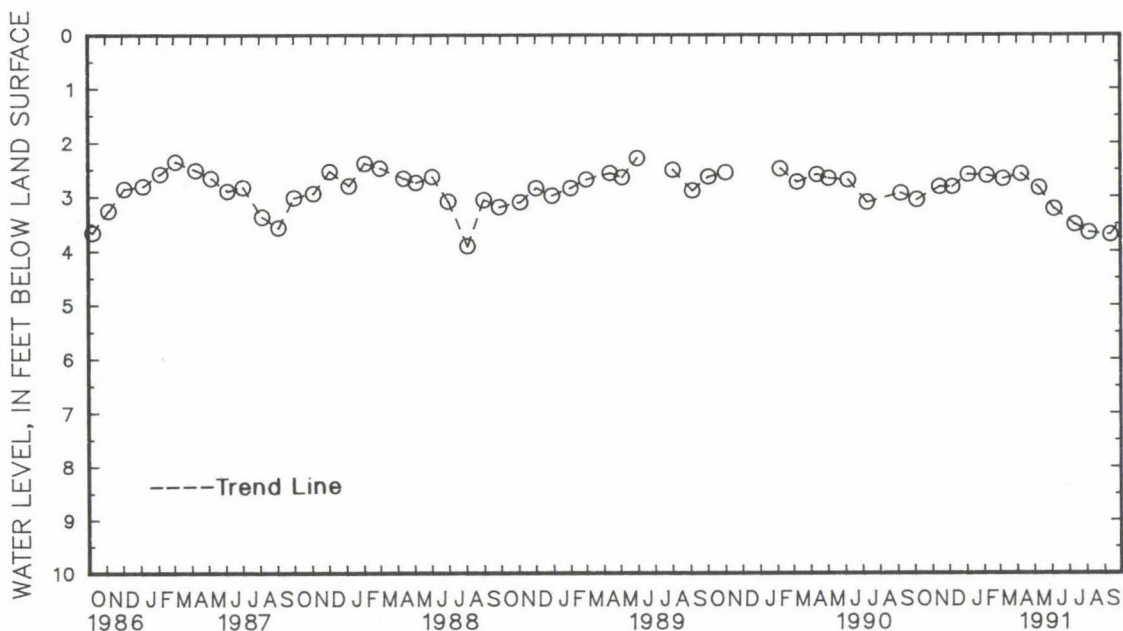
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--March 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.27 ft below land surface, June 24, 1972;
lowest measured, 4.69 ft below land surface, Nov. 11, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 5	3.08	DEC 7	2.84	FEB 6	2.63	APR 8	2.60	JUN 5	3.25	AUG 5	3.69				
NOV 14	2.84	JAN 4	2.61	MAR 7	2.69	MAY 10	2.86	JUL 11	3.54	SEP 12	3.73				
WATER YEAR 1991		HIGHEST		2.60		APR 8, 1991		LOWEST		3.73		SEP 12, 1991			



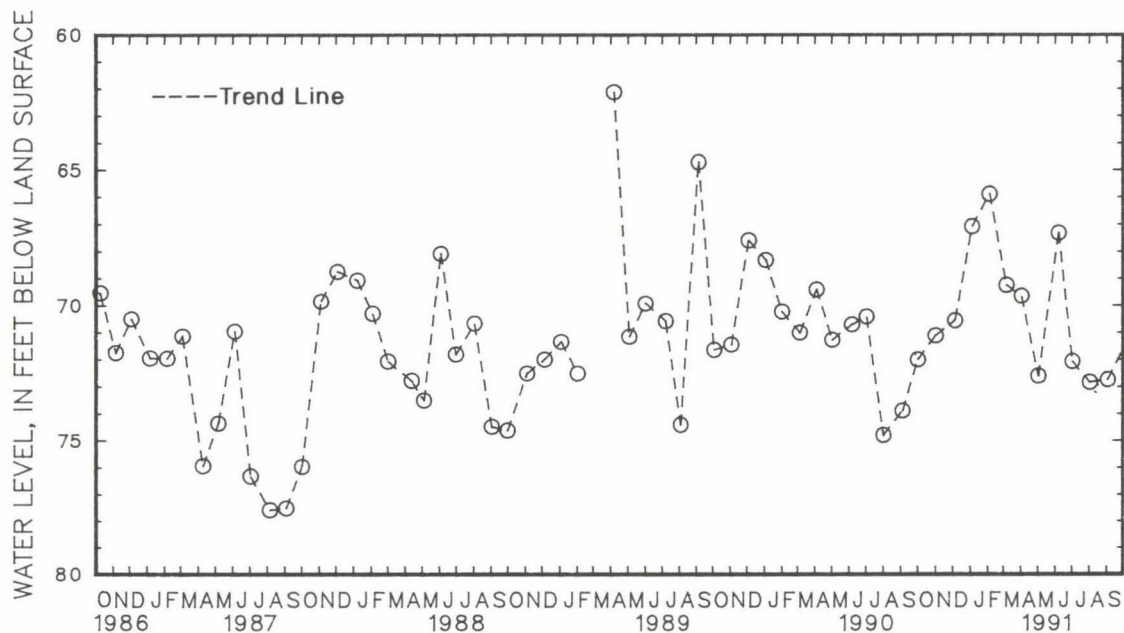
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Fe 19. SITE ID.--391607076312901.
LOCATION.--Lat 39°16'07", long 76°31'29", Hydrologic Unit 02060003, 0.2 mi east of Willow Spring Rd., Dundalk.
Owner: Seagrams Distillery.
AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 402 ft; casing diameter 8 in., to unknown depth; screen length 35 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 0.5 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--January 1952 to March 1954, January 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.34 ft below land surface, Jan. 3, 1983; lowest measured, 95.88 ft below land surface, Oct. 6, 1952.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	72.03	DEC 5	70.57	FEB 4	65.90	APR 2	69.71	JUN 7	67.33	AUG 2	72.92
NOV 1	71.13	JAN 4	67.09	MAR 6	69.30	MAY 2	72.69	JUL 2	72.15	SEP 3	72.82
WATER YEAR 1991		HIGHEST	65.90	FEB 4, 1991	LOWEST	72.92	AUG 2, 1991				



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Gf 11. SITE ID.--391356076293501.

LOCATION.--Lat 39°13'56", long 76°29'35", Hydrologic Unit 02060003, near Tin Mill Rd., Sparrows Point.

Owner: Bethlehem Steel Co.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 645 ft; casing diameter 14 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 13.6 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 2.55 ft above land surface.

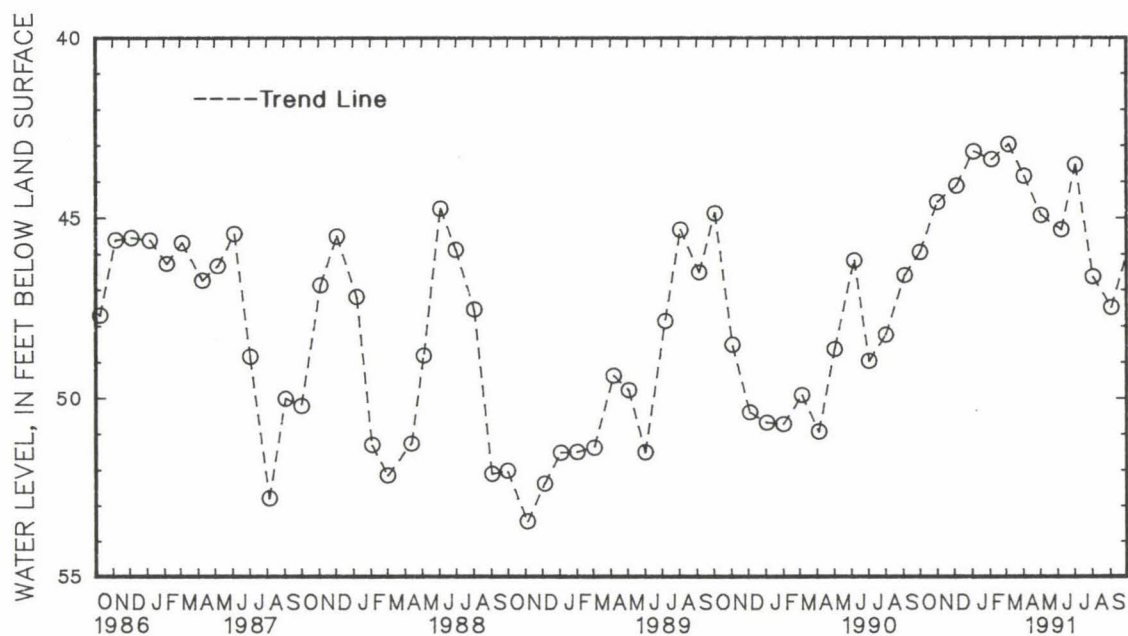
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September 1981, March 1982, September 1982, January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.25 ft below land surface, June 3, 1983;
lowest measured, 53.47 ft below land surface, Nov. 4, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	45.95	DEC 5	44.12	FEB 4	43.39	APR 2	43.86	JUN 7	45.36	AUG 2	46.68
NOV 1	44.57	JAN 4	43.17	MAR 6	42.97	MAY 2	44.96	JUL 2	43.55	SEP 3	47.53
WATER YEAR 1991		HIGHEST	42.97	MAR 6, 1991	LOWEST	47.53	SEP 3, 1991				



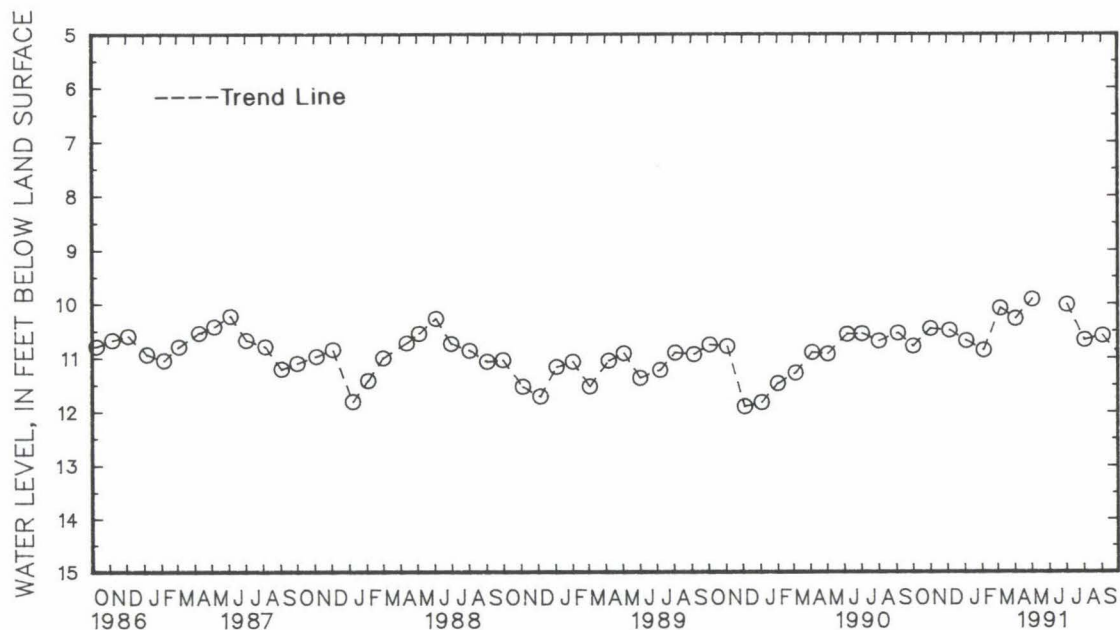
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Gf 168. SITE ID.--391257076282501.
LOCATION.--Lat 39°12'57", long 76°28'25", Hydrologic Unit 02060003, at Sparrows Point.
Owner: Bethlehem Steel Co.
AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 308 ft; casing diameter 10 to 6 in., to 283 ft;
screened from 283 to 304 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 0.60 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--September 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.01 ft below land surface, July 6, 1983;
lowest measured, 109.54 ft below land surface, July 18, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL			
OCT	1	10.80	DEC	5	10.50	FEB	4	10.88	APR	2	10.29	JUL	2	10.03	SEP	3	10.62
NOV	1	10.47	JAN	4	10.70	MAR	6	10.09	MAY	2	9.93	AUG	2	10.70			
WATER YEAR 1991			HIGHEST		9.93	MAY 2, 1991		LOWEST		10.88	FEB 4, 1991						



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Gf 169, SITE. ID.--391256076282501.

LOCATION.--Lat 39°12'56", long 76°28'25", Hydrologic Unit 02060003, at Sparrows Point.

Owner: Bethlehem Steel Co.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 224 ft; casing diameter 10 to 6 in., to 202 ft; screened from 202 to 222 ft.

INSTRUMENTATION.-- Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

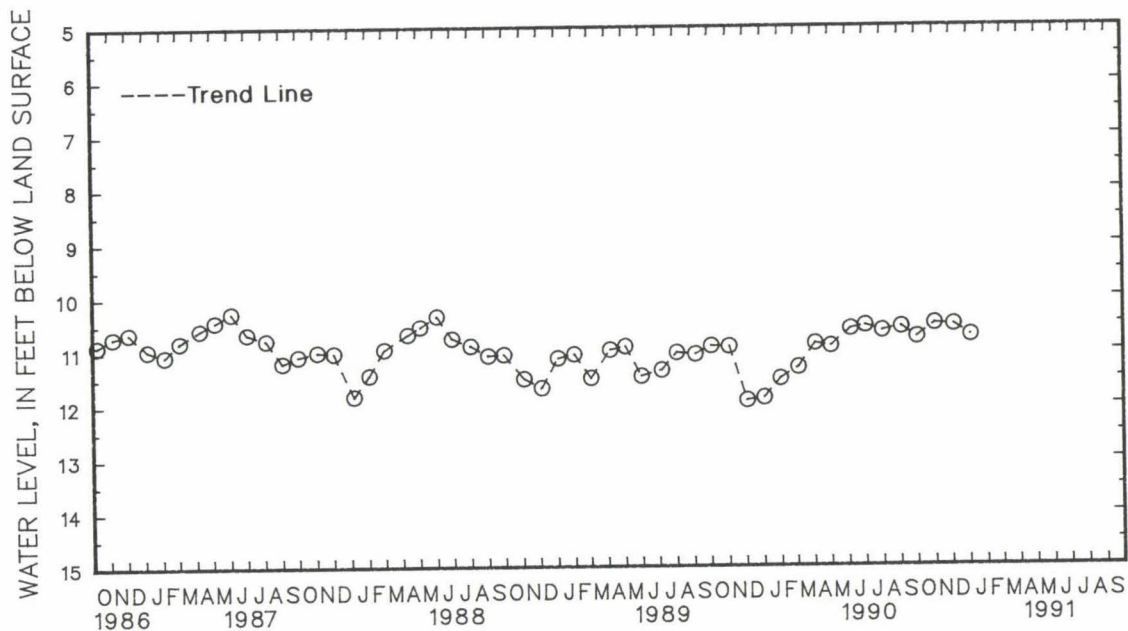
REMARKS.--Maryland Water-Level Network observation well. Well discontinued February 1991 due to corroded casing.

PERIOD OF RECORD.--August 1943 to September 1946, March 1948 to February 1991.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.76 ft below land surface, Nov. 5, 1985; lowest measured, 85.19 ft below land surface, Sept. 30, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	10.77	NOV 1	10.52	DEC 5	10.54	JAN 4	10.74
WATER YEAR 1991		HIGHEST	10.52	NOV 1, 1990	LOWEST	10.77	OCT 1, 1990



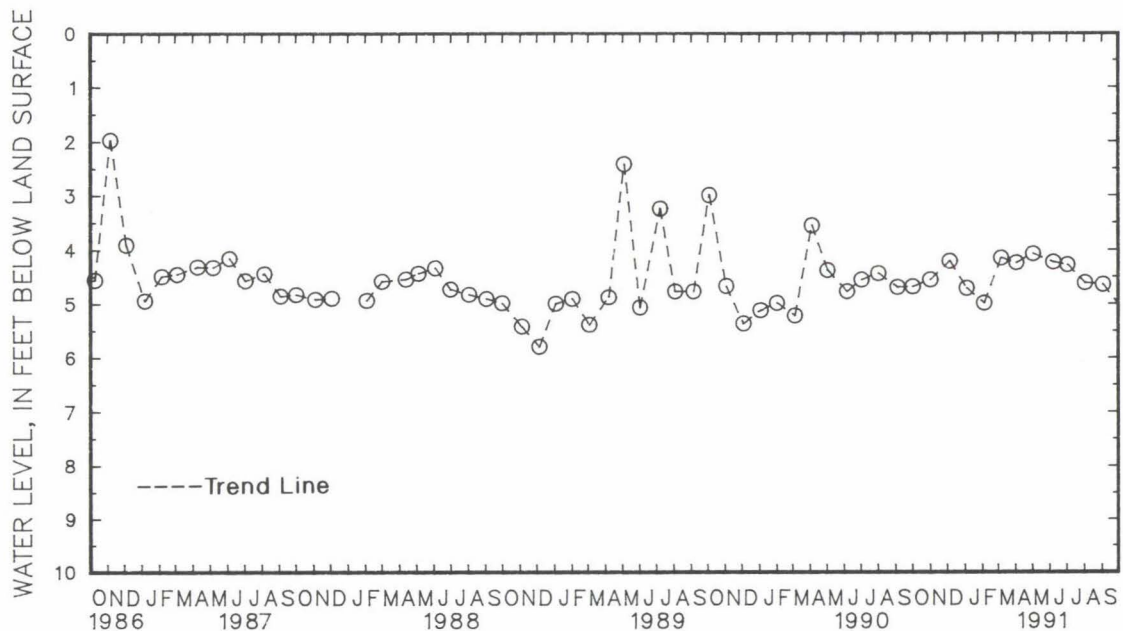
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Gf 178. SITE ID.--391226076253401.
LOCATION.--Lat 39°12'26", long 76°25'34", Hydrologic Unit 02060003, at former Bay Shore Park.
Owner: Bethlehem Steel Co.
AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 339.5 ft; casing diameter 8 in. to unknown depth; screen at unknown depth.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 1.00 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--October 1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.32 ft below land surface, April 6, 1984; lowest measured, 61.97 ft below land surface, Dec. 2, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	4.71	DEC 5	4.23	FEB 4	5.02	APR 2	4.26	JUN 7	4.25	AUG 2	4.64
NOV 1	4.58	JAN 4	4.74	MAR 6	4.17	MAY 2	4.09	JUL 2	4.30	SEP 3	4.67
WATER YEAR 1991		HIGHEST	4.09	MAY 2, 1991		LOWEST	5.02	FEB 4, 1991			

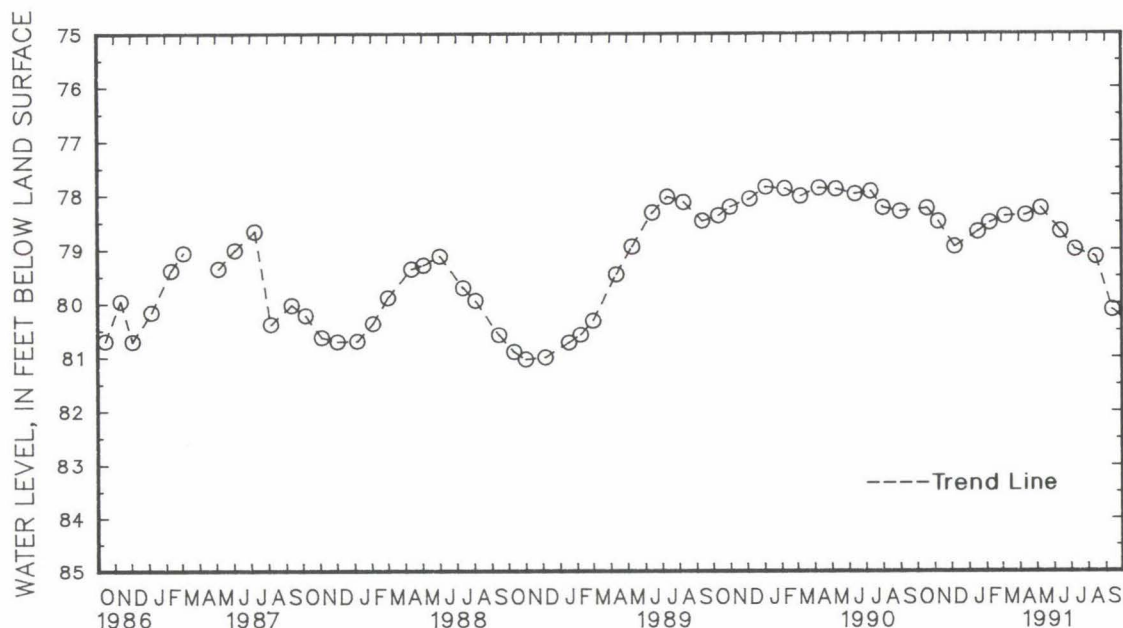


GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued

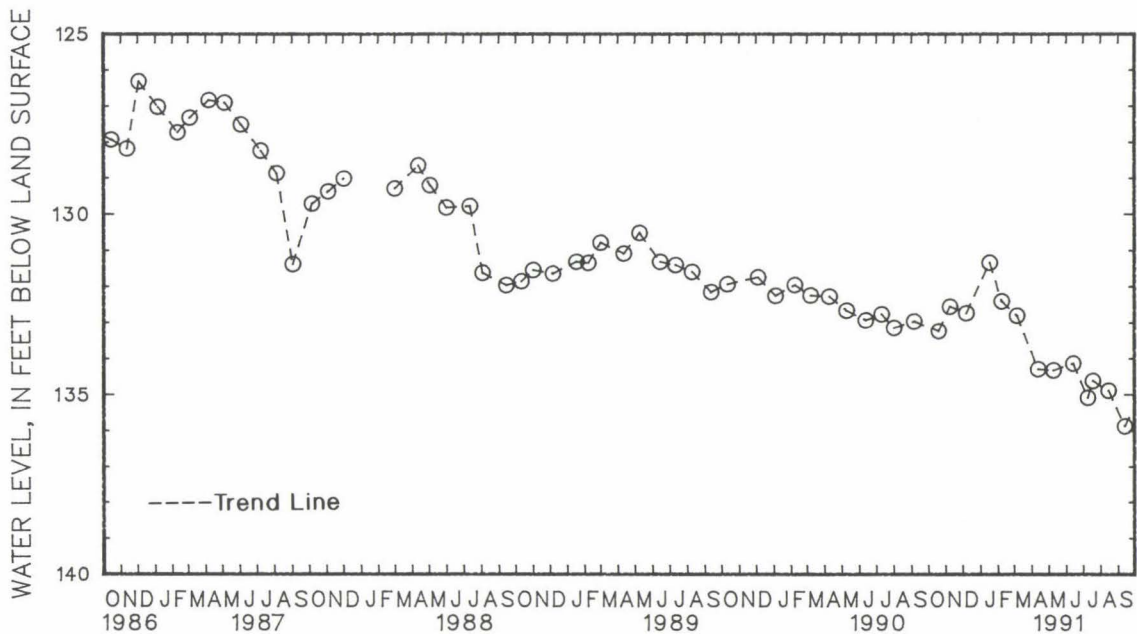
WELL NUMBER.--CA Bb 28. SITE ID.--384333076394702. PERMIT NUMBER.--CA-73-3721.
LOCATION.--Lat 38°43'33", long 76°39'47", Hydrologic Unit 02060006, at Dunkirk Regional Park, Dunkirk.
Owner: U.S. Geological Survey.
AQUIFER.--Nanjemoy Formation of Eocene age. Aquifer code: 124NNJM.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 170 ft; casing diameter 4 in., to 147 ft; casing diameter 2 in. from 147 to 160 ft; screen diameter 2 in. from 160 to 170 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 1.60 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--July 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.60 ft below land surface, June 7, 1983;
lowest measured, 81.18 ft below land surface, Jan. 5, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	78.25	DEC 7	78.97	FEB 7	78.52	APR 12	78.38	JUN 13	78.68	AUG 15	79.16
NOV 8	78.50	JAN 17	78.69	MAR 6	78.40	MAY 9	78.25	JUL 9	79.02	SEP 13	80.15
WATER YEAR 1991		HIGHEST	78.25	OCT 19, 1990	MAY 9, 1991	LOWEST		80.15	SEP 13, 1991		



WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Cc 39. SITE ID.--383934076320202. PERMIT NUMBER.--CA-01-2070.
 LOCATION.--Lat 38°39'34", long 76°32'02", Hydrologic Unit 02060004, at Naval Research Laboratory, Randle Cliff.
 Owner: U.S. Navy.
 AQUIFER.--Aquia Formation of Lower Cretaceous age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 540 ft; casing diameter 8 in., to 520 ft; screen diameter 8 in. from 520 to 540 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from Dec. 6, 1977 to Jan. 2, 1980. Equipped with digital water-level recorder--60-minute recorder interval from Feb. 8, 1980 to current year.
 DATUM.--Elevation of land surface is 93.74 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 1.70 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--December 1977 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.72 ft below sea level, Jan. 26, 1978; lowest measured, 46.15 ft below sea level, Feb. 2, 1980.

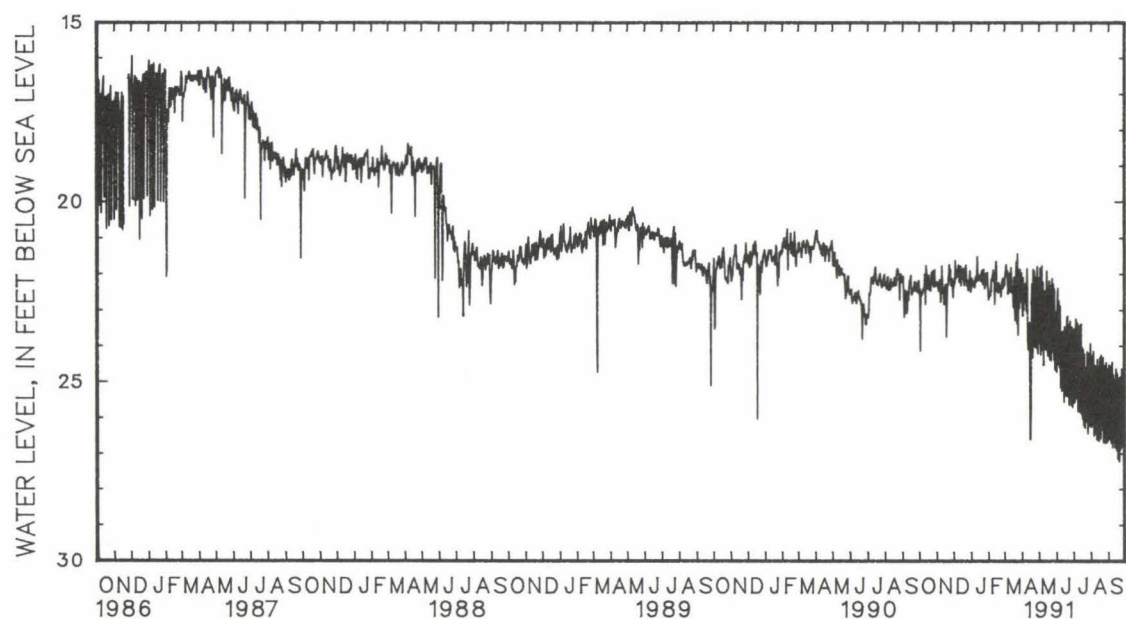
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.93	22.55	21.78	22.27	21.87	22.37	21.98	22.40	22.21	22.71	21.95	22.30
2	21.96	22.43	21.81	22.23	21.85	22.19	21.76	22.12	22.18	22.67	21.68	22.06
3	22.17	24.15	21.82	22.34	21.54	22.25	21.74	22.19	22.16	22.56	21.54	21.90
4	21.88	22.61	22.07	22.47	21.20	21.63	21.86	22.31	22.10	22.59	21.28	21.74
5	21.99	22.60	21.70	22.45	21.56	22.11	21.81	22.26	22.00	22.47	21.68	21.97
6	22.07	22.49	21.69	22.16	21.62	22.01	21.80	22.23	21.83	22.14	21.40	21.92
7	22.01	22.55	21.97	22.32	21.65	22.05	21.91	22.37	21.68	22.19	21.30	22.54
8	22.02	22.43	22.24	22.78	21.50	21.86	21.93	22.32	21.67	22.04	21.78	22.12
9	21.99	22.43	21.81	22.52	21.54	21.96	21.74	22.09	21.50	21.90	21.85	22.15
10	21.99	22.35	21.21	21.77	21.40	21.75	21.81	22.21	21.61	22.00	21.76	21.98
11	21.68	22.02	21.60	22.15	21.87	22.23	21.46	22.04	21.65	22.06	21.79	22.30
12	21.70	22.84	21.79	22.48	21.60	21.93	21.12	21.52	21.86	22.84	21.73	22.49
13	21.52	21.76	22.16	22.51	21.52	21.80	21.28	22.03	21.48	22.08	21.31	21.82
14	21.49	21.97	22.29	22.84	21.92	22.32	21.67	22.17	21.21	21.66	21.24	22.33
15	21.63	22.18	21.98	22.59	21.50	21.96	21.74	22.06	21.16	21.78	21.47	22.52
16	21.94	22.41	21.88	22.31	21.38	22.09	21.40	22.09	21.78	22.46	21.66	22.54
17	21.91	22.29	21.80	22.29	21.72	22.03	21.38	22.06	21.94	22.31	21.57	22.92
18	21.59	22.04	22.02	23.76	21.27	21.85	21.71	22.01	22.01	22.51	21.34	22.09
19	21.75	22.34	21.93	23.04	21.43	22.14	21.79	22.20	21.81	22.24	21.55	22.92
20	22.02	22.43	21.89	22.29	21.81	22.31	21.50	21.91	21.73	22.31	21.64	23.28
21	21.95	22.46	21.85	22.29	21.50	21.99	21.30	21.98	22.01	22.48	21.62	22.20
22	21.78	22.27	21.63	22.11	21.58	21.89	21.84	22.29	21.94	22.34	21.54	21.65
23	21.41	21.96	21.31	21.74	21.39	21.75	21.49	21.87	22.07	22.62	21.45	23.37
24	21.65	22.02	21.46	21.85	21.38	22.15	21.63	22.26	21.90	22.42	21.14	21.44
25	21.60	21.92	21.52	21.91	21.92	22.33	22.00	22.40	21.83	22.24	21.31	23.70
26	21.77	22.34	21.89	22.31	21.89	22.30	21.74	22.31	21.79	22.13	21.47	21.95
27	21.63	22.35	21.80	22.24	22.02	22.45	21.68	22.01	21.89	22.38	21.34	22.94
28	21.44	21.87	21.73	22.14	21.78	22.20	21.59	21.97	21.96	22.29	21.26	21.88
29	21.78	22.33	21.68	22.35	21.68	22.17	21.70	22.19	---	---	21.44	22.76
30	21.90	22.33	22.11	22.64	21.48	21.91	21.44	21.96	---	---	21.29	22.46
31	21.87	22.23	---	---	21.59	22.50	21.52	22.38	---	---	21.52	21.96
MONTH	21.41	24.15	21.21	23.76	21.20	22.50	21.12	22.40	21.16	22.84	21.14	23.70

GROUND-WATER LEVELS
 MARYLAND--Continued
 CALVERT COUNTY--Continued
 CA Cc 39--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	21.48	22.61	21.45	23.94	22.36	24.73	23.15	25.60	23.84	26.25	24.54	25.18
2	21.62	23.16	21.82	23.57	22.38	23.01	23.19	23.52	23.98	24.27	24.25	24.53
3	21.85	22.10	21.70	21.83	22.17	22.39	23.15	25.57	23.90	26.07	24.24	26.59
4	21.75	23.00	21.71	24.25	22.17	24.51	23.24	24.13	24.06	26.21	24.48	26.61
5	21.79	22.39	21.77	22.37	22.34	22.74	23.09	23.24	24.04	24.15	24.39	24.56
6	21.81	22.76	21.44	21.76	22.32	24.61	23.08	23.39	24.01	26.51	24.39	26.71
7	21.62	22.27	21.55	24.11	22.70	22.89	23.38	25.48	24.20	24.54	24.39	24.79
8	21.63	22.59	21.91	22.22	22.65	25.16	23.30	23.36	24.06	26.46	24.24	24.45
9	21.58	23.03	21.87	24.53	23.01	23.91	23.21	25.83	23.88	24.56	24.24	26.84
10	21.62	21.85	21.99	22.50	22.77	25.26	23.40	23.81	23.78	26.03	24.29	24.81
11	21.79	23.83	21.78	24.00	22.92	23.61	23.28	23.46	24.28	26.61	24.25	26.64
12	21.95	24.11	21.85	22.47	22.75	25.16	23.26	25.85	24.11	24.37	24.51	24.95
13	21.82	23.69	21.73	24.11	23.09	23.59	23.22	23.68	24.07	26.63	24.41	26.84
14	21.89	23.34	21.84	22.55	22.92	25.57	23.25	23.40	24.15	24.58	24.58	24.98
15	21.60	26.61	21.71	21.91	22.89	23.46	23.34	25.90	24.10	26.66	24.42	24.64
16	25.74	26.61	21.86	24.09	22.79	25.30	23.65	24.04	24.32	24.79	24.41	26.91
17	22.80	25.74	21.89	24.28	23.04	23.55	23.61	26.04	24.08	24.33	24.65	24.76
18	22.27	22.80	22.19	22.63	23.06	25.40	23.79	24.09	24.05	26.59	24.59	27.16
19	21.81	22.27	21.81	22.19	23.10	23.31	23.78	26.22	23.93	24.26	24.63	24.90
20	21.82	24.33	21.83	24.38	22.99	23.18	23.99	24.23	23.81	26.35	24.76	25.26
21	21.48	21.86	22.00	22.32	22.95	25.42	23.89	26.29	24.38	24.70	24.91	27.23
22	21.46	23.90	21.98	24.41	23.05	23.39	24.10	24.61	24.24	24.34	24.64	24.87
23	21.62	21.91	22.17	22.54	22.92	25.65	23.84	26.11	24.16	26.70	24.53	26.89
24	21.57	24.03	21.86	22.12	23.31	24.87	24.19	25.79	24.46	24.80	24.67	25.48
25	21.90	22.08	21.85	24.17	23.15	23.30	23.92	24.16	24.31	24.55	24.23	24.64
26	21.78	24.06	22.14	22.28	23.10	24.57	23.89	26.45	24.21	26.72	24.28	26.81
27	21.75	22.32	21.97	24.40	23.47	25.66	24.15	24.42	24.36	24.74	24.72	25.47
28	21.62	21.78	22.18	22.41	23.23	23.47	23.92	24.21	24.35	24.47	24.62	24.80
29	21.61	24.22	22.12	24.67	23.29	25.71	23.80	26.22	24.64	26.71	24.52	24.69
30	21.64	22.10	22.23	23.05	23.23	23.56	23.89	24.66	24.24	24.64	24.56	27.24
31	---	---	22.52	24.51	---	---	23.81	23.94	24.17	26.66	---	---
MONTH	21.46	26.61	21.44	24.67	22.17	25.71	23.08	26.45	23.78	26.72	24.23	27.24

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Cc 57. SITE ID.--383605076344601. PERMIT NUMBER.--CA-73-2893.

LOCATION.--Lat 38°36'05", long 76°34'46", Hydrologic Unit 02060006, Cox Rd. nr MD Rt. 263, Huntingtown.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 579 ft; casing diameter 4 in., to 211 ft; casing diameter 2 in. from 211 to 511 ft, and 521 to 579 ft; screen diameter 3 in. from 511 to 521 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 135 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.66 ft above land surface.

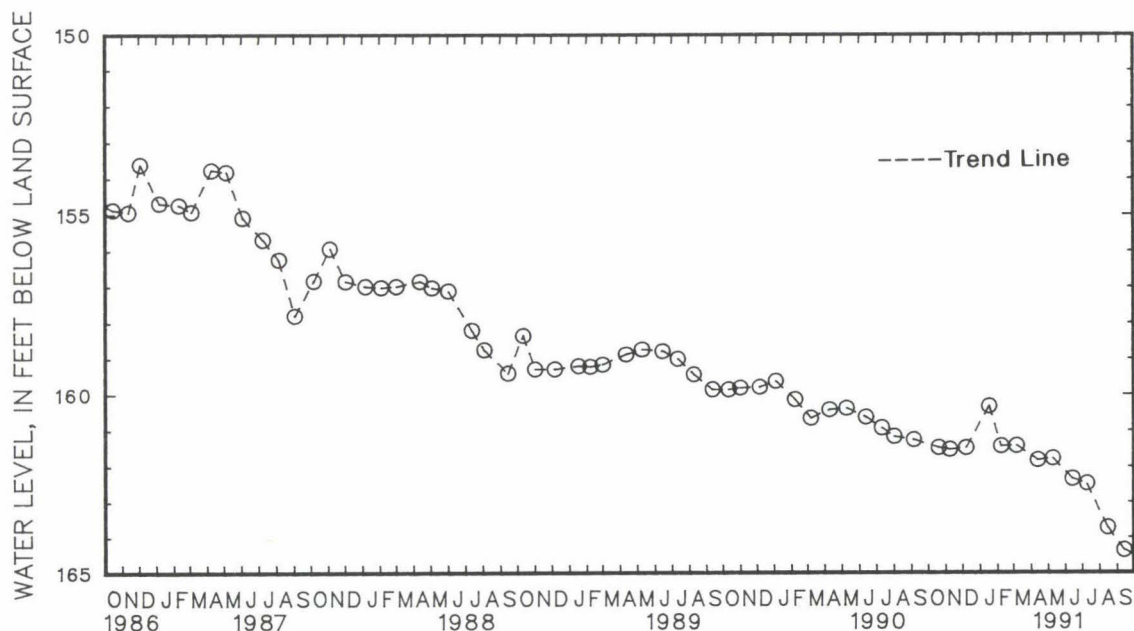
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 140.00 ft below land surface, March 7, 1979; lowest measured, 164.38 ft below land surface, Sept. 13, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

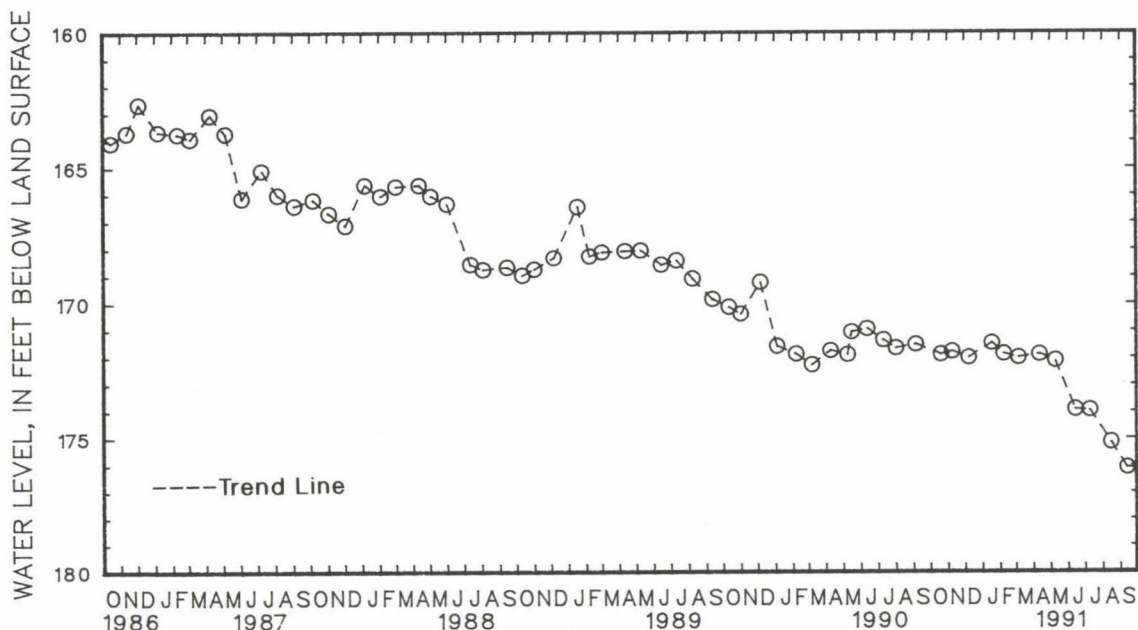
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	161.54	DEC 7	161.54	FEB 7	161.49	APR 12	161.88	JUN 13	162.40	AUG 15	163.75
NOV 8	161.59	JAN 17	160.36	MAR 6	161.48	MAY 9	161.83	JUL 9	162.53	SEP 13	164.38
WATER YEAR 1991:		HIGHEST	160.36	JAN 17, 1991		LOWEST	164.38	SEP 13, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 19	171.98	DEC 7	172.10	FEB 7	171.96	APR 11	171.98	JUN 13	174.02	AUG 15	175.23				
NOV 8	171.87	JAN 17	171.55	MAR 5	172.10	MAY 9	172.21	JUL 9	174.04	SEP 13	176.17				
WATER YEAR 1991		HIGHEST	171.55	JAN 17, 1991		LOWEST	176.17	SEP 13, 1991							



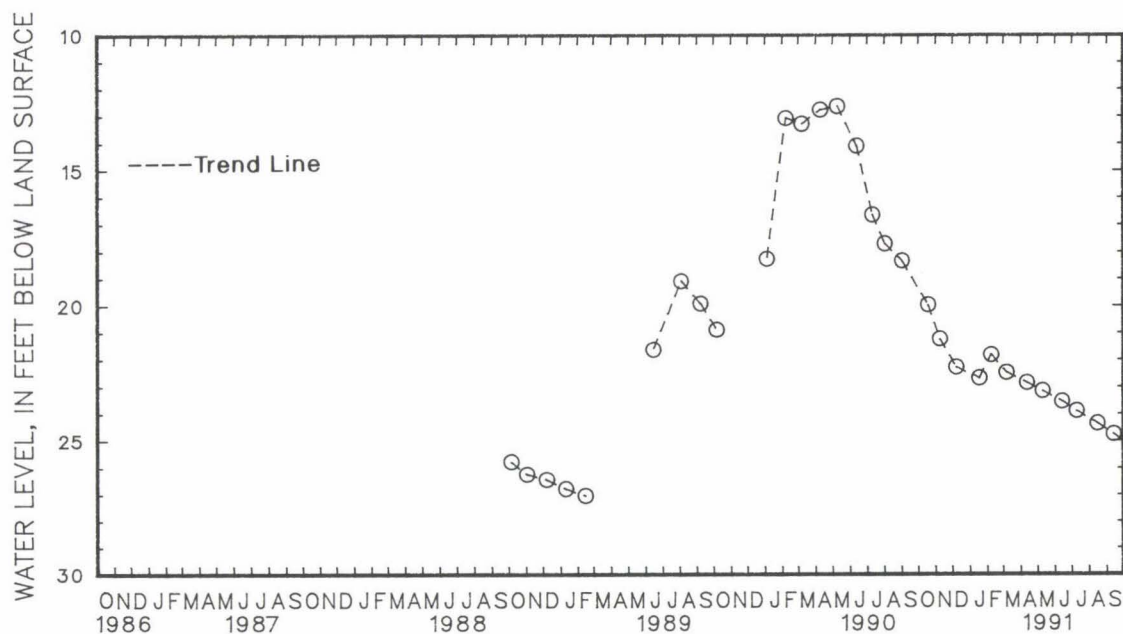
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 65. SITE ID.--383216076351401. PERMIT NUMBER.--CA-81-2415.
LOCATION.--Lat 38°32'16", long 76°35'14", Hydrologic Unit 02060006, at St. Pauls Episcopal Church parking lot, Prince Frederick.
Owner: U.S. Geological Survey.
AQUIFER.--Upland Deposit of Peistocene age. Aquifer code: 112UPLD.
WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 49 ft; casing diameter 3 in., to 22 ft; screen diameter 3 in. from 22 to 32 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 159.33 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of protective casing, 2.56 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well,
PERIOD OF RECORD.--August 1986, Oct. 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.64 ft below land surface, May 9, 1990;
lowest measured, 27.09 ft below land surface, Feb. 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	20.04	DEC 7	22.37	FEB 7	21.89	APR 11	22.94	JUN 13	23.63	AUG 15	24.45
NOV 8	21.32	JAN 17	22.77	MAR 6	22.56	MAY 9	23.24	JUL 9	23.98	SEP 13	24.84
WATER YEAR 1991		HIGHEST	20.04	OCT 18, 1990	LOWEST	24.84	SEP 13, 1991				

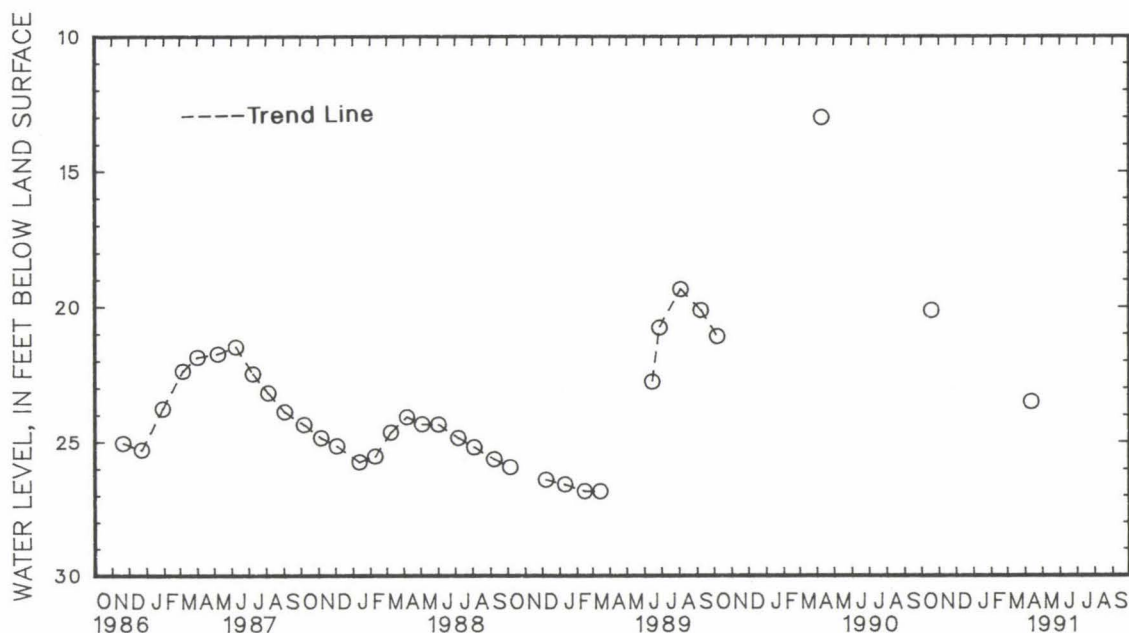


GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 66. SITE ID.--383216076351402. PERMIT NUMBER.--CA-81-2415.
LOCATION.--Lat 38°32'16", long 76°35'14", Hydrologic Unit 02060006, at St. Pauls Episcopal Church parking lot,
Prince Frederick.
Owner: U.S. Geological Survey.
AQUIFER.--Upland Deposit of Peistocene age. Aquifer code: 112UPLD.
WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 34 ft; casing diameter 3 in., to 21 ft;
screen diameter 3 in. from 21 to 31 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 159.59 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of protective casing, 2.64 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well,
PERIOD OF RECORD.--July 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.01 ft below land surface, April 9, 1990;
lowest measured, 26.89 ft below land surface, Feb. 14, 1989 and March 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	20.20	APR 11	23.59
WATER YEAR 1991 HIGHEST 20.20 OCT 18, 1990 LOWEST 23.59 APR 11, 1991			



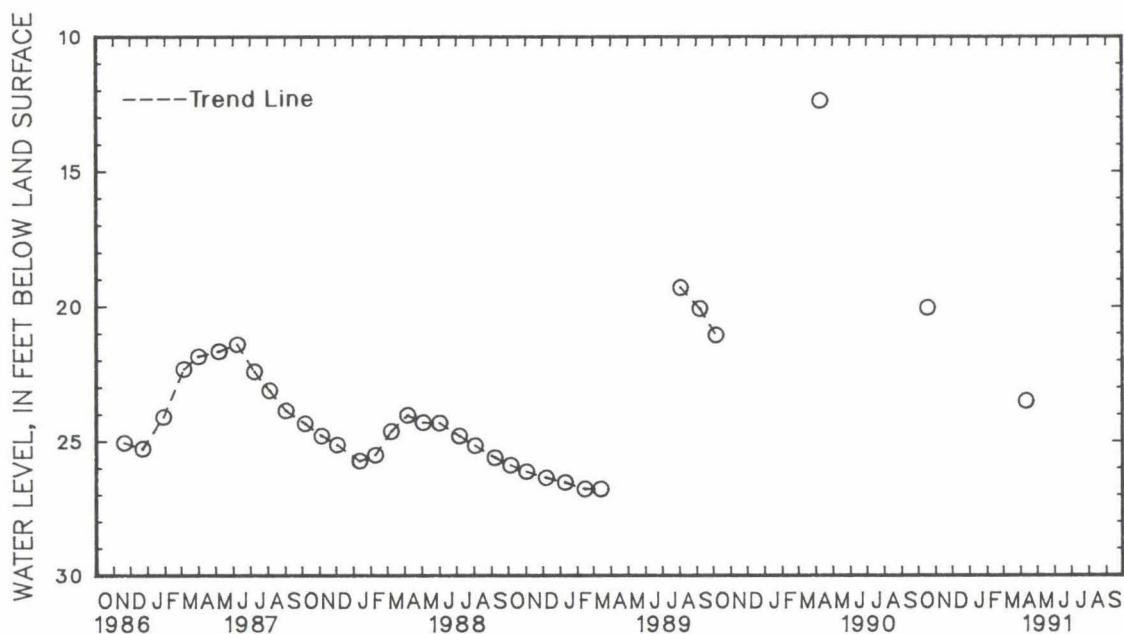
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 67. SITE ID.--383216076351403. PERMIT NUMBER.--CA-81-2415.
LOCATION.--Lat 38°32'16", long 76°35'14", Hydrologic Unit 02060006, at St. Pauls Episcopal Church parking lot, Prince Frederick.
Owner: U.S. Geological Survey.
AQUIFER.--Upland Deposit of Peistocene age. Aquifer code: 112UPLD.
WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 31 ft; casing diameter 3 in., to 18 ft; screen diameter 3 in. from 18 to 28 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 159.59 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of protective casing, 2.70 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well,
PERIOD OF RECORD.--July 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.37 ft below land surface, April 9, 1990;
lowest measured, 26.79 ft below land surface, Feb.14,1989 and March 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	20.06	APR 11	23.52
WATER YEAR 1991 HIGHEST 20.06 OCT 18, 1990 LOWEST 23.52 APR 11, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Ed 47. SITE ID.--382549076260101. PERMIT NUMBER.--CA-81-0754.
 LOCATION.--Lat 38°25'49", long 76°26'01", Hydrologic Unit 020600004, at Calvert Cliffs Nuclear Power Plant,
 4.3 mi. southeast of St. Leonard.
 Owner: Baltimore Gas and Electric Co.
 AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 523 ft; casing diameter 4 in., to 455 ft;
 casing diameter 2 in. from 455 to 477 ft, 482 to 503 ft, and 508 to 518 ft; screen diameter 2 in. from
 477 to 482 ft, 503 to 508 ft, and 518 to 523 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
 water-level recorder from April 11, 1984 to June 6, 1984, and Nov. 13, 1985 to Dec. 17, 1985. Equipped with
 digital water-level recorder--30-minute recorder interval from June 6, 1984 to Nov. 13, 1985, and Dec. 17, 1985
 to current year.
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 4.0 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping. Missing data
 due to recorder malfunction.
 PERIOD OF RECORD.--April 1984 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.11 ft below sea level, May 4, 1987;
 lowest measured, 63.66 ft below sea level, Aug. 22, 1991.

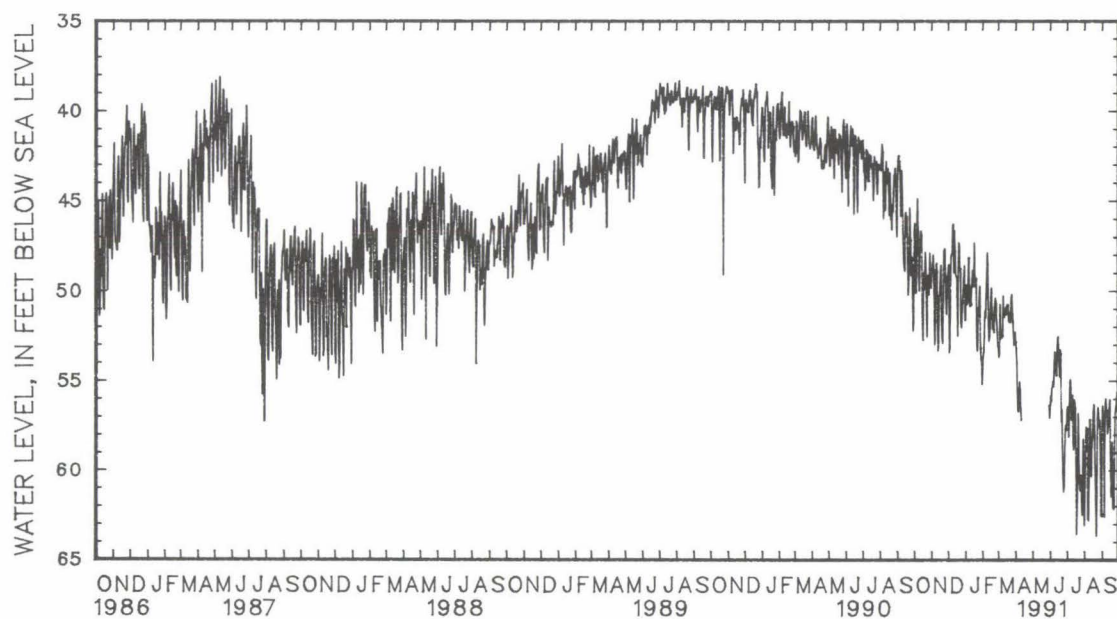
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	45.21	46.93	48.27	48.94	47.16	48.85	49.04	51.62	51.59	54.54	50.77	53.02
2	44.76	46.25	48.20	48.89	47.23	48.55	47.89	49.68	51.08	53.62	52.67	53.69
3	45.64	49.83	47.62	48.48	46.68	53.47	48.07	49.77	50.79	53.42	50.93	53.48
4	49.04	50.12	47.27	47.99	50.74	53.25	49.61	50.76	50.21	52.56	49.04	50.77
5	46.30	49.17	47.03	49.38	48.13	50.92	49.34	50.51	48.82	51.14	50.07	52.69
6	44.86	46.24	48.76	51.64	46.60	48.02	47.98	49.68	49.91	51.50	51.17	52.40
7	43.93	44.86	50.95	53.01	46.11	47.98	47.25	48.17	48.89	50.38	49.97	52.17
8	43.78	46.70	48.93	51.55	46.45	47.99	47.95	49.75	47.42	49.36	51.62	52.60
9	46.58	49.03	47.38	48.81	45.09	46.48	49.23	50.87	46.53	47.87	50.13	52.55
10	47.58	50.01	47.34	48.47	44.83	46.29	49.87	50.84	47.62	48.54	48.66	50.27
11	46.62	47.77	47.54	48.90	45.38	48.99	49.39	50.79	48.02	51.63	50.25	51.45
12	46.38	47.30	47.82	51.60	45.35	46.66	48.81	49.81	51.23	52.81	50.08	51.12
13	46.14	46.68	51.66	53.36	46.42	47.78	47.85	49.39	50.91	52.63	49.97	51.05
14	46.19	46.85	50.06	52.91	47.60	49.06	47.32	48.85	49.54	52.14	49.91	51.34
15	46.49	51.26	49.77	50.30	48.48	49.20	47.05	49.40	49.29	50.69	49.63	50.92
16	50.99	52.66	49.20	50.10	47.25	49.20	47.12	49.76	49.54	50.31	50.34	51.26
17	49.00	52.77	47.52	49.02	46.59	50.33	46.38	47.33	48.53	49.82	50.04	50.80
18	48.37	48.99	47.51	48.55	48.98	52.54	47.33	49.35	48.42	51.43	49.89	50.79
19	48.86	49.94	48.23	51.52	47.37	48.77	48.79	49.67	49.39	52.13	49.66	51.24
20	47.88	49.63	50.68	52.64	46.37	47.31	48.67	49.30	50.53	51.49	50.37	51.73
21	46.14	47.85	50.49	52.95	45.62	47.42	48.44	52.58	49.79	52.33	50.46	51.73
22	45.50	49.02	47.64	50.45	47.30	48.73	52.09	53.37	49.80	50.93	50.70	51.76
23	49.05	50.77	46.65	47.80	47.89	48.78	49.94	52.75	49.97	50.73	49.95	51.55
24	48.80	52.58	46.93	47.67	48.27	51.89	49.70	51.05	49.56	50.42	49.28	50.45
25	48.26	49.14	46.81	47.67	50.42	52.07	49.83	50.91	49.54	50.74	48.66	50.21
26	48.76	50.22	47.33	49.22	49.73	51.14	49.09	50.07	49.80	51.70	50.04	51.29
27	49.04	50.22	47.01	50.45	49.62	50.69	49.09	49.74	49.29	52.24	50.62	51.80
28	47.37	49.29	49.32	51.32	48.75	49.97	48.96	53.19	51.56	53.10	50.69	52.40
29	47.02	47.90	49.28	50.16	47.93	49.20	52.50	53.84	---	---	51.03	53.05
30	47.62	49.78	48.98	50.03	47.77	48.61	52.57	53.87	---	---	51.99	52.78
31	48.51	49.81	---	---	48.07	51.67	52.74	55.22	---	---	51.78	52.31
MONTH	43.78	52.77	46.65	53.36	44.83	53.47	46.38	55.22	46.53	54.54	48.66	53.69

GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued
CA Ed 47--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	51.65	52.85	---	---	55.20	56.35	55.46	56.68	59.00	63.08	55.85	57.57
2	52.05	53.17	---	---	54.74	55.83	54.87	56.46	58.18	60.91	55.30	56.38
3	52.35	54.00	---	---	54.40	56.17	55.10	56.85	57.36	59.27	55.50	56.97
4	53.66	55.68	---	---	53.70	55.42	56.70	58.13	56.25	57.55	55.78	57.26
5	55.29	56.69	---	---	53.84	55.35	54.97	56.84	56.18	57.83	55.60	62.61
6	55.91	56.74	---	---	53.02	55.04	53.66	55.06	56.04	57.64	55.71	58.17
7	53.80	55.85	---	---	53.91	55.31	54.00	54.94	56.30	62.68	55.10	56.31
8	53.64	55.07	---	---	52.72	54.16	54.23	55.35	60.21	62.80	54.63	56.00
9	54.14	55.59	---	---	52.33	53.41	54.95	57.17	57.34	60.66	55.23	56.71
10	54.73	56.57	---	---	51.98	54.02	56.12	56.85	55.18	57.16	54.91	56.61
11	56.00	57.20	---	---	52.50	54.41	54.66	55.79	54.06	57.38	55.60	57.90
12	---	---	---	---	52.65	54.72	55.69	58.44	56.82	59.66	56.08	57.42
13	---	---	---	---	52.15	53.55	55.18	58.86	58.60	60.35	56.07	57.49
14	---	---	---	---	51.32	52.68	54.14	56.05	57.02	58.76	55.29	56.55
15	---	---	---	---	50.26	52.56	54.78	56.23	56.54	58.15	55.20	56.04
16	---	---	---	---	51.84	53.61	55.42	56.54	55.39	57.28	55.46	59.30
17	---	---	---	---	52.72	54.07	55.74	59.36	55.59	56.73	58.10	61.47
18	---	---	---	---	52.74	54.79	59.44	63.57	55.18	56.32	57.68	60.91
19	---	---	---	---	51.61	53.28	59.98	62.43	55.06	57.96	57.30	58.42
20	---	---	---	---	51.17	53.48	56.55	60.41	56.88	59.89	57.52	62.09
21	---	---	---	---	53.12	57.29	56.03	56.80	58.10	61.83	59.83	62.00
22	---	---	---	---	55.43	56.62	55.66	58.71	61.10	63.66	59.19	62.17
23	---	---	---	---	55.27	58.68	58.79	60.29	57.34	61.07	57.07	59.87
24	---	---	---	---	58.01	60.38	58.63	61.12	56.20	57.21	56.25	57.24
25	---	---	---	---	57.44	61.21	58.90	61.00	54.29	56.48	55.32	56.57
26	---	---	---	---	56.22	60.98	58.28	60.28	53.35	56.80	55.21	56.51
27	---	---	---	---	57.33	59.25	58.96	62.08	55.78	57.53	54.56	56.18
28	---	---	---	---	56.23	57.63	60.46	62.49	55.49	57.18	54.34	55.61
29	---	---	---	---	55.38	57.49	57.65	60.89	54.15	58.51	53.38	55.65
30	---	---	54.86	56.41	56.17	57.75	56.52	58.25	57.77	62.51	55.61	59.71
31	---	---	55.08	57.09	---	---	56.92	60.40	57.02	62.54	---	---
MONTH	51.65	57.20	54.86	57.09	50.26	61.21	53.66	63.57	53.35	63.66	53.38	62.61

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 13. SITE ID.--382343076302901. PERMIT NUMBER.--CA-81-2391.
 LOCATION.--Lat 38°23'41", long 76°30'29", Hydrologic Unit 02060006, Jefferson Patterson Park
 and Museum.

Owner: U.S. Geological Survey.

AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSFK.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 34 ft; casing diameter 3.5 in., to 29 ft;
 screen diameter 3.5 in. from 29 to 34 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-
 level recorder--60-minute recorder interval from Oct. 2, 1986 to current year.

DATUM.--Elevation of land surface is 47.44 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.10 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well, Maryland Water Quality Network observation well and
 Best Management Practices Project observation well.

PERIOD OF RECORD.--October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.39 ft below land surface, July 7, 1990;
 lowest measured, 30.69 ft below land surface, Feb. 27 and 28, 1989.

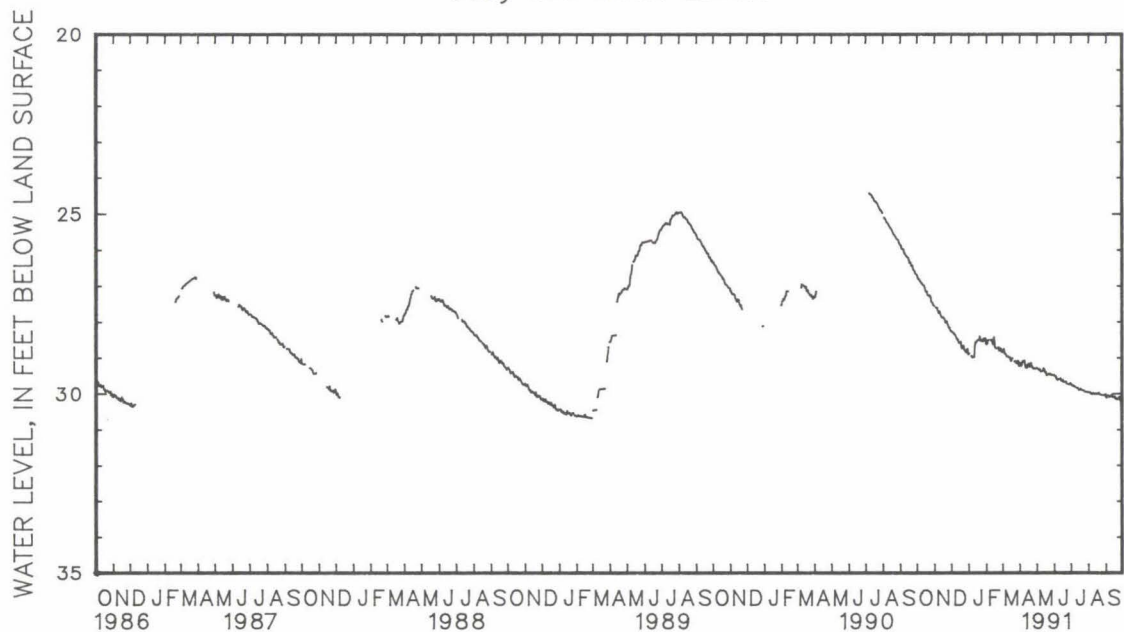
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	26.72	26.69	---	---	28.27	28.26	28.92	28.89	28.64	28.61	28.86	28.80
2	26.78	26.72	---	---	28.29	28.26	28.89	28.85	28.63	28.54	28.80	28.71
3	26.81	26.79	27.60	27.59	28.29	28.20	---	---	28.54	28.51	28.77	28.64
4	26.81	26.76	27.60	27.60	28.30	28.16	---	---	28.52	28.51	28.83	28.64
5	26.84	26.81	27.60	27.58	28.34	28.30	28.97	28.94	28.51	28.50	28.90	28.83
6	26.87	26.84	27.68	27.58	28.34	28.33	28.96	28.93	---	---	28.90	28.79
7	26.89	26.87	27.69	27.68	28.37	28.34	29.01	28.96	---	---	28.93	28.79
8	26.92	26.89	27.76	27.69	28.37	28.37	29.01	28.98	28.51	28.48	28.97	28.93
9	26.93	26.92	27.76	27.69	28.43	28.37	28.98	28.92	28.51	28.50	28.98	28.96
10	26.95	26.93	27.72	27.57	28.45	28.40	28.99	28.94	28.51	28.50	28.97	28.96
11	26.98	26.95	27.79	27.72	28.50	28.45	28.99	28.65	28.58	28.51	28.99	28.97
12	26.99	26.98	27.82	27.78	28.49	28.47	28.65	28.51	28.64	28.58	29.00	28.99
13	26.99	26.98	27.87	27.82	28.52	28.45	28.58	28.52	28.59	28.43	28.99	28.95
14	27.04	26.99	27.89	27.87	28.59	28.53	28.58	28.55	28.44	28.35	29.01	28.94
15	27.11	27.04	27.89	27.88	28.59	28.47	28.55	28.53	28.64	28.44	29.09	29.01
16	27.15	27.11	27.88	27.84	28.59	28.47	28.53	28.37	28.73	28.64	29.11	29.09
17	27.16	27.15	27.90	27.82	28.60	28.58	28.51	28.37	28.75	28.72	29.09	29.03
18	27.15	27.06	27.92	27.90	28.57	28.46	28.51	28.49	28.75	28.75	29.03	28.90
19	27.24	27.13	27.94	27.92	28.71	28.54	28.51	28.41	28.75	28.70	29.03	28.91
20	27.27	27.24	28.02	27.94	28.75	28.72	28.41	28.36	28.74	28.66	---	---
21	27.27	27.26	28.03	28.02	28.73	28.68	28.49	28.36	28.75	28.72	---	---
22	27.27	27.26	28.03	27.99	28.68	28.68	28.54	28.49	28.73	28.65	29.12	29.07
23	27.26	27.22	27.99	27.96	28.68	28.66	28.54	28.46	28.82	28.73	29.12	29.03
24	27.31	27.26	28.06	27.96	28.78	28.59	28.51	28.46	28.82	28.75	29.11	29.02
25	27.31	27.30	28.12	28.06	28.81	28.79	28.55	28.50	28.75	28.74	29.16	29.11
26	27.42	27.31	28.17	28.12	28.83	28.80	28.55	28.43	28.76	28.74	29.17	29.14
27	27.45	27.42	28.17	28.17	28.86	28.80	28.48	28.41	28.83	28.76	29.14	29.03
28	27.47	27.42	28.17	28.16	28.80	28.76	28.47	28.40	28.86	28.83	29.10	29.02
29	27.52	27.48	28.24	28.16	28.80	28.78	28.52	28.47	---	---	29.10	29.05
30	27.53	27.51	28.27	28.24	28.77	28.72	28.47	28.37	---	---	29.24	29.05
31	27.55	27.51	---	---	28.92	28.72	28.61	28.37	---	---	29.24	29.16
MONTH	27.55	26.69	28.27	27.57	28.92	28.16	29.01	28.36	28.86	28.35	29.24	28.64

GROUND-WATER LEVELS
 MARYLAND--Continued
 CALVERT COUNTY--Continued
 CA Fc 13--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	29.16	29.12	29.29	29.25	29.51	29.49	29.76	29.72	29.97	29.97	30.11	30.03
2	29.22	29.15	29.31	29.26	29.52	29.51	29.76	29.74	29.97	29.97	30.12	30.11
3	29.24	29.22	29.32	29.29	29.52	29.51	29.77	29.75	29.97	29.97	30.11	30.06
4	29.22	29.15	29.34	29.32	29.55	29.52	29.80	29.78	29.98	29.97	30.06	30.03
5	29.15	29.10	29.35	29.34	29.60	29.56	29.79	29.79	30.01	29.98	30.06	30.03
6	29.10	29.10	29.33	29.29	29.62	29.61	29.81	29.79	30.02	30.01	30.08	30.06
7	29.11	29.10	29.38	29.33	29.63	29.61	29.81	29.80	30.02	30.02	30.10	30.08
8	29.12	29.09	29.40	29.38	29.61	29.58	29.81	29.79	30.02	30.00	30.10	30.10
9	29.09	29.08	29.39	29.38	29.61	29.58	29.83	29.81	30.00	29.95	---	---
10	29.22	29.08	29.39	29.37	29.61	29.60	---	---	30.00	29.95	30.08	30.05
11	29.28	29.23	29.39	29.36	29.60	29.58	---	---	30.02	30.00	30.07	30.06
12	29.29	29.27	29.36	29.31	29.59	29.58	29.85	29.85	30.02	30.02	30.09	30.07
13	29.29	29.17	29.31	29.31	29.64	29.59	29.85	29.82	30.02	30.01	30.09	30.09
14	29.22	29.16	29.33	29.31	29.66	29.64	29.88	29.83	30.01	30.01	30.10	30.08
15	29.21	29.10	29.40	29.33	29.64	29.61	29.91	29.88	30.01	30.00	30.11	30.10
16	29.18	29.11	29.42	29.40	29.63	29.61	29.91	29.90	30.02	30.01	30.11	30.10
17	29.18	29.13	29.41	29.37	29.66	29.63	29.90	29.88	30.02	30.01	30.10	30.10
18	29.26	29.17	29.49	29.37	29.69	29.66	29.88	29.88	30.01	29.99	30.11	30.10
19	29.26	29.25	29.50	29.49	29.69	29.69	29.90	29.88	29.99	29.96	30.15	30.11
20	29.25	29.17	---	---	29.69	29.68	29.91	29.90	30.01	29.99	30.15	30.15
21	29.16	29.09	---	---	29.68	29.68	29.92	29.91	30.03	30.01	30.16	30.15
22	29.23	29.09	29.46	29.44	29.68	29.68	29.92	29.91	30.03	30.03	30.17	30.16
23	29.27	29.23	29.47	29.44	29.73	29.68	29.92	29.90	30.04	30.03	30.16	30.14
24	29.29	29.24	29.48	29.46	29.74	29.73	29.93	29.90	30.04	30.04	30.15	30.11
25	29.32	29.30	29.46	29.46	29.74	29.74	29.95	29.93	30.05	30.04	30.11	30.07
26	29.32	29.31	29.48	29.46	29.74	29.74	29.96	29.95	30.05	30.03	30.14	30.08
27	29.31	29.27	29.49	29.48	29.75	29.74	29.96	29.96	---	---	30.18	30.14
28	29.32	29.27	29.50	29.48	29.75	29.73	29.96	29.96	---	---	30.21	30.18
29	29.32	29.32	29.50	29.49	29.73	29.72	29.96	29.96	30.05	30.04	30.22	30.21
30	29.32	29.28	29.49	29.46	29.72	29.72	29.96	29.96	30.04	30.02	30.22	30.21
31	---	---	29.49	29.47	---	---	29.97	29.96	30.03	30.01	---	---
MONTH	29.32	29.08	29.50	29.25	29.75	29.49	29.97	29.72	30.05	29.95	30.22	30.03

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

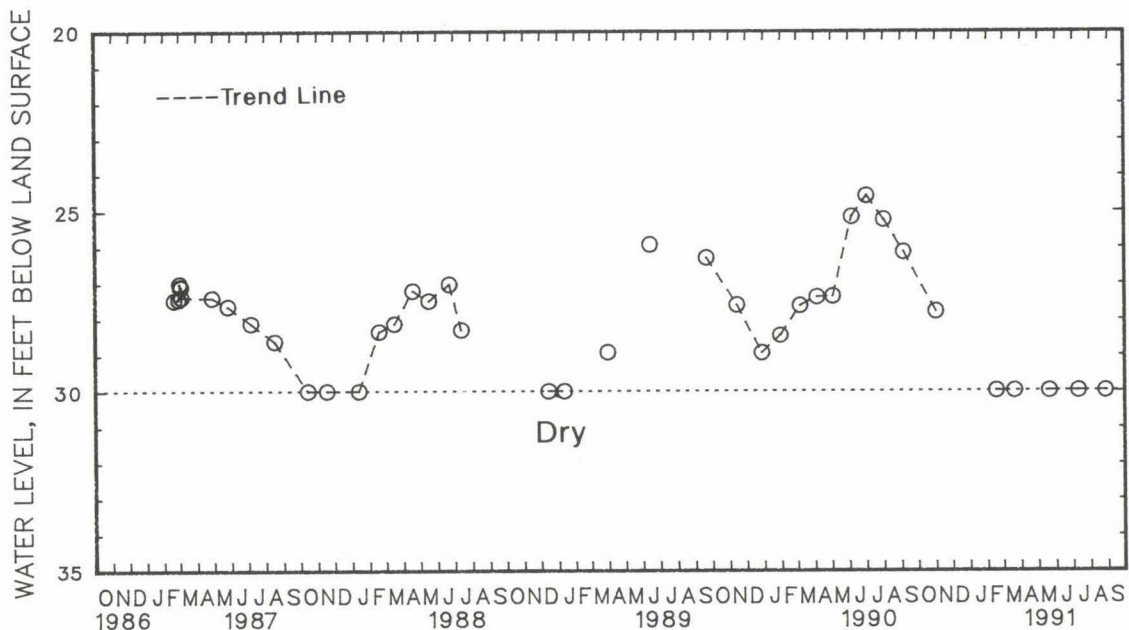
MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 14. SITE ID.--382343076302902. PERMIT NUMBER.--CA-81-2390.
 LOCATION.--Lat 38°23'40", long 76°30'29", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lowland deposits of Pleistocene age. Aquifer code: 111LLND.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 30 ft; casing diameter 3.5 in., to 25 ft; screen diameter 3.5 in. from 25 to 30 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 47.56 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 1.79 ft above land surface.
 REMARKS.--Best Management Practices Project observation well.
 PERIOD OF RECORD.--October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.58 ft below land surface, July 2, 1990; lowest measured, Dry on Oct. 14, 1987, Nov. 17, 1987, Jan. 13, 1988, Dec. 14, 1988, Jan. 11, 1989, Feb. 16, 1991, March 20, 1991, May 20, 1991, July 10, 1991, and Aug. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	27.79	FEB 16	DRY	MAR 20	DRY	MAY 20	DRY	JUL 10	DRY	AUG 27	DRY
WATER YEAR 1991		HIGHEST	27.79	NOV 1, 1990		LOWEST	DRY	FEB 16, 1991	MAY 20, 1991	AUG 27, 1991	
								MAR 20, 1991	JUL 10, 1991		



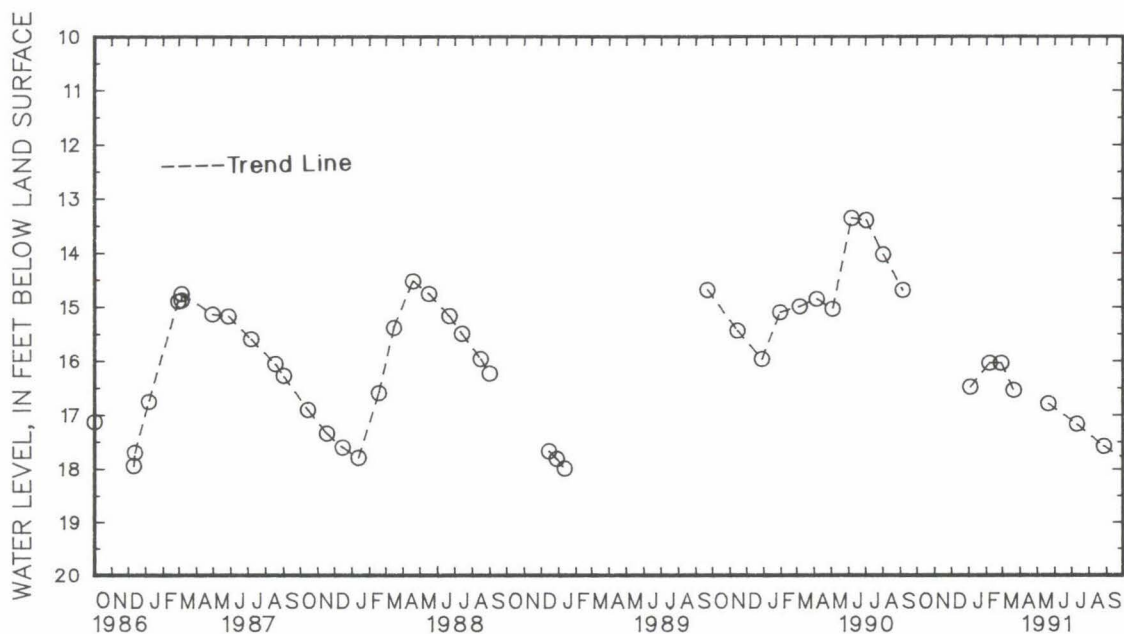
5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 15. SITE ID.--382340076303001. PERMIT NUMBER.--CA-81-2389.
LOCATION.--Lat 38°23'39", long 76°30'35", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.
Owner: U.S. Geological Survey.
AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSPK.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 36 ft; casing diameter 3.5 in., to 31 ft; screen diameter 3.5 in. from 31 to 36 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Oct. 2, 1986 to Sept. 5, 1990.
DATUM.--Elevation of land surface is 30.56 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder platform, 1.78 ft above land surface.
REMARKS.--Best Management Practices Project observation well.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.36 ft below land surface, June 6, 1990; lowest measured, 18.25 ft below land surface, Feb. 19, 20, and 21, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 3	16.52	FEB 26	16.07	MAY 20	16.83	JUL 10	17.21	AUG 27	17.62
FEB 5	16.07	MAR 20	16.58						
WATER YEAR 1991		HIGHEST	16.07 FEB 5	AND FEB 26, 1991		LOWEST	17.62	AUG 27, 1991	



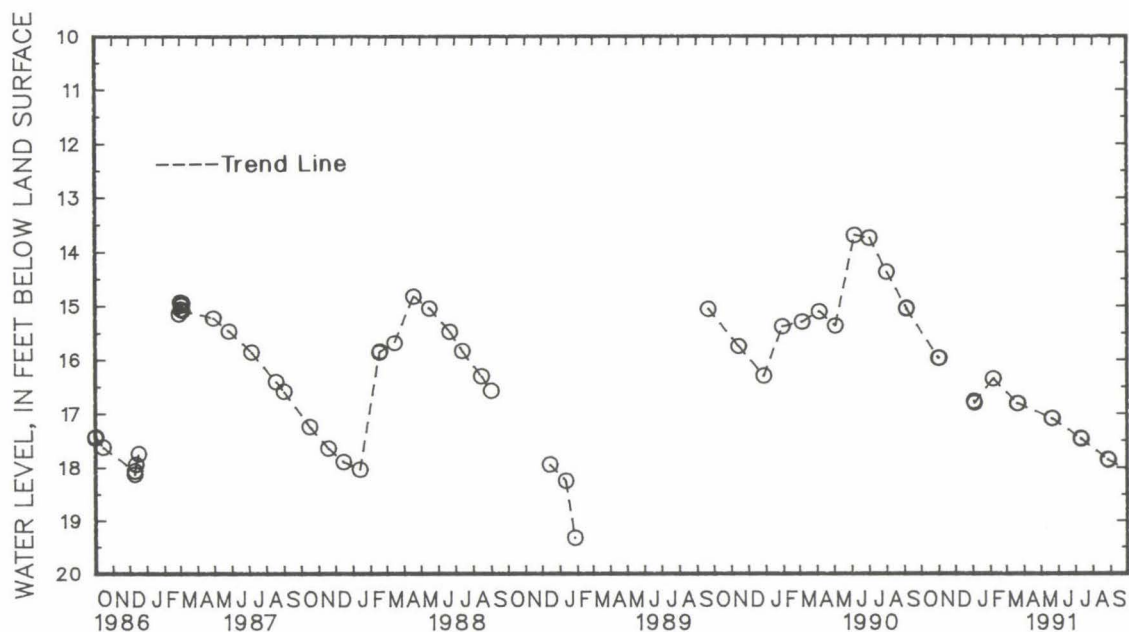
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 16. SITE ID.--382340076303002. PERMIT NUMBER.--CA-81-2392.
LOCATION.--Lat 38°23'40", long 76°30'35", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.
Owner: U.S. Geological Survey.
AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSPK.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 23 ft; casing diameter 3.5 in., to 18 ft; screen diameter 3.5 in. from 18 to 23 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--30-minute recorder interval from Dec. 24, 1986 to Sept. 3, 1987 and Jan. 11, 1989 to current year.
DATUM.--Elevation of land surface is 30.75 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder platform, 1.72 ft above land surface.
REMARKS.--Best Management Practices Project observation well.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.70 ft below land surface, July 2, 1990; lowest measured, 19.34 ft below land surface, Jan. 27, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

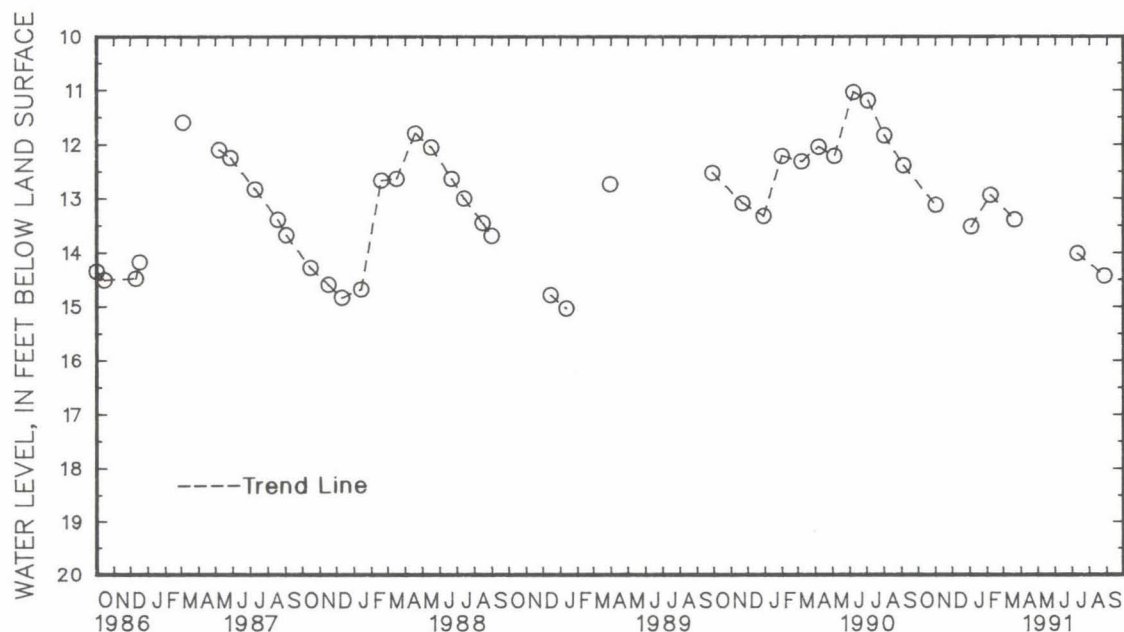
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	16.01	JAN 4	16.84	MAR 21	16.85	JUL 10	17.50	AUG 28	17.90
2	16.01	FEB 6	16.38	MAY 20	17.13	JUL 11	17.51		
JAN 3	16.81	MAR 20	16.85	MAY 21	17.13	AUG 27	17.89		
WATER YEAR 1991		HIGHEST	16.01	NOV 1, 1990 AND NOV 2, 1990		LOWEST	17.90	AUG 28, 1991	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--CA Fc 17. SITE ID.--382343076303801. PERMIT NUMBER.--CA-81-2388.
LOCATION.--Lat 38°23'40", long 76°30'39", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.
Owner: U.S. Geological Survey.
AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSPK.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 32 ft; casing diameter 3.5 in., to 27 ft;
screen diameter 3.5 in. from 27 to 32 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 22.59 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.37 ft above land surface.
REMARKS.--Best Management Practices Project observation well.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.04 ft below land surface, June 7, 1990;
lowest measured, 15.07 ft below land surface, Jan. 11, 1989.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	13.15	JAN 3	13.55	FEB 6	12.96	MAR 20	13.42	JUL 10	14.05	AUG 27	14.47
WATER YEAR 1991		HIGHEST	12.96	FEB 6, 1991		LOWEST	14.47	AUG 27, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 18. SITE ID.--382340076303801. PERMIT NUMBER.--CA-81-2387.
 LOCATION.--Lat 38°23'39", long 76°30'39", Hydrologic Unit 02060006, Jefferson Patterson Park and Museum.
 Owner: U.S. Geological Survey.
 AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSPK.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 23 ft; casing diameter 3.5 in., to 18 ft; screen diameter 3.5 in. from 18 to 23 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Oct. 2, 1986 to current year.
 DATUM.--Elevation of land surface is 15.56 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.81 ft above land surface.
 REMARKS.--Best Management Practices Project observation well.
 PERIOD OF RECORD.--October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.67 ft below land surface, July 16, 1989; lowest measured, 9.58 ft below land surface, Feb. 16, 17, 18, and 19, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.31	7.29	---	---	8.09	8.08	7.86	7.81	7.49	7.46	7.96	7.95
2	7.34	7.31	---	---	8.12	8.09	7.91	7.86	7.52	7.49	7.96	7.95
3	7.35	7.34	7.66	7.63	8.12	8.11	---	---	7.54	7.52	7.97	7.94
4	7.36	7.34	7.67	7.66	8.11	8.08	---	---	7.57	7.54	7.97	7.94
5	7.39	7.36	7.68	7.67	8.14	8.10	8.05	8.02	7.58	7.57	7.98	7.97
6	7.41	7.39	7.70	7.67	8.15	8.14	8.10	8.05	---	---	7.98	7.98
7	7.43	7.41	7.72	7.70	8.16	8.15	8.13	8.10	---	---	8.01	7.98
8	7.44	7.43	7.74	7.72	8.17	8.16	8.15	7.92	7.59	7.58	8.03	8.01
9	7.46	7.44	7.75	7.74	8.18	8.17	7.92	7.41	7.60	7.59	8.05	8.03
10	7.47	7.45	7.74	7.71	8.19	8.18	7.41	7.39	7.62	7.60	8.06	8.05
11	7.47	7.46	7.78	7.74	8.22	8.19	7.41	5.89	7.64	7.62	8.09	8.06
12	7.48	7.46	7.81	7.78	8.22	8.21	6.46	5.89	7.67	7.64	8.09	8.09
13	7.48	7.47	7.84	7.81	8.24	8.22	6.69	6.46	7.67	7.65	8.09	8.07
14	7.50	7.48	7.86	7.84	8.26	8.24	6.79	6.69	7.66	7.64	8.10	8.08
15	7.53	7.50	7.86	7.86	8.26	8.24	6.88	6.79	7.70	7.66	8.11	8.10
16	7.55	7.53	7.88	7.86	8.26	8.23	6.91	6.88	7.74	7.70	8.12	8.11
17	7.56	7.55	7.91	7.88	8.28	8.26	6.99	6.91	7.77	7.74	8.13	8.11
18	7.56	7.42	7.92	7.91	8.29	8.26	7.06	6.99	7.79	7.77	8.13	7.79
19	7.50	7.42	7.92	7.92	8.31	8.29	7.10	7.06	7.80	7.79	7.80	7.78
20	7.55	7.50	7.93	7.92	8.32	8.31	7.12	7.09	7.83	7.79	---	---
21	7.57	7.55	7.95	7.93	8.32	8.29	7.17	7.11	7.84	7.83	---	---
22	7.56	7.56	7.96	7.95	8.30	8.29	7.20	7.17	7.86	7.84	7.86	7.83
23	7.56	7.21	7.96	7.95	8.30	8.30	7.20	7.20	7.88	7.86	7.87	7.86
24	7.29	7.22	7.97	7.95	8.30	8.19	7.26	7.20	7.88	7.88	7.87	7.85
25	7.34	7.29	8.00	7.97	8.22	8.21	7.29	7.26	7.90	7.88	7.92	7.87
26	7.44	7.34	8.02	8.00	8.24	8.22	7.30	7.29	7.91	7.90	7.95	7.92
27	7.47	7.44	8.03	8.02	8.27	8.24	7.33	7.30	7.93	7.91	7.96	7.94
28	7.49	7.46	8.04	8.03	8.27	7.66	7.37	7.33	7.95	7.93	7.99	7.95
29	7.55	7.49	8.07	8.04	7.66	7.65	7.39	7.37	---	---	8.00	7.60
30	7.57	7.55	8.09	8.07	7.69	7.65	7.40	7.39	---	---	7.60	7.51
31	7.59	7.57	---	---	7.81	7.69	7.46	7.40	---	---	7.51	7.44
MONTH	7.59	7.21	8.09	7.63	8.32	7.65	8.15	5.89	7.95	7.46	8.13	7.44

Daily Low Water Levels

WATER LEVEL, IN FEET BELOW LAND SURFACE

0
1
2
3
4
5
6
7
8
9
10

ONDJFMA MJ JASON
1986 1987 1988 1989 1990 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

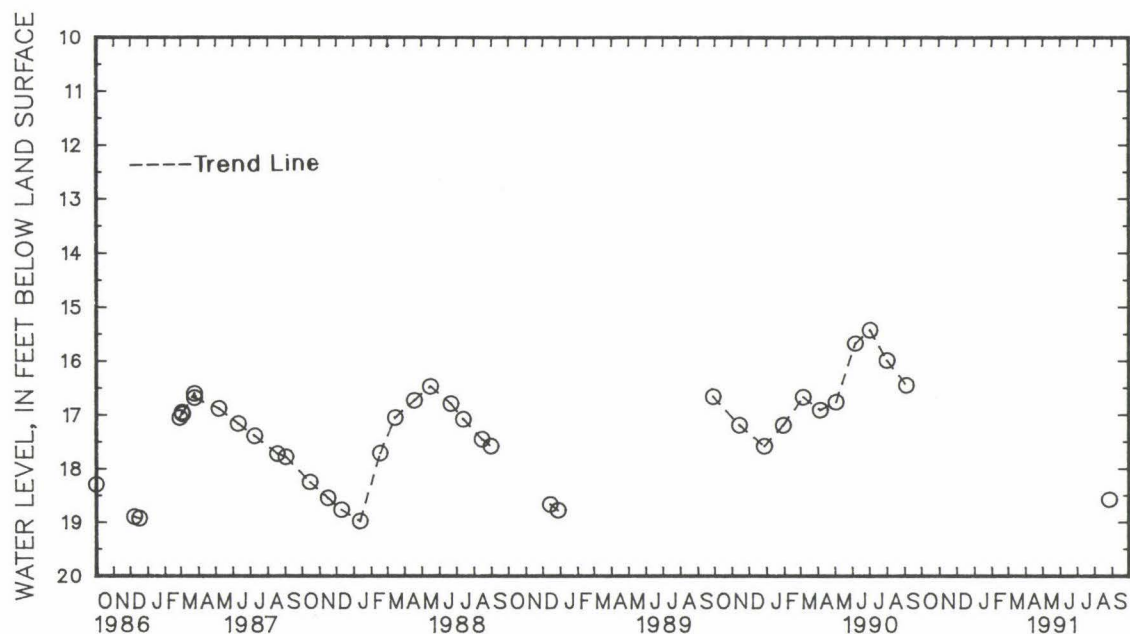
CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 19. SITE ID.--382337076303701. PERMIT NUMBER.--CA-81-2386.
 LOCATION.--Lat 38°23'37", long 76°30'38", Hydrologic Unit 02060006, Jefferson Patterson Park and Museum.
 Owner: U.S. Geological Survey.
 AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSFK.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 33 ft; casing diameter 3.5 in., to 28 ft; screen diameter 3.5 in. from 28 to 33 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 2, 1986 to current year.
 DATUM.--Elevation of land surface is 25.49 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.11 ft above land surface.
 REMARKS.--Best Management Practice Project observation well.
 PERIOD OF RECORD.--October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.42 ft below land surface, July 2, 1990; lowest measured, 19.21 ft below land surface, Feb. 20, 21, 22, 23, 24, and 25, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER
LEVEL

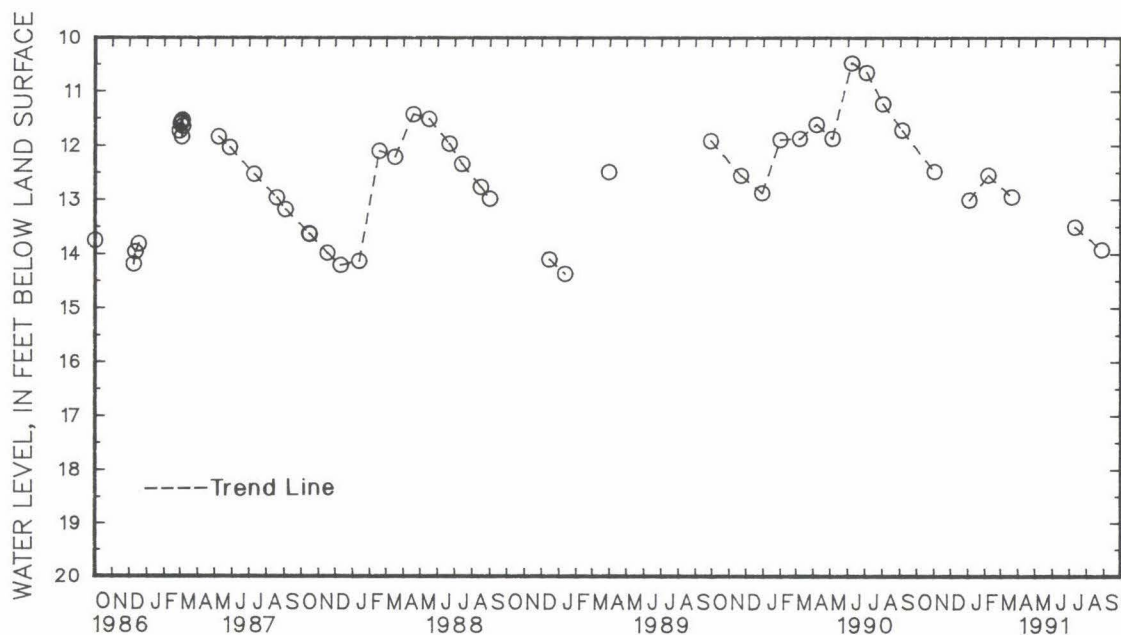
AUG 27 18.58



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--CA Fc 20. SITE ID.--382337076303702. PERMIT NUMBER.--CA-81-2385.
LOCATION.--Lat 38°23'38", long 76°30'39", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.
Owner: U.S. Geological Survey.
AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSPK.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 27 ft; casing diameter 3.5 in., to 22 ft;
screen diameter 3.5 in. from 22 to 27 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 20.62 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.84 ft above land surface.
REMARKS.--Best Management Practices Project observation well.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.48 ft below land surface, June 7, 1990;
lowest measured, 14.41 ft below land surface, Jan. 11, 1989.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	12.51	JAN 3	13.04	FEB 6	12.57	MAR 20	12.98	JUL 10	13.54	AUG 27	13.96
WATER YEAR 1991		HIGHEST	12.51	NOV 1, 1990		LOWEST	13.96	AUG 27, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

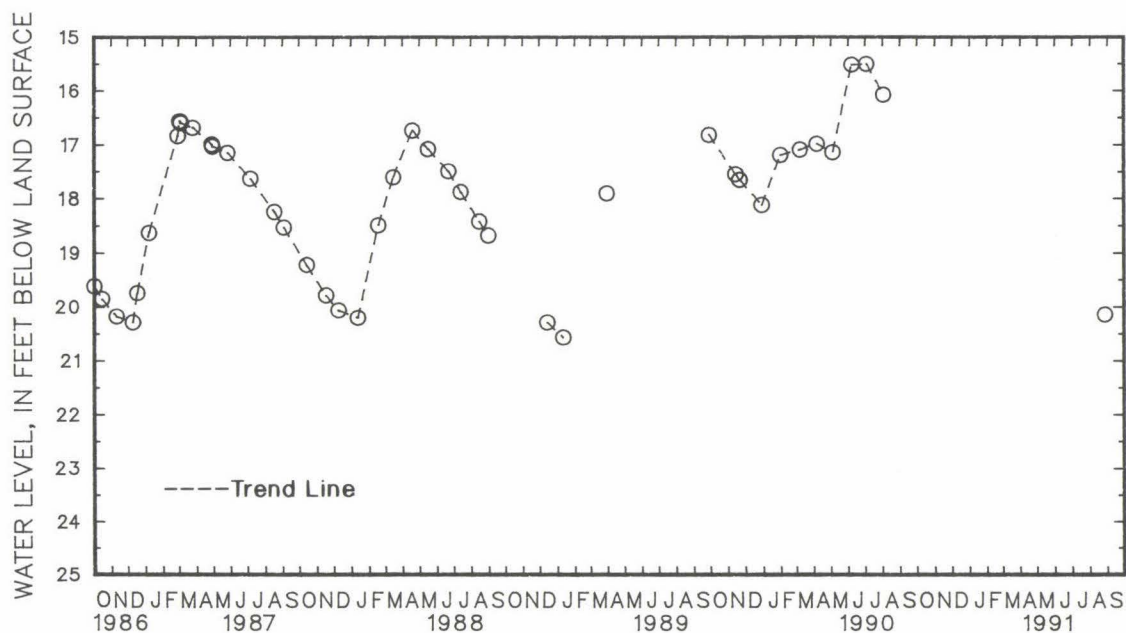
MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 21. SITE ID.--382342076303401. PERMIT NUMBER.--CA-81-2384.
 LOCATION.--Lat 38°23'42", long 76°30'33", Hydrologic Unit 02060006, Jefferson Patterson State
 Park and Museum.
 Owner: U.S. Geological Survey.
 AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSPK.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 33 ft; casing diameter 3.5 in., to 28 ft;
 screen diameter 3.5 in. from 28 to 33 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 35.51 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.14 ft above land surface.
 REMARKS.--Best Management Practices Project observation well.
 PERIOD OF RECORD.--October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.51 ft below land surface, July 3, 1990;
 lowest measured, 20.61 ft below land surface, Jan. 11, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

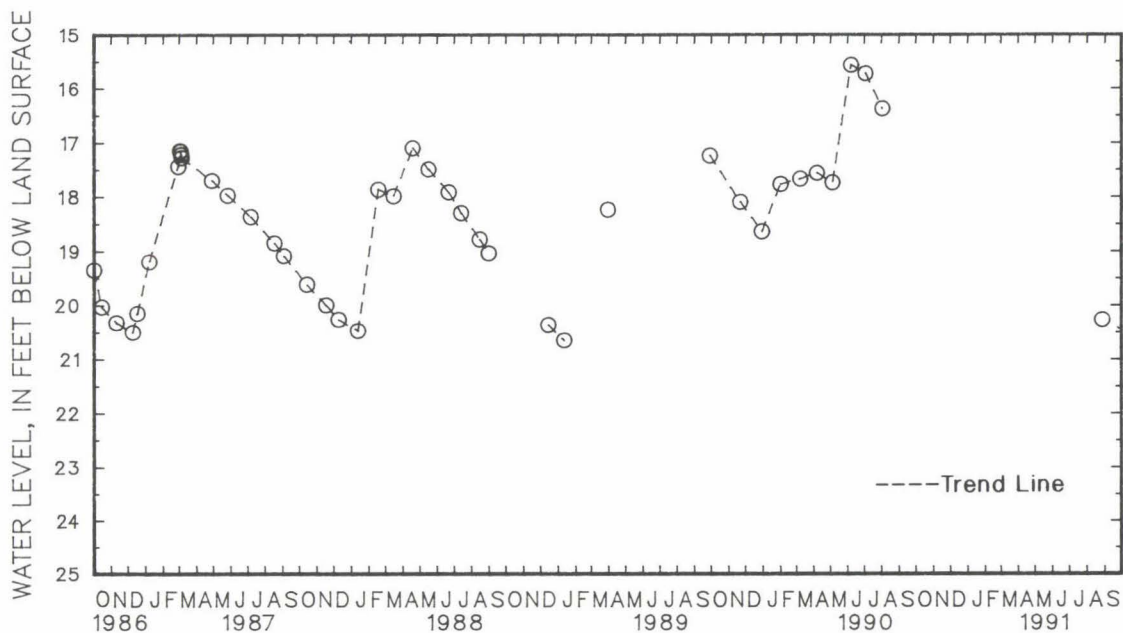
DATE	WATER LEVEL
AUG 27	20.18



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--CA Fc 22. SITE ID.--382340076303201. PERMIT NUMBER.--CA-81-2383.
LOCATION.--Lat 38°23'39", long 76°30'33", Hydrologic Unit 02060006, Jefferson Patterson State
Park and Museum.
Owner: U.S. Geological Survey.
AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSPK.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 35 ft; casing diameter 3.5 in., to 30 ft;
screen diameter 3.5 in. from 30 to 35 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 36.52 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.02 ft above land surface.
REMARKS.--Best Management Practices Project observation well.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.57 ft below land surface, June 7, 1990;
lowest measured, 20.69 ft below land surface, Jan. 11, 1989.

DATE	WATER LEVEL
AUG 27	20.31



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 33. SITE ID.--382339076304201.

LOCATION.--Lat 38°23'39", long 76°30'41", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.

Owner: U.S. Geological Survey.

AQUIFER.--Lowland deposits of Pleistocene age. Aquifer code: 111LLND.

WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 14 ft; casing diameter 2 in., to 12 ft; screen diameter 2 in. from 12 to 14 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--1-hour recorder interval from September 1990 to current year.

DATUM.--Elevation of land surface is 12.17 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.31 ft above land surface.

REMARKS.--Best Management Practices Project observation well.

PERIOD OF RECORD.--March 1989 to current year.

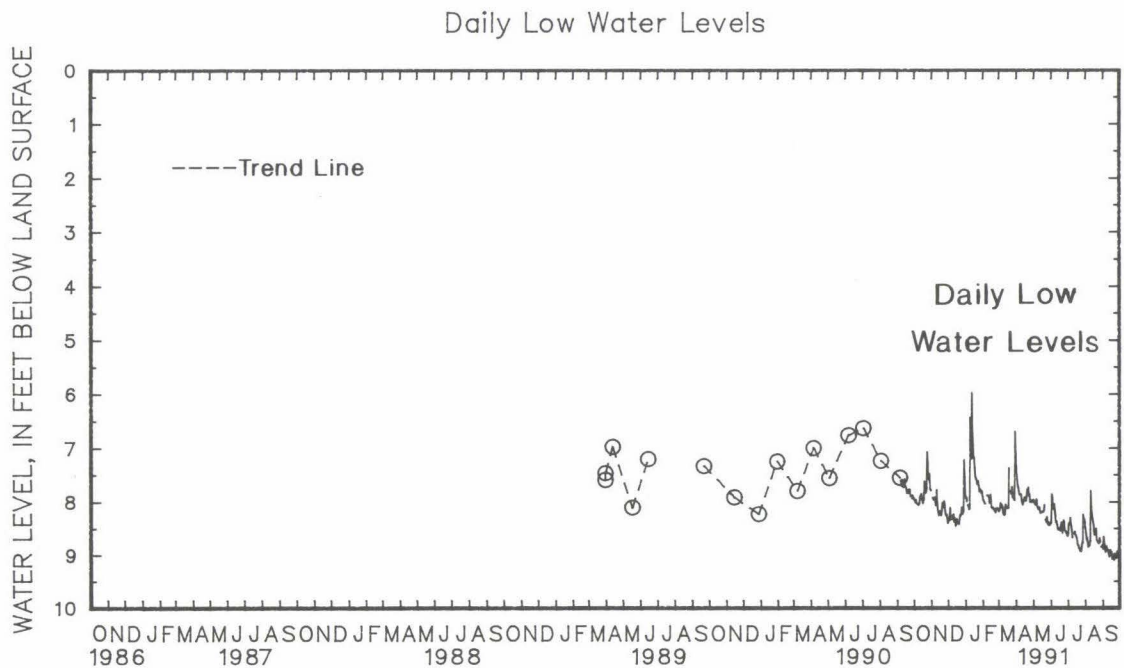
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.88 ft below land surface, Jan. 11 and 12, 1991; lowest measured, 9.17 ft below land surface, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.01	7.86	---	---	8.34	8.15	7.96	7.87	8.00	7.92	8.21	8.08
2	8.02	7.84	---	---	8.38	8.23	7.95	7.84	8.01	7.93	8.19	7.99
3	8.05	7.95	7.96	7.81	8.38	8.12	8.01	7.87	8.04	7.95	8.14	8.00
4	8.00	7.83	7.99	7.83	8.15	7.88	---	---	8.06	8.02	8.05	7.86
5	8.06	7.89	7.96	7.75	8.35	8.13	8.09	8.00	8.07	7.93	8.08	7.98
6	8.08	7.96	7.95	7.73	8.36	8.25	8.12	8.01	---	---	8.09	7.98
7	8.08	7.96	8.00	7.90	8.36	8.25	8.17	8.10	---	---	8.13	7.94
8	8.10	7.98	8.10	7.96	8.30	8.17	8.15	6.45	7.91	7.80	8.21	8.13
9	8.10	7.96	8.06	7.80	8.29	8.19	6.44	5.16	7.91	7.80	8.26	8.21
10	8.07	7.91	7.81	7.61	8.27	8.15	7.03	6.37	7.93	7.85	8.22	8.12
11	7.94	7.73	8.05	7.81	8.41	8.27	7.22	3.88	7.92	7.80	8.28	8.15
12	7.92	7.73	8.17	7.98	8.34	8.20	5.98	3.88	8.05	7.92	8.27	8.08
13	7.89	7.72	8.25	8.17	8.38	8.24	6.74	5.98	8.00	7.77	8.08	7.94
14	7.96	7.74	8.29	8.23	8.48	8.38	6.96	6.74	7.90	7.73	8.15	7.97
15	8.01	7.83	8.23	8.05	8.43	8.23	7.22	6.96	8.00	7.68	8.13	8.01
16	8.06	7.96	8.21	8.09	8.36	8.17	7.22	7.09	8.14	8.00	8.14	7.99
17	8.03	7.92	8.25	8.15	8.43	8.36	7.39	7.13	8.15	8.07	8.15	7.98
18	7.99	6.62	8.29	8.22	8.42	8.20	7.56	7.37	8.16	8.10	8.15	5.44
19	7.65	6.73	8.22	7.96	8.44	8.25	7.61	7.55	8.15	8.02	7.39	6.49
20	7.83	7.65	8.05	7.94	8.45	8.34	7.61	7.49	8.18	7.96	---	---
21	7.86	7.79	8.14	8.03	8.37	8.15	7.69	7.40	8.20	8.14	---	---
22	7.85	7.71	8.13	7.99	8.28	8.19	7.71	7.62	8.19	8.09	7.82	7.67
23	7.79	5.33	8.02	7.90	8.29	8.21	7.65	7.41	8.23	8.13	7.87	7.64
24	7.09	5.99	8.07	7.96	8.26	7.17	7.73	7.46	8.16	8.02	7.75	7.59
25	7.26	7.09	8.19	8.06	8.14	7.99	7.84	7.73	8.16	8.03	7.94	7.74
26	7.59	7.26	8.28	8.18	8.17	8.11	7.82	7.68	8.15	8.03	7.95	7.74
27	7.61	7.37	8.29	8.17	8.25	8.15	7.80	7.68	8.16	8.03	7.86	7.68
28	7.51	7.25	8.28	8.16	8.20	5.60	7.82	7.68	8.18	8.04	7.97	7.71
29	7.79	7.53	8.36	8.16	7.23	6.55	7.87	7.72	---	---	7.99	5.09
30	7.79	7.64	8.43	8.33	7.55	7.20	7.84	7.65	---	---	6.70	5.11
31	7.82	7.63	---	---	7.91	7.52	7.93	7.65	---	---	7.12	6.70
MONTH	8.10	5.33	8.43	7.73	8.48	5.60	8.17	3.88	8.23	7.68	8.28	5.09

GROUND-WATER LEVELS
MARYLAND-Continued
CALVERT COUNTY--Continued
CA Fc 33--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.39	7.06	7.99	7.87	8.43	7.24	8.62	8.41	8.52	8.35	8.91	8.68
2	7.59	7.34	8.03	7.84	7.88	7.46	8.44	8.11	8.63	8.43	8.68	8.49
3	7.70	7.56	8.07	7.92	7.93	7.83	8.42	8.25	8.73	8.56	8.80	8.50
4	7.76	7.66	8.09	7.99	8.10	7.89	8.43	8.20	8.71	8.51	8.88	8.65
5	7.82	7.71	8.07	7.97	8.16	7.94	8.33	8.16	8.79	8.55	8.97	8.70
6	7.89	7.82	7.98	7.81	8.07	7.89	8.46	8.21	8.87	8.61	8.87	8.69
7	7.89	7.84	8.11	7.83	8.20	7.98	8.52	8.27	8.84	8.62	8.86	8.61
8	7.90	7.84	8.13	8.06	8.29	8.12	8.61	8.34	8.85	8.61	8.89	8.63
9	7.89	7.82	8.17	8.08	8.41	8.18	8.69	8.37	8.76	6.18	8.93	8.70
10	7.97	7.85	8.17	8.08	8.40	8.26	---	---	7.80	6.18	8.93	8.75
11	8.05	7.93	8.14	8.01	8.45	8.17	---	---	8.11	7.70	9.01	8.80
12	8.09	7.96	8.20	7.98	8.51	8.27	8.62	8.38	8.25	8.00	9.05	8.91
13	8.04	7.92	8.24	8.06	8.55	8.31	8.59	8.30	8.32	8.14	8.95	8.77
14	8.00	7.86	8.23	8.07	8.55	8.35	8.65	8.36	8.38	8.22	8.93	8.73
15	7.95	7.79	8.23	8.01	8.53	8.29	8.66	8.43	8.45	8.26	8.96	8.79
16	7.99	7.81	8.23	8.02	8.54	8.34	8.70	8.48	8.58	8.41	8.97	8.75
17	8.01	7.86	8.22	8.02	8.57	8.38	8.75	8.54	8.64	8.49	9.09	8.88
18	8.01	7.87	8.22	8.05	8.48	8.30	8.83	8.61	8.61	8.45	9.09	8.99
19	7.92	7.67	8.19	7.88	8.42	8.25	8.85	8.71	8.57	8.35	9.05	8.89
20	7.80	7.63	8.09	7.89	8.54	8.29	8.89	8.71	8.53	8.28	9.11	9.01
21	7.83	7.69	---	---	8.61	8.37	8.91	8.76	8.75	8.51	9.00	8.83
22	7.76	7.60	8.37	8.22	8.48	8.30	8.94	8.75	8.77	8.58	9.05	8.82
23	7.91	7.71	8.41	8.25	8.38	8.25	8.90	8.74	8.77	8.58	9.05	8.88
24	7.89	7.72	8.32	8.20	8.40	8.19	8.95	8.68	8.80	8.60	9.07	8.92
25	8.03	7.86	8.41	8.12	8.55	8.24	8.88	8.64	8.80	8.60	9.02	8.70
26	8.00	7.88	8.45	8.30	8.58	8.35	8.79	8.63	8.71	8.47	8.96	8.73
27	8.00	7.84	8.42	8.26	8.59	8.38	8.79	7.61	8.77	8.49	9.02	8.87
28	8.03	7.86	8.47	8.23	8.62	8.41	8.26	8.01	---	---	9.03	8.90
29	8.03	7.84	8.47	8.33	8.66	8.47	8.34	8.12	8.87	8.72	9.06	8.92
30	7.99	7.79	8.46	8.28	8.67	8.52	8.34	8.19	8.85	8.69	9.17	8.99
31	---	---	8.43	8.25	---	---	8.40	8.20	8.84	8.63	---	---
MONTH	8.09	7.06	8.47	7.81	8.67	7.24	8.95	7.61	8.87	6.18	9.17	8.49

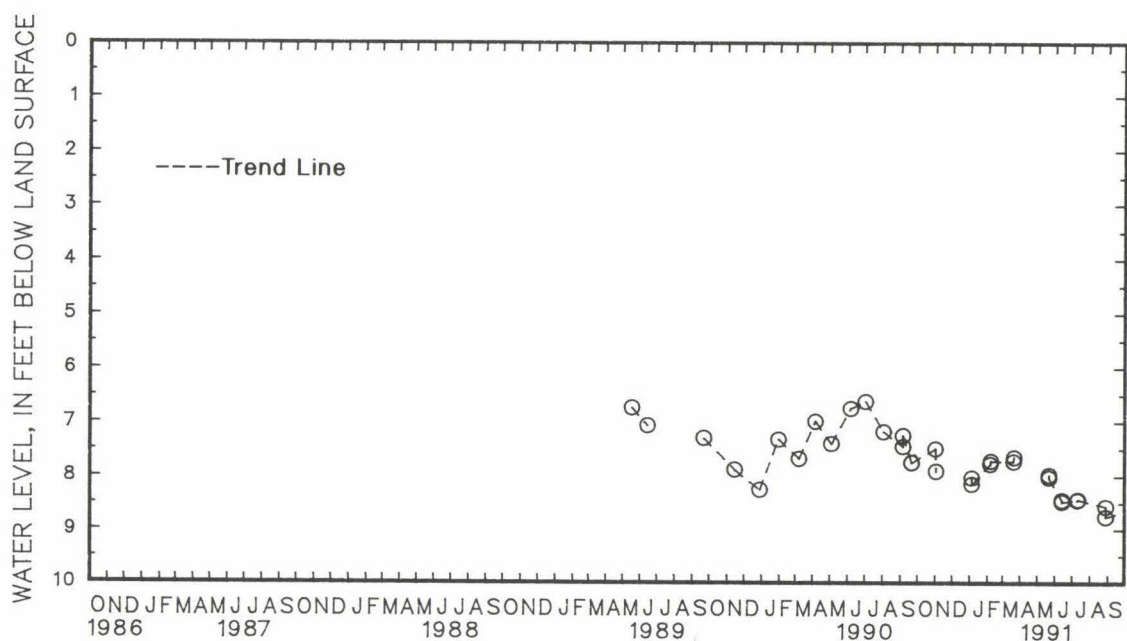


GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 34. SITE ID.--382339076304202.
LOCATION.--Lat 38°23'39", long 76°30'41", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.
Owner: U.S. Geological Survey.
AQUIFER.--Lowland deposits of Pleistocene age. Aquifer code: 111LLND.
WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 18 ft; casing diameter 2 in., to 16 ft; screen diameter 2 in. from 16 to 18 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--1-hour recorder interval from September 1990 to current year.
DATUM.--Elevation of land surface is 12.01 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder platform, 3.54 ft above land surface.
REMARKS.--Best Management Practices Project observation well.
PERIOD OF RECORD.--May 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.63 ft below land surface, July 2, 1990;
lowest measured, 8.78 ft below land surface, Aug. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	7.52	JAN 4	8.18	MAR 20	7.75	JUN 13	8.50	AUG 28	8.78
2	7.94	FEB 6	7.80	21	7.67	JUL 10	8.47		
JAN 4	8.06	7	7.74	MAY 21	8.05	11	8.46		
WATER YEAR 1991		HIGHEST	7.52	NOV 1, 1990	LOWEST	8.78	AUG 28, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fd 51. SITE ID.--382408076260401. PERMIT NUMBER.--CA-73-1449.

LOCATION.--Lat 38°24'08", long 76°26'04", Hydrologic Unit 02060004, at Calvert Cliffs State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 352 ft; casing diameter 6 in., to 140 ft; casing diameter 2 in. from 140 to 342 ft; screen diameter 2 in. from 342 to 352 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of protective casing, 3.63 ft above land surface.

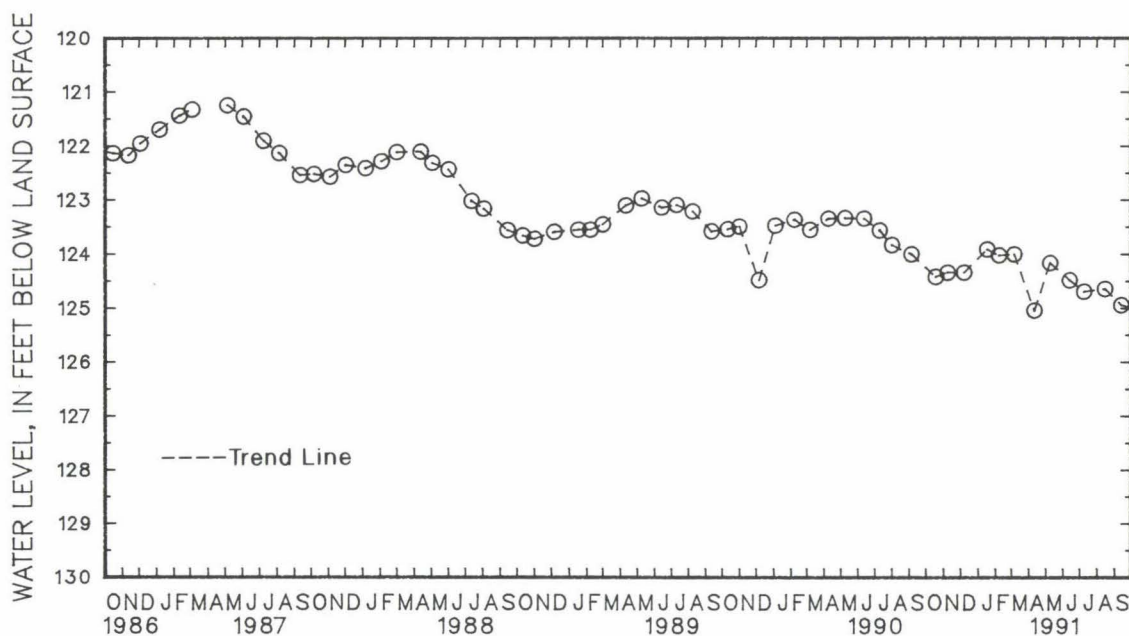
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 116.36 ft below land surface, Jan. 8, 1980; lowest measured, 125.05 ft below land surface, April 11, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	124.43	DEC 7	124.35	FEB 7	124.03	APR 11	125.05	JUN 13	124.49	AUG 15	124.65
NOV 8	124.35	JAN 17	123.92	MAR 6	124.01	MAY 9	124.17	JUL 9	124.70	SEP 13	124.95
WATER YEAR 1991		HIGHEST	123.92	JAN 17, 1991		LOWEST	125.05	APR 11, 1991			



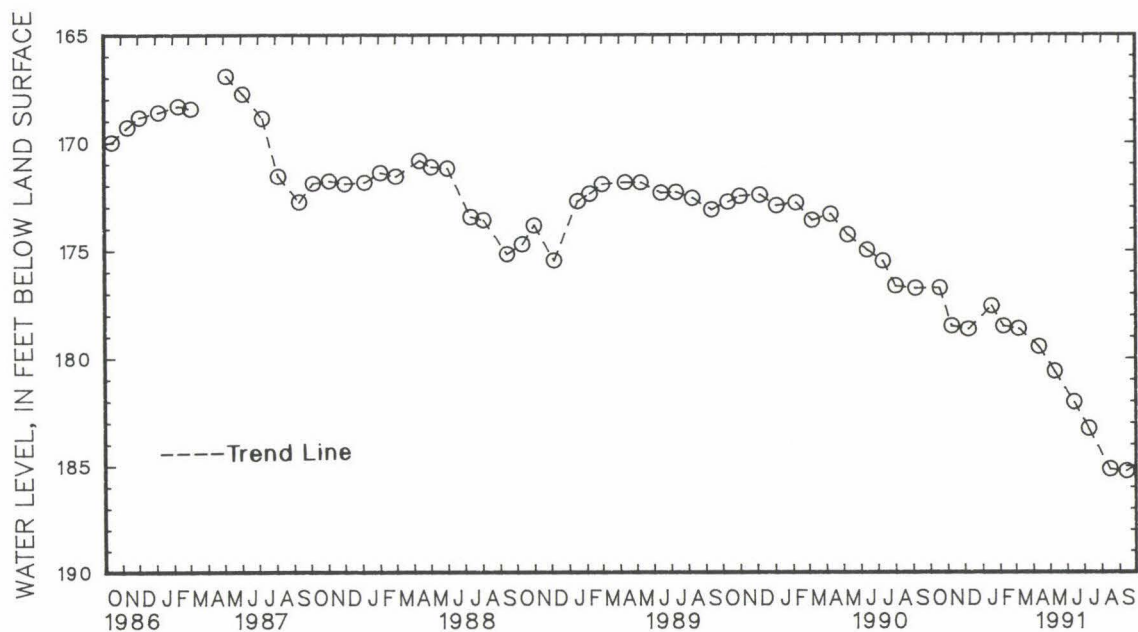
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CALVERT COUNTY--Continued

WELL NUMBER.--CA Fd 54. SITE ID.--382407076260301. PERMIT NUMBER.--CA-73-2892.
LOCATION.--Lat 38°24'07", long 76°26'03", Hydrologic Unit 02060006, at Calvert Cliffs State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 698 ft; casing diameter 4 in., to 234 ft; casing diameter 2 in. from 234 to 641 ft, and 651 to 698 ft; screen diameter 2 in. from 641 to 651 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 1.92 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--October 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.69 ft below land surface, April 21, 1980; lowest measured, 185.32 ft below land surface, Sept. 13, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	176.83	DEC 7	178.75	FEB 7	178.60	APR 11	179.58	JUN 13	182.14	AUG 15	185.24
NOV 8	178.60	JAN 17	177.65	MAR 6	178.72	MAY 9	180.72	JUL 9	183.37	SEP 13	185.32
WATER YEAR 1991		HIGHEST	176.83	OCT 18, 1990		LOWEST	185.32	SEP 13, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

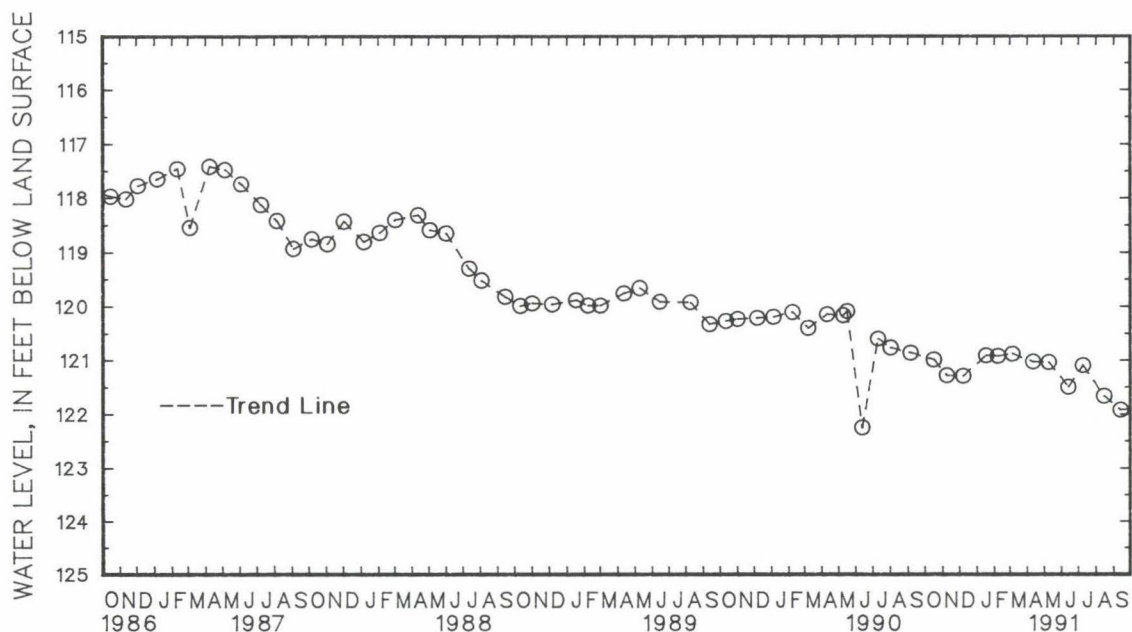
MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fe 22. SITE ID.--382318076242401. PERMIT NUMBER.--CA-73-1386.
 LOCATION.--Lat 38°23'18", long 76°24'24", Hydrologic Unit 02060004, at Columbia LNG Plant, Cove Point.
 Owner: U.S. Geological Survey.
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 350 ft; casing diameter 6 in., to 10 ft; casing diameter 2 in. from 10 to 340 ft; screen diameter 2 in. from 340 to 350 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 2.82 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1976 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.50 ft below land surface, Oct. 5, 1976; lowest measured, 122.29 ft below land surface, June 12, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	121.01	DEC 7	121.32	FEB 7	120.94	APR 11	121.05	JUN 13	121.53	AUG 15	121.70
NOV 8	121.31	JAN 17	120.93	MAR 5	120.90	MAY 9	121.06	JUL 9	121.12	SEP 13	121.96
WATER YEAR 1991		HIGHEST	120.90	MAR 5, 1991	LOWEST	121.96	SEP 13, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Gd 6. SITE ID.--381952076270901.

LOCATION.--Lat 38°19'52", long 76°27'09", Hydrologic Unit 02060006, at the Lord Calvert Yacht Club, 0.5 mi northeast of Solomons.

Owner: Calvert Marina.

AQUIFER.--Aguia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 493 ft; casing diameter 8 in., to 272 ft and casing diameter 6 in., to 472 ft; screened from 469 to 493 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder. Oct. 19, 1949 to Feb. 25, 1960.

DATUM.--Elevation of land surface is 12.58 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of sanitary seal, 1.59 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Water level reported at land surface 1942; water-level measured 58.9 ft below land surface, Jan. 13, 1944. Well not measured from April through July 1988 during building construction at well site. Water levels are affected by pumping. On July 18, 1991 the water-level measured, 119.93 ft below land surface during an extended pumping period.

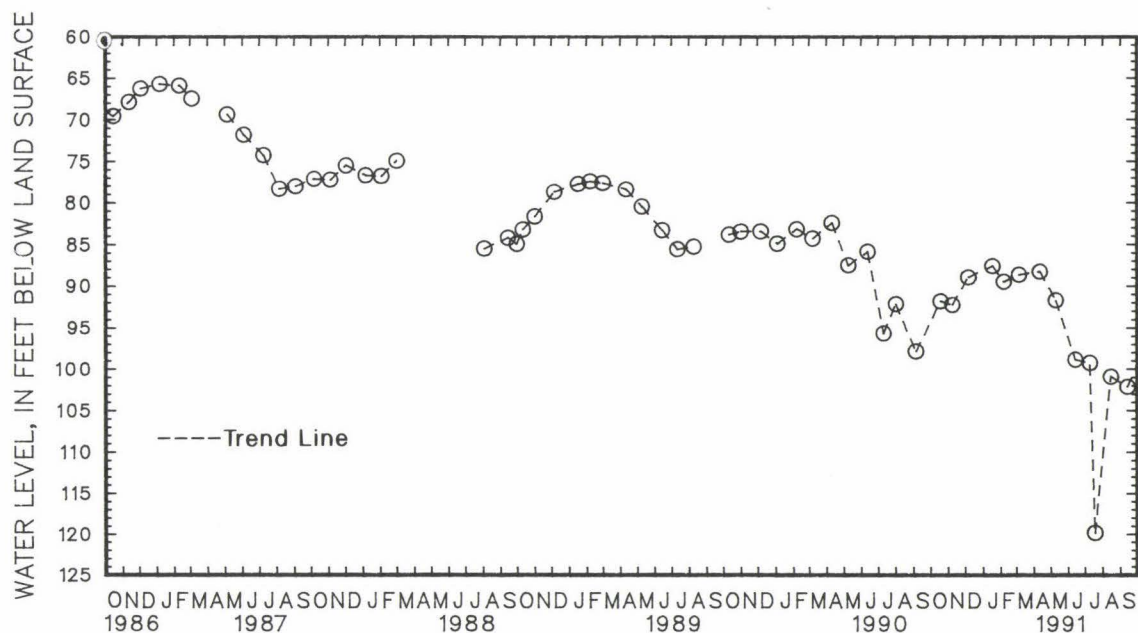
PERIOD OF RECORD.-- October 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.15 ft below land surface, May 18, 1950;
lowest measured, 119.93 ft below land surface, July 18, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	91.97	JAN 17	87.69	APR 11	88.38	JUL 9	99.56	SEP 13	102.17
NOV 8	92.41	FEB 6	89.60	MAY 9	91.90	18	119.93		
DEC 6	89.04	MAR 5	88.74	JUN 13	99.17	AUG 15	100.95		

WATER YEAR 1991	HIGHEST	87.69	JAN 17, 1991	LOWEST	119.93	JUL 18, 1991
-----------------	---------	-------	--------------	--------	--------	--------------



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CAROLINE COUNTY--Continued

WELL NUMBER.--CO Bd 53. SITE ID.--390227075470201. PERMIT NUMBER.--CO-73-0541.

LOCATION.--Lat 39°02'27", long 75°47'02", Hydrologic Unit 02060005, near MD Rt. 311, Goldsboro.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 312 ft; casing diameter 6 in., to 70 ft; casing diameter 2 in. from 70 to 300 ft; screen diameter 2 in. from 300 to 312 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.20 ft above land surface.

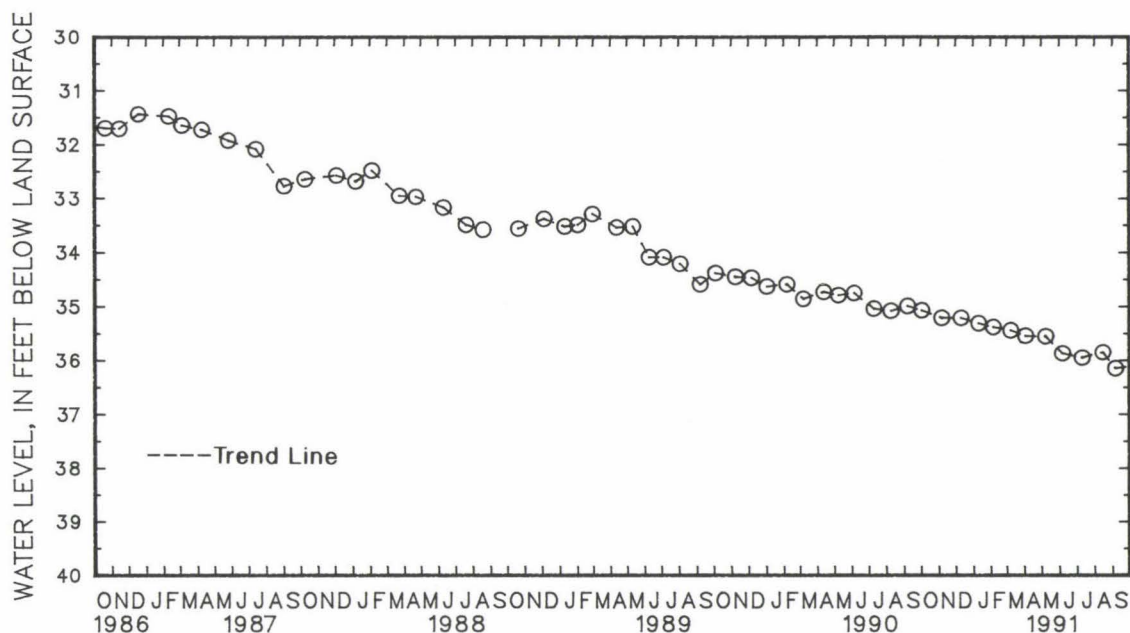
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.64 ft below land surface, Dec. 10, 1976;
lowest measured, 36.16 ft below land surface, Sept. 6, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL	DATE		WATER LEVEL
OCT 2	35.08	DEC 10	35.22	FEB 5	35.39	APR 3	35.55	JUN 6	35.88	AUG 15	35.86
NOV 6	35.22	JAN 10	35.32	MAR 8	35.45	MAY 8	35.56	JUL 10	35.96	SEP 6	36.16
WATER YEAR 1991		HIGHEST	35.08	OCT 2, 1990		LOWEST	36.16	SEP 6, 1991			



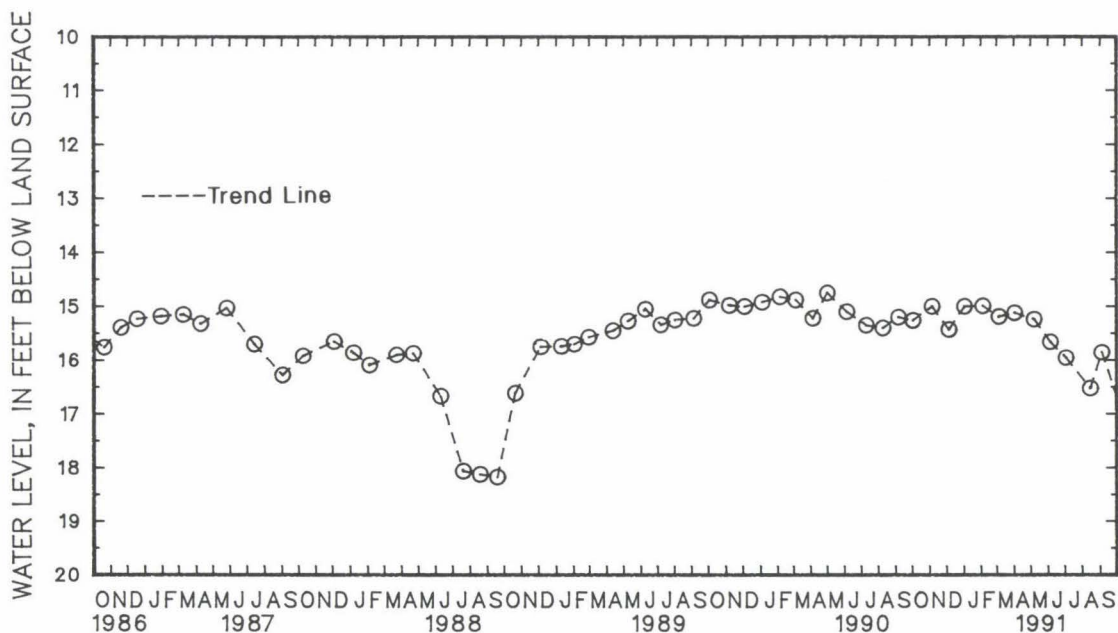
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CAROLINE COUNTY--Continued

WELL NUMBER.--CO Dc 129. SITE ID.--385310075503601. PERMIT NUMBER.--CO-02-3881.
LOCATION.--Lat 38°53'10", long 75°50'36", Hydrologic Unit 02060005, at West Denton.
Owner: Wilson Laurel Farms, Inc.
AQUIFER.--Choptank Formation of Miocene age. Aquifer code: 122CPNK.
WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 229 ft; casing diameter 4 in., to 137.4 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 0.40 ft below land surface.
REMARKS.--Maryland Water-Level Network observation well. Equipped with water level recorder from Aug. 1, 1956 to June 8, 1957.
PERIOD OF RECORD.--August 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.63 ft below land surface, April 5, 1973; lowest measured, 56.09 ft below land surface, Nov. 5, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	15.26	DEC 5	15.43	FEB 4	14.99	APR 2	15.12	JUN 5	15.66	AUG 15	16.53
NOV 5	15.00	JAN 2	15.00	MAR 5	15.19	MAY 7	15.24	JUL 3	15.96	SEP 4	15.86
WATER YEAR 1991		HIGHEST	14.99	FEB 4, 1991		LOWEST	16.53	AUG 15, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CAROLINE COUNTY--Continued

WELL NUMBER.--CO Dd 47. SITE ID.--385217075490601. PERMIT NUMBER.--CO-73-0486.

LOCATION.--Lat 38°52'17", long 75°49'06", Hydrologic Unit 02060005, at Denton Sewage Lagoon.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 380 ft; casing diameter 4 in., to 86 ft; casing diameter 2 in. from 86 to 365 ft; screen diameter 2 in. from 365 to 375 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 46 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.40 ft above land surface.

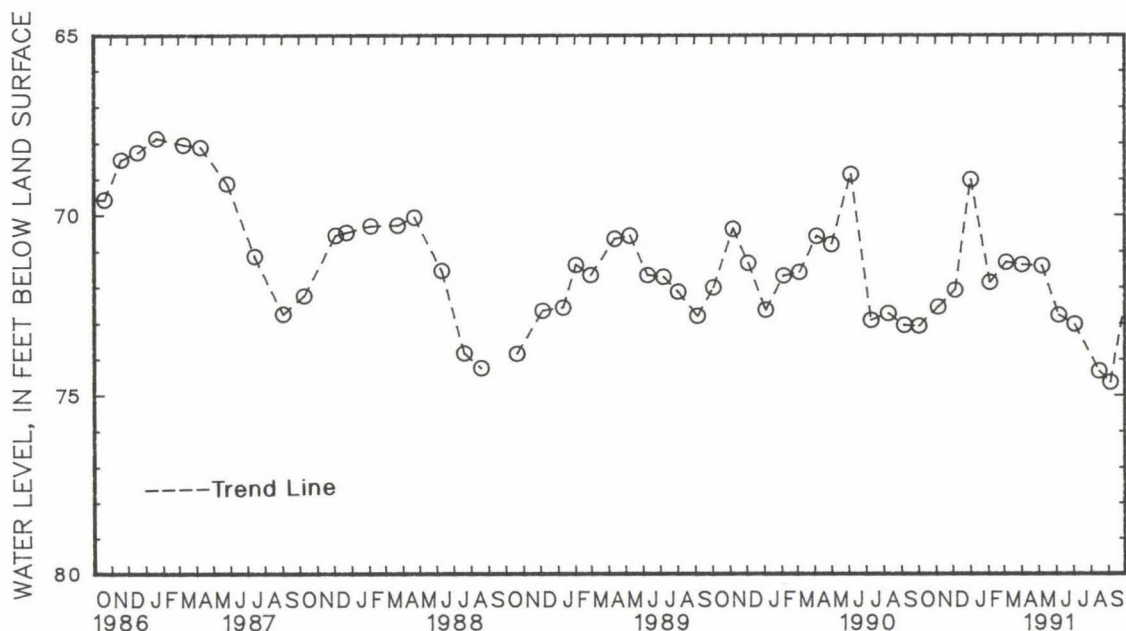
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.78 ft below land surface, May 27, 1976; lowest measured, 74.70 ft below land surface, Sept. 4, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	73.12	DEC 5	72.10	FEB 4	71.90	APR 2	71.41	JUN 5	72.82	AUG 15	74.39
NOV 5	72.58	JAN 2	69.02	MAR 5	71.34	MAY 7	71.44	JUL 3	73.07	SEP 4	74.70
WATER YEAR 1991		HIGHEST	69.02	JAN 2, 1991		LOWEST	74.70	SEP 4, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CARROLL COUNTY

WELL NUMBER.--CL Ad 47. SITE ID.--394008077005601. PERMIT NUMBER.--CL-73-3178.

LOCATION.--Lat 39°40'08", long 77°00'56", Hydrologic Unit 02070009, at Union Mills Homestead Park.

Owner: U.S. Geological Survey.

AQUIFER.--Marburg Formation of Paleozoic age. Aquifer code: 300MRBG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 310 ft; casing diameter 6 in., to 35 ft.; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing 2.97 ft above land surface.

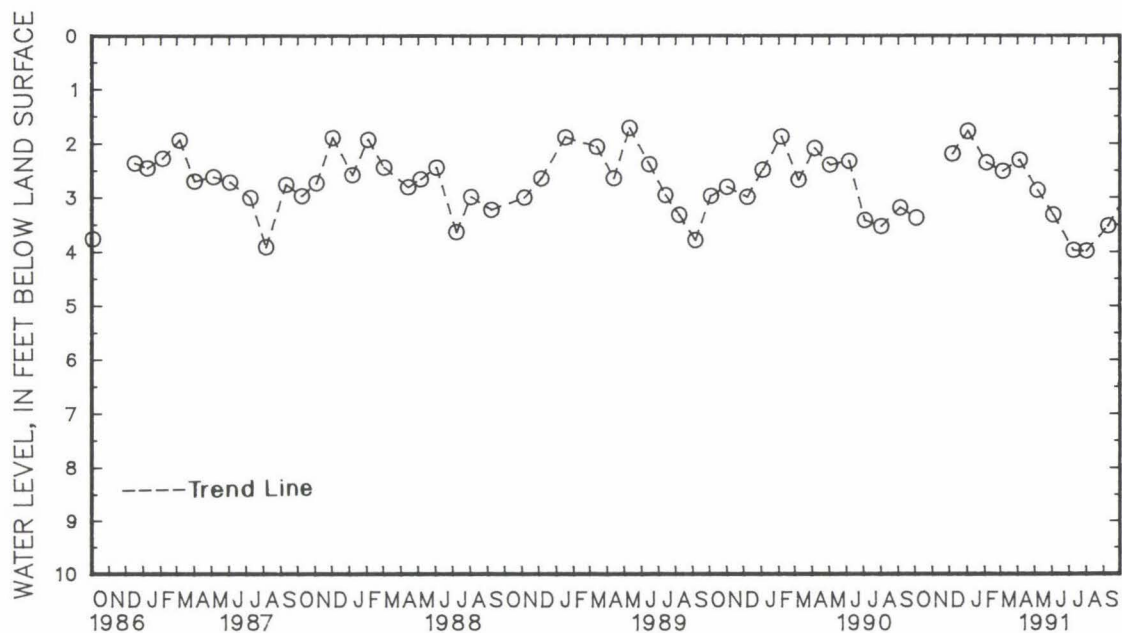
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.72 ft below land surface, May 10, 1989;
lowest measured, 4.17 ft below land surface, July 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 3	3.40	JAN 2	1.78	MAR 5	2.53	MAY 6	2.89	JUL 9	4.01	SEP 9	3.55	
DEC 6	2.20	FEB 4	2.37	APR 4	2.32	JUN 3	3.35	AUG 1	4.02			
WATER YEAR 1991		HIGHEST	1.78	JAN 2, 1991		LOWEST	4.02	AUG 1, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CARROLL COUNTY

WELL NUMBER.--CL Bf 1. SITE ID.--393638076510001.

LOCATION.--Lat 39°36'38", long 76°51'00", Hydrologic Unit 02060003, on Hillcrest St., Hampstead.

Owner: Town of Hampstead.

AQUIFER.--Prettyboy Schist of Paleozoic age. Aquifer code: 300PRTB.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 407 ft; casing diameter 8 in., to approximately 65 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from July 1, 1952, to Nov. 7, 1962.

DATUM.--Elevation of land surface is 933 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. casing extension, 2.35 ft above land surface.

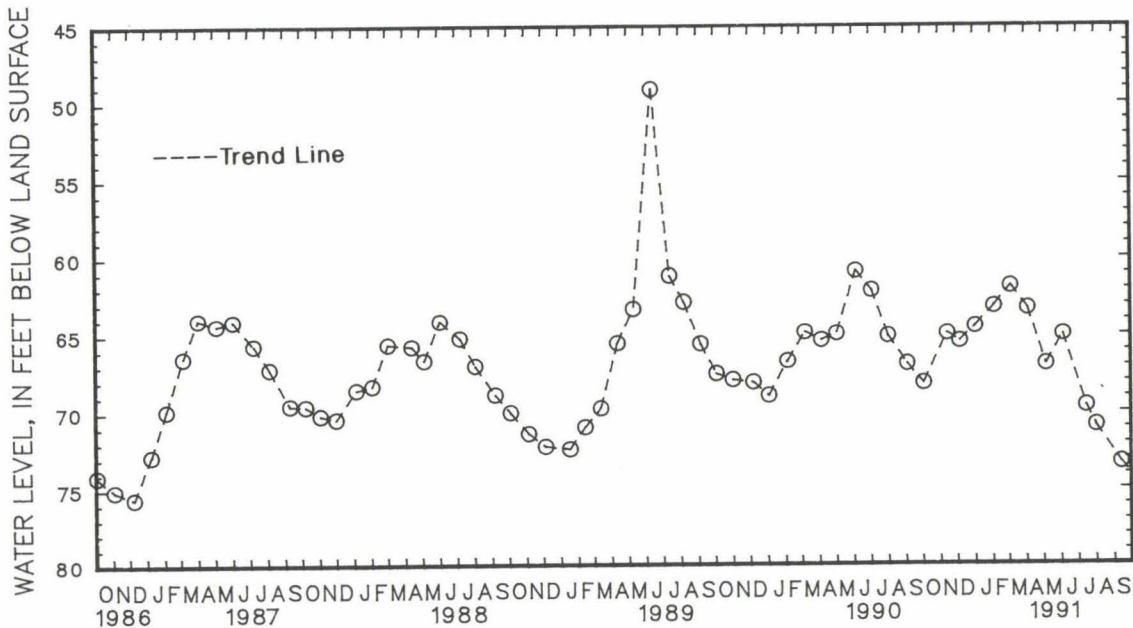
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September and December 1946, April and September 1947, February 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.10 ft below land surface, June 13, 1989; lowest measured, 76.26 ft below land surface, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	68.30	DEC 6	65.53	FEB 4	63.23	APR 4	63.39	JUN 5	65.10	AUG 1	71.06
NOV 14	65.01	JAN 2	64.54	MAR 5	61.92	MAY 6	67.08	JUL 15	69.80	SEP 13	73.45
WATER YEAR 1991		HIGHEST	61.92	MAR 5, 1991	LOWEST	73.45	SEP 13, 1991				



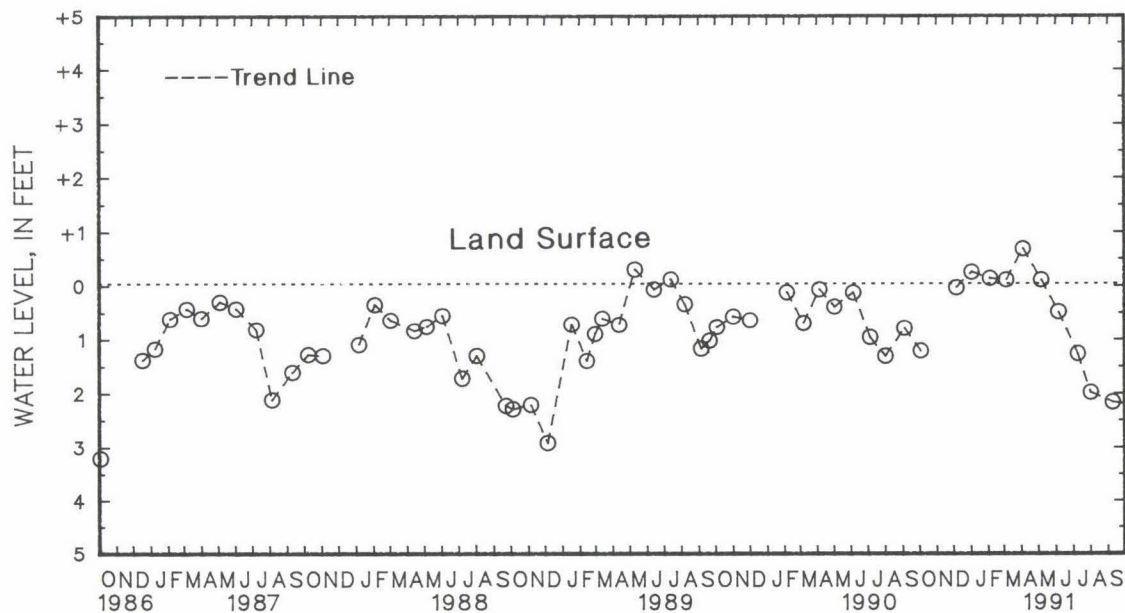
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CARROLL COUNTY--Continued

WELL NUMBER.--CL Bf 184. SITE ID.--393754076512401. PERMIT NUMBER.--CL-73-6466.
LOCATION.--Lat 39°37'54", long 76°51'24", Hydrologic Unit 02060003, near Utz Rd., Greenmount.
Owner: U.S. Geological Survey.
AQUIFER.--Prettyboy Schist of Paleozoic age. Aquifer code: 300PRTB.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 340 ft; casing diameter 6 in., to 50 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 790 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 1.81 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--August 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.68 ft above land surface, April 4, 1991; lowest measured, 3.24 ft below land surface, Oct. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
(READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	1.24	JAN 2	+ .25	MAR 5	+ .10	MAY 6	+ .09	JUL 9	1.30	SEP 9	2.20
DEC 6	.04	FEB 4	+ .13	APR 4	+ .68	JUN 5	.51	AUG 1	2.02		
WATER YEAR 1991		HIGHEST	+ .68	APR 4, 1991		LOWEST	2.20	SEP 9, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CARROLL COUNTY--Continued

WELL NUMBER.--CL Ec 75. SITE ID.--392259077052401. PERMIT NUMBER.--CL-73-2722.

LOCATION.--Lat 39°22'59", long 77°05'24", Hydrologic Unit 02060003,

Owner: U.S. Geological Survey.

AQUIFER.--Prettyboy Schist of Paleozoic age. Aquifer code: 300PRTB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 248 ft; casing diameter 6 in., to 21 ft; open hole.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Equipped with graphic recorder December 26, 1974 to July 19, 1980.

DATUM.--Elevation of land surface is 550 ft above National Geodetic Vertical Datum of 1929.

Measuring Point:Top of casing, 2.31 ft above land surface.

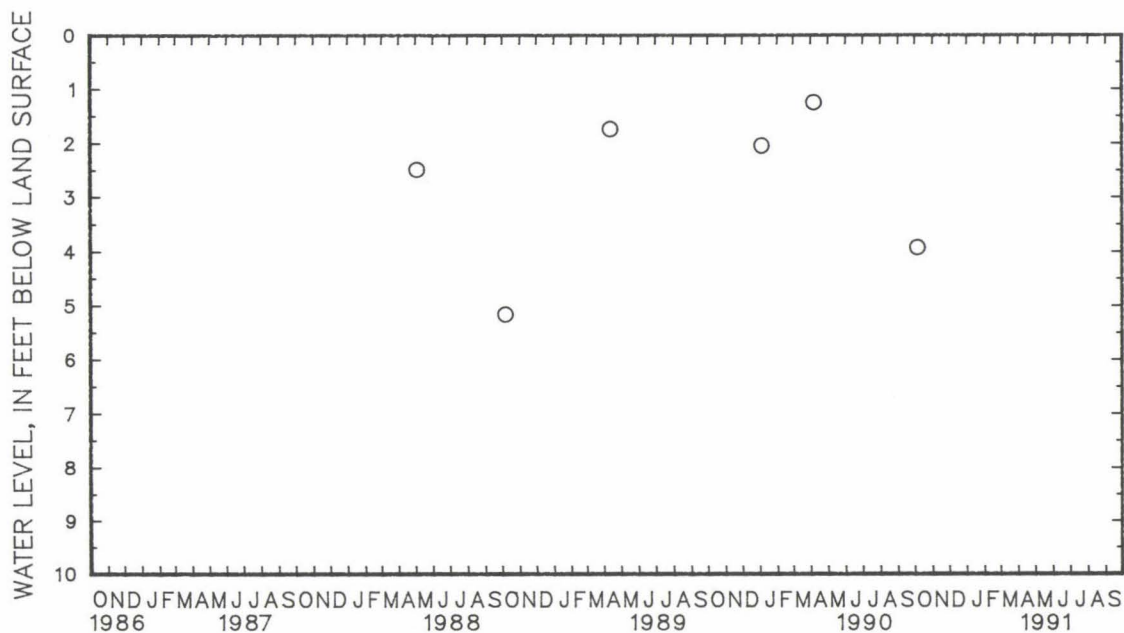
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1974 to July 1980, August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.25 ft below land surface, April 6, 1990; lowest measured, 5.20 ft below land surface, Oct. 6, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL
OCT 5	3.96



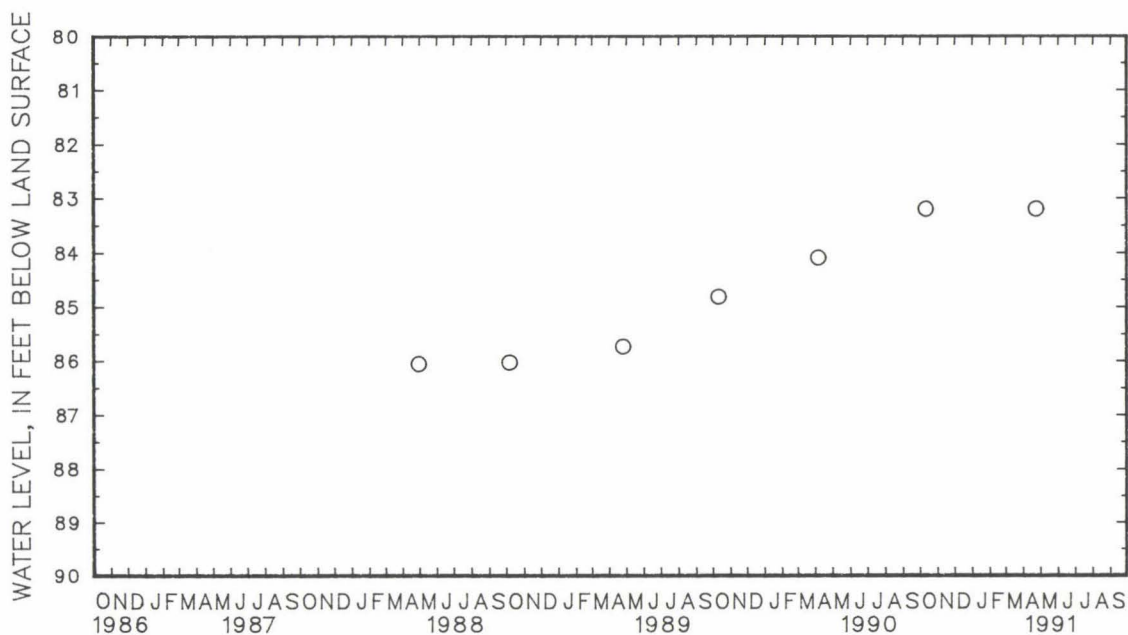
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CECIL COUNTY--Continued

WELL NUMBER.--CE Be 74. SITE ID.--393637075535002. PERMIT NUMBER.--CE-81-0464.
LOCATION.--Lat 39°36'37", long 75°53'50", Hydrologic Unit 02060002, 2 mi west of Elkton nr US Rt. 40.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 2 in., to 110 ft; screen diameter 2 in. from 110 to 115 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.00 ft above land-surface datum.
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since April 1988.
PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.12 ft below land surface, July 31, 1984; lowest measured, 86.10 ft below land surface, April 29, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	83.20	APR 23	83.20

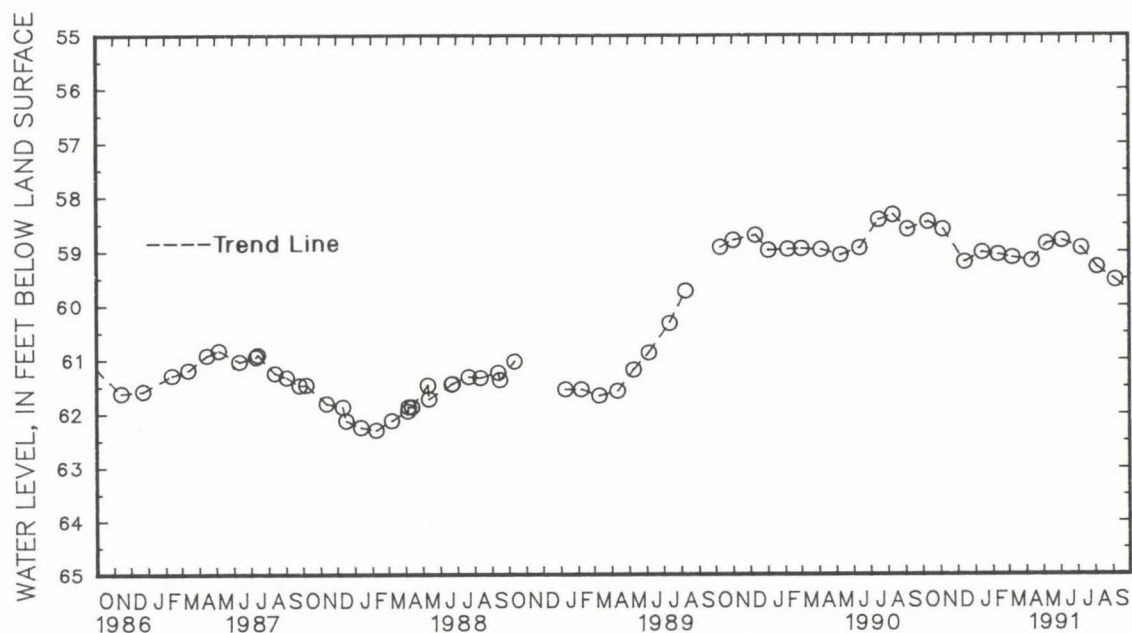


5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 11	58.46	DEC 14	59.21	FEB 11	59.07	APR 11	59.19	JUN 4	58.81	AUG 5	59.31				
NOV 6	58.60	JAN 14	59.03	MAR 8	59.13	MAY 7	58.87	JUL 8	58.95	SEP 6	59.55				
WATER YEAR 1991		HIGHEST	58.46	OCT 11, 1990		LOWEST	59.55	SEP 6, 1991							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Cd 51. SITE ID.--393432075593601. PERMIT NUMBER.--CE-81-0440.
 LOCATION.--Lat 39°34'32", long 75°59'36", Hydrologic Unit 02060002, nr intersection of
 MD Rts. 7 and 267, 1 mi west of Charlestown.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 125 ft; casing diameter 4 in., to 120 ft;
 screen diameter 2 in. from 120 to 125 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land-surface is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.12 ft above land surface.

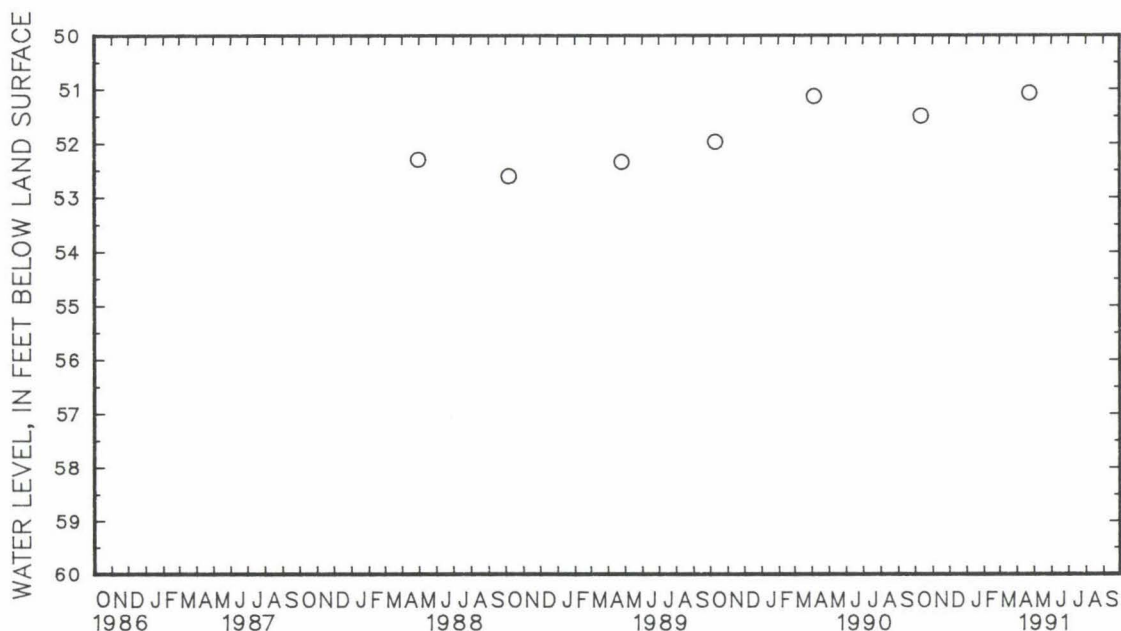
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since April 1988.

PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.80 ft below land surface, April 6, 1984;
 lowest measured, 53.17 ft below land surface, Dec. 8, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	51.51	APR 23	51.08
WATER YEAR 1991	HIGHEST	51.08	APR 23, 1991
	LOWEST	51.51	OCT 11, 1990



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

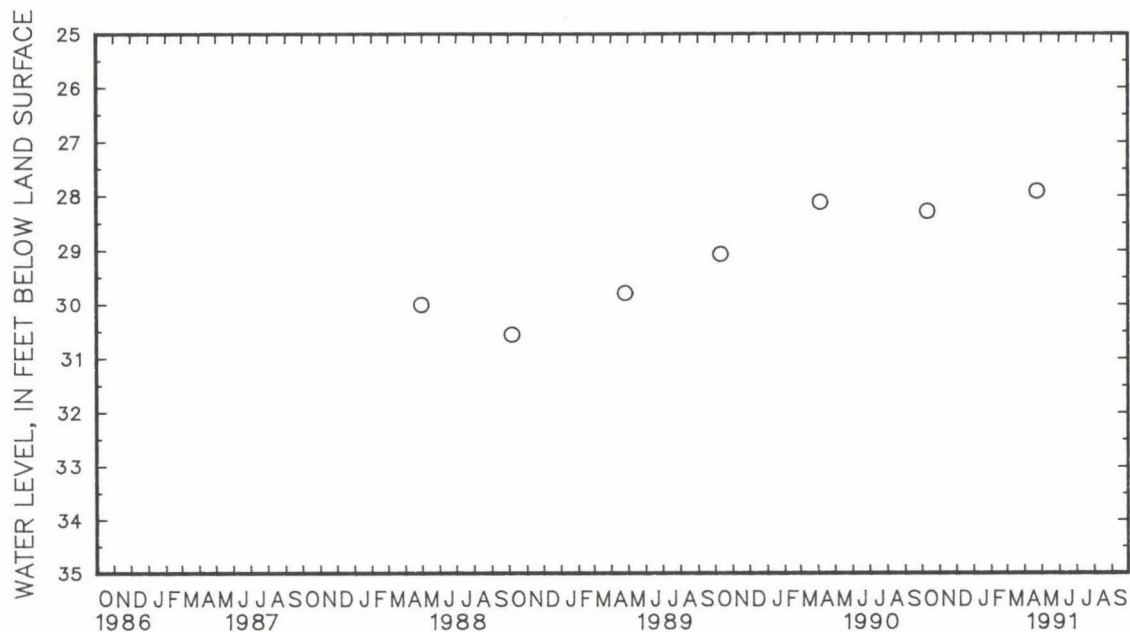
MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Cd 52. SITE ID.--393432075593602. PERMIT NUMBER.--CE-81-0440.
 LOCATION.--Lat 39°34'32", long 75°59'36", Hydrologic Unit 02060002, nr intersection of
 MD Rts. 7 and 267, 1 mi west of Charlestown.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 48 ft; casing diameter 4 in., to 43 ft;
 screen diameter 2 in. from 43 to 48 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land-surface is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 3.18 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly starting April 1988.
 PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.75 ft below land surface, July 5, 1983;
 lowest measured, 30.60 ft below land surface, Oct. 6, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	28.29	APR 23	27.92
WATER YEAR 1991	HIGHEST	27.92	APR 23, 1991
	LOWEST	28.29	OCT 11, 1990



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 54. SITE ID.--393433075544901. PERMIT NUMBER.--CE-81-0461.

LOCATION.--Lat 39°34'33", long 75°54'49", Hydrologic Unit 02060002, Elk Neck State Forest near Irishtown Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 4 in., to 245 ft.; screen diameter 2 in. from 245 to 250 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder July 21, 1983 to Nov. 6, 1984.

DATUM.--Elevation of land surface is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.00 ft above land surface.

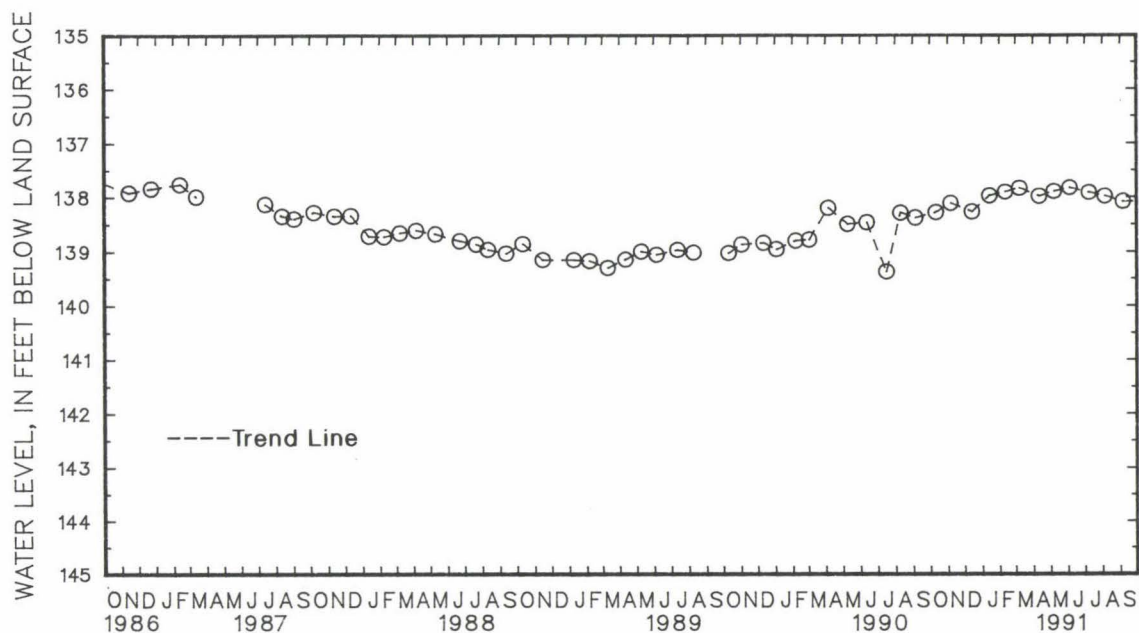
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--March 1983 to November 1984, July 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.10 ft below land surface, March 29, 1984, April 6, 1984 and Nov. 6, 1984; lowest measured, 139.41 ft below land surface, July 16, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	138.30	DEC 14	138.29	FEB 11	137.92	APR 11	138.00	JUN 4	137.84	AUG 5	138.00
NOV 6	138.13	JAN 14	137.99	MAR 8	137.85	MAY 7	137.91	JUL 8	137.93	SEP 6	138.10
WATER YEAR 1991		HIGHEST	137.84	JUN 4, 1991	LOWEST	138.30	OCT 11, 1990				



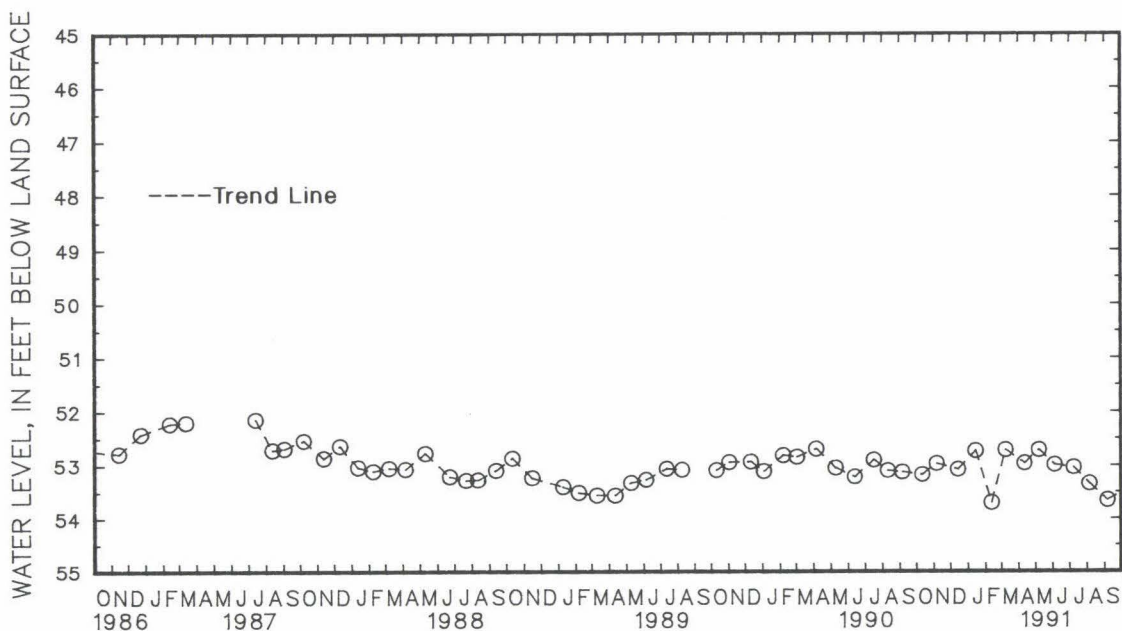
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 55. SITE ID.--393241075500201. PERMIT NUMBER.--CE-81-0465.
LOCATION.--Lat 39°32'41", long 75°50'02", Hydrologic Unit 02060002, Canal National Wildlife Refuge near Elk Forest Rd.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 375 ft; casing diameter 4 in., to 370 ft; screen diameter 2 in. from 370 to 375 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from July 21, 1983 to Nov. 6, 1984.
DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing 2.40 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--March 1983 to November 1984, July 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.56 ft below land surface, April 17, 1984; lowest measured, 53.73 ft below land surface, Feb. 11, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	53.20	DEC 14	53.10	FEB 11	53.73	APR 11	52.98	JUN 4	53.01	AUG 5	53.37
NOV 6	52.99	JAN 14	52.75	MAR 8	52.73	MAY 7	52.73	JUL 8	53.06	SEP 6	53.68
WATER YEAR 1991		HIGHEST	52.73	MAR 8, 1991	MAY 7, 1991	LOWEST	53.73	FEB 11, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

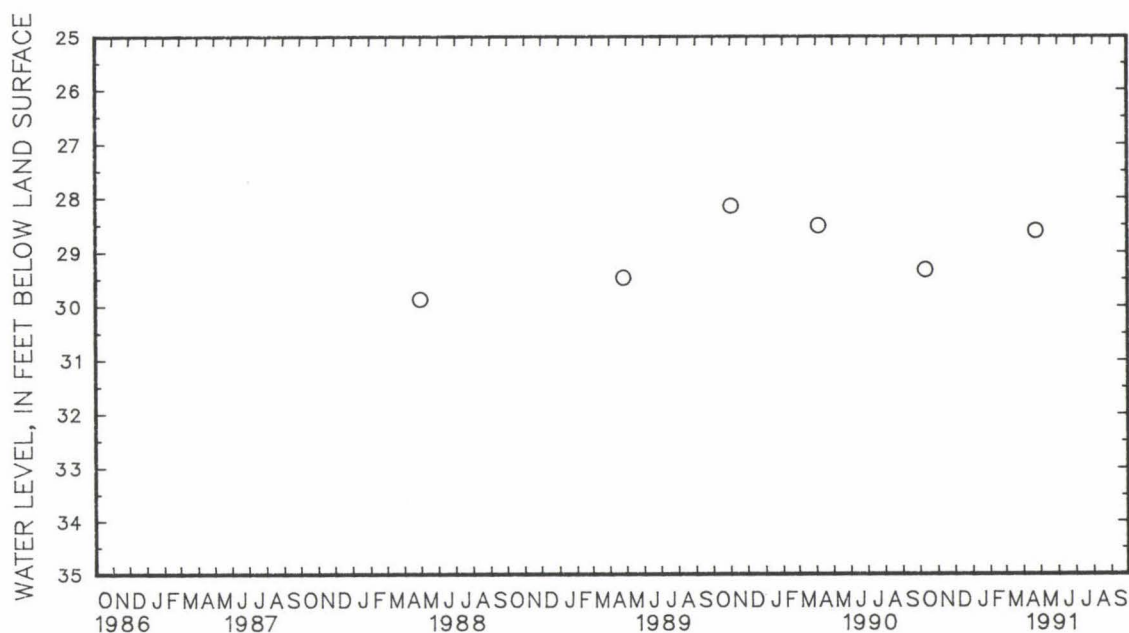
MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 56. SITE ID.--393026075523101. PERMIT NUMBER.--CE-81-0466.
 LOCATION.--Lat 39°30'26", long 75°52'31", Hydrologic Unit 02060002, south of Courthouse Point Rd.
 1.2 mi east of Courthouse Point.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 121 ft; casing diameter 4 in., to 116 ft;
 screen diameter 2 in. from 116 to 121 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land-surface is 38 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 2.00 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since April 1988.
 PERIOD OF RECORD.--April 1983 to September 1984, April 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.16 ft below land surface, Nov. 2, 1989;
 lowest measured, 34.48 ft below land surface, Nov. 19, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	29.36	APR 23	28.63
WATER YEAR 1991	HIGHEST	28.63	APR 23, 1991
	LOWEST	29.36	OCT 11, 1990



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

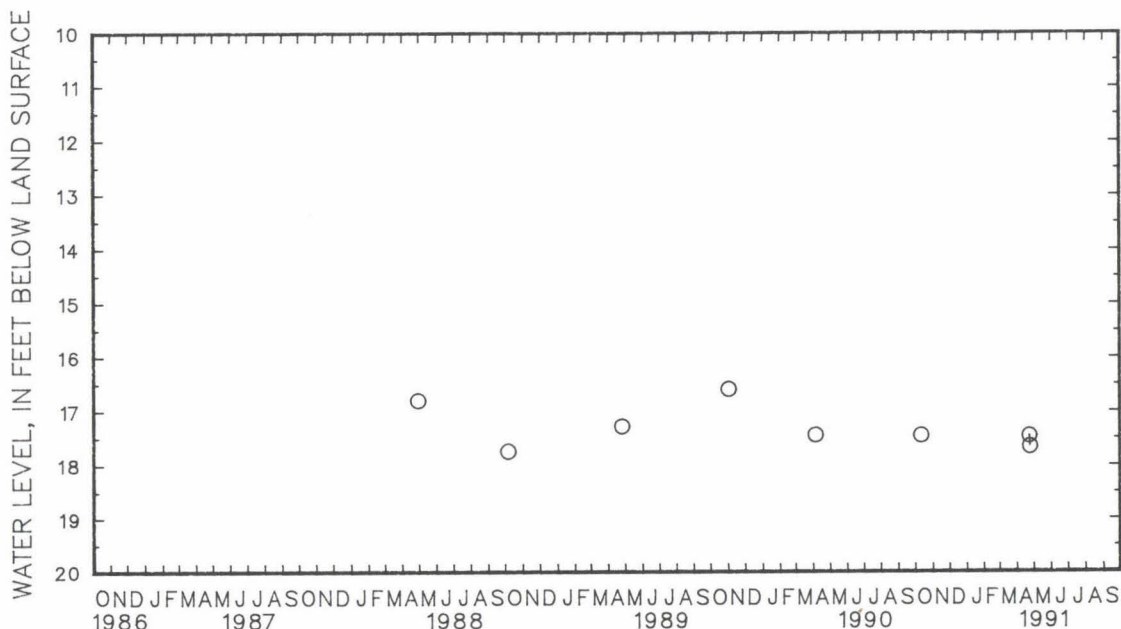
MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Dd 81. SITE ID.--392536075593201. PERMIT NUMBER.--CE-81-0469.
 LOCATION.--Lat 39°25'36", long 75°59'32", Hydrologic Unit 02060002, at dredge spoil site off Pond Neck Road nr West View Shores.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 4 in., to 110 ft; screen diameter 2 in. from 110 to 115 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land-surface is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 1.80 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since April 1988.
 PERIOD OF RECORD.--March 1983 to October 1983, April 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.25 ft below land surface, July 1, 1983; lowest measured, 17.70 ft below land surface, April 24, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	17.49	APR 23	17.50	APR 24	17.70
WATER YEAR 1991 HIGHEST 17.49 OCT 11, 1990 LOWEST 17.70 APR 24, 1991					



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ee 29. SITE ID.--392403075521801. PERMIT NUMBER.--CE-73-2266.

LOCATION.--Lat 39°24'03", long 75°52'18", Hydrologic Unit 02060002, 0.3 mi southwest of MD Rts. 213 and 282, Cecilton.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 547 ft; casing diameter 10 in., to 158 ft; casing diameter 4 in., to 515 ft and 525 to 547 ft; screen diameter 4 in. from 515 to 525 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from Aug. 22, 1979 to Dec. 4, 1979.

DATUM.--Elevation of land surface is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.35 ft above land surface.

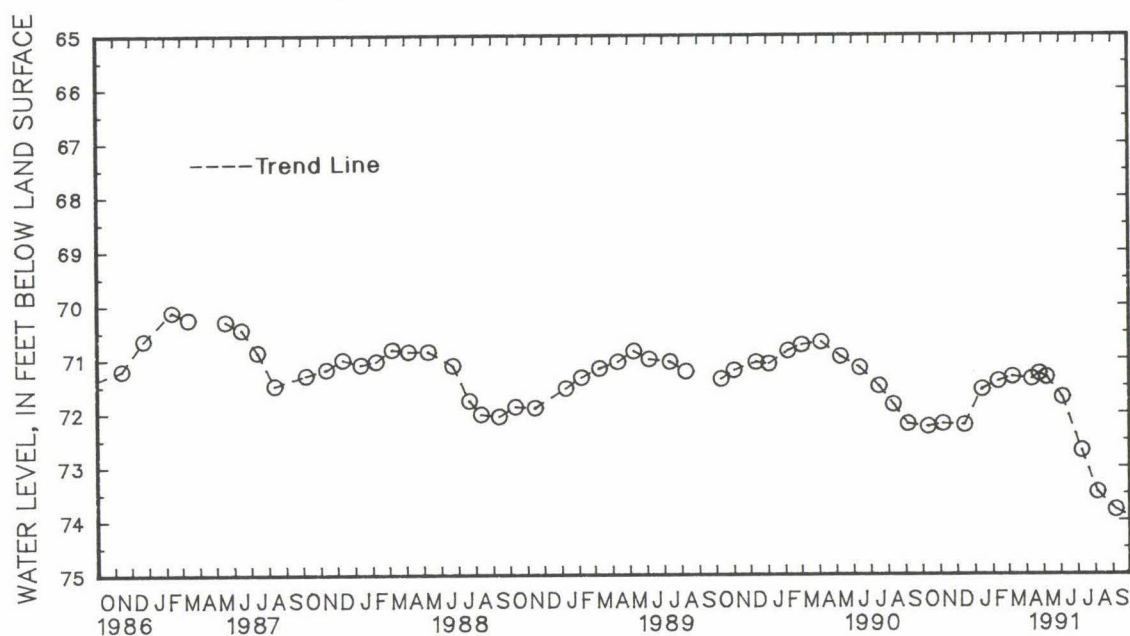
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.99 ft below land surface, March 25, 1979; lowest measured, 73.81 ft below land surface, Sept. 6, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	72.26	JAN 14	71.57	APR 11	71.38	JUN 4	71.72	SEP 6	73.81
NOV 6	72.21	FEB 11	71.42	24	71.28	JUL 8	72.71		
DEC 14	72.23	MAR 8	71.34	MAY 7	71.35	AUG 5	73.48		
WATER YEAR 1991		HIGHEST	71.28	APR 24, 1991		LOWEST	73.81	SEP 6, 1991	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY

WELL NUMBER.--CH Bb 17. SITE ID.--383524077111802.

LOCATION.--Lat 38°35'24", long 77°11'18", Hydrologic Unit 02070011, at Farnum Rd.;
U.S. Naval Ordnance Station.

Owner: U.S. Navy.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 294 ft; casing diameter 16 in., to 230 ft;
casing diameter 10 in. to 240 ft; screen diameter 10 in. from 240 to 294 ft.INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel. Equipped with digital
water-level recorder--60-minute recorder interval, May 29, 1988 to current year.

DATUM.--Elevation of land surface is 52 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder shelf, 3.0 ft above land surface.

REMARKS.--Indian Head Project observation well. Missing data due to recorder malfunction.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 112.62 ft below land surface, May 11, 1991;
lowest measured, 121.22 ft below land surface, Dec. 22, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	115.66	115.17	114.11	113.62	117.18	116.26	115.71	114.72	117.69	117.24	114.95	114.42
2	115.87	115.20	114.29	113.73	117.04	116.40	115.11	114.51	117.65	117.17	114.83	114.19
3	115.97	115.38	114.39	113.77	116.83	115.55	115.07	114.56	117.59	117.10	114.64	114.01
4	115.74	114.86	114.28	113.38	115.84	115.24	115.34	114.81	117.55	117.02	114.24	113.72
5	115.66	115.02	113.85	113.16	116.59	115.75	115.44	114.93	117.31	116.55	114.38	113.94
6	115.48	115.00	113.85	113.26	116.26	115.70	115.35	114.88	116.77	116.17	114.24	113.74
7	115.65	115.05	114.02	113.43	116.20	115.55	115.44	115.03	116.57	116.02	114.31	113.72
8	115.45	114.74	114.73	113.66	115.93	115.39	115.57	115.16	116.21	115.91	114.62	114.22
9	115.05	114.45	114.63	114.08	115.68	115.16	115.82	115.31	116.09	115.65	114.66	114.41
10	114.84	114.41	114.58	113.74	115.48	114.85	115.83	115.32	116.01	115.59	114.47	114.05
11	114.90	114.42	114.93	114.41	115.95	115.44	115.68	115.18	115.86	115.41	114.68	114.43
12	114.84	114.42	115.17	114.62	115.84	115.24	115.54	115.06	116.41	115.85	114.45	113.76
13	114.42	113.94	115.51	114.93	116.94	115.75	115.84	115.34	116.17	115.20	113.90	113.18
14	114.28	113.77	115.66	115.21	117.37	116.89	115.82	114.90	115.60	115.16	113.91	113.40
15	114.54	113.78	115.50	114.73	117.11	116.26	115.56	115.14	115.82	114.93	113.99	113.56
16	114.69	114.09	115.34	114.96	116.80	116.40	115.56	114.77	116.50	115.93	114.01	113.51
17	114.57	114.07	115.63	115.17	116.98	116.41	115.44	114.84	116.11	115.41	113.85	113.16
18	114.63	113.71	115.91	115.43	116.78	115.90	115.89	115.34	115.82	115.12	113.46	112.85
19	114.90	114.14	115.62	115.00	116.72	116.14	116.42	115.82	115.38	114.79	113.73	112.96
20	114.85	114.09	115.44	115.02	116.77	116.15	116.46	115.88	115.32	114.74	113.85	113.35
21	114.44	113.62	115.71	115.20	116.47	115.82	116.60	115.79	115.63	115.19	113.95	113.43
22	113.89	113.18	115.72	115.21	116.21	115.69	116.86	116.34	115.46	114.84	113.98	113.45
23	113.52	113.05	115.50	115.17	115.91	115.24	116.46	115.89	115.23	114.82	113.97	113.36
24	113.88	113.10	115.88	115.16	116.18	115.23	117.14	116.14	114.92	114.40	113.73	113.07
25	114.17	113.54	116.21	115.54	116.48	115.90	117.53	117.04	114.83	114.20	113.77	113.40
26	115.05	114.03	116.59	116.00	116.04	115.47	117.28	116.68	114.84	114.25	113.58	112.98
27	114.69	113.72	116.64	116.17	115.88	115.39	116.94	116.37	114.89	114.44	113.29	112.78
28	113.86	113.41	116.68	116.16	115.70	115.17	116.85	116.26	114.91	114.37	114.24	113.01
29	114.55	113.81	117.31	116.25	115.59	114.87	117.05	116.42	---	---	114.65	114.07
30	114.27	113.65	117.60	117.02	115.23	114.54	116.97	116.33	---	---	115.03	114.28
31	114.04	113.57	---	---	115.60	114.84	117.30	116.57	---	---	115.14	114.56
MONTH	115.97	113.05	117.60	113.16	117.37	114.54	117.53	114.51	117.69	114.20	115.14	112.78

GROUND-WATER LEVELS

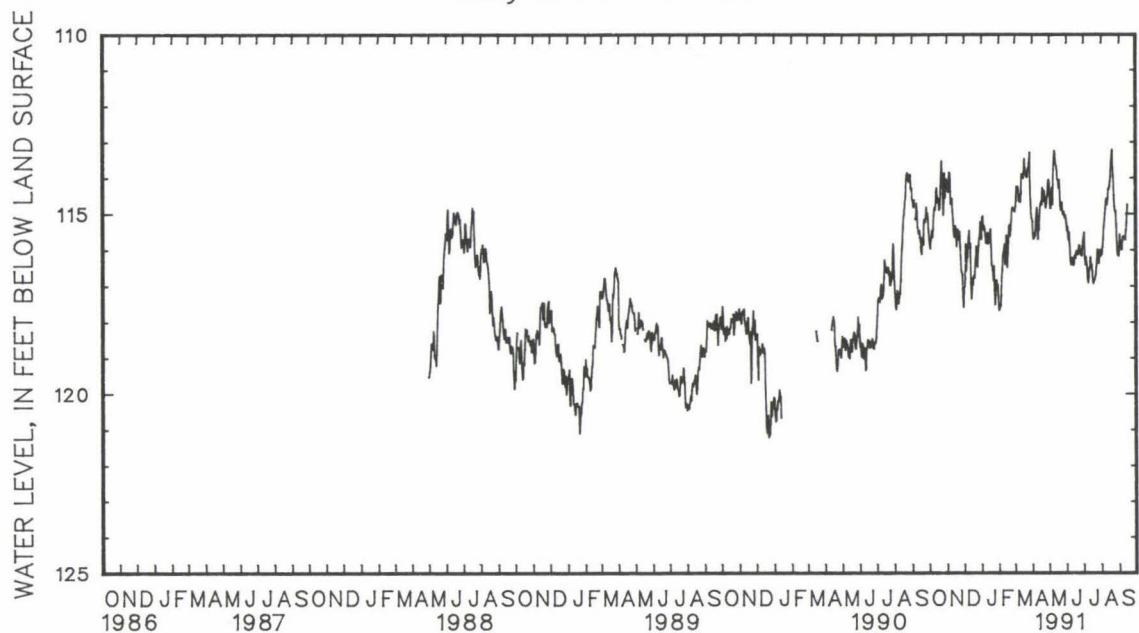
MARYLAND--Continued

CHARLES COUNTY

CH Bb 17--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	115.20	114.62	114.13	113.73	115.26	114.82	115.62	114.98	116.13	115.57	116.04	115.41
2	115.58	114.95	114.45	113.78	115.48	115.13	115.52	114.97	116.10	115.59	115.58	115.19
3	115.71	115.24	114.85	114.28	115.37	114.97	116.25	115.39	115.93	115.30	115.83	115.16
4	115.68	115.25	114.85	114.38	115.68	115.00	116.42	115.82	115.73	115.20	115.90	115.38
5	115.56	115.15	114.65	114.20	115.75	115.14	116.20	115.77	115.44	115.05	116.00	115.29
6	115.63	115.27	114.28	113.90	115.53	114.98	116.41	115.72	115.21	114.70	116.00	115.43
7	115.34	114.87	114.75	114.07	115.92	115.12	116.51	115.97	115.02	114.52	115.74	115.11
8	115.00	114.64	114.33	113.85	116.32	115.61	116.80	115.95	114.88	114.32	115.66	114.97
9	114.84	114.54	113.78	113.40	116.42	115.86	116.92	116.28	114.62	113.81	115.64	115.10
10	115.26	114.55	113.37	112.80	116.29	115.82	116.77	116.15	114.58	113.90	---	---
11	115.71	115.24	113.24	112.62	116.23	115.55	116.54	115.97	114.75	114.16	---	---
12	115.48	115.08	113.45	112.77	116.31	115.69	116.51	115.85	114.58	113.77	115.72	115.12
13	115.44	114.64	113.62	113.02	116.43	115.85	116.21	115.59	114.30	113.73	115.47	114.90
14	115.02	114.52	113.65	113.06	116.40	115.78	116.42	115.83	114.31	113.66	115.26	114.61
15	114.80	114.11	113.81	113.07	116.17	115.62	116.42	115.90	114.24	113.71	115.01	114.49
16	114.71	114.12	114.06	113.57	116.19	115.68	116.58	116.02	114.11	113.65	114.74	114.42
17	114.66	114.15	114.05	113.53	116.24	115.72	116.89	116.14	113.98	113.58	---	---
18	114.74	114.04	114.29	113.71	116.08	115.57	116.94	116.37	113.61	113.21	---	---
19	114.28	113.74	114.06	113.57	116.04	115.52	116.82	116.48	113.41	112.93	---	---
20	114.33	113.77	114.33	113.58	116.14	115.58	116.84	116.33	113.22	112.71	---	---
21	114.65	114.03	114.78	114.10	116.14	115.64	116.78	116.34	113.69	113.03	---	---
22	114.36	113.79	114.90	114.37	116.05	115.63	116.70	116.31	113.94	113.30	---	---
23	114.56	114.04	114.89	114.43	115.88	115.35	116.50	116.03	114.48	113.72	---	---
24	114.59	113.92	114.68	114.29	115.89	115.36	116.29	115.78	114.82	114.25	---	---
25	114.84	114.38	114.96	114.14	116.05	115.49	116.00	115.32	114.94	114.50	---	---
26	114.74	114.14	115.03	114.55	116.13	115.62	116.17	115.69	114.93	114.50	---	---
27	114.54	114.04	114.95	114.42	116.16	115.73	116.27	115.77	115.28	114.76	---	---
28	114.48	113.84	115.00	114.40	116.17	115.70	116.38	115.73	115.79	115.18	---	---
29	114.09	113.64	115.11	114.65	115.95	115.37	116.04	115.51	116.15	115.65	---	---
30	114.05	113.52	115.05	114.56	115.75	115.27	116.01	115.50	116.15	115.62	---	---
31	---	---	115.13	114.59	---	---	116.18	115.65	116.18	115.65	---	---
MONTH	115.71	113.52	115.13	112.62	116.43	114.82	116.94	114.97	116.18	112.71	116.04	114.42

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

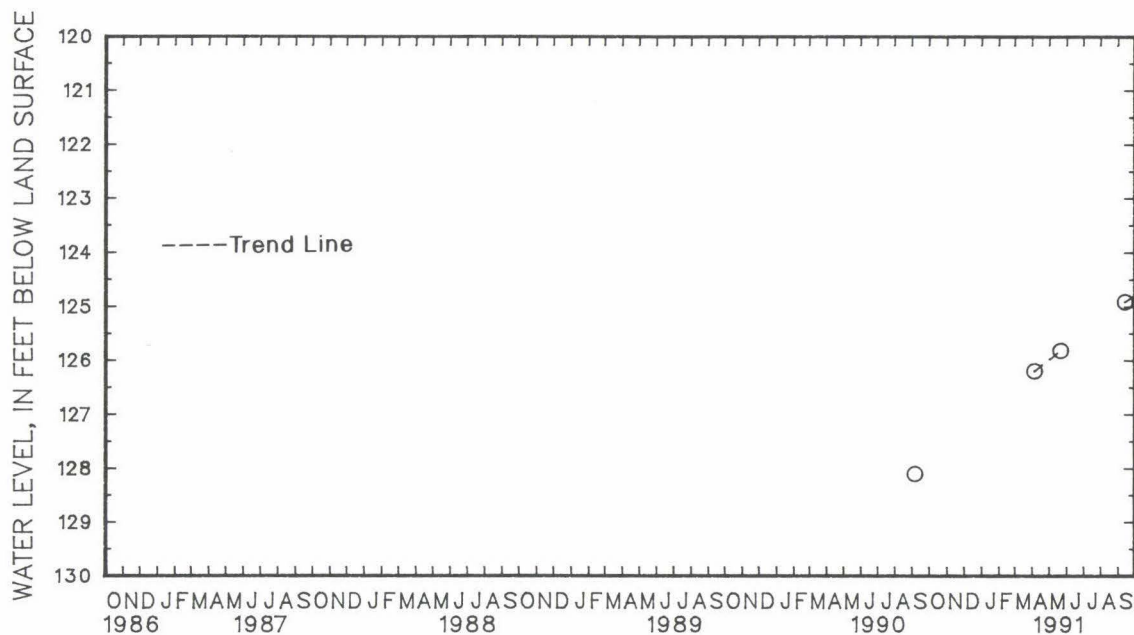
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bb 22. SITE ID.--383634077104501. PERMIT NUMBER.--CH-88-0847.
 LOCATION.--Lat 38°36'34", long 77°10'45", Hydrologic Unit 02070011, near marina at U.S. Naval Ordnance Station.
 Owner: U.S. Navy.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 220 ft; casing diameter 2 in., to 200 ft, and 205 to 220 ft; screen diameter 2 in. from 200 to 205 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land-surface datum is 98 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 4.00 ft above land-surface datum.
 REMARKS.--Indian Head Project observation well.
 PERIOD OF RECORD.--March 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 124.91 ft below land surface, Sept. 13, 1991; lowest measured, 130.13 ft below land surface datum, March 16, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 5	126.20	MAY 21	125.82	SEP 13	124.91
WATER YEAR 1991 HIGHEST 124.91 SEP 13, 1991 LOWEST 126.20 APR 5, 1991					



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 5. SITE ID.--383524077094401.

LOCATION.--Lat 38°35'24", long 77°09'44", Hydrologic Unit 02070011, at Benson Rd.;

U.S. Naval Ordnance Station.

Owner: U.S. Navy.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 430 ft; casing diameter 8 in. to unknown depth; screen diameter 8 in, depth unknown.

INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval, April 28, 1988 to current year.

DATUM.--Elevation of land surface is 38.2 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder shelf, 2.5 ft above land surface.

REMARKS.--Indian Head Project observation well. Recorder data missing because of malfunctioning recorder. Water levels affected by nearby pumping.

PERIOD OF RECORD.--April 1988 to current year.

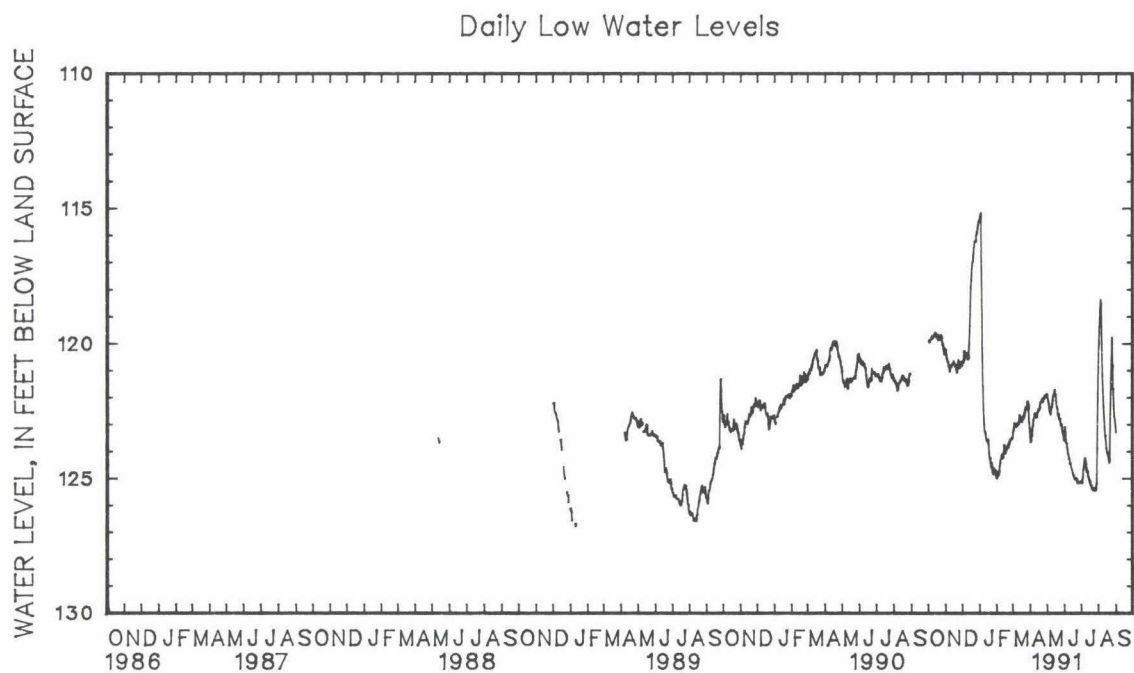
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 115.00 ft below land surface, Dec. 30, 1990; lowest measured, 126.78 ft below land surface, Jan. 11, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	120.24	119.91	120.65	120.24	115.50	115.02	125.01	124.70	123.51	123.02
2	119.88	119.51	120.39	120.07	120.65	120.36	115.25	114.84	124.96	124.64	123.29	122.78
3	119.93	119.60	120.55	120.21	120.67	119.93	115.16	114.82	124.91	124.62	123.17	122.67
4	---	---	120.65	120.30	120.28	119.88	117.32	115.30	124.87	124.58	122.95	122.50
5	---	---	120.67	120.17	120.60	120.28	118.99	117.48	124.75	124.32	123.09	122.76
6	119.82	119.41	120.81	120.24	120.49	120.14	120.48	119.12	124.53	124.19	122.99	122.60
7	119.72	119.45	120.88	120.57	120.44	120.14	121.62	120.52	124.45	124.05	123.03	122.57
8	119.78	119.51	121.04	120.59	120.36	120.09	122.43	121.62	124.29	124.05	123.08	122.81
9	119.75	119.47	120.98	120.64	120.36	120.19	123.02	122.38	124.16	123.83	123.02	122.84
10	119.71	119.40	120.85	120.31	120.41	120.06	123.28	122.88	124.12	123.80	122.96	122.64
11	119.67	119.28	120.84	120.75	120.56	120.41	123.30	122.91	124.17	123.83	122.99	122.93
12	119.68	119.38	120.76	120.55	120.53	120.01	123.36	122.90	124.25	124.03	122.91	122.50
13	119.59	119.31	120.73	120.69	120.05	119.23	123.59	123.17	124.05	123.44	122.65	122.15
14	119.66	119.32	120.69	120.57	119.33	118.62	123.61	123.09	123.77	123.38	122.68	122.34
15	119.71	119.32	120.64	120.31	118.62	117.72	123.63	123.30	123.92	123.29	122.78	122.41
16	119.77	119.50	120.73	120.57	117.90	117.55	123.57	122.95	124.08	123.89	122.88	122.49
17	119.72	119.40	120.76	120.63	117.65	117.19	123.70	123.12	123.91	123.66	122.90	122.44
18	119.67	119.16	120.84	120.72	117.23	116.61	124.05	123.65	123.95	123.64	122.75	122.25
19	119.85	119.58	120.78	120.60	116.98	116.80	124.26	123.93	123.86	123.48	122.79	122.30
20	119.86	119.66	120.96	120.66	116.97	116.58	124.26	123.90	123.81	123.36	122.72	122.33
21	119.83	119.56	121.07	120.80	116.70	116.19	124.57	123.86	123.85	123.54	122.66	122.29
22	119.79	119.50	120.95	120.53	116.44	116.15	124.62	124.29	123.70	123.30	122.56	122.20
23	119.68	119.36	120.60	120.33	116.22	115.93	124.45	124.03	123.76	123.53	122.46	121.99
24	119.84	119.43	120.64	120.33	116.21	115.90	124.75	124.19	123.59	123.24	122.37	121.81
25	119.76	119.54	120.78	120.51	116.21	115.93	124.84	124.57	123.56	123.20	122.39	122.13
26	120.07	119.76	120.90	120.74	115.96	115.73	124.68	124.21	123.55	123.22	122.35	121.90
27	119.99	119.71	120.81	120.55	115.95	115.71	124.65	124.29	123.54	123.15	122.15	121.73
28	120.15	119.59	120.68	120.37	115.78	115.35	124.75	124.25	123.50	123.06	122.21	121.74
29	120.39	120.15	120.81	120.46	115.64	115.14	124.79	124.29	---	---	122.29	121.92
30	120.24	119.84	120.81	120.62	115.45	115.00	124.74	124.15	---	---	122.91	122.08
31	120.20	119.84	---	---	115.50	115.24	124.90	124.36	---	---	123.14	122.71
MONTH	120.39	119.16	121.07	119.91	120.67	115.00	124.90	114.82	125.01	123.06	123.51	121.73

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued
CH Bc 5--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	123.49	123.03	121.92	121.56	123.61	122.60	125.12	124.68	120.89	119.75	123.30	122.78
2	123.67	123.25	122.03	121.59	123.09	122.65	125.16	124.72	119.97	119.09	---	---
3	123.61	123.30	122.15	121.77	123.32	122.90	125.16	124.64	119.33	118.49	---	---
4	123.44	123.08	122.29	121.89	123.67	123.08	124.96	124.27	118.72	118.11	---	---
5	123.18	122.89	122.50	122.13	123.72	123.34	124.67	124.23	118.37	117.91	---	---
6	123.05	122.80	122.46	122.15	123.92	123.30	124.56	124.02	118.54	117.66	---	---
7	122.82	122.60	122.63	122.35	124.06	123.54	124.35	123.89	120.00	118.40	---	---
8	122.75	122.53	122.47	122.28	124.15	123.64	124.25	123.79	121.17	119.83	---	---
9	122.61	122.39	122.36	122.15	124.28	123.77	124.37	123.68	121.75	120.84	---	---
10	122.73	122.39	122.23	121.89	124.30	123.82	124.50	123.89	122.36	121.53	---	---
11	122.73	122.54	122.10	121.64	124.44	123.78	124.67	124.08	122.74	122.33	---	---
12	122.72	122.42	121.92	121.50	124.50	123.94	124.77	124.24	123.15	122.62	---	---
13	122.73	122.26	121.84	121.42	124.59	124.12	124.76	124.17	123.43	122.95	---	---
14	122.53	122.19	121.73	121.29	124.66	124.15	124.96	124.43	123.60	123.17	---	---
15	122.45	122.01	121.72	121.20	124.73	124.19	125.05	124.58	123.87	123.35	---	---
16	122.47	122.05	121.91	121.39	124.81	124.35	125.09	124.62	124.04	123.58	---	---
17	122.41	122.04	122.14	121.61	124.92	124.41	125.14	124.71	124.08	123.68	---	---
18	122.39	122.00	122.36	121.82	124.87	124.43	125.25	124.73	124.12	123.69	---	---
19	122.20	121.84	122.37	121.98	125.00	124.48	125.26	124.90	124.24	123.74	---	---
20	122.17	121.83	122.60	122.11	125.03	124.57	125.37	124.90	124.43	123.64	---	---
21	122.16	121.90	122.65	122.28	125.03	124.57	125.43	125.00	124.34	123.14	---	---
22	122.06	121.56	122.76	122.33	125.01	124.57	125.44	125.05	122.98	121.68	---	---
23	122.16	121.82	122.83	122.41	125.03	124.49	125.37	125.00	121.54	120.39	---	---
24	122.04	121.69	122.82	122.41	125.11	124.59	125.47	124.98	120.55	119.58	---	---
25	122.06	121.76	123.03	122.42	125.19	124.70	125.37	124.92	119.77	118.96	---	---
26	121.97	121.62	123.05	122.69	125.16	124.74	125.46	125.03	120.83	119.54	---	---
27	121.95	121.57	123.02	122.58	125.15	124.75	125.44	124.99	121.69	120.91	---	---
28	121.96	121.55	123.23	122.70	125.16	124.75	125.45	124.89	122.31	121.77	---	---
29	121.91	121.57	123.31	122.91	125.16	124.77	125.20	123.89	122.71	122.30	---	---
30	121.89	121.42	123.36	122.93	125.14	124.77	123.89	121.90	122.82	122.40	---	---
31	---	---	123.57	123.10	---	---	122.00	120.70	123.05	122.54	---	---
MONTH	123.67	121.42	123.57	121.20	125.19	122.60	125.47	120.70	124.43	117.66	123.30	122.78



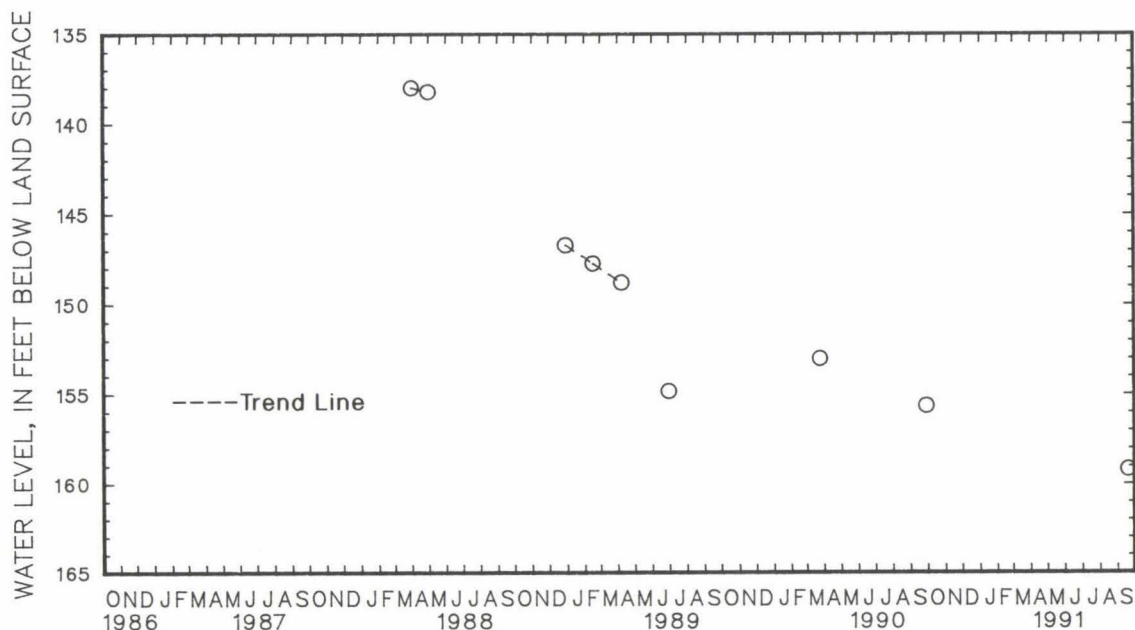
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 6. SITE ID.--383631077083501.
LOCATION.--Lat 38°36'31", long 77°08'35", Hydrologic Unit 02070011, at Cedar Lane, Potomac Heights.
Owner: Potomac Heights Mutual Home Owners Association.
AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
WELL CHARACTERISTICS.--Drilled, production, artesian well, depth 412 ft; casing diameter 18 in., to 350 ft; casing diameter 8 in. from 350 to 362 ft; screen diameter 8 in. from 362 to 412 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 1.5 ft above land surface.
REMARKS.--Indian Head Project observation well.
PERIOD OF RECORD.--March 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 138.05 ft below land surface, March 31, 1988; lowest measured, 159.30 ft below land surface, Sept. 19, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL
SEP 19	159.30



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 24. SITE ID.--383633077083001. PERMIT NUMBER.--CH-02-0874.
 LOCATION.--Lat 38°36'33", long 77°08'30", Hydrologic Unit 0207001, at Cedar Lane, Potomac Heights.
 Owner: Potomac Heights Mutual Home Owners Association.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 435 ft; casing diameter 10 in., to 383.5 ft; and 398.5 to 415 ft; screen diameter 10 in. from 383.5 to 398.5 ft and 415 to 435 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval, April 30, 1988 to current year.
 DATUM.--Elevation of land surface is 72 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 1.6 ft above land surface.
 REMARKS.--Indian Head Project observation well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.26 ft below land surface, April 30, 1988; lowest measured, 173.77 ft below land surface, May 30, 1991.

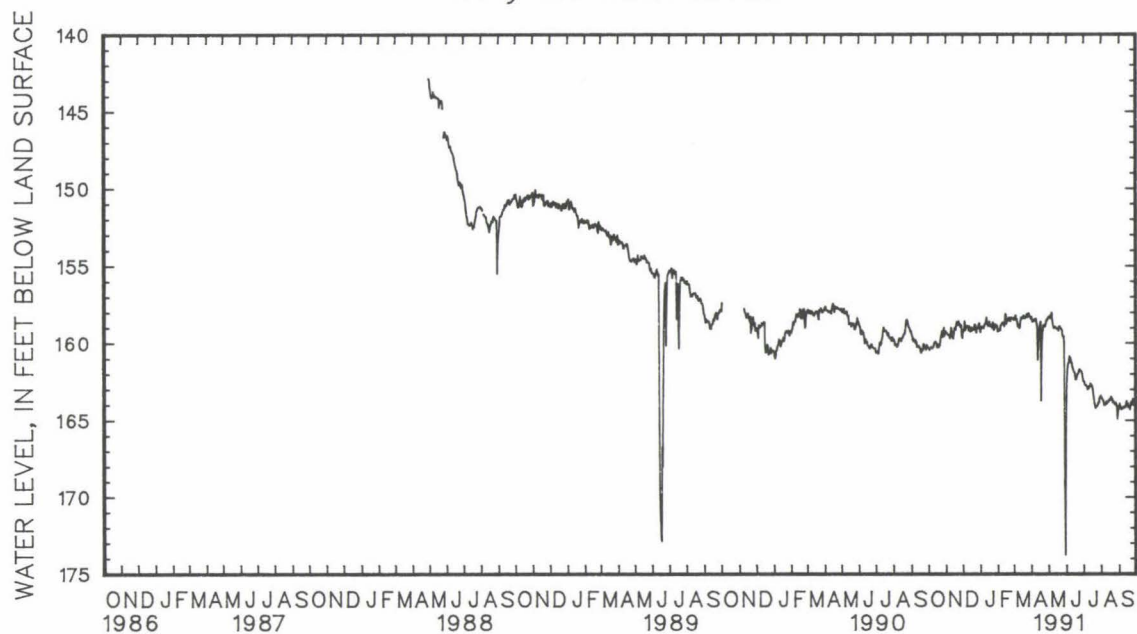
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	159.28	158.78	159.33	158.55	159.31	158.59	159.26	158.85	158.48	158.04
2	160.35	159.94	159.35	158.87	159.14	158.69	158.97	158.48	159.17	158.74	158.37	157.85
3	160.46	160.03	159.40	158.97	159.18	158.25	158.92	158.49	159.11	158.74	158.30	157.88
4	160.35	159.72	159.47	158.95	158.58	158.10	159.00	158.62	159.20	158.85	158.20	157.75
5	160.35	159.87	159.45	158.79	159.16	158.45	159.02	158.55	159.15	158.63	158.50	158.05
6	160.27	159.84	159.49	158.84	159.01	158.52	158.92	158.53	158.84	158.44	158.45	158.09
7	160.33	159.91	159.50	159.08	158.97	158.55	159.02	158.65	158.80	158.40	158.71	158.17
8	160.36	159.95	159.69	159.06	158.86	158.45	158.88	158.55	158.70	158.39	158.91	158.57
9	160.32	159.92	159.47	158.87	158.88	158.54	158.75	158.42	158.65	158.26	158.88	158.63
10	160.23	159.85	159.00	158.33	158.95	158.44	158.74	158.35	158.64	158.31	158.80	158.41
11	160.00	159.57	159.22	158.87	159.20	158.86	158.63	158.13	158.68	158.35	159.03	158.79
12	159.98	159.60	159.46	158.91	158.91	158.44	158.33	157.92	158.89	158.57	158.95	158.36
13	159.91	159.49	159.66	159.31	159.02	158.56	158.74	158.23	158.63	157.77	158.54	157.87
14	159.97	159.55	159.71	159.21	159.26	158.84	158.80	158.27	158.09	157.69	158.33	158.01
15	160.11	159.61	159.42	158.62	159.07	158.42	158.88	158.54	158.22	157.55	158.39	158.01
16	160.31	159.86	159.02	158.64	158.99	158.61	158.88	158.13	158.74	158.31	158.34	157.89
17	160.23	159.74	159.00	158.68	159.20	158.80	158.61	158.16	158.49	158.11	158.30	157.86
18	160.10	159.36	159.12	158.62	159.11	158.39	158.81	158.46	158.53	158.16	158.21	157.71
19	160.28	159.77	158.79	158.25	159.02	158.63	158.90	158.52	158.48	158.00	158.37	157.77
20	160.27	159.80	158.61	158.28	159.14	158.67	158.83	158.28	158.33	157.86	158.37	157.93
21	160.14	159.56	158.79	158.36	158.95	158.41	158.83	158.16	158.53	158.16	158.35	157.92
22	159.91	159.34	158.81	158.35	158.79	158.47	159.01	158.59	158.40	157.95	158.28	157.87
23	159.57	159.01	158.58	158.23	158.80	158.39	158.65	158.18	158.56	158.23	158.24	157.69
24	159.49	159.01	158.68	158.21	159.16	158.44	158.88	158.23	158.34	157.89	158.11	157.49
25	159.23	158.89	158.77	158.36	159.33	158.90	159.14	158.80	158.34	157.92	158.30	157.89
26	159.62	158.92	158.92	158.56	159.01	158.57	158.99	158.36	158.35	157.99	158.28	157.80
27	159.35	158.72	158.88	158.46	159.03	158.63	158.79	158.37	158.40	157.98	158.07	157.63
28	159.00	158.46	158.84	158.39	158.91	158.38	158.84	158.37	158.39	157.96	158.15	157.67
29	159.55	159.00	159.57	158.68	158.79	158.25	158.95	158.41	---	---	158.22	157.74
30	159.39	158.89	159.69	159.18	158.69	158.26	158.84	158.24	---	---	158.26	157.74
31	159.23	158.84	---	---	159.17	158.62	158.91	158.44	---	---	158.40	157.87
MONTH	160.46	158.46	159.71	158.21	159.33	158.10	159.31	157.92	159.26	157.55	159.03	157.49

GROUND-WATER LEVELS
 MARYLAND--Continued
 CHARLES COUNTY--Continued
 CH Bc 24--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	158.30	157.87	158.33	157.84	163.62	162.16	162.49	162.07	163.49	163.07	164.24	163.74
2	158.51	158.01	158.25	157.78	162.23	161.38	162.51	162.09	163.56	163.09	163.93	163.59
3	158.61	158.26	158.36	157.93	161.58	161.03	162.69	162.25	163.65	163.21	164.13	163.56
4	158.58	158.26	158.29	157.86	161.32	161.03	162.73	162.27	163.70	163.22	164.20	163.77
5	158.49	158.15	158.18	157.87	161.25	160.60	162.73	162.23	163.82	163.28	164.29	163.78
6	158.55	158.27	158.01	157.67	160.84	160.47	162.76	162.32	164.02	163.43	164.26	163.78
7	158.46	158.15	158.49	157.88	160.92	160.43	162.85	162.31	163.92	163.54	164.17	163.64
8	158.48	158.22	158.62	158.15	161.00	160.51	162.99	162.47	163.99	163.47	164.16	163.68
9	158.42	158.16	158.90	158.35	161.22	160.63	162.99	162.47	163.95	163.25	164.21	163.69
10	158.72	158.22	159.04	158.56	161.29	160.77	162.92	162.40	163.79	163.26	164.14	163.62
11	158.87	158.57	158.94	158.55	161.52	160.81	162.80	162.29	163.87	163.36	164.14	163.72
12	161.12	158.41	158.93	158.45	161.63	161.05	162.80	162.25	163.83	163.31	164.15	163.63
13	160.35	159.24	158.96	158.49	161.81	161.27	162.63	162.04	163.78	163.26	163.94	163.37
14	159.47	158.83	159.01	158.55	161.85	161.34	162.66	162.16	163.70	163.14	163.77	163.37
15	159.06	158.42	159.07	158.56	161.90	161.36	162.73	162.27	163.64	163.17	163.93	163.49
16	158.77	158.30	159.06	158.59	162.17	161.64	162.82	162.37	163.70	163.29	163.92	163.51
17	158.61	158.15	159.10	158.62	162.35	161.88	162.99	162.38	163.60	163.28	164.16	163.71
18	163.76	158.66	159.18	158.70	162.35	161.89	163.32	162.61	163.48	163.14	164.12	163.85
19	161.39	159.57	158.92	158.42	162.18	161.77	163.54	163.02	163.55	163.13	164.11	163.67
20	159.68	159.01	158.91	158.41	162.04	161.65	163.89	163.22	163.60	162.92	164.29	163.85
21	159.19	158.87	158.98	158.59	161.98	161.55	164.06	163.56	163.85	163.44	163.90	163.40
22	158.84	158.35	159.02	158.60	161.89	161.50	164.20	163.75	163.79	163.42	163.82	163.41
23	158.93	158.52	159.10	158.62	161.74	161.31	164.14	163.76	163.83	163.46	163.80	163.39
24	158.84	158.30	159.15	158.69	161.70	161.28	164.11	163.69	163.94	163.55	163.85	163.33
25	158.89	158.48	159.50	158.78	161.79	161.32	164.03	163.57	163.99	163.54	163.62	163.03
26	158.73	158.17	159.59	159.17	161.79	161.36	163.93	163.49	163.87	163.52	163.62	163.17
27	158.50	158.08	159.58	159.13	161.82	161.42	163.84	163.43	163.99	163.58	163.70	163.26
28	158.51	158.05	159.94	159.37	161.96	161.49	163.85	163.21	164.04	163.61	163.68	163.23
29	158.46	158.05	169.06	159.68	162.21	161.73	163.54	163.08	164.92	163.70	163.64	163.25
30	158.34	157.86	173.77	167.99	162.43	161.99	163.49	162.92	164.48	163.67	163.80	163.25
31	---	---	167.79	163.64	---	---	163.41	162.97	164.11	163.68	---	---
MONTH	163.76	157.86	173.77	157.67	163.62	160.43	164.20	162.04	164.92	162.92	164.29	163.03

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

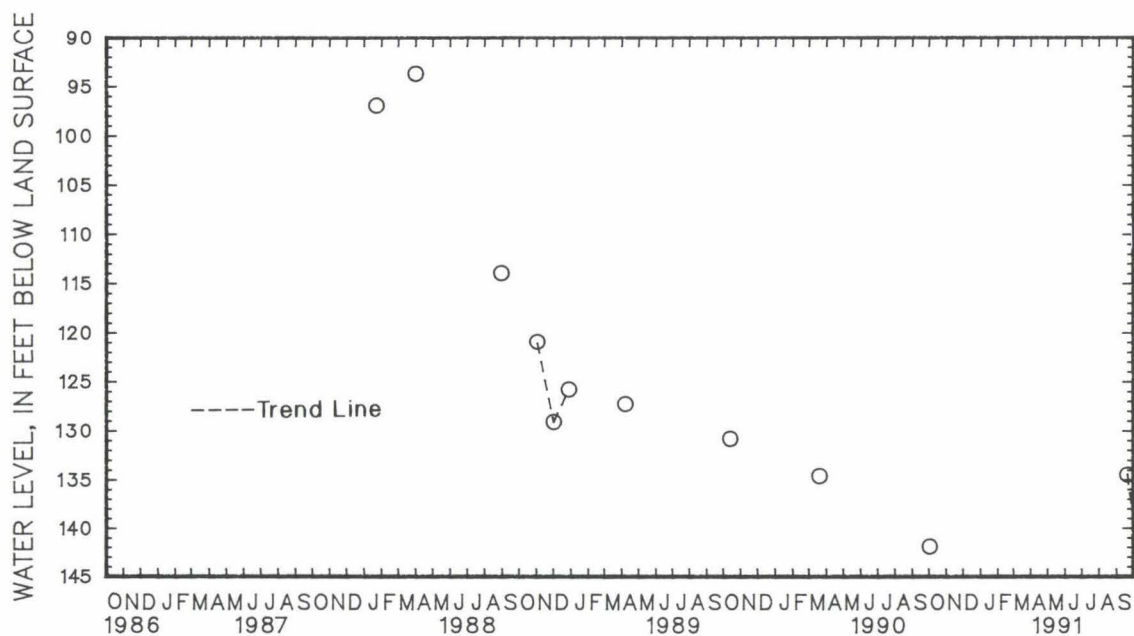
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 71. SITE ID.--383554077085601. PERMIT NUMBER.--CH-73-2415.
 LOCATION.--Lat 38°35'54", long 77°08'56", Hydrologic Unit 02070011, Woodlawn Dr. in Indian Head.
 Owner: Town of Indian Head.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 440 ft; casing diameter 2 in., to 400 ft; screen diameter 2 in. from 400 to 410 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 2.4 ft above land surface.
 REMARKS.--Indian Head Project observation well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--September 1981 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.58 ft below land surface, Sept. 23, 1981; lowest measured, 141.96 ft below land surface, Oct. 2, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	141.96	SEP 20	134.50
WATER YEAR 1991 HIGHEST 134.50 SEP 20, 1991 LOWEST 141.96 OCT 2, 1990			



GROUND-WATER LEVELS

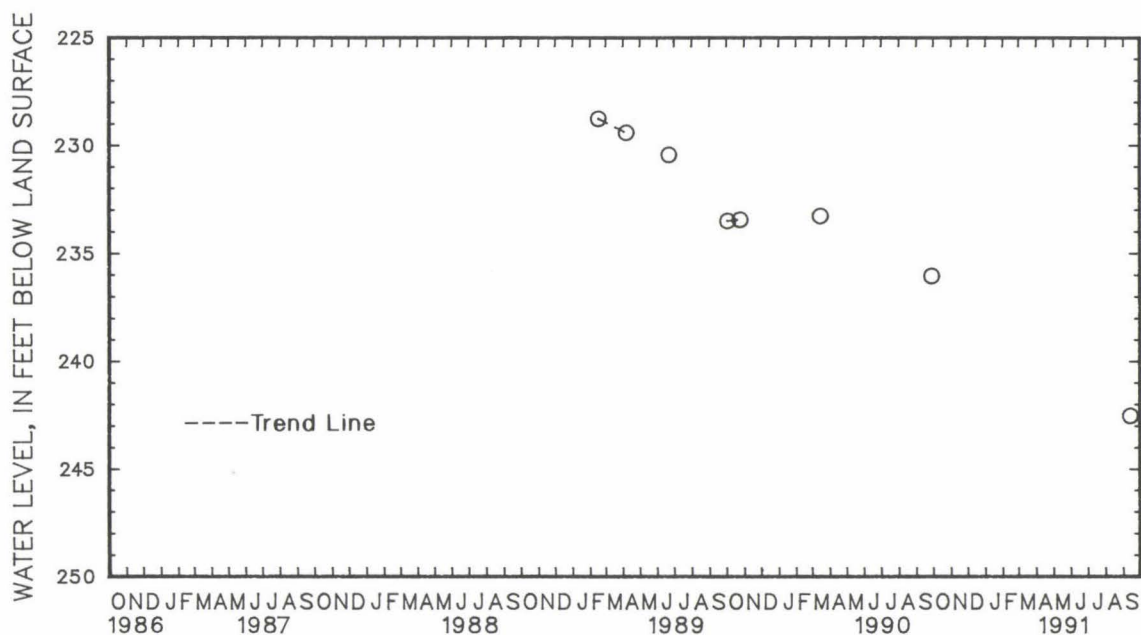
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 74. SITE ID.--383709077061001. PERMIT NUMBER.--CH-81-2919.
 LOCATION.--Lat 38°37'09", long 77°06'10", Hydrologic Unit 02070011, Chapman's Landing Rd., 2 miles northeast of Indian Head.
 Owner: Montrose Heights Subdivision.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 642 ft; casing diameter 4 in., to 435 ft; casing diameter 2 in. from 435 to 550 ft, 566 to 574 ft, and 589 to 637 ft; screen diameter 2 in. from 550 to 566 ft, 574 to 589 ft, and 637 to 642 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 165 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 1.5 ft above land surface.
 REMARKS.--Indian Head Project observation well.
 PERIOD OF RECORD.--February 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 228.77 ft below land surface, Feb. 16, 1989; lowest measured, 242.55 ft below land surface, Sept. 13, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL
SEP 13	242.55



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Be 43. SITE ID.--383819076555501. PERMIT NUMBER.--CH-71-0066.
 LOCATION.--Lat 38°38'19", long 76°55'55", Hydrologic Unit 02070011, at Sun Valley housing
 development, 1.5 mi. northwest of Waldorf.
 Owner: Lennart Larson.
 AQUIFER.--Magothy Formation of Lower Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 459 ft; casing diameter 6 in., to 428 ft;
 screen diameter 5 in. from 433 to 459 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
 water-level recorder from Feb. 10, 1977 to Jan. 27, 1978. Equipped with digital water-level recorder--60-minute
 recorder interval from Feb. 27, 1978 to current year.
 DATUM.--Elevation of land-surface is 216.79 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.0 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping. Missing data
 due to recorder malfunction.
 PERIOD OF RECORD.--February 1977 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.05 ft above sea level, Feb. 22, 1977;
 lowest measured, 53.17 ft below sea level, Sept. 19, 1991.

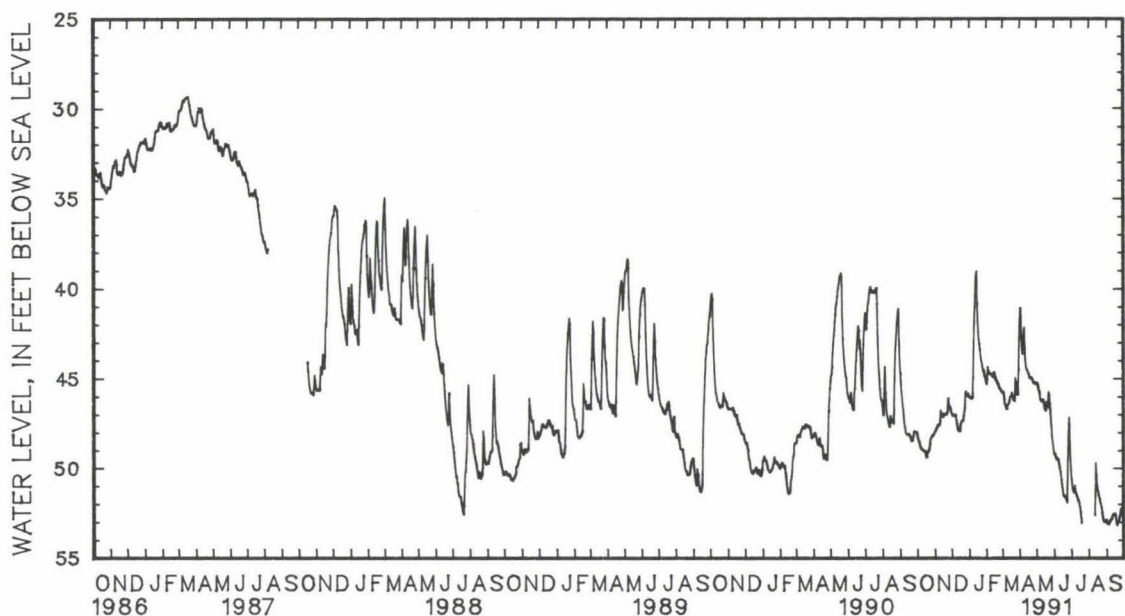
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	48.05	48.14	47.87	47.93	46.90	46.96	46.01	46.06	45.14	45.32	45.71	45.74
2	48.14	48.36	47.79	47.88	46.96	47.07	46.00	46.06	43.70	45.04	45.62	45.75
3	48.36	48.50	47.72	47.79	46.99	47.08	46.00	46.02	43.89	44.35	45.76	45.86
4	48.48	48.57	47.64	47.72	46.94	47.03	46.02	46.09	44.36	44.60	45.83	46.13
5	48.57	48.71	47.50	47.64	47.04	47.06	46.04	46.09	44.60	44.68	46.14	46.43
6	48.71	48.84	47.50	47.58	47.04	47.06	46.03	46.04	44.69	44.75	46.44	46.51
7	48.84	48.92	47.52	47.58	47.04	47.04	45.00	46.03	44.72	44.75	46.51	46.70
8	48.92	48.94	47.52	47.56	47.04	47.12	43.11	44.91	44.73	44.75	46.68	46.70
9	48.87	48.94	47.43	47.56	47.13	47.36	41.90	43.03	44.75	44.76	46.55	46.68
10	48.87	48.93	46.35	47.40	47.36	47.61	41.00	41.86	44.76	44.78	46.47	46.54
11	48.93	49.01	46.50	46.78	47.63	47.80	39.90	40.97	44.78	44.87	46.40	46.47
12	49.01	49.05	46.78	46.96	47.80	47.90	39.24	39.86	44.87	44.91	46.29	46.40
13	49.02	49.05	46.97	47.09	47.86	47.92	38.92	39.19	44.67	44.87	46.11	46.28
14	49.02	49.06	47.09	47.13	47.92	47.95	38.56	39.03	44.53	44.65	46.00	46.10
15	49.06	49.19	47.10	47.13	47.57	47.91	39.11	40.82	44.56	44.74	46.00	46.01
16	49.19	49.38	46.98	47.10	47.54	47.56	40.88	41.67	44.75	44.91	45.94	46.01
17	49.38	49.42	46.95	46.97	47.38	47.54	41.71	42.45	44.92	45.03	45.79	45.95
18	49.09	49.39	46.97	46.98	47.21	47.37	42.47	42.88	45.04	45.13	45.61	45.78
19	49.11	49.11	46.95	46.98	47.24	47.37	42.90	43.11	45.13	45.15	45.67	46.05
20	49.03	49.11	46.95	46.98	47.30	47.37	43.12	43.39	45.15	45.26	46.06	46.19
21	48.87	49.03	46.97	46.98	47.06	47.30	43.40	43.77	45.26	45.31	46.19	46.19
22	48.66	48.87	46.84	46.96	46.90	47.06	43.78	43.99	45.28	45.37	46.19	46.25
23	48.38	48.66	45.65	46.84	46.67	46.89	44.00	44.10	45.37	45.57	45.10	46.25
24	48.33	48.38	45.74	46.12	45.89	46.66	44.10	44.28	45.57	45.58	43.84	44.98
25	48.19	48.33	46.12	46.34	44.72	45.79	44.29	44.52	45.58	45.63	44.23	45.21
26	48.17	48.19	46.35	46.53	45.02	45.71	44.52	44.57	45.63	45.66	45.26	45.75
27	48.15	48.21	46.53	46.56	45.72	45.93	44.58	44.68	45.66	45.72	45.76	45.85
28	48.08	48.14	46.56	46.59	45.88	45.98	44.68	44.88	45.71	45.76	45.83	45.92
29	48.08	48.10	46.60	46.77	45.92	45.98	44.88	44.96	---	---	44.62	45.92
30	47.99	48.08	46.77	46.90	45.49	45.85	44.93	44.96	---	---	42.91	44.54
31	47.93	47.98	---	---	45.55	46.01	44.95	45.26	---	---	41.74	42.85
MONTH	47.93	49.42	45.65	47.93	44.72	47.95	38.56	46.09	43.70	45.76	41.74	46.70

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued
CH Be 43--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	41.08	41.70	45.22	45.24	49.08	49.20	50.08	50.63	---	---	52.82	52.98
2	40.68	41.05	45.23	45.28	49.14	49.22	50.65	50.89	---	---	52.98	53.06
3	40.46	41.09	45.28	45.36	49.23	49.35	50.89	51.18	---	---	53.07	53.10
4	41.17	42.62	45.37	45.57	49.35	49.47	51.20	51.33	---	---	53.03	53.10
5	42.66	43.37	45.58	45.67	49.31	49.51	51.33	51.36	---	---	52.99	53.02
6	42.87	43.64	45.67	45.78	49.31	49.44	50.54	51.36	---	---	52.91	52.99
7	41.81	42.78	45.79	46.06	49.44	49.46	50.63	50.97	---	---	52.85	52.91
8	42.25	42.84	46.07	46.20	49.45	49.51	50.98	51.23	---	---	52.81	52.85
9	41.55	42.16	46.20	46.26	49.52	49.73	51.24	51.42	---	---	52.79	52.81
10	42.14	43.32	46.23	46.26	49.75	49.96	51.43	51.52	---	---	52.63	52.79
11	43.36	43.98	46.20	46.24	49.97	50.14	51.52	51.63	51.63	52.60	52.57	52.63
12	44.00	44.36	46.17	46.20	50.15	50.33	51.64	51.72	49.74	51.53	52.54	52.57
13	44.37	44.47	46.19	46.30	50.35	50.66	51.72	51.79	48.95	49.69	52.54	52.54
14	44.38	44.52	46.30	46.45	50.67	50.91	51.79	51.87	49.41	50.42	52.51	52.53
15	44.53	44.57	46.46	46.69	50.91	51.13	51.88	51.97	50.46	50.96	52.53	52.54
16	44.58	44.71	46.70	46.75	51.14	51.39	51.97	52.19	50.95	51.16	52.54	52.62
17	44.71	44.78	46.57	46.78	51.40	51.57	52.20	52.46	51.17	51.35	52.62	52.88
18	44.78	44.93	45.42	46.48	51.43	51.53	52.47	52.74	51.36	51.48	52.89	53.11
19	44.93	44.97	45.67	46.32	51.53	51.57	52.75	53.05	51.48	51.64	53.07	53.17
20	44.97	44.97	46.33	46.56	51.57	51.64	---	---	51.65	51.71	53.00	53.06
21	44.89	44.96	45.87	46.61	51.55	51.71	---	---	51.71	51.94	52.85	52.99
22	44.89	44.98	44.77	45.76	51.59	51.80	---	---	51.94	51.98	52.65	52.84
23	44.98	45.03	45.15	45.96	50.84	51.89	53.91	54.05	51.98	52.21	52.60	52.65
24	45.02	45.11	45.98	46.37	49.10	50.75	---	---	52.23	52.46	52.27	52.61
25	45.11	45.18	46.38	46.86	48.01	49.04	---	---	52.48	52.76	52.19	52.26
26	45.19	45.24	46.88	47.38	47.17	47.97	---	---	52.76	52.89	52.23	52.41
27	45.21	45.23	47.40	47.86	46.71	47.16	---	---	52.90	52.97	52.43	52.54
28	45.21	45.28	47.88	48.20	47.25	48.46	---	---	52.91	52.98	51.41	52.55
29	45.28	45.30	48.21	48.49	48.51	49.44	---	---	52.91	52.92	50.21	51.31
30	45.24	45.29	48.51	48.77	49.47	50.06	---	---	52.87	52.93	50.62	51.41
31	---	---	48.78	49.07	---	---	---	---	52.82	52.87	---	---
MONTH	40.46	45.30	44.77	49.07	46.71	51.89	50.08	54.05	48.95	52.98	50.21	53.17

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 101. SITE ID.--383853076532601. PERMIT NUMBER.--CH-01-1882.
 LOCATION.--Lat 38°38'53", long 76°53'26", Hydrologic Unit 02070011, at Martha Washington Motel,
 1.7 mi. northwest of Waldorf.
 Owner: Martha Washington Motel.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 465 ft; casing diameter 6 in., to 423 ft, and
 from 438 to 449 ft; screen diameter 6 in. from 423 to 438 ft, and 449 to 465 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
 water-level recorder from Nov. 20, 1976 to Feb. 6, 1978. Equipped with digital water-level recorder--60-minute
 recorder interval from Feb. 26, 1978 to May 13, 1991.
 DATUM.--Elevation of land surface is 216.45 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.0 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping. Recorder
 removed May 14, 1991 to current year due to building construction at the site. Recorder will be installed at
 the completion of the construction around the well. Missing data from Oct. 20, 1990 to Oct. 30, 1990 due to
 recorder malfunction.
 PERIOD OF RECORD.--November 1976 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.60 ft above sea level, Jan. 16, 1977;
 lowest measured, 49.05 ft below sea level, July 1, 1986.

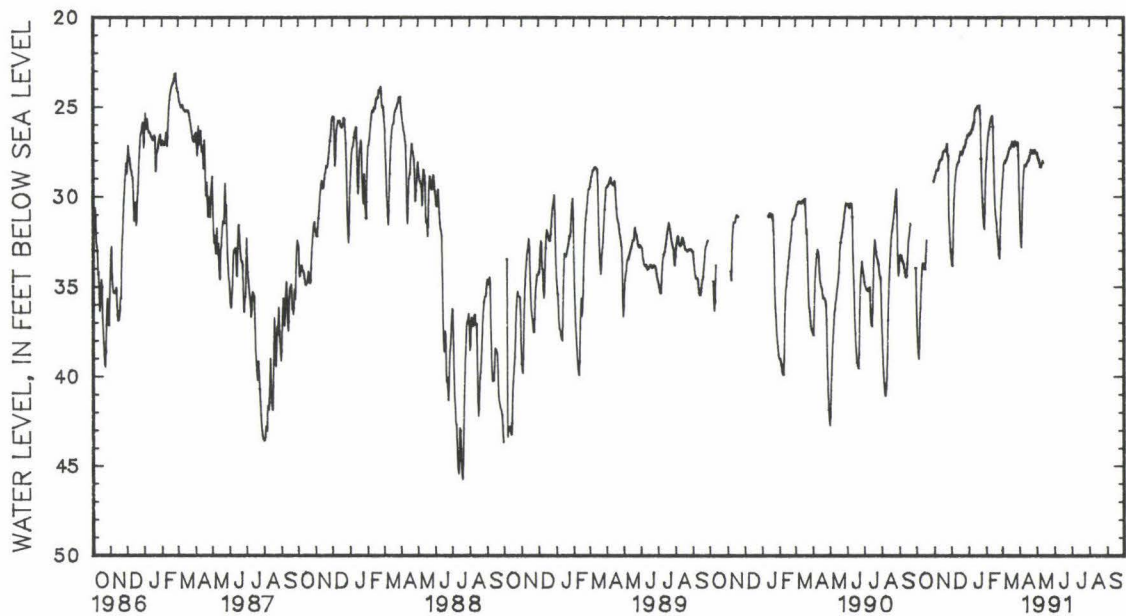
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	33.97	35.74	28.94	29.04	33.08	33.44	26.51	26.58	27.93	28.51	29.07	29.53
2	35.76	37.09	28.78	28.92	33.44	33.79	26.44	26.53	27.34	27.91	28.63	29.05
3	37.10	38.05	28.65	28.78	33.23	33.86	26.43	26.45	26.90	27.33	28.12	28.60
4	38.06	38.71	28.50	28.65	31.47	33.13	26.43	26.45	26.56	26.88	28.00	28.11
5	38.42	39.03	28.31	28.50	30.46	31.43	26.31	26.44	26.30	26.54	28.04	28.09
6	37.03	38.40	28.31	28.48	29.74	30.44	26.27	26.31	26.10	26.29	27.90	28.09
7	36.19	37.02	28.41	28.48	29.17	29.72	26.22	26.27	25.91	26.09	27.89	27.97
8	35.13	36.18	28.41	28.52	28.83	29.16	26.10	26.23	25.76	25.90	27.93	27.97
9	34.34	35.12	28.17	28.41	28.52	28.83	25.94	26.08	25.62	25.74	27.82	27.93
10	33.76	34.34	27.93	28.15	28.34	28.50	25.83	25.93	25.48	25.61	27.71	27.81
11	33.68	33.76	27.94	28.01	28.23	28.36	25.27	25.82	25.44	25.50	27.57	27.71
12	33.68	33.69	27.91	27.94	28.06	28.21	25.08	25.26	25.38	25.47	27.46	27.57
13	33.69	33.70	27.89	27.91	27.93	28.05	25.08	25.17	25.27	26.09	27.29	27.45
14	33.70	33.91	27.87	27.89	28.03	28.08	25.05	25.17	26.15	27.79	27.22	27.29
15	33.91	34.03	27.73	27.86	27.66	28.02	25.00	25.05	27.87	29.13	27.23	27.26
16	33.64	34.03	27.50	27.71	27.64	27.67	24.77	25.00	29.16	30.09	27.17	27.27
17	33.00	33.64	27.45	27.49	27.47	27.66	24.81	24.93	30.12	30.74	27.00	27.18
18	32.42	33.00	27.43	27.46	27.26	27.46	24.91	24.95	30.76	31.18	26.70	27.00
19	32.18	32.42	27.36	27.43	27.35	27.58	24.85	24.96	31.21	31.46	26.71	26.92
20	---	---	27.37	27.38	27.58	27.63	24.84	24.91	31.47	31.95	26.94	27.16
21	---	---	27.33	27.38	27.42	27.58	24.91	25.14	31.96	32.29	27.17	27.21
22	---	---	27.19	27.44	27.27	27.42	25.14	25.95	32.30	32.73	27.14	27.18
23	---	---	27.03	27.19	27.06	27.26	26.04	27.89	32.75	33.26	26.90	27.15
24	---	---	27.02	27.04	27.02	27.21	27.95	29.15	33.02	33.45	26.77	26.89
25	---	---	26.98	27.65	27.11	27.24	29.17	30.09	31.51	32.92	26.83	27.03
26	---	---	27.69	27.70	27.02	27.09	30.11	30.60	30.58	31.45	27.03	27.07
27	---	---	27.70	30.99	26.80	27.01	30.64	31.10	30.04	30.55	26.95	27.06
28	---	---	31.03	31.79	26.70	26.78	31.12	31.56	29.55	30.02	26.89	26.98
29	---	---	31.83	32.52	26.56	26.71	31.04	31.78	---	---	26.80	26.98
30	---	---	32.53	33.08	26.38	26.54	29.21	30.95	---	---	26.79	27.68
31	29.05	29.14	---	---	26.36	26.57	28.53	29.17	---	---	27.77	29.41
MONTH	29.05	39.03	26.98	33.08	26.36	33.86	24.77	31.78	25.27	33.45	26.70	29.53

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued
CH Bf 101--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	29.47	30.59	27.46	27.52	---	---	---	---	---	---	---	---
2	30.67	31.74	27.50	27.53	---	---	---	---	---	---	---	---
3	31.78	32.51	27.53	27.78	---	---	---	---	---	---	---	---
4	32.13	32.82	27.78	27.86	---	---	---	---	---	---	---	---
5	30.48	32.05	27.86	27.91	---	---	---	---	---	---	---	---
6	29.57	30.45	27.89	28.09	---	---	---	---	---	---	---	---
7	28.93	29.54	28.10	28.28	---	---	---	---	---	---	---	---
8	28.57	28.90	28.29	28.35	---	---	---	---	---	---	---	---
9	28.25	28.55	28.28	28.36	---	---	---	---	---	---	---	---
10	28.14	28.24	28.16	28.28	---	---	---	---	---	---	---	---
11	28.22	28.26	28.00	28.17	---	---	---	---	---	---	---	---
12	28.25	28.30	27.91	27.99	---	---	---	---	---	---	---	---
13	28.13	28.29	27.93	28.11	---	---	---	---	---	---	---	---
14	28.08	28.13	---	---	---	---	---	---	---	---	---	---
15	27.89	28.07	---	---	---	---	---	---	---	---	---	---
16	27.94	28.02	---	---	---	---	---	---	---	---	---	---
17	27.84	27.96	---	---	---	---	---	---	---	---	---	---
18	27.81	27.85	---	---	---	---	---	---	---	---	---	---
19	27.68	27.80	---	---	---	---	---	---	---	---	---	---
20	27.52	27.67	---	---	---	---	---	---	---	---	---	---
21	27.32	27.50	---	---	---	---	---	---	---	---	---	---
22	27.30	27.38	---	---	---	---	---	---	---	---	---	---
23	27.36	27.39	---	---	---	---	---	---	---	---	---	---
24	27.30	27.46	---	---	---	---	---	---	---	---	---	---
25	27.46	27.56	---	---	---	---	---	---	---	---	---	---
26	27.52	27.57	---	---	---	---	---	---	---	---	---	---
27	27.38	27.52	---	---	---	---	---	---	---	---	---	---
28	27.34	27.39	---	---	---	---	---	---	---	---	---	---
29	27.37	27.51	---	---	---	---	---	---	---	---	---	---
30	27.48	27.52	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	27.30	32.82	27.46	28.36	---	---	---	---	---	---	---	---

Daily Low Water Levels



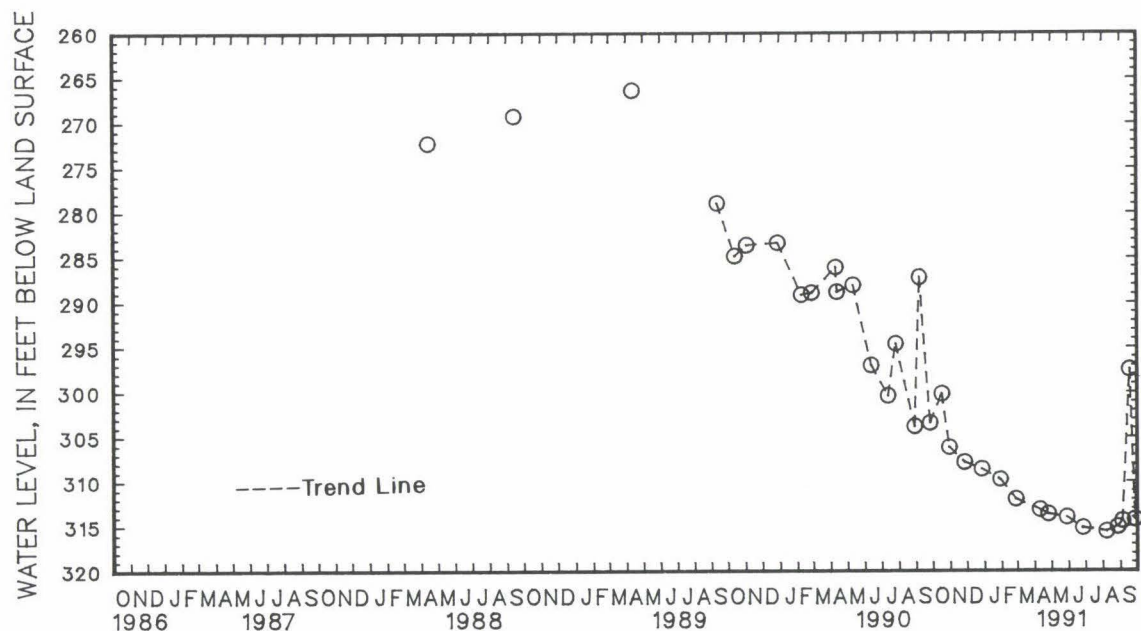
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 146. SITE ID.--383508076540701. PERMIT NUMBER.--CH-81-0593.
LOCATION.--Lat 38°35'08", long 76°54'07", Hydrologic Unit 02070011, 0.3 mi south of St. Pauls Dr., Waldorf.
Owner: U.S. Geological Survey.
AQUIFER.--La Plata Aquifer of Lower Cretaceous age. Aquifer code: 217LPLT.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,427 ft; casing diameter 6 in., to 1,059 ft; screen diameter 6 in. with multiple screens from 1,059 to 1,417 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 192.80 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.10 ft above land surface.
REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
PERIOD OF RECORD.--April 4, 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 195.70 ft below land surface, April 4, 1985; lowest measured, 315.60 land surface, Aug. 7, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	300.22	DEC 27	308.63	APR 10	313.18	JUN 26	315.20	SEP 4	314.43
30	306.20	JAN 29	309.79	25	313.67	AUG 7	315.60	SEP 17	297.48
NOV 26	307.87	FEB 26	312.00	MAY 28	314.02	27	315.09	SEP 26	314.26
WATER YEAR 1991		HIGHEST	300.22	OCT 17, 1990	LOWEST	315.60	AUG 7, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 151. SITE ID.--383508076540703. PERMIT NUMBER.--CH-81-1265.
 LOCATION.--Lat 38°35'08", long 76°54'07", Hydrologic Unit 02070011, 0.3 mi south of St. Pauls Dr., Waldorf.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 660 ft; casing diameter 6 in., to 399 ft;
 casing diameter 4 in. from 399 to 645 ft; screen diameter 4 in. from 645 to 660 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--60-minute recorder interval from August 18, 1987 to current year.
 DATUM.--Elevation of land surface is 192.80 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.20 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network.
 PERIOD OF RECORD.--August 1987 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.39 ft below sea level, March 27, 1988;
 lowest measured, 53.45 ft below sea level, June 3, 1986.

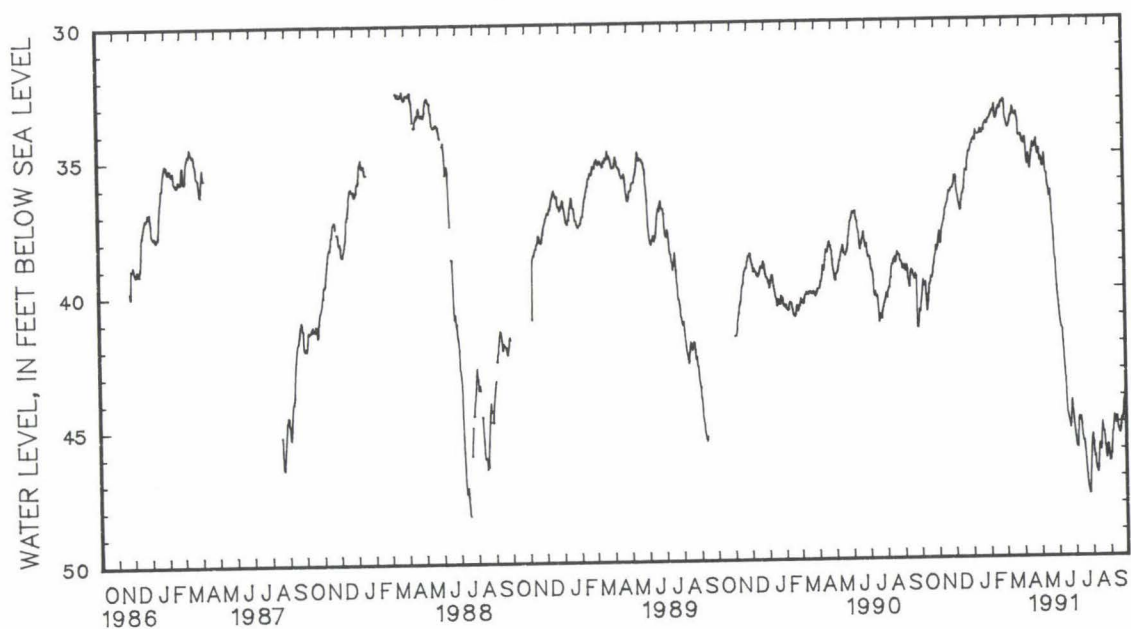
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO DECEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	40.59	40.78	38.35	38.58	36.17	36.26	34.81	34.94	33.87	33.90	33.02	33.09
2	40.65	40.86	38.44	38.58	36.11	36.18	34.68	34.81	33.77	33.88	32.90	33.01
3	40.52	40.83	38.29	38.44	35.86	36.15	34.64	34.68	33.71	33.77	32.93	33.03
4	40.23	40.50	38.07	38.28	35.75	35.84	34.64	34.65	33.70	33.72	32.90	33.20
5	40.14	40.36	37.82	38.07	35.82	35.84	34.53	34.64	33.66	33.71	33.22	33.72
6	39.85	40.13	37.82	37.88	35.72	35.81	34.50	34.53	33.61	33.66	33.73	33.79
7	39.61	39.84	37.79	37.92	35.73	35.87	34.46	34.50	33.53	33.61	33.76	33.90
8	39.50	39.66	37.95	38.32	35.89	36.40	34.44	34.48	33.48	33.54	33.91	34.00
9	39.68	39.89	38.03	38.32	36.41	36.50	34.38	34.43	33.40	33.47	34.00	34.04
10	39.84	39.89	37.71	38.00	36.49	36.59	34.43	34.51	33.34	33.42	33.97	34.00
11	39.76	39.84	37.67	37.79	36.60	36.77	34.15	34.51	33.35	33.41	33.92	33.97
12	39.65	39.75	37.61	37.69	36.77	36.87	34.06	34.14	33.36	33.44	33.85	33.93
13	39.75	40.24	37.53	37.60	36.86	37.02	34.11	34.26	33.11	33.35	33.68	33.85
14	40.29	40.83	37.46	37.54	37.03	37.11	34.24	34.27	32.96	33.19	33.58	33.67
15	40.57	40.80	37.30	37.45	36.74	37.08	34.27	34.29	33.22	33.65	33.59	33.61
16	40.48	40.57	37.06	37.29	36.70	36.74	34.09	34.29	33.66	33.71	33.51	33.61
17	40.18	40.48	36.98	37.04	36.54	36.74	34.14	34.28	33.62	33.69	33.29	33.52
18	39.79	40.17	36.93	37.02	36.27	36.53	34.24	34.28	33.54	33.62	33.01	33.29
19	39.83	39.83	36.82	36.93	36.32	36.45	34.13	34.26	33.38	33.54	33.03	33.36
20	39.74	39.83	36.81	36.84	36.34	36.46	34.03	34.10	33.33	33.38	33.37	33.54
21	39.55	39.74	36.71	36.82	36.10	36.33	34.03	34.17	33.28	33.37	33.52	33.55
22	39.43	39.55	36.52	36.71	35.87	36.09	34.17	34.24	33.15	33.27	33.52	33.59
23	39.51	39.59	36.36	36.52	35.59	35.86	34.13	34.24	33.24	33.32	33.42	33.59
24	39.45	39.58	36.36	36.40	35.50	35.62	34.09	34.13	33.18	33.32	33.36	33.48
25	39.19	39.45	36.35	36.38	35.57	35.63	34.12	34.16	33.09	33.17	33.48	33.64
26	39.10	39.18	36.38	36.43	35.56	35.64	33.97	34.14	33.01	33.11	33.65	33.71
27	38.96	39.10	36.33	36.42	35.27	35.65	33.90	33.97	33.04	33.08	33.69	33.86
28	38.77	38.94	36.23	36.31	35.14	35.25	33.84	33.89	33.04	33.10	33.87	34.37
29	38.72	38.78	36.23	36.29	34.94	35.14	33.84	33.90	---	---	34.33	34.37
30	38.43	38.71	36.26	36.29	34.72	34.93	33.65	33.83	---	---	34.31	34.36
31	38.29	38.41	---	---	34.71	34.94	33.65	33.87	---	---	34.32	34.37
MONTH	38.29	40.86	36.23	38.58	34.71	37.11	33.65	34.94	32.96	33.90	32.90	34.37

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued
CH Bf 151--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	34.29	34.32	34.93	35.07	39.54	39.99	45.15	45.37	45.40	45.54	46.28	46.49
2	34.30	34.42	34.82	34.93	40.00	40.29	45.38	45.57	45.33	45.48	46.13	46.44
3	34.43	34.56	34.78	34.86	40.30	40.51	45.57	45.80	45.40	45.77	46.15	46.24
4	34.56	34.62	34.88	35.29	40.51	40.77	45.81	45.93	45.79	46.10	45.80	46.24
5	34.62	34.64	35.19	35.31	40.78	40.99	45.93	45.96	46.11	46.32	45.37	45.77
6	34.53	34.64	35.04	35.19	41.00	41.24	45.39	45.96	46.19	46.27	45.32	45.40
7	34.44	34.52	35.04	35.27	41.25	41.38	44.92	45.37	46.29	46.61	45.14	45.40
8	34.43	34.44	35.29	35.51	41.38	41.52	44.64	44.90	46.62	46.78	44.79	45.13
9	34.42	34.50	35.43	35.52	41.37	41.53	44.64	44.82	46.76	46.80	44.61	44.78
10	34.52	34.85	35.27	35.42	41.35	41.60	44.83	44.97	46.77	46.89	44.67	44.79
11	34.87	35.36	35.07	35.27	41.61	42.00	44.61	44.86	46.34	46.76	44.80	44.92
12	35.36	35.44	34.98	35.06	42.01	42.31	44.61	44.83	45.94	46.32	44.93	45.06
13	35.04	35.36	35.08	35.47	42.33	42.72	44.84	45.09	45.70	45.92	44.83	45.07
14	34.99	35.04	35.49	35.74	42.74	43.04	45.10	45.38	45.72	45.84	44.69	44.82
15	35.00	35.26	35.74	35.77	43.05	43.38	45.40	45.55	45.85	45.98	44.81	45.08
16	35.29	35.61	35.77	35.80	43.40	43.81	45.59	45.72	45.91	46.05	45.09	45.28
17	35.36	35.58	35.83	36.12	43.82	44.20	45.54	45.72	45.37	45.90	45.17	45.27
18	35.18	35.36	36.13	36.28	44.22	44.67	45.56	45.84	45.04	45.36	45.24	45.43
19	35.01	35.18	36.28	36.39	44.67	44.73	45.85	46.09	44.87	45.02	45.38	45.45
20	34.77	34.99	36.40	36.63	44.73	44.87	46.10	46.37	44.95	45.19	45.17	45.36
21	34.55	34.76	36.44	36.63	44.88	44.94	46.38	46.73	45.20	45.38	44.88	45.15
22	34.50	34.64	36.32	36.42	44.94	45.09	46.75	46.99	45.25	45.38	44.63	44.87
23	34.65	34.82	36.42	36.83	45.09	45.23	46.99	47.28	45.28	45.59	44.67	44.86
24	34.72	34.82	36.85	37.24	44.64	45.08	47.28	47.46	45.61	45.91	44.74	44.93
25	34.69	34.78	37.26	37.63	44.22	44.63	47.48	47.57	45.92	46.18	44.35	44.71
26	34.61	34.71	37.64	37.82	44.07	44.20	47.59	47.70	46.20	46.36	44.17	44.34
27	34.42	34.59	37.83	38.24	44.11	44.37	47.28	47.68	45.95	46.27	44.12	44.20
28	34.39	34.50	38.28	38.67	44.39	44.66	46.77	47.26	45.68	45.95	43.95	44.12
29	34.53	34.81	38.68	38.96	44.67	44.89	46.22	46.77	45.69	45.87	43.76	43.95
30	34.81	35.04	38.87	38.99	44.91	45.14	45.84	46.21	45.88	46.06	43.71	43.78
31	---	---	39.02	39.51	---	---	45.37	45.83	46.07	46.26	---	---
MONTH	34.29	35.61	34.78	39.51	39.54	45.23	44.61	47.70	44.87	46.89	43.71	46.49

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

\GROUND-WATER LEVELS

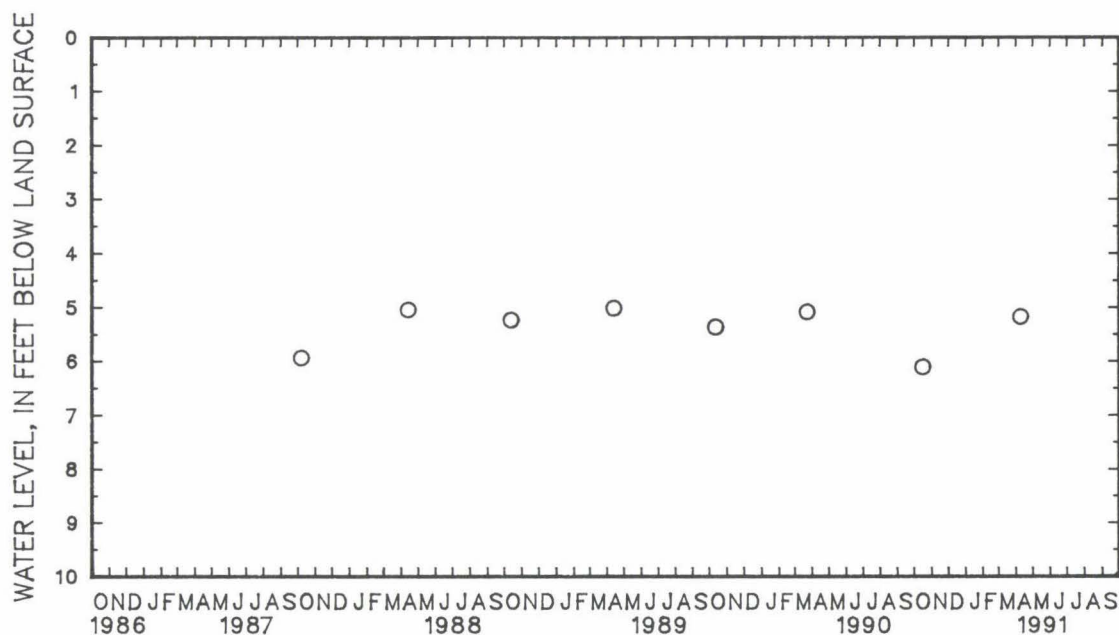
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bg 13. SITE ID.--383652076495701. PERMIT NUMBER.--CH-81-0601.
 LOCATION.--Lat 38°36'52", long 76°49'57", Hydrologic Unit 02070011, southside of MD Rt. 382,
 4.1 mi east of Waldorf at Zekiah Swamp.
 Owner: U.S. Geological Survey.
 AQUIFER.--Calvert Formation of Miocene age. Aquifer code: 122CLVR.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22.6 ft; casing diameter 4 in., to 13.5 ft;
 casing diameter 2 in. from 17.6 to 22.6 ft; screen diameter 2 in. from 12.6 to 17.6.
 INSTRUMENTATION.--Measured twice yearly with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 126.27 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.07 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--August 1983 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.64 ft below land surface, Dec. 13, 1984;
 lowest measured, 7.53 ft below land surface, April 23, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	6.12	APR 9	5.18
WATER YEAR 1991 HIGHEST 5.18 APR 9, 1991 LOWEST 6.12 OCT 16, 1990			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Cb 7. SITE ID.--383422077114601. PERMIT NUMBER.--CH-01-1908.

LOCATION.--Lat 38°34'22", long 77°11'46", Hydrologic Unit 02070011, at Caffee and Greenslade Rds., U.S. Naval Ordnance Station, about 2.5 mi southwest of Indian Head.

Owner: U.S. Navy.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 400 ft; casing diameter 8 in., to 400 ft; screen diameter 6 in. from 154.1 to 167 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder Sept. 21, 1953 to July 8, 1965 and digital water-level recorder--60-minute recorder interval, April 28, 1988 to current year.

DATUM.--Elevation of land surface is 36.0 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder shelf, 1.1 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Indian Head Project observation well. Water levels affected by nearby pumping. Missing data due to recorder malfunction.

PERIOD OF RECORD.--March and April 1952, August 1953 to current year.

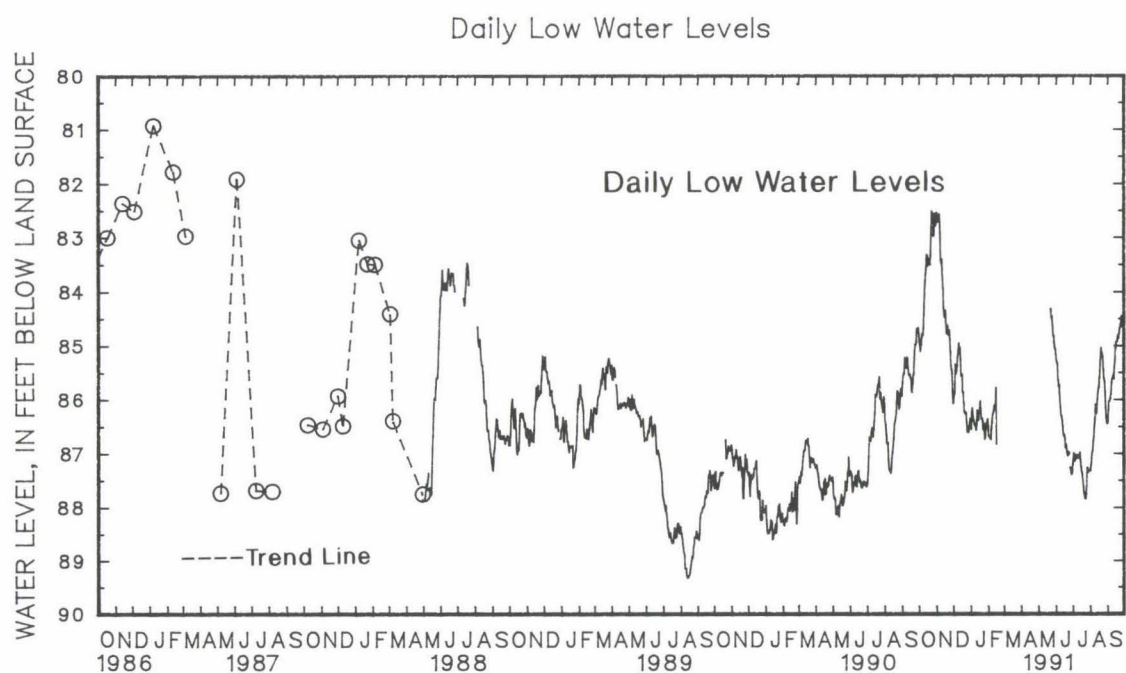
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.35 ft below land surface, April 18, 1952; lowest measured, 89.33 ft below land surface, Aug. 12 and 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	84.93	84.77	82.55	82.44	86.09	85.78	86.58	86.23	86.71	86.55	---	---
2	85.00	84.87	82.61	82.50	85.94	85.84	86.25	86.06	86.71	86.65	---	---
3	85.11	84.97	82.71	82.55	85.92	85.37	86.18	86.07	86.75	86.66	---	---
4	84.99	84.68	82.70	82.49	85.37	85.15	86.34	86.11	86.76	86.67	---	---
5	84.86	84.72	82.57	82.40	85.55	85.17	86.41	86.31	86.78	86.60	---	---
6	84.78	84.65	82.71	82.40	85.50	85.33	86.44	86.35	86.57	86.42	---	---
7	84.81	84.67	82.92	82.67	85.41	85.20	86.50	86.41	86.46	86.32	---	---
8	84.70	84.42	83.44	82.88	85.22	85.10	86.51	86.42	86.31	86.26	---	---
9	84.43	84.10	83.49	83.40	85.11	84.99	86.54	86.40	86.28	86.14	---	---
10	84.06	83.83	83.42	83.10	84.97	84.80	86.60	86.42	86.23	86.09	---	---
11	83.80	83.64	83.76	83.43	85.13	84.94	86.49	86.23	86.14	86.03	---	---
12	83.66	83.58	83.96	83.74	85.06	84.95	86.23	86.10	86.16	86.07	---	---
13	83.57	83.31	84.33	83.98	85.25	84.99	86.40	86.17	86.15	85.81	---	---
14	83.32	83.17	84.49	84.36	85.59	85.30	86.42	86.20	85.80	85.66	---	---
15	83.33	83.15	84.50	84.24	85.56	85.40	86.29	86.19	86.86	85.67	---	---
16	83.52	83.36	84.38	84.26	85.58	85.48	86.29	85.96	---	---	---	---
17	83.42	83.31	84.60	84.41	85.90	85.66	86.06	85.94	---	---	---	---
18	83.40	83.11	84.80	84.60	85.90	85.73	86.21	86.07	---	---	---	---
19	83.48	83.17	84.71	84.58	86.10	85.77	86.39	86.20	---	---	---	---
20	83.50	83.31	84.66	84.57	86.28	86.13	86.38	86.24	---	---	---	---
21	83.33	82.95	84.82	84.64	86.27	86.16	86.42	86.19	---	---	---	---
22	82.95	82.52	84.83	84.72	86.31	86.16	86.59	86.43	---	---	---	---
23	82.51	82.30	84.74	84.66	86.29	86.08	86.48	86.19	---	---	---	---
24	82.58	82.29	84.91	84.66	86.45	86.06	86.53	86.18	---	---	---	---
25	82.56	82.49	85.14	84.84	86.64	86.46	86.77	86.53	---	---	---	---
26	82.98	82.53	85.41	85.09	86.62	86.51	86.75	86.53	---	---	---	---
27	82.96	82.60	85.47	85.39	86.64	86.56	86.60	86.43	---	---	---	---
28	82.56	82.31	85.54	85.41	86.58	86.41	86.49	86.34	---	---	---	---
29	82.79	82.44	85.88	85.52	86.51	86.34	86.47	86.32	---	---	---	---
30	82.75	82.49	86.11	85.90	86.39	86.16	86.40	86.20	---	---	---	---
31	82.54	82.38	---	---	86.51	86.20	86.52	86.25	---	---	---	---
MONTH	85.11	82.29	86.11	82.40	86.64	84.80	86.77	85.94	86.86	85.66	---	---

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued
CH Cb 7--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	85.30	85.20	87.15	87.01	87.35	87.19	86.44	86.29
2	---	---	---	---	85.34	85.26	87.03	86.94	87.25	87.17	86.24	86.00
3	---	---	---	---	85.35	85.26	87.18	87.00	87.13	86.97	86.07	85.92
4	---	---	---	---	85.67	85.29	87.18	87.05	87.00	86.90	86.06	85.98
5	---	---	---	---	85.79	85.68	87.07	86.94	86.96	86.82	86.00	85.87
6	---	---	---	---	85.77	85.61	87.13	86.99	86.79	86.60	86.01	85.87
7	---	---	---	---	85.99	85.71	87.08	86.98	86.71	86.51	85.93	85.63
8	---	---	---	---	86.17	85.92	87.07	86.97	86.51	86.35	85.71	85.54
9	---	---	---	---	86.33	86.12	87.11	86.91	86.38	85.91	85.63	85.52
10	---	---	---	---	86.35	86.25	87.12	86.96	86.10	85.89	85.61	85.36
11	---	---	---	---	86.42	86.23	87.06	86.94	86.28	86.14	85.56	85.37
12	---	---	---	---	86.52	86.36	87.12	86.97	86.25	85.98	85.63	85.41
13	---	---	---	---	86.67	86.53	87.02	86.91	86.02	85.83	85.43	85.26
14	---	---	---	---	86.72	86.62	87.15	86.96	85.89	85.66	85.28	85.09
15	---	---	---	---	86.69	86.59	87.28	87.11	85.80	85.65	85.05	84.96
16	---	---	---	---	86.76	86.66	87.37	87.21	85.77	85.63	84.94	84.81
17	---	---	---	---	86.93	86.73	87.42	87.27	85.61	85.50	84.93	84.74
18	---	---	---	---	86.87	86.77	87.53	87.34	85.49	85.26	84.92	84.81
19	---	---	---	---	86.89	86.73	87.65	87.48	85.24	85.06	84.82	84.61
20	---	---	---	---	87.02	86.83	87.77	87.55	85.04	84.86	84.86	84.67
21	---	---	---	---	87.08	86.92	87.82	87.68	85.13	84.93	84.77	84.57
22	---	---	84.32	84.11	87.07	86.99	87.87	87.76	85.14	85.00	84.68	84.58
23	---	---	84.49	84.26	87.02	86.89	87.88	87.73	85.19	85.03	84.66	84.46
24	---	---	84.47	84.38	87.04	86.92	87.80	87.62	85.43	85.24	84.60	84.46
25	---	---	84.63	84.37	---	---	87.65	87.25	85.63	85.46	84.52	84.30
26	---	---	84.83	84.62	87.31	87.19	87.30	87.17	85.68	85.58	84.46	84.30
27	---	---	84.83	84.73	87.39	87.28	87.30	87.20	85.88	85.66	84.58	84.39
28	---	---	84.98	84.78	87.43	87.37	87.38	87.30	86.17	85.89	84.65	84.53
29	---	---	85.07	84.97	87.39	87.19	87.37	87.24	86.38	86.15	84.54	84.41
30	---	---	85.08	85.01	87.24	87.10	87.36	87.20	86.45	86.31	84.57	84.39
31	---	---	85.19	85.06	---	---	87.34	87.20	86.48	86.32	---	---
MONTH	---	---	85.19	84.11	87.43	85.20	87.88	86.91	87.35	84.86	86.44	84.30



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

MARYLAND--Continued

CHARLES COUNTY--Continued

LOCATION.--Lat 38°33'13", long 77°12'54", Hydrologic Unit 02070011, U.S. Naval Ordnance Station, Stump Neck.

Owner: U.S. Navy.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, production, artesian well, depth 454 ft; casing and screen diameters and intervals unknown.

INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.5 ft above land surface.

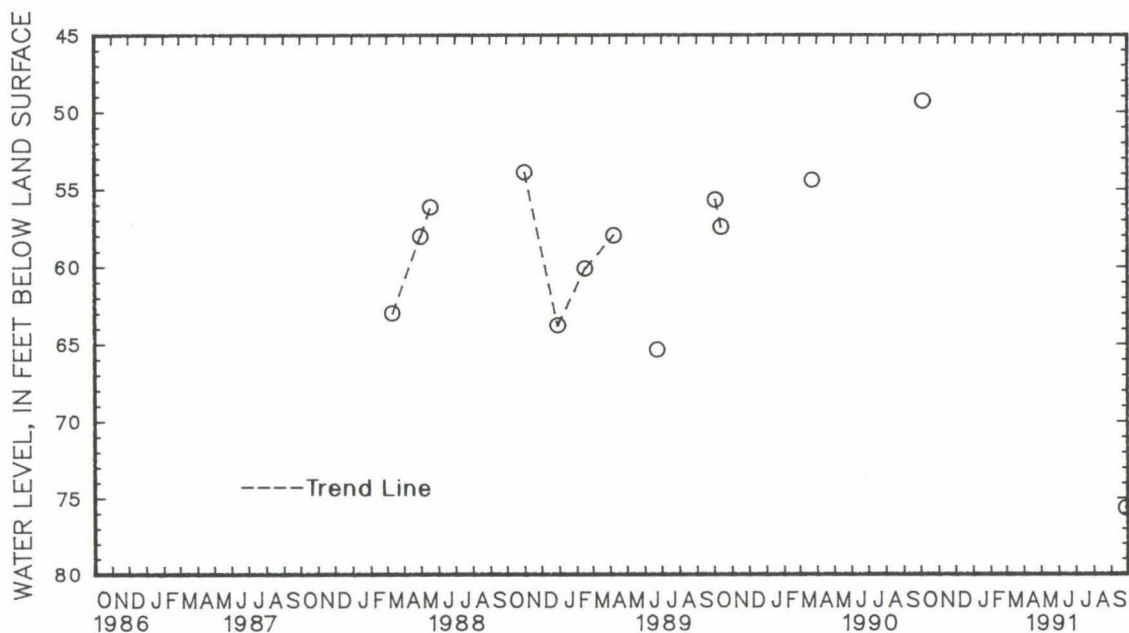
REMARKS.--Indian Head Project observation well.

PERIOD OF RECORD.--March 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.30 ft below land surface, Oct. 5, 1990;
lowest measured, 75.73 ft below land surface, Sept. 27, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL			
OCT 5	49.30	SEP 27	75.73			
WATER YEAR 1991	HIGHEST	49.30	OCT 5, 1990	LOWEST	75.73	SEP 27, 1991



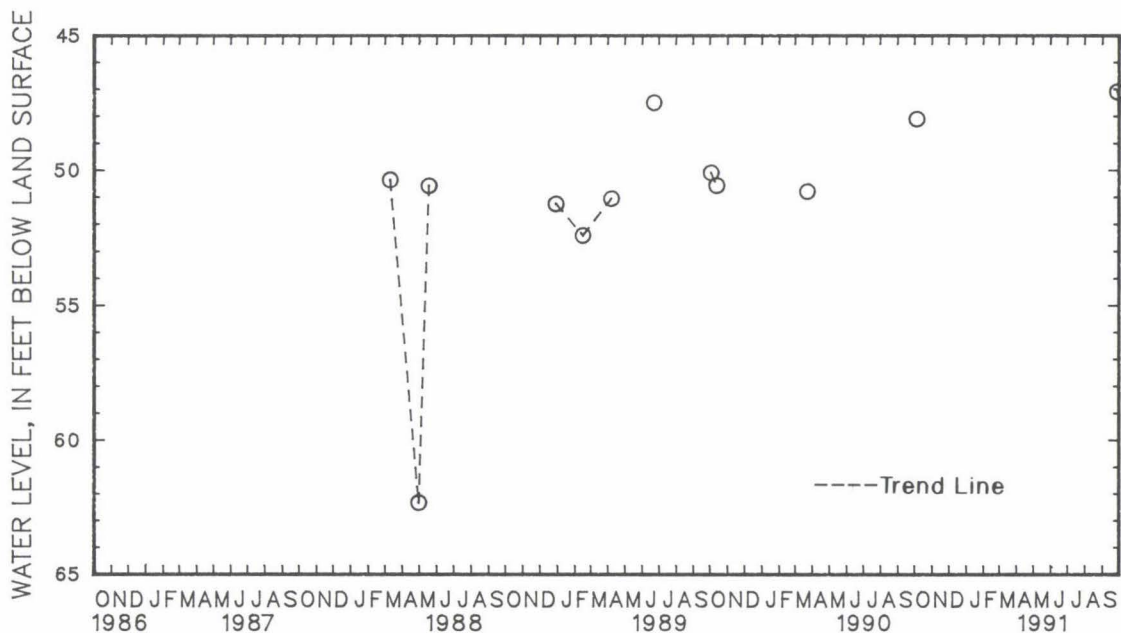
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

WELL NUMBER.--CH Cb 28. SITE ID.--383315077131401. PERMIT NUMBER.--CH-04-1102
LOCATION.--Lat 38°33'15", Long 77°13'14", Hydrologic Unit 02070011, U.S. Naval Ordnance Station,
Stump Neck.
Owner: U.S. Navy.
AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
WELL CHARACTERISTICS.--Drilled, production, artesian well, depth 331 ft; casing diameter 24 in., to 152 ft;
casing diameter 10 in., to 190 ft, 200 to 230 ft, and 240 to 280 ft; screen diameter 10 in. from 190 to 200 ft,
230 to 240 ft and 280 to 290 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.0 ft above land surface.
REMARKS.--Indian Head Project observation well.
PERIOD OF RECORD.--March 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.09 ft below land surface, Sept. 27, 1991;
lowest measured, 62.35 ft below land surface, April 30, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	48.10	SEP 27	47.09
WATER YEAR 1991 HIGHEST 47.09 SEP 27, 1991 LOWEST 48.10 OCT 5, 1990			

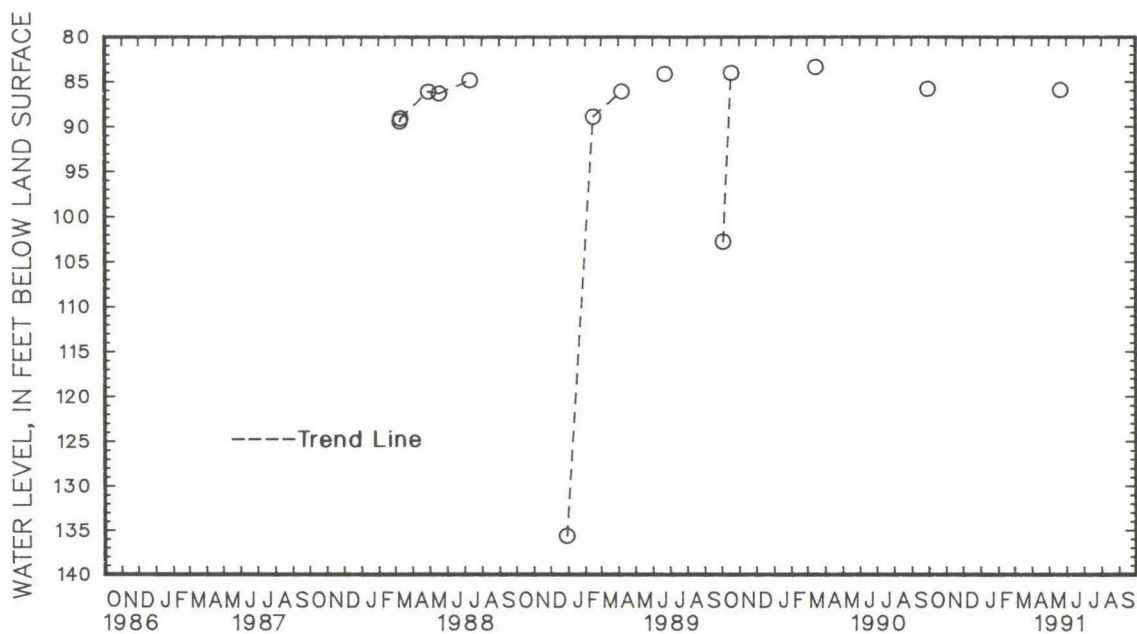


GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

WELL NUMBER.--CH Cb 35. SITE ID.--383407077120501. PERMIT NUMBER.--CH-81-0572.
LOCATION.--Lat 38°34'07", long 77°12'05", Hydrologic Unit 02070011, U.S. Naval Ordnance Station,
Indian Head.
Owner: U.S. Navy.
AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
WELL CHARACTERISTICS.--Drilled, production, artesian well, depth 488 ft; casing diameter 6 in., to 433 ft;
casing diameter 4 in. from 461 to 467 ft and 486 to 488 ft; screen diameter 4 in. from 433 to 461 ft
and 467 to 486 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 3.5 ft above land surface.
REMARKS.--Indian Head Project observation well. Water levels affected by nearby pumping.
PERIOD OF RECORD.--March 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 84.15 ft below land surface, June 22, 1989;
lowest measured, 135.72 ft below land surface, Dec. 29, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL
MAY 21	85.99



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Cb 38, SITE ID.--383328077114201.

LOCATION.--Lat 38°33'28", long 77°11'42", Hydrologic Unit 02070011, U.S. Naval Ordnance Station, at Rum Point, Indian Head.

Owner: U.S. Navy.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, depth 246 ft; casing diameter 4 in., to 210 ft; casing diameter 2 in. from 210 to 231 ft; screen diameter 2 in. from 231 to 246 ft.

INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 1.0 ft above land surface.

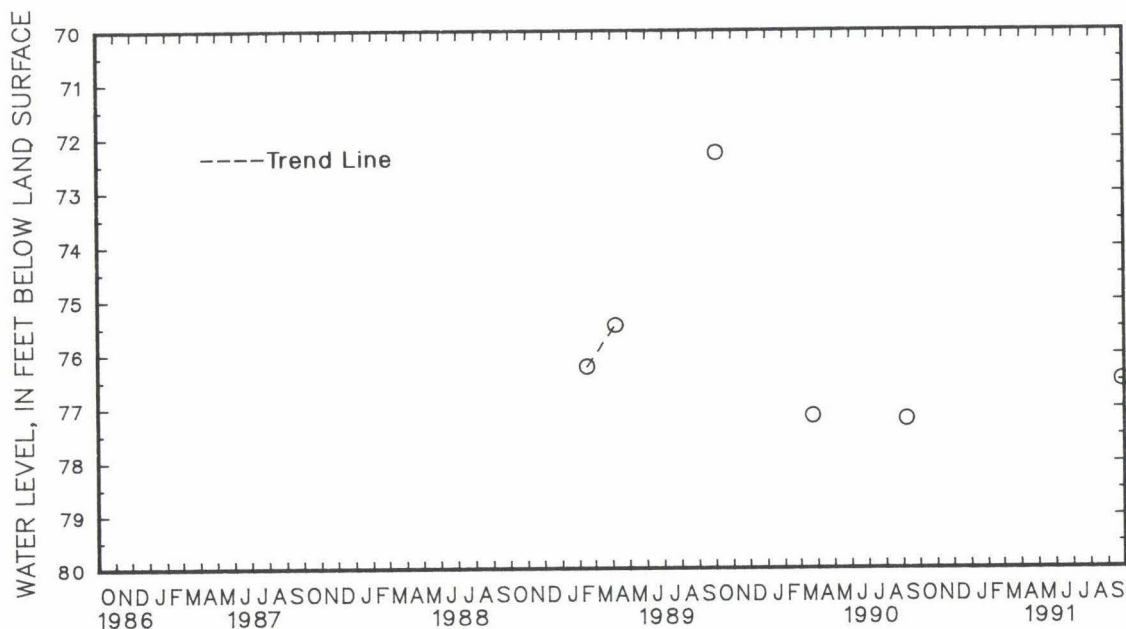
REMARKS.--Indian Head Project observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--February 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 72.27 ft below land surface, Oct. 3, 1989; lowest measured, 77.25 ft below land surface, Sept. 7, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL
SEP 26	76.51



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

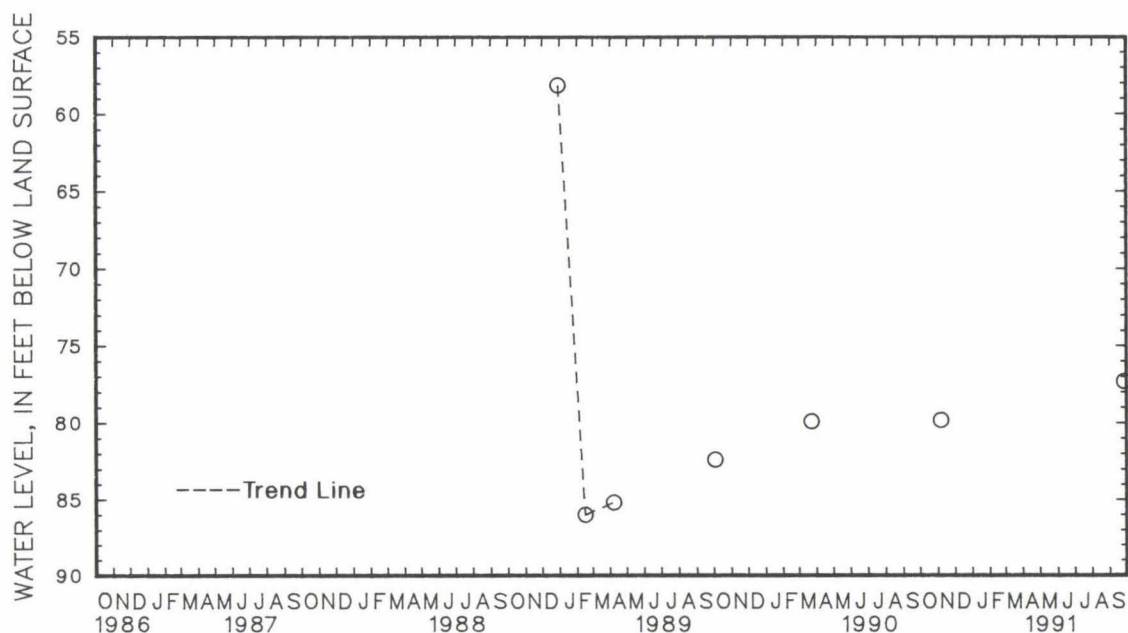
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Cb 39. SITE ID.--383332077111501. PERMIT NUMBER.--CH-73-2804.
 LOCATION.--Lat 38°33'32", long 77°11'15", Hydrologic Unit 02070011, Smallwood State Park at Sweden Point Marina.
 Owner: Smallwood State Park.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, production, artesian well, depth 383 ft; casing diameter 6 in., to 300 ft;
 casing diameter 4 in. from 290 to 300 ft and 310 to 373 ft; screen diameter 4 in. from 300 to 310 ft
 and 373 to 383 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing at land surface.
 REMARKS.--Indian Head Project observation well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--December 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.19 ft below land surface, Dec. 29, 1988;
 lowest measured, 86.08 ft below land surface, Feb. 15, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 6	79.87 S	SEP 26	77.34
WATER YEAR 1991 HIGHEST 77.34 SEP 26, 1991 LOWEST 79.87 NOV 6, 1990			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Cc 37. SITE ID.--383236076563901. PERMIT NUMBER.--CH-73-0219.
 LOCATION.--Lat 38°32'36", long 76°56'39", Hydrologic Unit 02070011, at LaPlata Water Treatment Plant,
 2.0 mi. northeast of La Plata.
 Owner: Town of La Plata.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1340 ft; casing diameter 6 in., to 300 ft;
 casing diameter 4 in. from 300 to 1174 ft, 1184 to 1250 ft, and 1260 to 1330 ft; screen diameter 4 in. from 1174
 to 1184 ft, 1250 to 1260 ft, and 1330 to 1340 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
 water-level recorder from Nov. 23, 1973 to Dec. 10, 1975. Equipped with digital water-level recorder--15-minute
 recorder interval from July 12, 1976 to current year.
 DATUM.--Elevation of land surface is 185.37 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.20 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels affected by nearby pumping. Missing data due
 to recorder malfunction.
 PERIOD OF RECORD.--November 1973 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.44 ft below sea level, Sept. 8, 1976;
 lowest measured, 109.65 ft below sea level, Sept. 24, and 26, 1991.

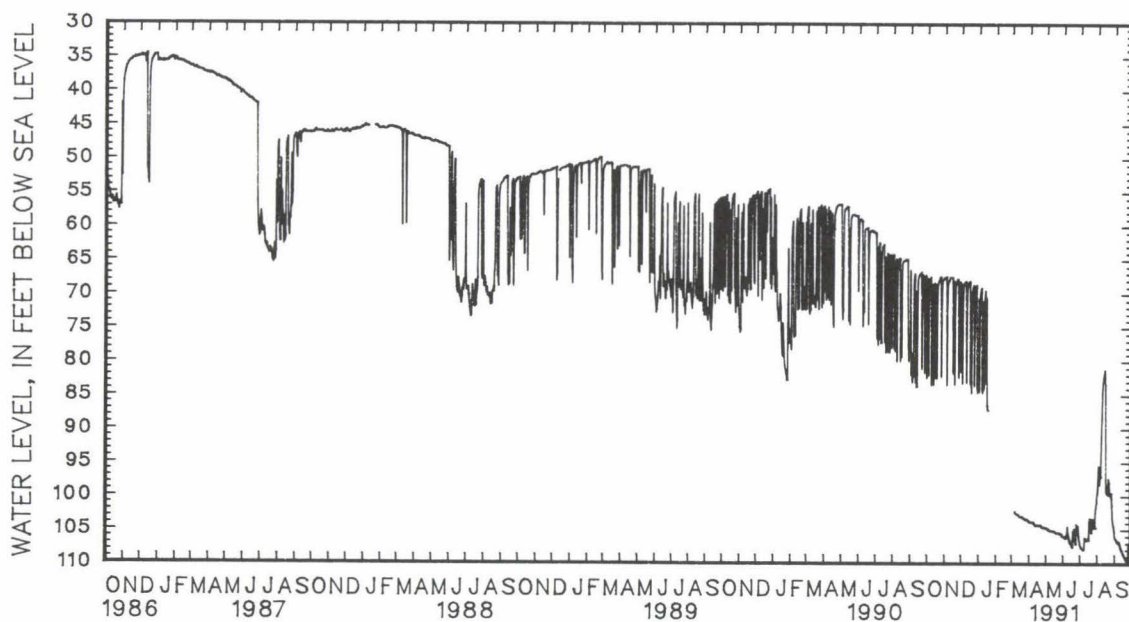
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	67.66	68.85	67.50	67.53	68.43	69.24	69.52	70.71	---	---	---	---
2	67.45	67.66	67.46	67.50	68.25	68.43	69.24	84.52	---	---	---	---
3	67.42	82.07	67.42	67.46	68.11	83.29	69.65	70.93	---	---	---	---
4	67.82	69.12	67.35	67.42	68.67	70.30	69.30	69.65	---	---	---	---
5	67.55	67.81	67.31	83.53	68.42	68.67	69.03	69.30	---	---	---	---
6	67.42	67.55	68.45	70.28	68.23	68.42	68.92	69.03	---	---	---	---
7	67.34	67.42	68.08	68.45	68.17	68.23	68.87	84.17	---	---	102.15	102.32
8	67.33	83.51	68.02	68.08	68.10	68.17	69.75	84.68	---	---	102.32	102.51
9	68.52	83.17	67.75	68.02	68.08	68.10	69.71	71.05	---	---	102.51	102.53
10	68.44	70.02	67.48	67.75	68.02	83.20	69.55	84.17	---	---	102.53	102.59
11	68.08	68.44	67.48	67.48	68.73	70.47	69.91	83.12	---	---	102.59	102.71
12	68.02	83.46	67.48	67.48	68.42	68.73	69.47	70.61	---	---	102.71	102.71
13	68.34	69.41	67.48	67.48	68.26	68.42	69.28	69.47	---	---	102.71	102.73
14	68.06	68.34	67.48	67.48	68.26	68.26	69.13	83.22	---	---	102.73	102.81
15	67.95	82.48	67.48	67.48	68.09	68.26	69.40	70.50	---	---	102.81	102.95
16	68.44	69.81	67.48	81.77	68.06	68.09	69.13	86.56	---	---	102.95	103.03
17	68.12	68.49	68.05	69.01	68.06	83.39	86.63	87.18	---	---	103.04	103.07
18	67.91	82.53	67.85	68.04	68.54	69.61	87.18	87.26	---	---	102.98	103.07
19	68.43	69.61	67.78	83.43	68.48	84.70	---	---	---	---	102.98	103.00
20	68.16	68.43	68.58	70.02	69.41	71.28	---	---	---	---	103.00	103.12
21	67.95	68.16	68.24	68.55	68.90	69.41	---	---	---	---	103.12	103.13
22	67.75	67.95	67.97	68.23	68.64	68.90	---	---	---	---	103.13	103.23
23	67.47	67.75	67.76	67.95	68.34	68.64	---	---	---	---	103.23	103.30
24	67.47	67.47	67.76	67.76	68.28	83.64	---	---	---	---	103.27	103.30
25	67.37	67.47	67.75	67.76	69.17	72.61	---	---	---	---	103.30	103.42
26	67.37	82.31	67.75	82.42	68.97	69.17	---	---	---	---	103.42	103.46
27	68.04	69.31	68.37	69.62	68.66	68.97	---	---	---	---	103.43	103.46
28	67.83	68.03	68.10	68.37	68.52	68.66	---	---	---	---	103.41	103.43
29	67.76	67.83	68.06	68.10	68.42	83.43	---	---	---	---	103.41	103.41
30	67.57	67.76	68.06	81.53	69.13	84.66	---	---	---	---	103.41	103.57
31	67.53	67.57	---	---	69.81	84.12	---	---	---	---	103.57	103.62
MONTH	67.33	83.51	67.31	83.53	68.02	84.70	68.87	87.26	---	---	102.15	103.62

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued
CH Ce 37--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	103.62	103.65	104.68	104.68	105.73	105.91	106.55	107.02	87.26	99.67	95.39	105.91
2	103.65	103.80	104.68	104.69	105.91	105.98	107.02	107.35	86.66	99.14	93.02	106.21
3	103.81	103.84	104.69	104.78	105.98	105.98	107.35	107.53	85.55	96.18	93.52	106.35
4	103.84	103.85	104.78	104.86	105.98	106.08	107.53	107.70	84.87	95.45	93.39	106.54
5	103.85	103.85	104.86	104.89	106.08	106.17	107.70	107.72	87.89	98.27	93.20	106.71
6	103.85	103.85	104.89	104.89	92.22	106.21	107.72	107.84	86.05	97.16	93.76	106.58
7	103.85	103.85	104.89	105.06	105.11	105.81	107.84	107.90	87.55	97.16	93.46	106.86
8	103.85	103.85	105.06	105.08	93.59	106.01	107.64	107.92	85.96	91.78	92.50	106.90
9	103.85	103.85	105.08	105.10	89.84	104.49	95.71	107.81	83.98	88.45	94.20	106.81
10	103.85	104.09	105.10	105.10	104.50	105.53	92.04	106.10	82.96	83.96	94.30	107.05
11	104.09	104.20	105.10	105.14	105.54	106.04	105.28	106.57	82.28	82.95	95.43	107.23
12	104.20	104.30	105.14	105.14	106.05	106.43	105.11	106.24	81.75	82.27	98.61	107.66
13	104.30	104.30	105.14	105.14	106.44	106.82	106.25	106.42	81.22	81.75	107.70	108.04
14	104.30	104.30	105.14	105.14	93.27	106.91	106.42	106.50	80.81	81.22	93.03	108.05
15	104.30	104.30	105.14	105.14	105.98	106.74	106.50	106.51	80.42	83.44	107.45	108.10
16	104.30	104.30	105.14	105.22	106.75	107.03	106.51	106.51	80.39	99.11	108.11	108.40
17	104.30	104.30	105.22	105.22	107.03	107.35	93.21	106.51	83.45	99.40	108.40	108.64
18	104.30	104.30	105.22	105.33	92.25	107.55	90.66	103.77	82.65	99.50	108.64	108.82
19	104.30	104.31	105.33	105.38	90.29	105.15	89.02	103.25	82.93	98.45	108.82	109.03
20	104.31	104.32	105.38	105.43	92.88	106.25	103.26	104.49	82.91	99.79	109.03	109.19
21	104.32	104.32	105.43	105.43	90.03	104.82	104.52	105.05	83.40	97.39	109.19	109.34
22	104.32	104.32	105.43	105.43	104.86	106.16	92.91	105.41	82.80	97.94	109.34	109.47
23	104.32	104.40	105.43	105.43	106.17	106.83	90.34	103.57	82.35	99.36	109.47	109.55
24	104.40	104.50	105.43	105.43	93.63	107.07	89.27	103.32	83.05	99.84	109.55	109.65
25	104.50	104.58	105.43	105.43	89.77	104.08	91.43	104.05	83.65	99.96	93.37	109.65
26	104.58	104.61	105.43	105.52	90.06	105.24	94.81	104.30	83.23	99.55	91.24	107.19
27	104.61	104.61	105.52	105.58	92.17	105.44	94.07	104.66	83.56	101.30	90.69	107.00
28	104.61	104.65	105.58	105.58	89.40	104.36	91.46	104.60	101.34	103.51	97.73	108.14
29	104.65	104.68	105.58	105.58	104.41	105.84	89.43	102.37	91.17	103.89	91.25	107.00
30	104.68	104.68	105.58	105.88	105.85	106.54	88.41	101.66	91.28	104.48	90.54	106.59
31	---	---	105.88	105.88	---	---	87.92	100.93	92.96	105.12	---	---
MONTH	103.62	104.68	104.68	105.88	89.40	107.55	87.92	107.92	80.39	105.12	90.54	109.65

Daily Low Water Levels



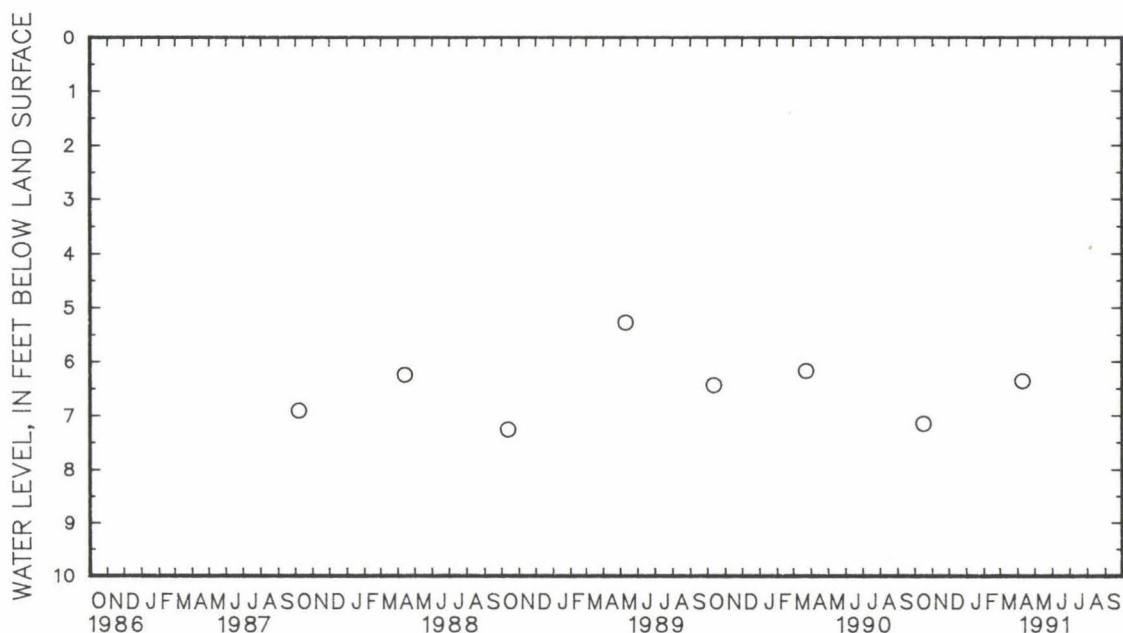
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

WELL NUMBER.--CH Cf 33. SITE ID.--383340076511601. PERMIT NUMBER.--CH-81-0602.
LOCATION.--Lat 38°33'40", long 76°51'16", Hydrologic Unit 02070011, north side of MD Rt. 5,
5.5 mi southeast of Waldorf at Zekiah Swamp.
Owner: U.S. Geological Survey.
AQUIFER.--Alluvium of Quaternary. Aquifer code: 110ALVM.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22.2 ft; casing diameter 4 in., to 14.7 ft;
casing diameter 2 in. from 19.7 to 22.2 ft; screen diameter 2 in. from 14.7 to 19.7 ft.
INSTRUMENTATION.--Measured twice yearly with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 89.88 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.51 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--August 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land surface, Dec. 29, 1983;
lowest measured, 8.13 ft below land surface, April 23, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	7.19	APR 9	6.38
WATER YEAR 1991 HIGHEST 6.38 APR 9, 1991 LOWEST 7.19 OCT 16, 1990			



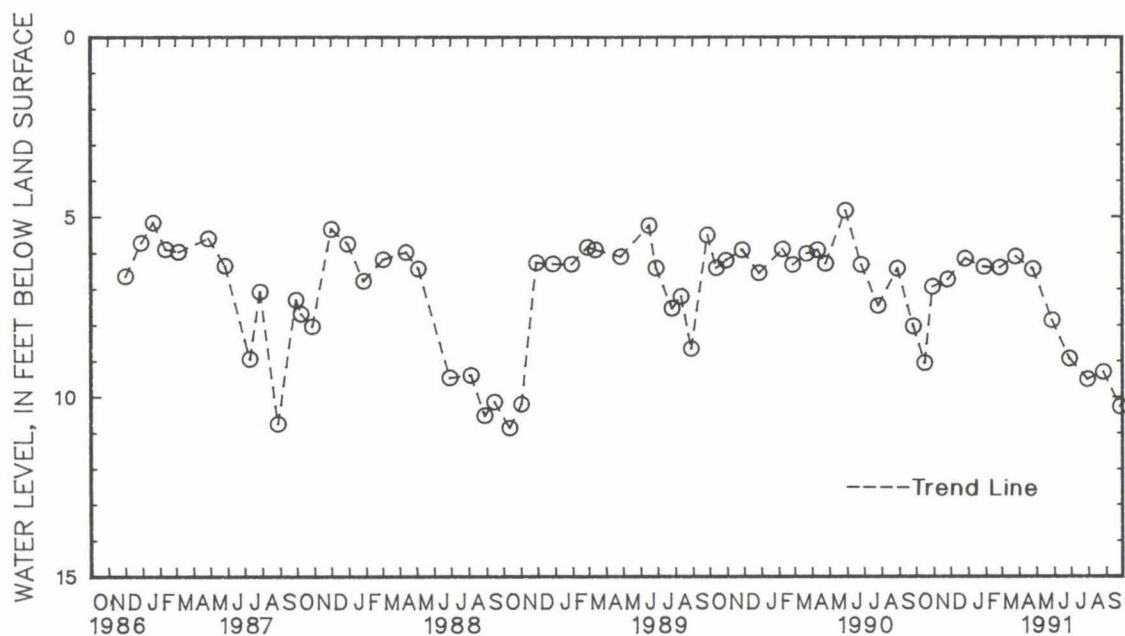
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

WELL NUMBER.--CH De 45. SITE ID.--382927076552301. PERMIT NUMBER.--CH-81-0604.
LOCATION.--Lat 38°29'27", long 76°55'23", Hydrologic Unit 02070011, north side of MD Rt. 6,
4.1 mi southeast of La Plata.
Owner: U.S. Geological Survey.
AQUIFER.--Alluvium of Pleistocene age and Nanjemoy Formation of Eocene age. Aquifer codes: 112ALVM, 124NNJM.
WELL CHARACTERISTICS.--Drilled, observation, water-table well; depth 25.5 ft; casing diameter 4 in., to 15.5 ft,
screen diameter 2 in. from 15.5 to 20.5 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 44.77 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.35 ft above land-surface datum.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--August 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.83 ft below land-surface datum, May 30, 1990;
lowest measured, 10.87 ft below land-surface datum, Oct. 12, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	9.07	DEC 27	6.16	MAR 26	6.10	JUN 28	8.95	SEP 26	10.28
30	6.94	JAN 29	6.39	APR 25	6.45	JUL 30	9.52		
NOV 26	6.74	FEB 26	6.41	MAY 28	7.87	AUG 27	9.32		
WATER YEAR 1991		HIGHEST	6.10	MAR 26, 1991	LOWEST	10.28	SEP 26, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

WELL NUMBER.--CH Ee 16. SITE ID.--382103076560201.

LOCATION.--Lat 38°21'03", long 76°56'02", Hydrologic Unit 02070010, near Wayside.

Owner: Harry Ferris.

AQUIFER.--Park Hall Formation of Upper Pliocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Dug, unused, water-table well, depth 23 ft; casing diameter 42 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from March 29, 1966 to Oct. 11, 1967.

DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.80 ft above land surface.

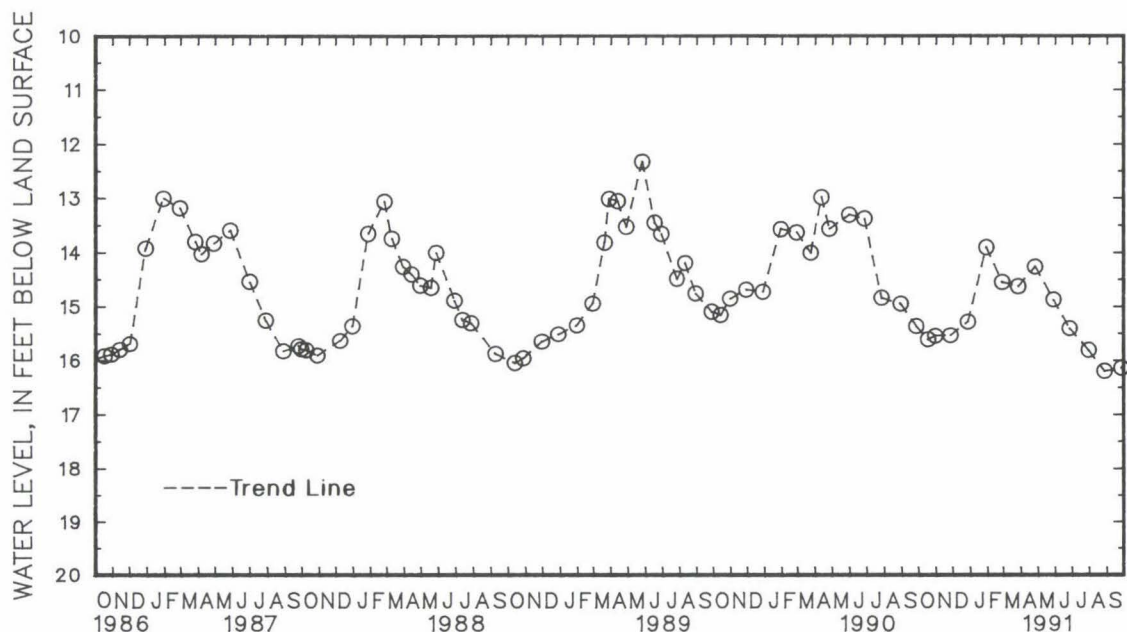
REMARKS.--Maryland Water-Level Network observation well and Maryland Water Quality Network observation well.

PERIOD OF RECORD.--May 1946, 1947, March 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.60 ft below land surface, March 30, 1984; lowest measured, 20.65 ft below land surface, Dec. 20, 1949.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	15.65	DEC 27	15.31	MAR 26	14.65	JUN 26	15.44	SEP 26	16.18
30	15.58	JAN 29	13.91	APR 25	14.28	JUL 30	15.85		
NOV 26	15.57	FEB 26	14.57	MAY 28	14.90	AUG 27	16.24		
WATER YEAR 1991		HIGHEST	13.91	JAN 29, 1991	LOWEST	16.24	AUG 27, 1991		



MARYLAND--Continued

CHARLES COUNTY--Continued

LOCATION.--Lat 38°21'54", long 76°57'48", Hydrologic Unit 02070011, at the Morgantown Power Plant, 1.5 mi. north of Morgantown.

Owner: Potomac Edison Power Co.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1132 ft; casing diameter 2 in., to 1090 ft, 1100 to 1105 ft, and 1115 to 1132 ft; screen diameter 2 in. from 1090 to 1100 ft, and 1105 to 1115 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from May 12, 1982 to Jan. 6, 1983. Equipped with digital water-level recorder--15 and 30-minute recorder intervals from June 1, 1978 to October 1986. Equipped with electronic water level recorder--15-minute recorder interval from October 1986 to current year.

DATUM.--Elevation of land surface is 22.83 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.43 ft above land surface.

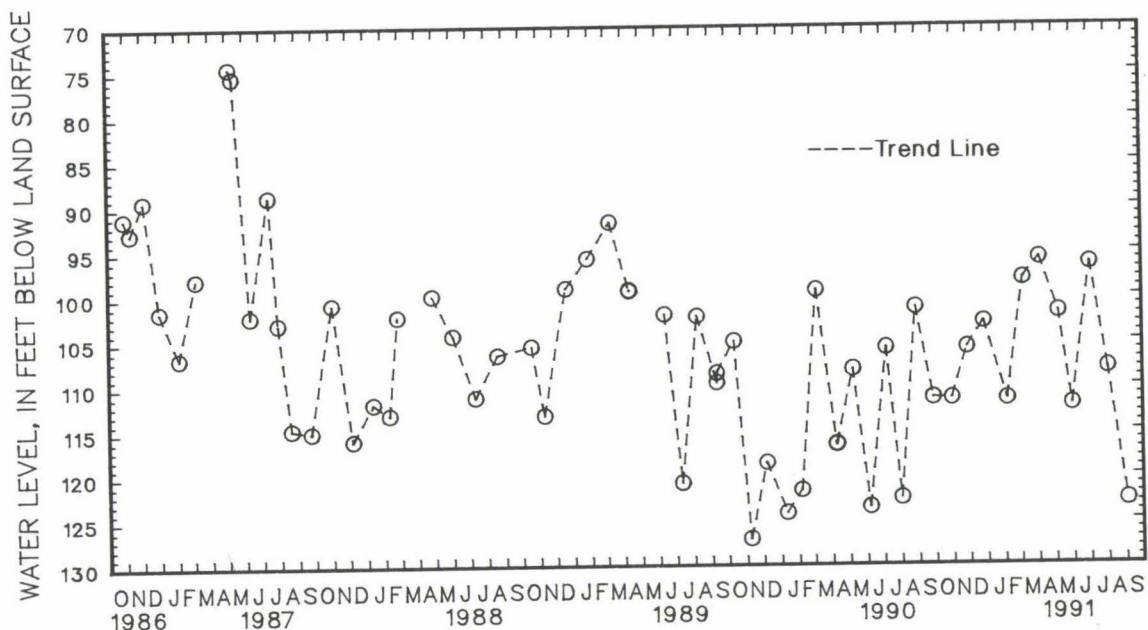
REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.

PERIOD OF RECORD.--June 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.36 ft below land surface, May 7, 1987;
lowest measured, 157.46 ft below sea level, March 16, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 30	111.47	DEC 27	102.96	MAR 6	98.17	MAY 7	101.87	JUL 2	96.51	SEP 3	122.85				
NOV 27	105.82	FEB 5	111.58	APR 4	95.91	30	112.20	AUG 1	108.14						
WATER YEAR 1991		HIGHEST	95.91	APR 4, 1991		LOWEST		122.85	SEP 3, 1991						



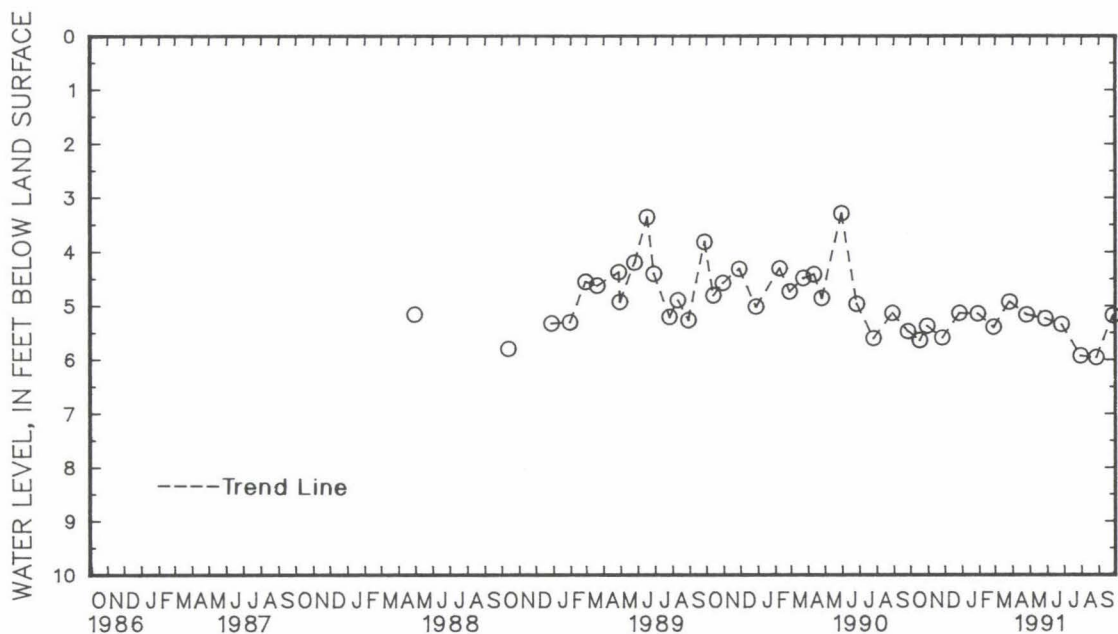
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

```
WELL NUMBER.--CH Ee 90. SITE ID.--382456076562201. PERMIT NUMBER.--CH-81-0606.
LOCATION.--Lat 38°24'56", long 76°56'22", Hydrologic Unit 02070011, at Allens Fresh.
Owner: U.S. Geological Survey.
AQUIFER.--Nanjemoy Formation of Eocene age. Aquifer code: 124NNJM.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21 ft; casing diameter 4 in., to 11 ft;
casing diameter 2 in from 16 to 21 ft;
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 6.81 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.44 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--August 1983 to January 1985, April 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.29 ft below land surface, May 30, 1990;
lowest measured, 7.58 ft below land surface, April 23, 1986.
```

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 17	5.65	DEC 27	5.14	MAR 26	4.93	JUN 26	5.35	SEP 26	5.18		
30	5.38	JAN 29	5.15	APR 25	5.17	JUL 30	5.94				
NOV 26	5.60	FEB 26	5.40	MAY 28	5.24	AUG 27	5.97				
WATER YEAR 1991		HIGHEST	4.93	MAR 26, 1991		LOWEST	5.97	AUG 27, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY

WELL NUMBER.--DO Bg 59. SITE ID.--383708075503801. PERMIT NUMBER.--DO-73-0612.

LOCATION.--Lat 38°37'08" long 75°50'38", Hydrologic Unit 02060008, at Hurlock Sewage Treatment Plant.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 537 ft; casing diameter 6 in., to 65 ft; casing diameter 2 in. from 65 to 527 ft; screen diameter 2 in. from 527 to 537 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 0.60 ft above land surface.

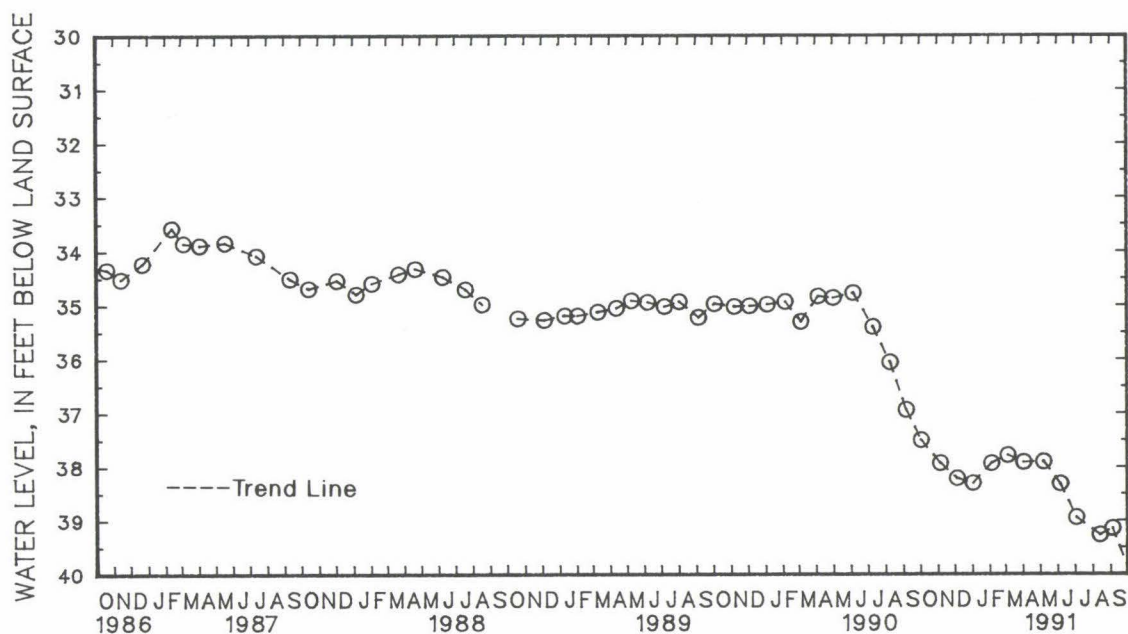
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.79 ft below land surface, Aug. 2, 1978; lowest measured, 39.27 ft below land surface, Aug. 13, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	37.51	DEC 5	38.22	FEB 4	37.94	APR 2	37.92	JUN 5	38.32	AUG 13	39.27
NOV 5	37.94	JAN 2	38.31	MAR 5	37.79	MAY 7	37.91	JUL 3	38.95	SEP 4	39.15
WATER YEAR 1991		HIGHEST	37.51	OCT 2, 1990		LOWEST	39.27	AUG 13, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Cd 1. SITE ID.--383151076080801.

LOCATION.--Lat 38°31'51", long 76°08'08", Hydrologic Unit 02060005, near Christs Rock.

Owner: Harold E. Fee.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 390 ft; casing diameter 2 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.50 ft above land surface.

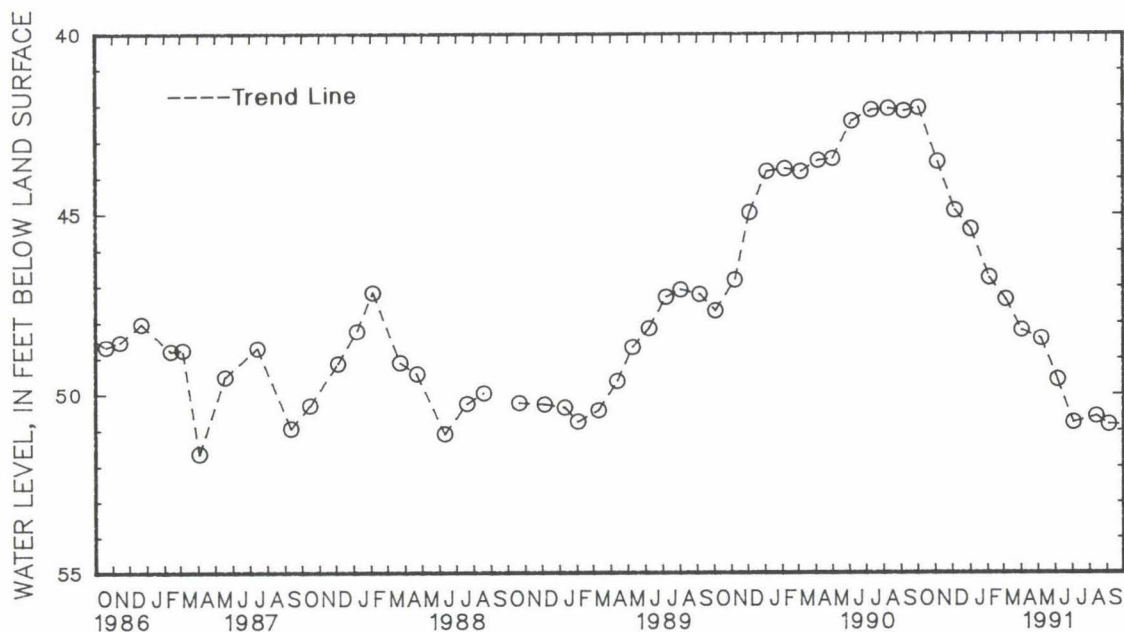
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.07 ft below land surface, Oct. 2, 1990;
lowest measured, 80.32 ft below land surface, Oct. 16, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	42.07	DEC 5	44.95	FEB 4	46.82	APR 2	48.28	JUN 5	49.66	AUG 13	50.67
NOV 5	43.58	JAN 2	45.47	MAR 5	47.42	MAY 7	48.52	JUL 3	50.85	SEP 4	50.90
WATER YEAR 1991		HIGHEST	42.07	OCT 2, 1990	LOWEST	50.90	SEP 4, 1991				



GROUND-WATER LEVELS
MARYLAND--Continued
DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 5. SITE ID.--383340076041601.

LOCATION.--Lat 38°33'40", long 76°04'16", Hydrologic Unit 02060005, at Cambridge Pumping Station.

Owner: Municipal Utilities Commission.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 405 ft; casing diameter 12 in., to 385 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 4.00 ft above land surface.

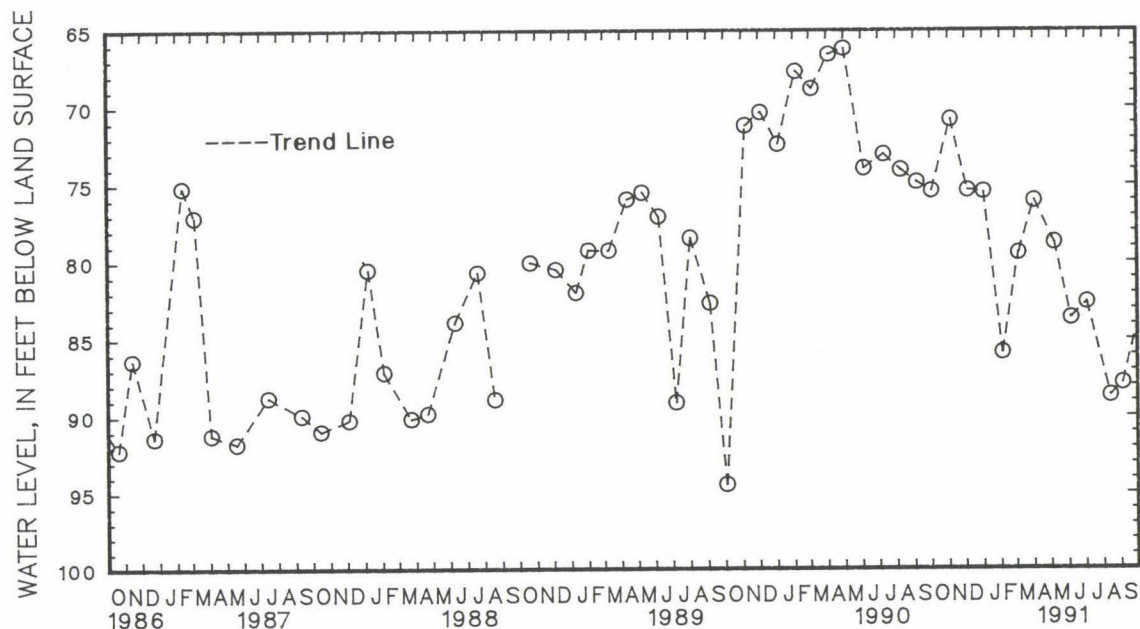
PERIOD OF RECORD.--October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 66.23 ft below land surface, May 1, 1990;
lowest measured, 115.06 ft below land surface, Aug. 29, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	75.55	DEC 5	75.50	FEB 4	86.06	APR 2	76.10	JUN 5	83.77	AUG 13	88.84
NOV 5	70.87	JAN 2	75.59	MAR 5	79.47	MAY 7	78.82	JUL 3	82.73	SEP 4	88.01

WATER YEAR 1991 HIGHEST 70.87 NOV 5, 1990 LOWEST 88.84 AUG 13, 1991



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL LOCATION.--DO Ce 15. SITE ID.--383408076042402. PERMIT NUMBER.--DO-00-1220.

LOCATION.--Lat 38°34'08", long 76°04'23", Hydrologic Unit 02060005, near Cambridge Creek, nr Trenton St., Cambridge.

Owner: Carroll W. Thomas & Sons., Inc.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 973.7 ft; casing diameter 10 in., to 25 ft.; casing diameter 8 in. from 25 to 236.5 ft; casing diameter 6 in. from 230 to 513.5 ft; casing diameter 4 in. from 468 to 911.5 ft; casing diameter 3 in. from 902.5 to 950.5 ft; screen 950.5 to 970.5 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.50 ft above land surface.

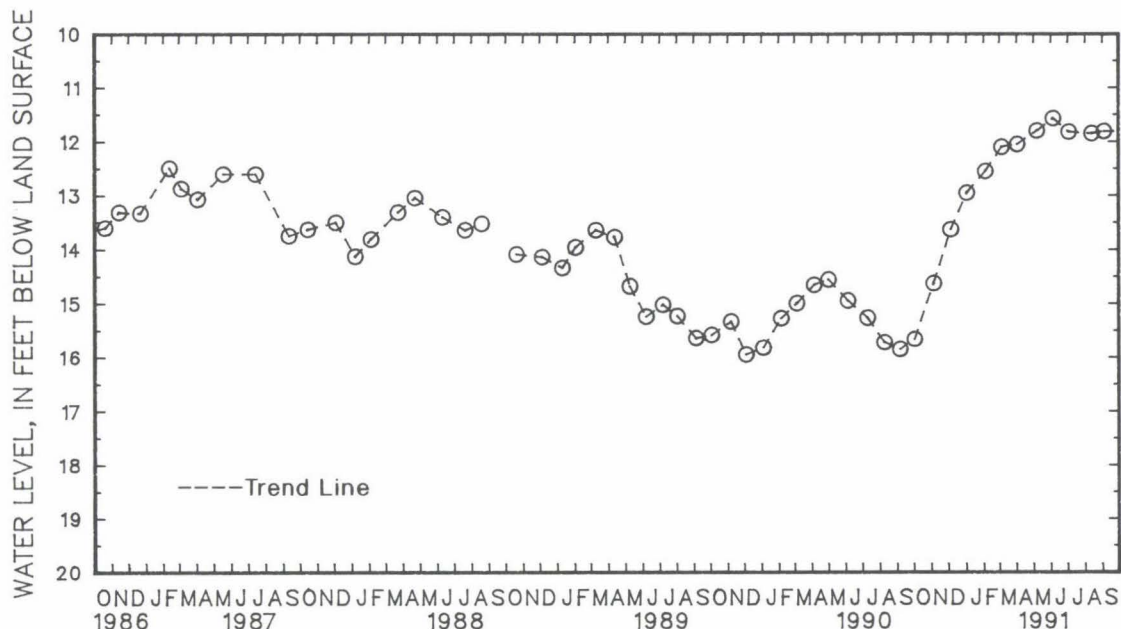
REMARKS.--Maryland Water-Level Network observation well. Water level reported 68 ft below land-surface datum Aug. 30, 1947.

PERIOD OF RECORD.--June 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.41 ft below land surface, March 1, 1960; lowest measured, 41.12 ft below land surface, Aug. 7, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	15.67	DEC 5	13.63	FEB 4	12.55	APR 2	12.05	JUN 5	11.57	AUG 13	11.85
NOV 5	14.63	JAN 2	12.95	MAR 5	12.10	MAY 7	11.80	JUL 3	11.82	SEP 4	11.81
WATER YEAR 1991		HIGHEST	11.57	JUN 5, 1991	LOWEST	15.67	OCT 2, 1990				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 21. SITE ID.--383346076030301.

LOCATION.--Lat 38°33'46", long 76°03'03", Hydrologic Unit 02060005, on Shoal Creek about 1.5 mi southeast of Cambridge.

Owner: Eastern Shore State Hospital.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 368.5 ft; casing diameter 8 in., to 239 ft; casing diameter 4.5 in., to 368.5 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder Aug. 23, 1956 to Nov. 6, 1958, and Sept. 11, 1965 to Oct. 13, 1966.

DATUM.--Elevation of land surface is 11.7 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing at land surface.

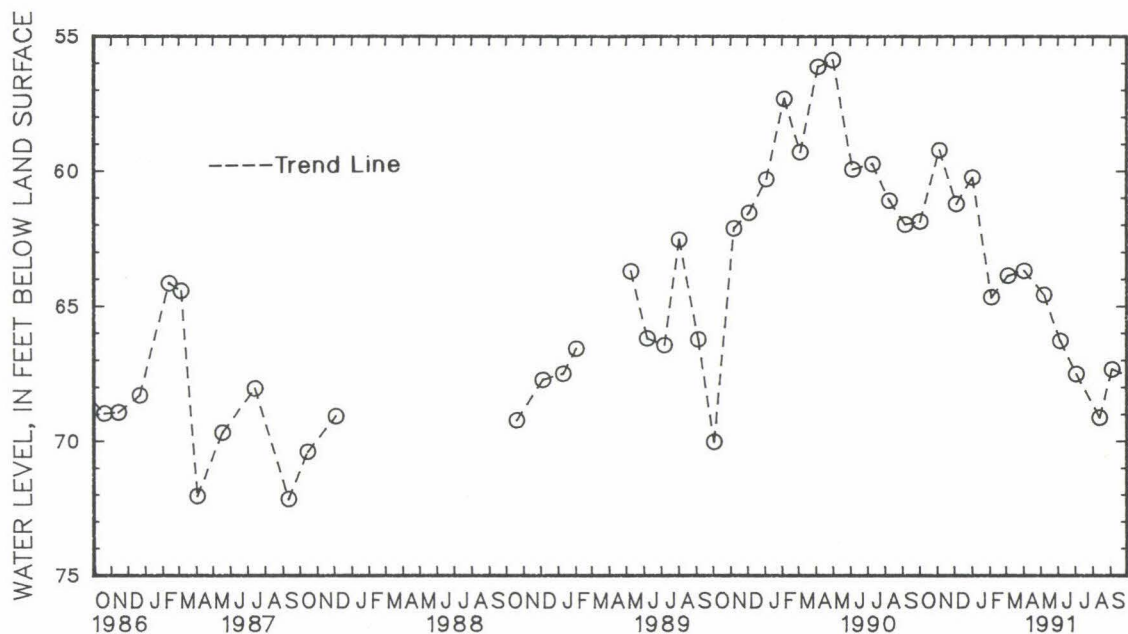
REMARKS.--Maryland Water-Level Network observation well. Water level measured 73.77 ft below land surface, Feb. 14, 1952. Water levels may be affected by nearby pumping. Access to well blocked by construction equipment, from January 1988 through September 1988.

PERIOD OF RECORD.--August 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level reported, 14.00 ft below land surface, August 1914; highest water level measured, 55.88 ft below land surface, May 1, 1990; lowest measured, 132.95 ft, below land surface, Sept. 6, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	61.89	DEC 5	61.24	FEB 4	64.68	APR 2	63.70	JUN 5	66.30	AUG 13	69.14
NOV 5	59.23	JAN 2	60.25	MAR 5	63.88	MAY 7	64.59	JUL 3	67.53	SEP 4	67.35
WATER YEAR 1991		HIGHEST	59.23	NOV 5, 1990	LOWEST	69.14	AUG 13, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 78. SITE ID.--383243076042301. PERMIT NUMBER.--DO-66-0026.

LOCATION.--Lat 38°32'43", long 76°04'23", Hydrologic Unit 02060005, at Stone Boundary Rd., Cambridge.

Owner: City of Cambridge.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 517 ft; casing diameter 12 in.; screen diameter 12 in. from 360.3 to 363.7 ft, 368 to 380 ft, 385 to 400 ft, 405 to 420 ft, 425 to 440 ft, 445 to 460 ft, 465 to 480 ft, and 485 to 500 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.10 ft above land surface.

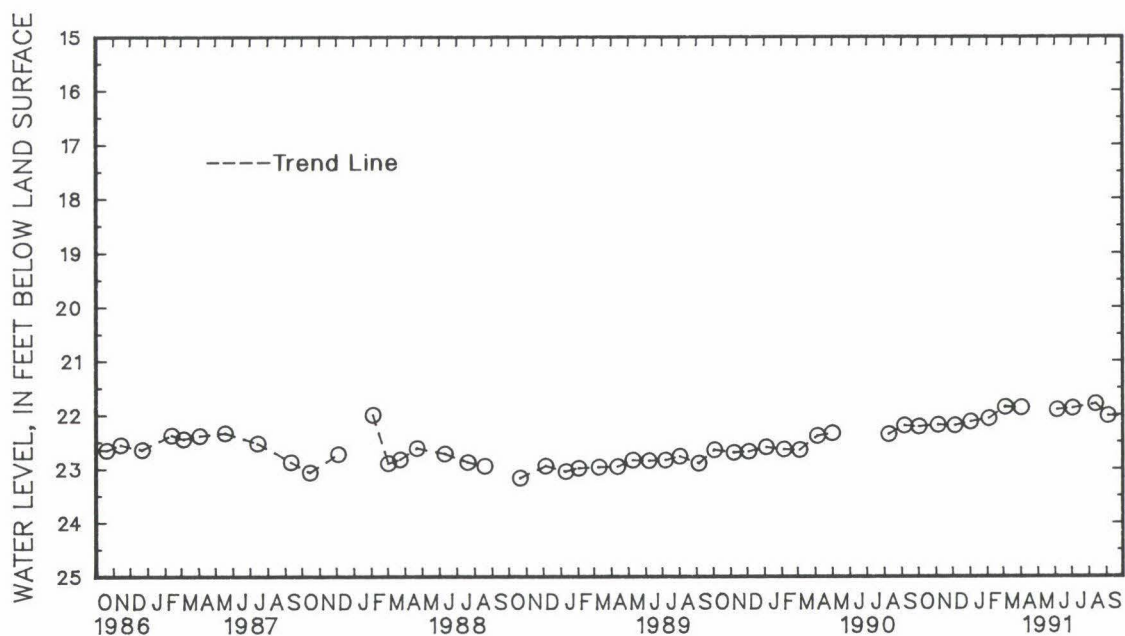
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.80 ft below land surface, August 13, 1991; lowest measured, 26.39 ft below land surface, Oct. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 2	22.22	DEC 5	22.20	FEB 4	22.07	APR 2	21.87	JUL 3	21.88	SEP 4	22.02	
NOV 5	22.19	JAN 2	22.13	MAR 5	21.86	JUN 5	21.91	AUG 13	21.80			
WATER YEAR 1991		HIGHEST	21.80	AUG 13, 1991		LOWEST	22.22	OCT 2, 1990				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 88. SITE ID.--383401076032001. PERMIT NUMBER.--DO-73-1369.

LOCATION.--Lat 38°34'01", long 76°03'20", Hydrologic Unit 02060005, at Eastern Shore State Hospital, Cambridge.

Owner: U.S. Geological Survey.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1427.4 ft; casing diameter 12 in., to 103 ft; casing diameter 4 in., to 1427.4 ft; perforated casing diameter 4 in. from 1417.4 to 1427.4 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 4.4 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.18 ft above land surface.

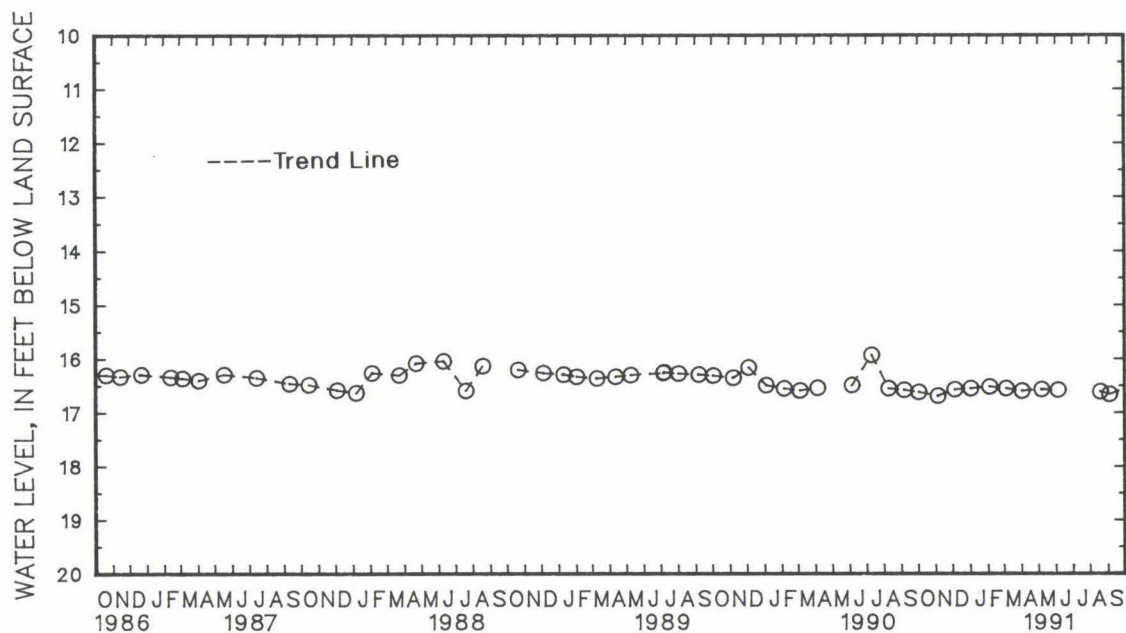
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.51 ft below land surface, July 20, 1983;
lowest measured, 22.22 ft below land surface, Nov. 13, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL			
OCT	2	16.63	DEC	5	16.58	FEB	4	16.53	APR	2	16.61	JUN	5	16.59	SEP	4	16.67
NOV	5	16.70	JAN	2	16.56	MAR	5	16.56	MAY	7	16.58	AUG	19	16.62			
WATER YEAR 1991		HIGHEST	16.53		FEB 4, 1991		LOWEST		16.70		NOV 5, 1990						



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Db 17. SITE ID.--382800076180701.

LOCATION.--Lat 38°28'00", long 76°18'07", Hydrologic Unit 02060005, near MD Rt. 16, Taylors Island.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNFN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 320 ft; casing diameter 6 in., to 55 ft; casing diameter 2 in. from 55 to 270 ft; screen diameter 2 in. from 270 to 280 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.20 ft above land surface.

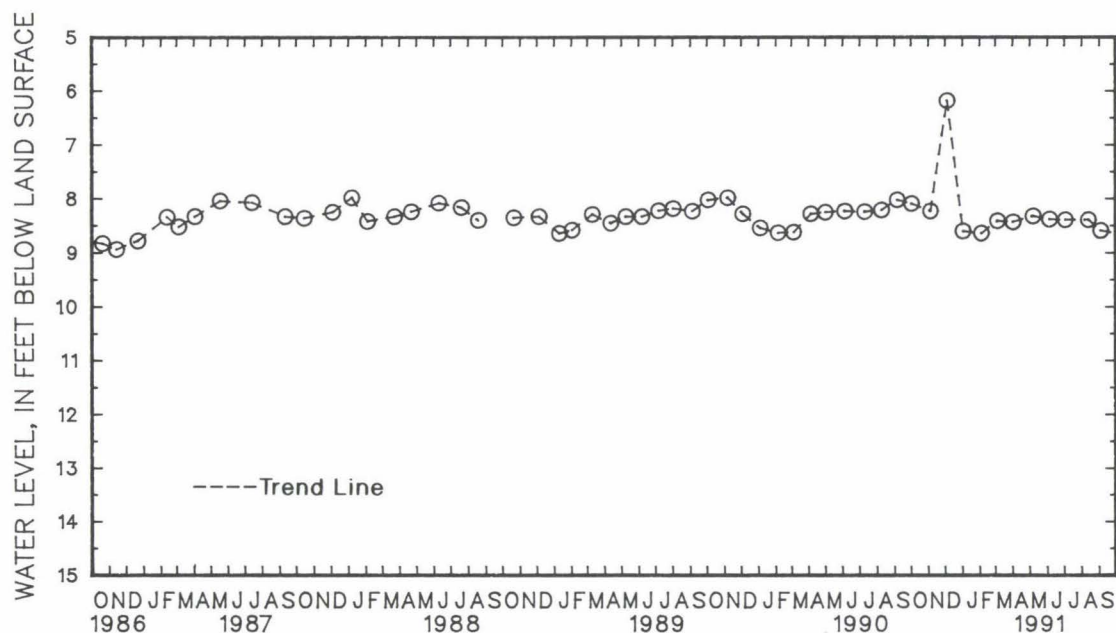
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.18 ft below land surface, Dec. 5, 1990;
lowest measured, 9.10 ft below land surface, Nov. 19, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	8.10	DEC 5	6.18	FEB 4	8.65	APR 2	8.44	JUN 5	8.39	AUG 13	8.40
NOV 5	8.24	JAN 2	8.61	MAR 5	8.42	MAY 7	8.33	JUL 3	8.40	SEP 4	8.60
WATER YEAR 1991		HIGHEST	6.18	DEC 5, 1990	LOWEST	8.65	FEB 4, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Db 18. SITE ID.--382807076175801. PERMIT NUMBER.--DO-81-1314.

LOCATION.-- Lat 38°28'07", long 76°17'58", Hydrologic Unit 02060005, Taylors Island.

Owner: Eleanor Polley.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, depth 540 ft; casing diameter 4 in., to 140 ft; casing diameter 2 in. from 140 to 540 ft; screen diameter 2 in. from 520 to 540 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 2 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.50 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

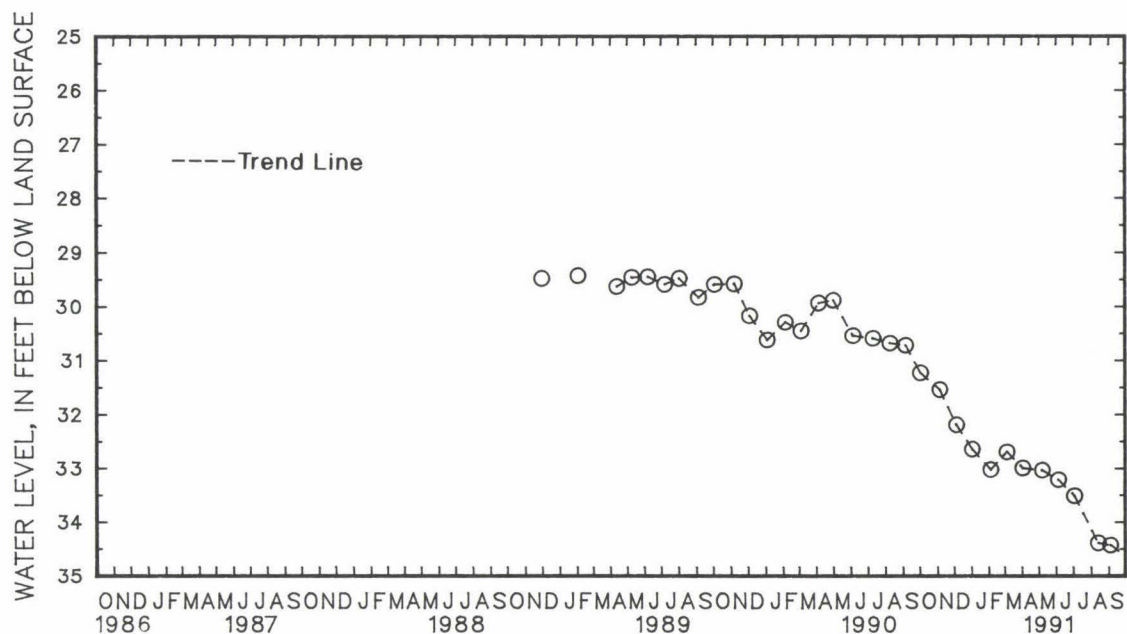
PERIOD OF RECORD.--November 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.44 ft below land surface, Feb. 2, 1989;

lowest measured, 34.43 ft below land surface, Sept. 4, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL			
OCT	2	31.24	DEC	5	32.20	FEB	4	33.03	APR	2	33.00	JUN	5	33.22	AUG	13	34.39
NOV	5	31.55	JAN	2	32.65	MAR	5	32.70	MAY	7	33.04	JUL	3	33.52	SEP	4	34.43
WATER YEAR 1991		HIGHEST		31.24		OCT 2, 1990		LOWEST		34.43		SEP 4, 1991					



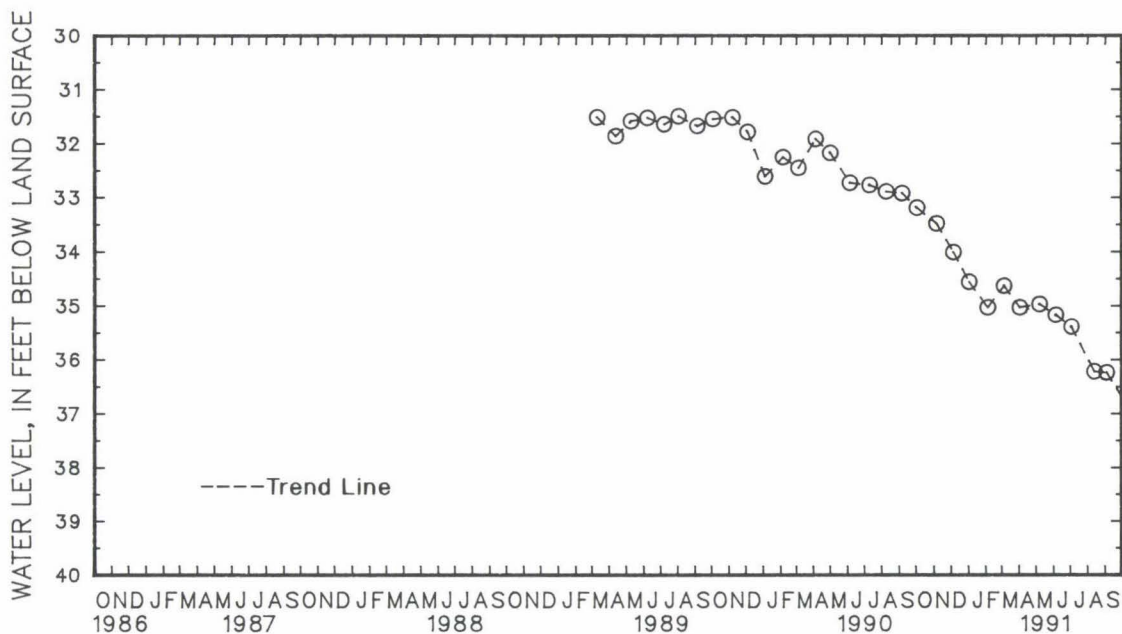
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Db 19. SITE ID.--382847076190901. PERMIT NUMBER.--DO-81-1164.
LOCATION.--Lat 38°28'47", long 76°19'09", Hydrologic Unit 02060005, Taylors Island.
Owner: Elmer Wiley.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, domestic, artesian well, depth 540 ft; casing diameter 4 in. to 140 ft; casing diameter 2 in. from 140 to 540 ft; screen diameter 2 in. from 520 to 540 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.50 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--November 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.50 ft below land surface, Aug. 2, 1989; lowest measured, 36.25 ft below land surface, Sept. 4, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	33.20	DEC 5	34.02	FEB 4	35.04	APR 2	35.04	JUN 5	35.18	AUG 13	36.23
NOV 5	33.49	JAN 2	34.57	MAR 5	34.64	MAY 7	34.98	JUL 3	35.40	SEP 4	36.25
WATER YEAR 1991		HIGHEST	33.20	OCT 2, 1990	LOWEST	36.25	SEP 4, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

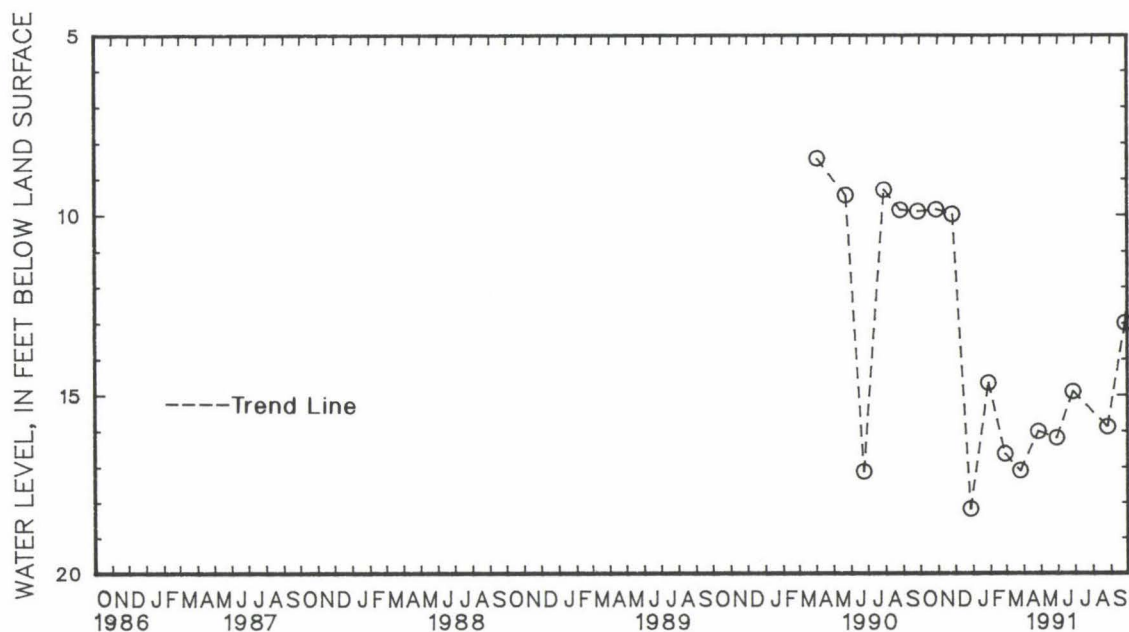
MARYLAND--Continued

DORCHESTER COUNTY--Continued

OWNER.--Delmarva Power and Light Co.
AQUIFER.--Columbia formation of Pleistocene age. Aquifer code: 112clmb.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 63 ft; casing diameter 12 in., to 12 ft and 8 in., to 33 ft; screen diameter 6 in. from 33 to 66 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--30-minute recorder interval from May 1990 to current year.
DATUM.--Elevation of land surface is 9.10 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder platform, 2.69 ft above land surface.
REMARKS.--Southern Maryland observation well network. Water levels affected by nearby pumping at powerplant.
PERIOD OF RECORD.--April 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.47 ft below land surface, April 3, 1990.
lowest measured, 18.21 ft below land surface, Dec. 27, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	9.86	DEC 27	18.21	FEB 26	16.67	APR 26	16.03	JUN 27	14.91	SEP 26	12.99
NOV 26	9.99	JAN 28	14.67	MAR 25	17.14	MAY 29	16.21	AUG 26	15.91 S		
WATER YEAR 1991		HIGHEST	9.86	OCT 29, 1990		LOWEST	18.21	DEC 27, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

FREDERICK COUNTY

WELL NUMBER.--FR Af 27. SITE ID.--394200077190701. PERMIT NUMBER.--FR-73-7155.

LOCATION.--Lat 39°42'00", long 77°19'07", Hydrologic Unit 02070009, 0.3 mi southwest of U.S. Rt. 15 and MD Rt. 140, Emmitsburg.

Owner: City of Emmitsburg.

AQUIFER.--Gettysburg Shale of Upper Triassic age. Aquifer code: 231GBRG.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 365 ft; casing diameter 6 in., to 39 ft; open hole.

DATUM.--Elevation of land surface is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.81 ft above land surface.

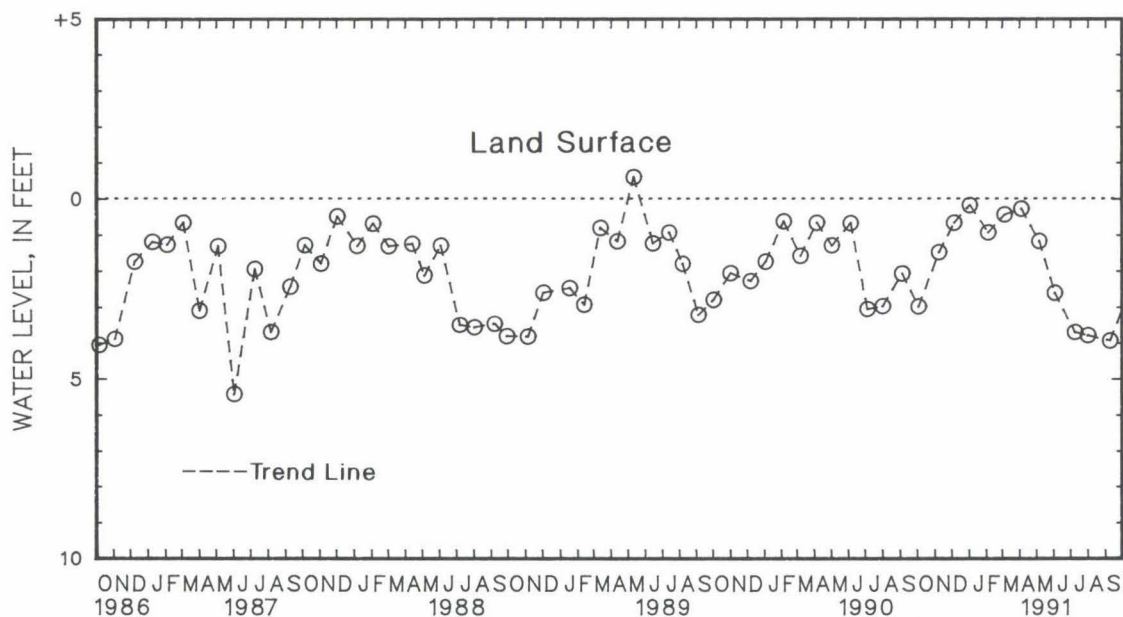
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.62 ft above land surface, May 23, 1983; lowest measured, 5.43 ft below land surface, June 2, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	2.99	DEC 5	.66	FEB 4	.93	APR 4	.27	JUN 3	2.61	AUG 1	3.80
NOV 8	1.48	JAN 2	.17	MAR 5	.43	MAY 6	1.17	JUL 9	3.71	SEP 9	3.95
WATER YEAR 1991		HIGHEST	.17	JAN 2, 1991		LOWEST	3.95	SEP 9, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
FREDERICK COUNTY--Continued

WELL NUMBER.--FR Bd 96. SITE ID.--393733077274801.

LOCATION.--Lat 39°37'33", long 77°27'48", Hydrologic Unit 02070009, 0.4 mi west of Hunting Creek Lake, Cunningham Falls State Park.

Owner: Cunningham Falls State Park.

AQUIFER.--Catoctin Metabasalt of Precambrian age. Aquifer code: 400CTCN.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 189 ft; casing diameter 6 in., to unknown depth; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder April 5, 1982 to Feb. 21, 1984.

DATUM.--Elevation of land surface is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

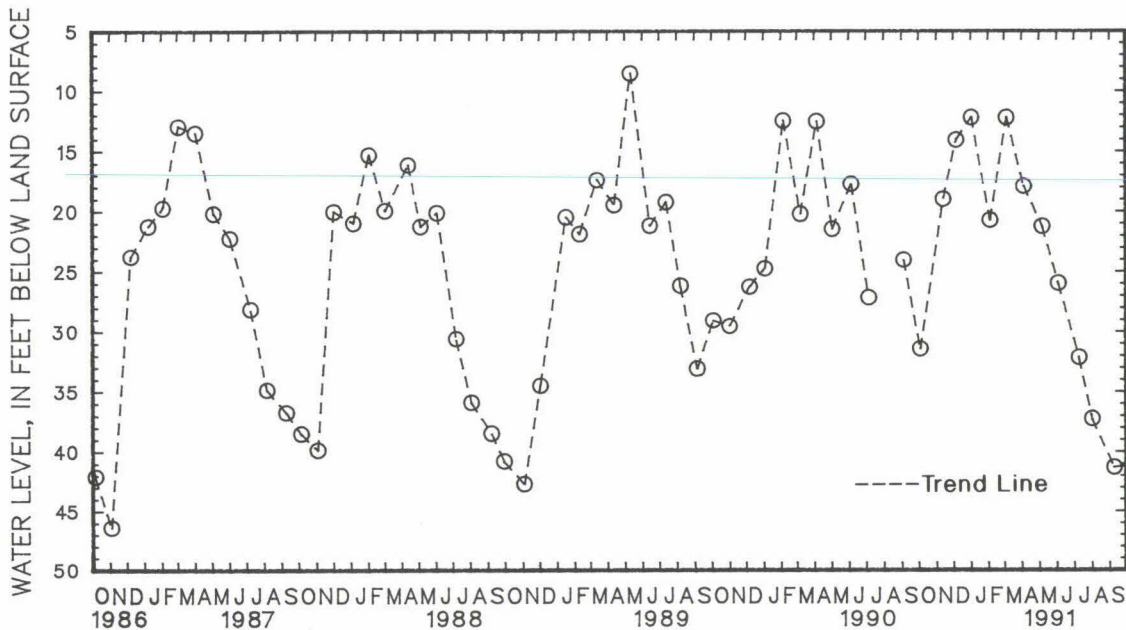
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.54 ft below land surface, May 11, 1989; lowest measured, 46.46 ft below land surface, Nov. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	31.63	DEC 6	14.07	FEB 4	20.86	APR 4	18.03	JUN 3	26.13	AUG 1	37.45
NOV 13	19.01	JAN 2	12.23	MAR 5	12.25	MAY 6	21.38	JUL 9	32.36	SEP 9	41.47
WATER YEAR 1991		HIGHEST	12.23	JAN 2, 1991		LOWEST	41.47	SEP 9, 1991			



GROUND-WATER LEVELS
MARYLAND--Continued
FREDERICK COUNTY--Continued

WELL NUMBER.--FR Cg 1. SITE ID.--393156077135701.

LOCATION.--Lat 39°31'56", long 77°13'57", Hydrologic Unit 02070009, at Johnsville.

Owner: Michael Hutchison.

AQUIFER.--Ijamsville Formation of Paleozoic age. Aquifer code: 300IJMV.

WELL CHARACTERISTICS.--Dug, stone-lined, domestic, water-table well, depth 43 ft; diameter 36 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wooden well cover, 0.60 ft above land surface.

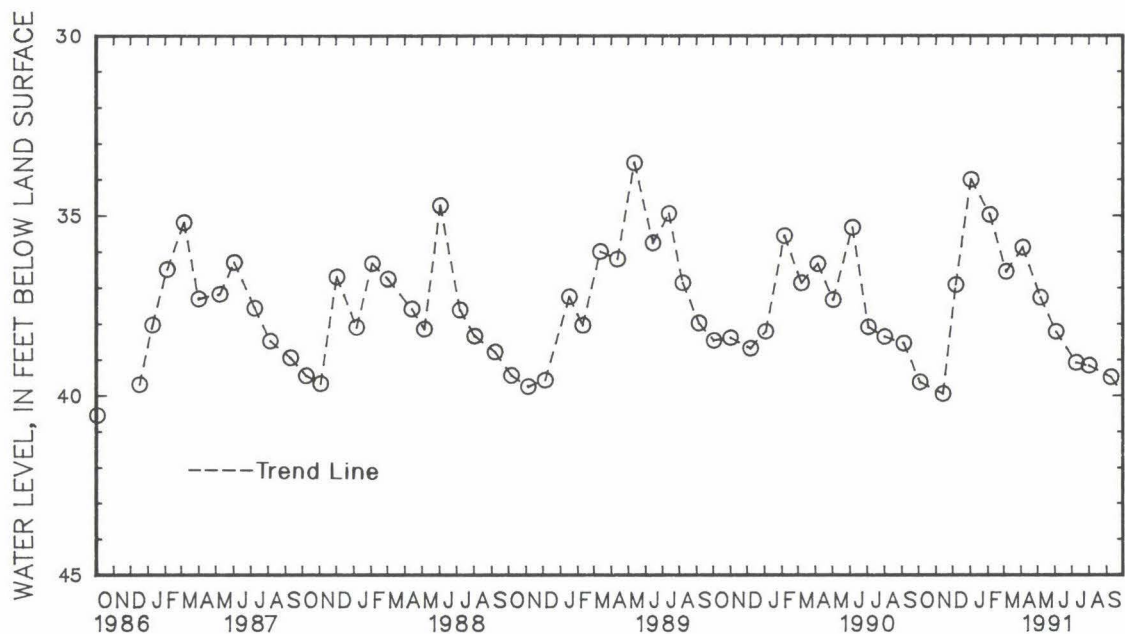
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.63 ft below land surface, Sept. 29, 1975;
lowest measured, 42.02 ft below land surface, Oct. 5, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	39.64	DEC 6	36.92	FEB 4	34.98	APR 4	35.89	JUN 3	38.23	AUG 1	39.18
NOV 13	39.96	JAN 2	34.00	MAR 5	36.56	MAY 6	37.28	JUL 9	39.10	SEP 9	39.50
WATER YEAR 1991		HIGHEST	34.00	JAN 2, 1991		LOWEST	39.96	NOV 13, 1990			



GROUND-WATER LEVELS

MARYLAND--Continued

FREDERICK COUNTY--Continued

WELL NUMBER.--FR Df 35. SITE ID.--392517077190401. PERMIT NUMBER.--FR-73-0852.

LOCATION.--Lat 39°25' 17", long 77°19' 04", Hydrologic Unit 02070009, north of Eaglehead Drive, near Lake Linganore.

Owner: Lake Linganore Association.

AQUIFER.--Sams Creek Metabasalt of Paleozoic age. Aquifer code: 300SMCK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 302 ft, casing diameter 6 in., to 26 ft, open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

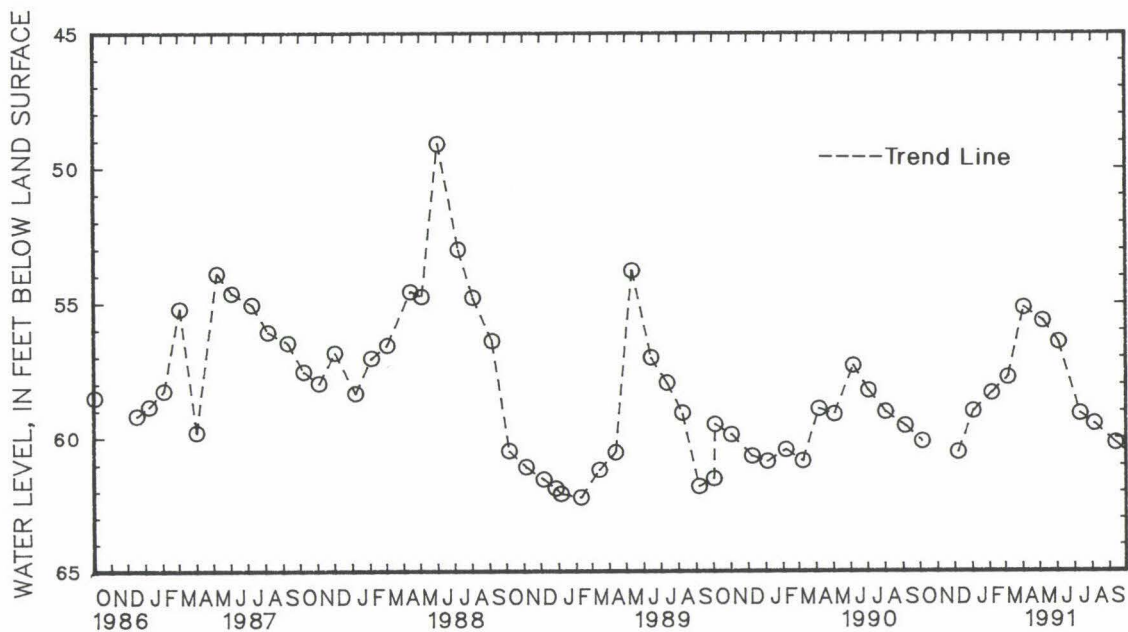
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.20 ft below land surface, April 2, 1984; lowest measured, 62.27 ft below land surface, Feb. 9, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL			
OCT	5	60.19	JAN	3	59.04	MAR	6	57.77	MAY	7	55.67	JUL	11	59.17	SEP	12	60.26
DEC	7	60.59	FEB	5	58.36	APR	3	55.17	JUN	4	56.49	AUG	5	59.54			
WATER YEAR 1991			HIGHEST			55.17			APR 3, 1991			LOWEST			60.59 DEC 7, 1990		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Bc 1. SITE ID.--393749079190301.

LOCATION.--Lat 39°37'49", long 79°19'03", Hydrologic Unit 05020006, at Accident.

Owner: E. H. Ault.

AQUIFER.--Hampshire Formation of Upper Devonian age. Aquifer code: 341HMPR.

WELL CHARACTERISTICS.--Dug, stone-lined, domestic, water-table well, depth 20 ft; diameter 36 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 2,415 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 1 in. board cover, 2.30 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

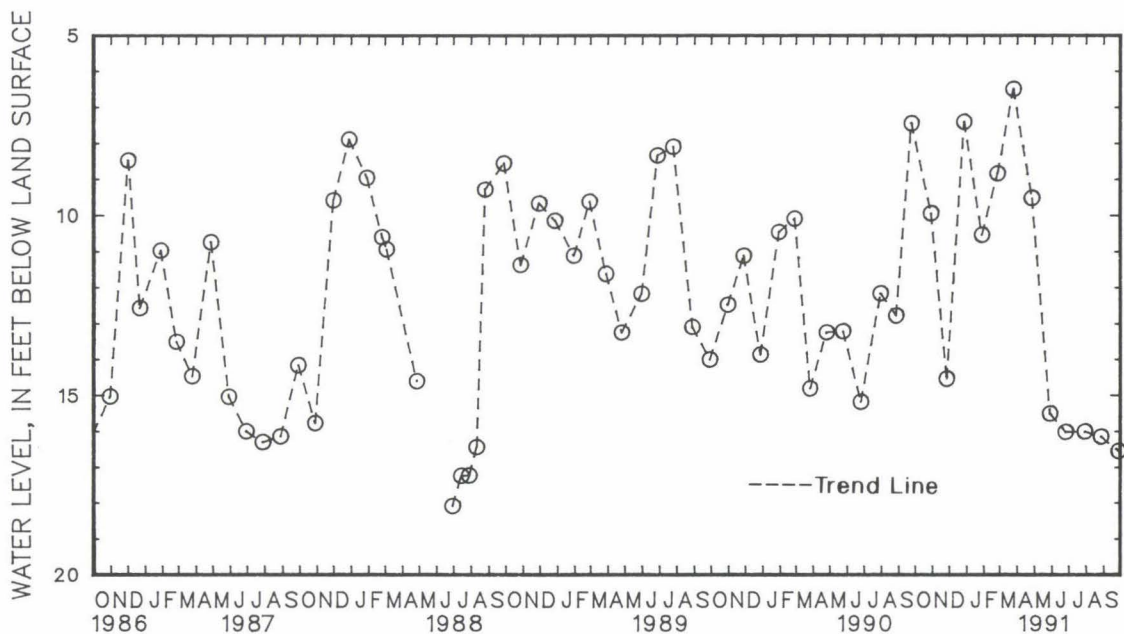
PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft below land surface, March 6, 1979;

lowest measured, 19.65 ft below land surface, Dec. 9, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	9.95	DEC 27	7.40	FEB 25	8.84	APR 26	9.53	JUN 25	16.03	AUG 27	16.16
NOV 26	14.55	JAN 28	10.55	MAR 25	6.49	MAY 28	15.52	JUL 29	16.02	SEP 27	16.56
WATER YEAR 1991		HIGHEST	6.49	MAR 25, 1991		LOWEST	16.56	SEP 27, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

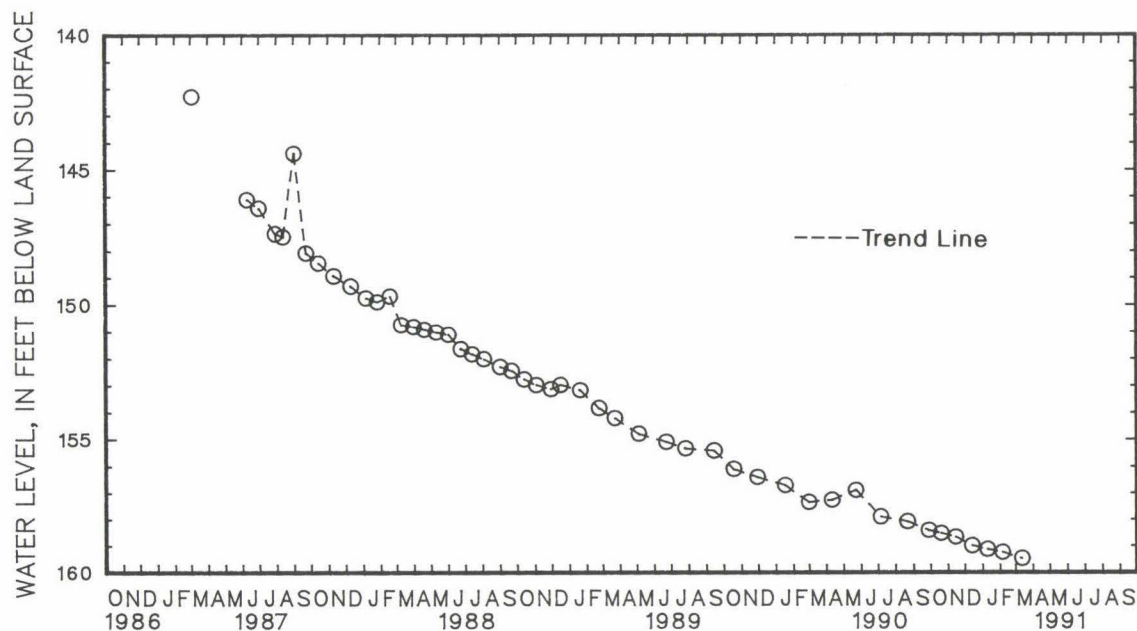
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 25. SITE ID.--391559079260901. PERMIT NUMBER.--GA-73-1696.
 LOCATION.--Lat 39°15'59", long 79°26'09", Hydrologic Unit 02070002, on north side of conveyor belt, 0.3 mi west of
 Table Rock Rd., 2.2 mi northwest of Wilson.
 Owner: Mettiki Coal Co.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 315 ft; casing diameter 6 in., to 304 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel from June 1978 to March 1991.
 DATUM.--Elevation of land surface is 2,670 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 1.0 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining
 operations. Twice yearly measurements will be made beginning in the Fall of 1991.
 PERIOD OF RECORD.--June 1978 to August 1984, August 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.61 ft below land surface, Aug. 5, 1986;
 lowest measured, 301.00 ft below land surface, June 23, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	158.55	DEC 13	159.02	FEB 5	159.26
NOV 14	158.69	JAN 9	159.15	MAR 12	159.49
WATER YEAR 1991 HIGHEST 158.55 OCT 19, 1990 LOWEST 159.49 MAR 12, 1991					



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

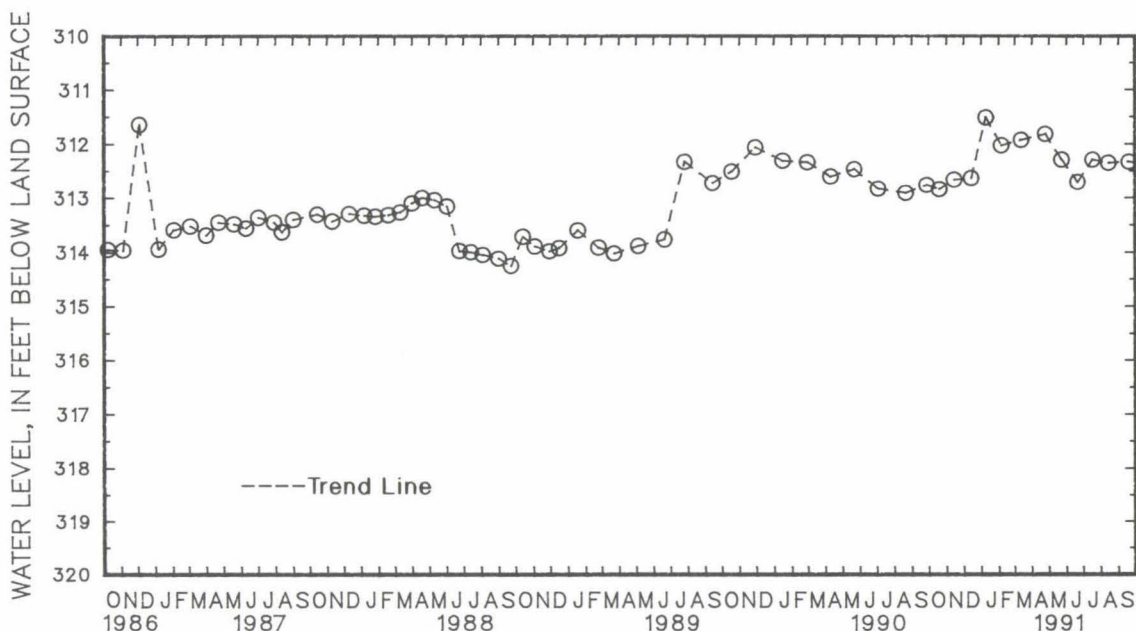
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 28. SITE ID.--391512079270901. PERMIT NUMBER.--GA-73-1697.
LOCATION.--Lat 39°15'12", long 79°27'09", Hydrologic Unit 02070002, on south side of Red Oak Rd., 0.6 mi west from the intersection with Kempton Rd., 2.6 mi west of Wilson.
Owner: Mettiki Coal Co.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 341 ft; casing diameter 6 in., to 317 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 2,890 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 1.5 ft above land surface.
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 100.60 ft below land surface, Dec. 14, 1978; lowest measured, 332.43 ft below land surface, May 16, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	312.86	DEC 14	312.65	FEB 5	312.04	APR 24	311.83	JUN 20	312.73	AUG 14	312.37
NOV 14	312.68	JAN 9	311.52	MAR 12	311.94	MAY 23	312.31	JUL 17	312.31	SEP 19	312.35
WATER YEAR 1991		HIGHEST	311.52	JAN 9, 1991		LOWEST	312.86	OCT 19, 1990			



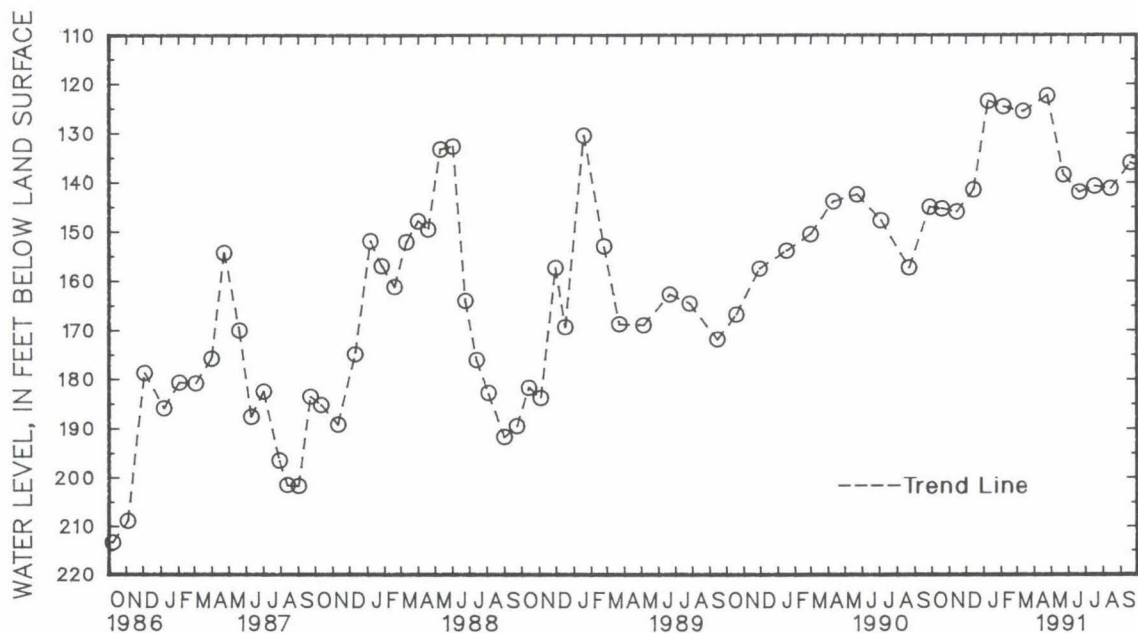
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 29. SITE ID.--391512079270902. PERMIT NUMBER.--GA-73-1698.
LOCATION.--Lat 39°15'12", long 79°27'09", Hydrologic Unit 02070002, on south side of Red Oak Rd.
0.9 mi west from intersection with Kempton Rd., 2.6 mi west of Wilson.
Owner: Mettiki Coal Co.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 226 ft; casing diameter 6 in., to 203 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 2,890 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.0 ft above land surface.
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 122.44 ft below land surface, April 24, 1991; lowest water level measured, dry on Nov. 17 and 18, 1982, Dec. 28, 1982 and Feb. 18, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	145.41	DEC 14	141.53	FEB 5	124.65	APR 24	122.44	JUN 20	142.24	AUG 14	141.48
NOV 14	146.05	JAN 9	123.48	MAR 12	125.62	MAY 23	138.67	JUL 17	141.02	SEP 19	136.17
WATER YEAR 1991		HIGHEST	122.44	APR 24, 1991		LOWEST	146.05	NOV 14, 1990			



GROUND-WATER LEVELS

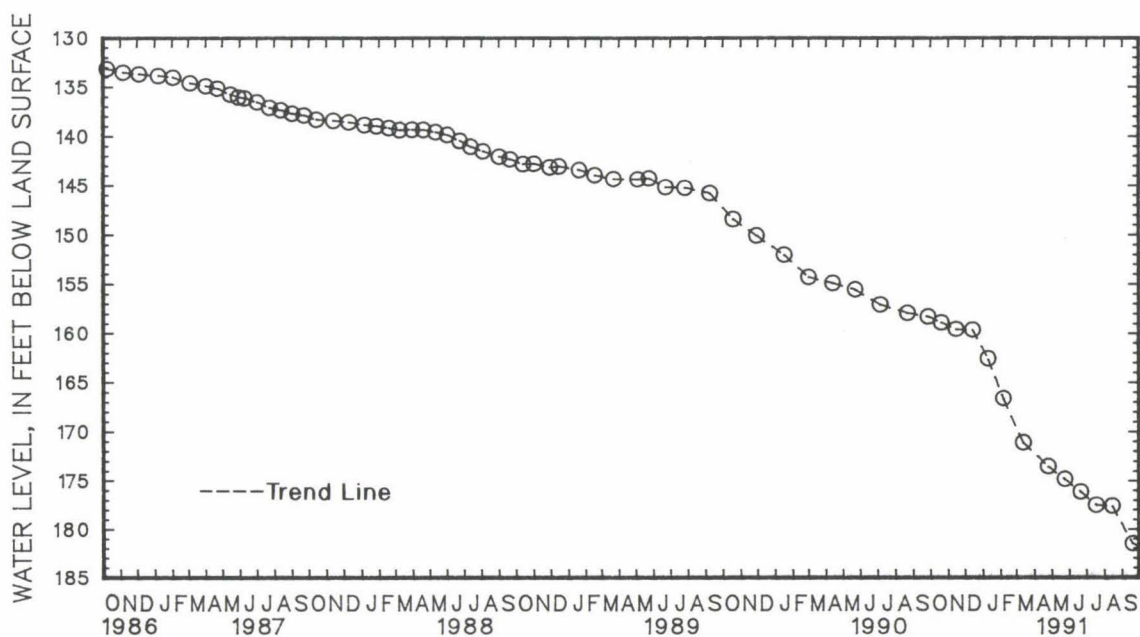
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 31. SITE ID.--391539079254601. PERMIT NUMBER.--GA-73-2142.
 LOCATION.--Lat 39°15'37", long 79°25'45", Hydrologic Unit 02070002, on north side of coal conveyor belt,
 450 ft west of Table Rock Rd., 1.7 mi west of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 606 ft; casing diameter 8 in., to 25.5 ft;
 casing diameter 4 in., to 470 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--60-minute recorder interval.
 DATUM.--Elevation of land surface is 2,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 2.6 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining
 operations.
 PERIOD OF RECORD.--August 1980 to to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.31 ft below land surface, April 8, 1980;
 lowest measured, 181.56 ft below land surface, Sept. 19, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	159.11	DEC 13	159.84	FEB 5	166.85	APR 24	173.73	JUN 20	176.30	AUG 14	177.72
NOV 14	159.79	JAN 9	162.82	MAR 12	171.32	MAY 23	175.01	JUL 17	177.65	SEP 19	181.56
WATER YEAR 1991		HIGHEST	159.11	OCT 19, 1990		LOWEST	181.56	SEP 19, 1991			



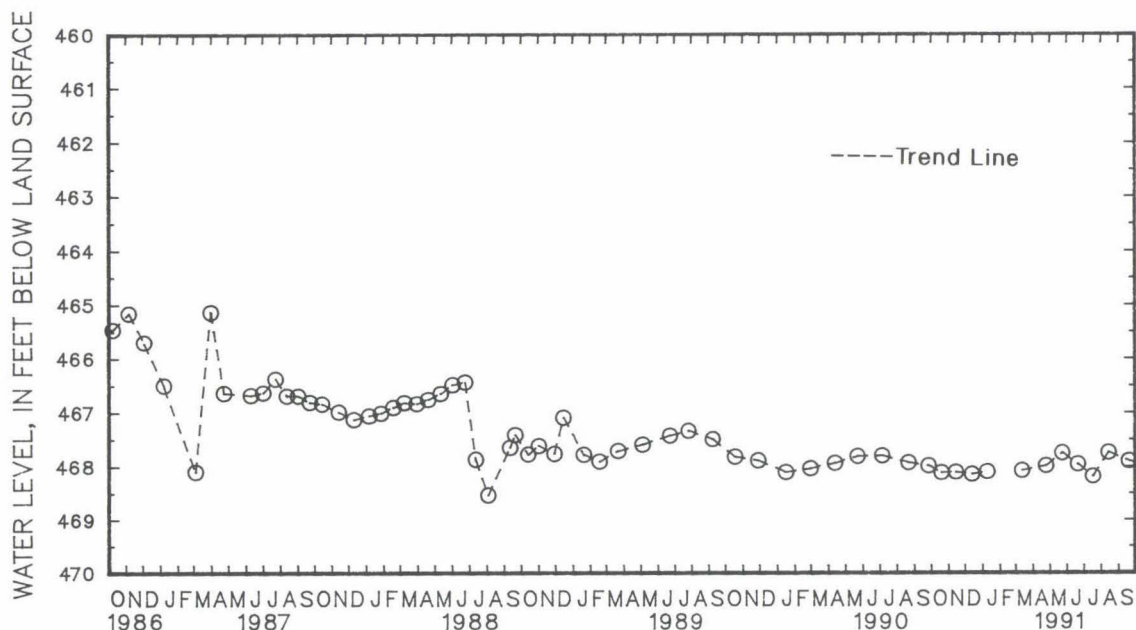
5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 32. SITE ID.--391539079254602. PERMIT NUMBER.--GA-73-2143.
LOCATION.--Lat 39°15'39", long 79°25'46", Hydrologic Unit 02070002, on north side of coal conveyor belt, 450 ft west of Table Rock Rd., 1.7 mi west of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 473 ft; casing diameter 4 in., to 430 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 21, 1980 to April 8, 1981.
DATUM.--Elevation of land surface is 2,890 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 3.15 ft above land surface.
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
PERIOD OF RECORD.--February 1980 to to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.55 ft below land surface, Feb. 27, 1980; lowest measured, 468.56 ft below land surface, Aug. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	468.14	DEC 13	468.17	MAR 12	468.10	MAY 23	467.77	JUL 17	468.21	SEP 19	467.92
NOV 14	468.13	JAN 9	468.12	APR 24	468.01	JUN 20	467.98	AUG 14	467.76		
WATER YEAR 1991		HIGHEST	467.76	AUG 14, 1991	LOWEST	468.21	JUL 17, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

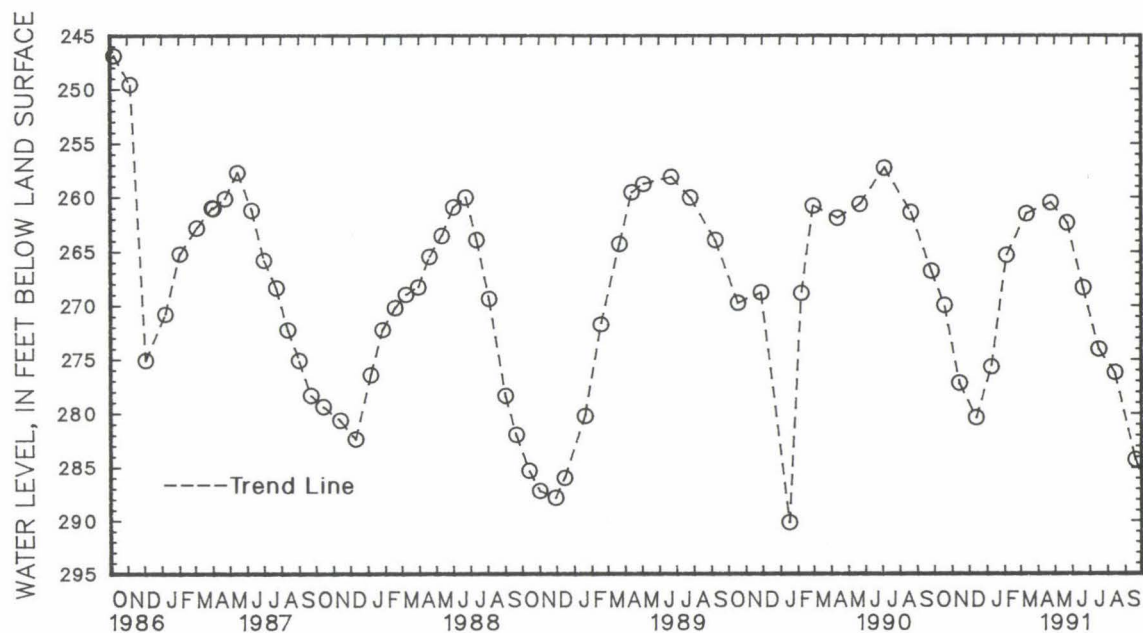
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 33. SITE ID.--391539079254603. PERMIT NUMBER.--GA-73-2144.
LOCATION.--Lat 39°15'39", long 79°25'46", Hydrologic Unit 02070002, on north side of coal conveyor belt,
450 ft west of Table Rock Rd., 1.7 mi west of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 391 ft; casing diameter 8 in., to 23 ft;
casing diameter 4 in., to 318 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
recorder--60-minute recorder interval from July 21, 1980 to Oct. 14, 1982.
DATUM.--Elevation of land surface is 2,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of recorder shelf, 3.9 ft above land surface.
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining
operations.
PERIOD OF RECORD.--February 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.31 ft below land surface, Feb. 27, 1978;
lowest measured, 290.24 ft below land surface, Jan. 16, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 19	270.12	DEC 13	280.59	FEB 5	265.34	APR 24	260.51	JUN 20	268.47	AUG 14	276.41
NOV 14	277.38	JAN 9	275.76	MAR 12	261.52	MAY 23	262.39	JUL 17	274.24	SEP 19	284.47
WATER YEAR 1991		HIGHEST	260.51	APR 24, 1991		LOWEST	284.47	SEP 19, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 38. SITE ID.--391501079260001. PERMIT NUMBER.--GA-73-2125.

LOCATION.--Lat 39°15'01", long 79°26'00", Hydrologic Unit 02070002, at intersection of Kempton Rd. and Dobin Rd., 3.6 mi south of Table Rock.

Owner: Curtis Glotfelty.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, domestic, water-table well, depth 118 ft, casing diameter 6 in., to 39 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 2,680 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.0 ft above land surface.

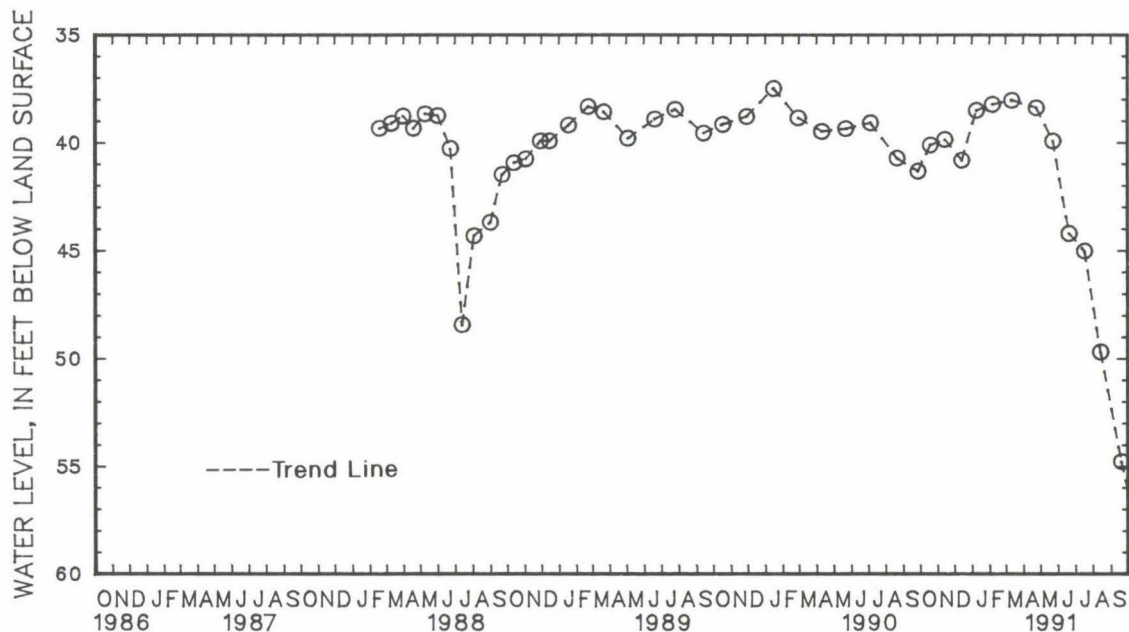
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by nearby mining operations.

PERIOD OF RECORD.--February 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.48 ft below land surface, Jan. 16, 1990;
lowest measured, 54.79 ft below land surface, Sept. 19, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 19	40.11	DEC 14	40.82	FEB 6	38.22	APR 24	38.38	JUN 20	44.23	AUG 14	49.71
NOV 14	39.85	JAN 9	38.50	MAR 12	38.03	MAY 23	39.92	JUL 17	45.04	SEP 19	54.79
WATER YEAR 1991		HIGHEST	38.03	MAR 12, 1991		LOWEST	54.79	SEP 19, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 22. SITE ID.--391530079244401. PERMIT NUMBER.--GA-73-2146.

LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Rd., 500 ft west of the intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.

Owner: U.S. Geological Survey.

AQUIFER.--Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 640 ft; casing diameter 4 in., to 517 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval, from May 15, 1980 to Oct 1990.

DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.0 ft above land surface.

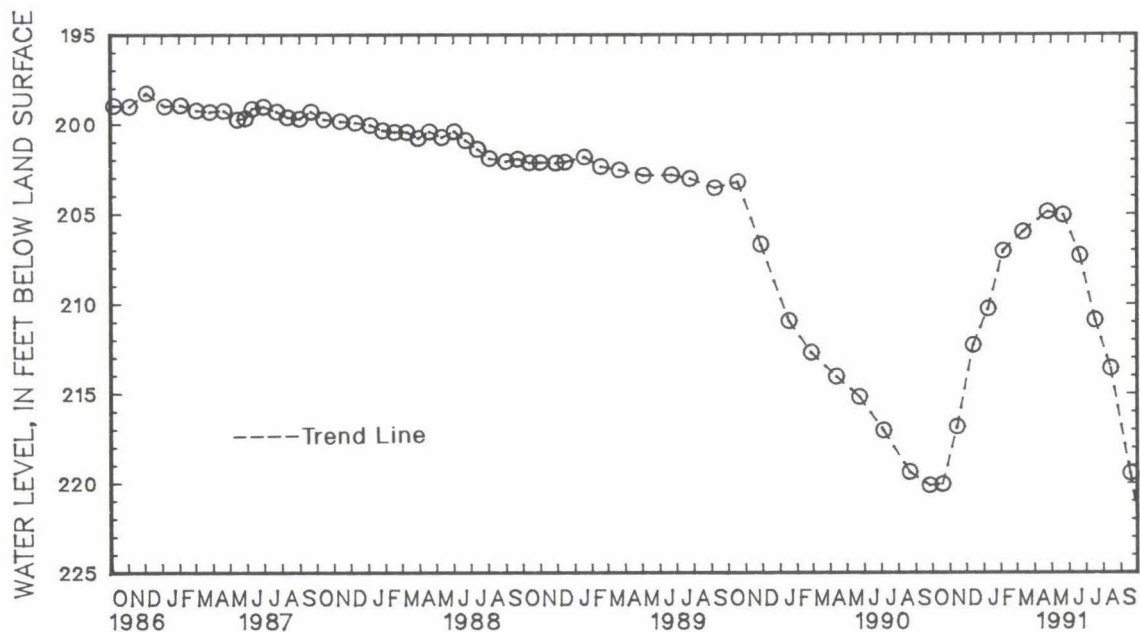
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.

PERIOD OF RECORD.--May 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.59 ft below land surface, April 8, 1980; lowest measured, 220.28 ft below land surface, Sept. 28, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	220.06	DEC 13	212.29	FEB 5	207.04	APR 24	204.87	JUN 20	207.30	AUG 14	213.61
NOV 14	216.85	JAN 9	210.25	MAR 12	205.99	MAY 22	205.05	JUL 17	210.90	SEP 18	219.45
WATER YEAR 1991		HIGHEST	204.87	APR 24, 1991		LOWEST	220.06	OCT 19, 1990			



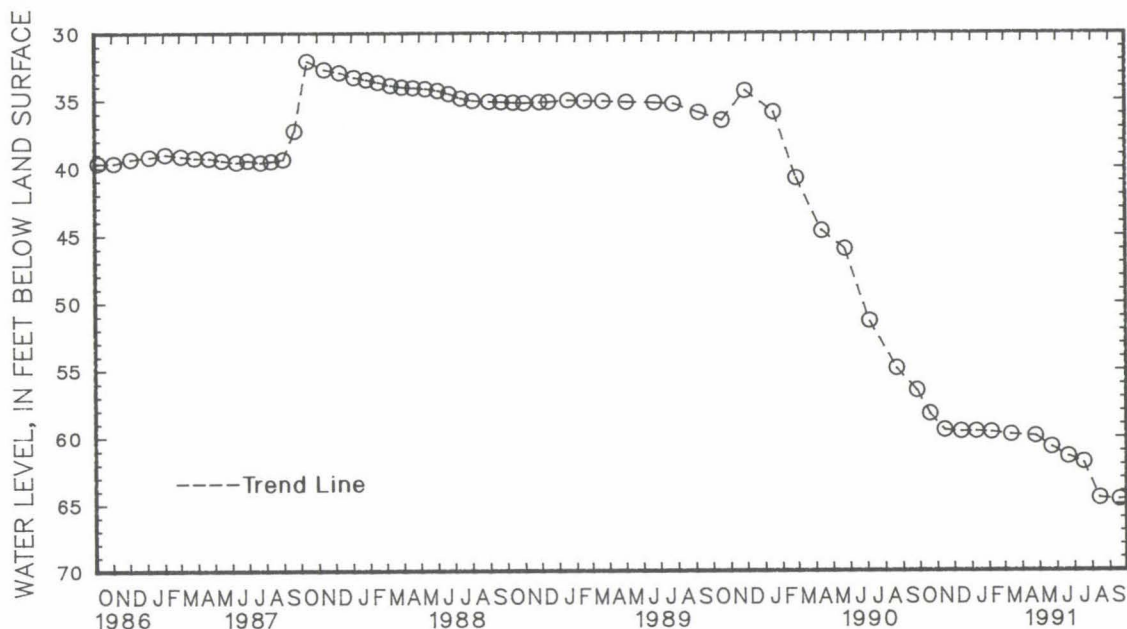
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 24. SITE ID.--391530079244403. PERMIT NUMBER.--GA-73-2177.
LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Rd., 500 ft west of the intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 400 ft; casing diameter 4 in., to 340 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval, from May 15, 1980 to Oct. 19, 1990.
DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 3.0 ft above land surface.
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
PERIOD OF RECORD.--May 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.08 ft below land surface, Jan. 12, 1981; lowest measured, 92.29 ft below land surface, Apr. 28, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	58.42	DEC 13	59.73	FEB 5	59.77	APR 24	60.07	JUN 20	61.59	AUG 14	64.65
NOV 14	59.63	JAN 9	59.72	MAR 12	59.97	MAY 22	60.88	JUL 17	62.00	SEP 18	64.76
WATER YEAR 1991		HIGHEST	58.42	OCT 19, 1990		LOWEST	64.76	SEP 18, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

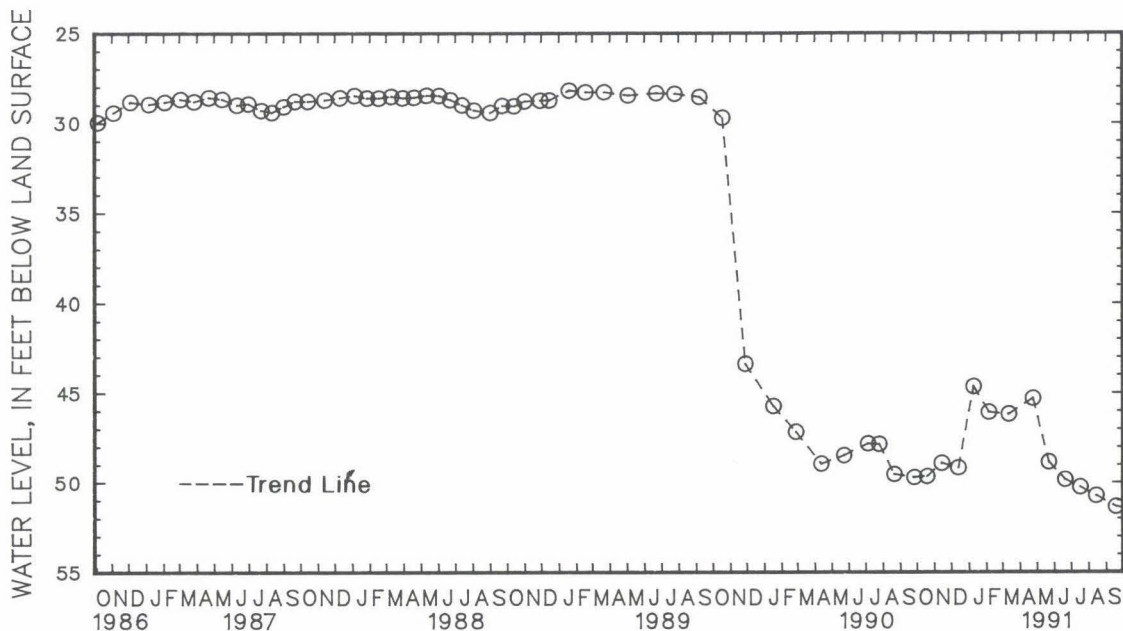
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 25. SITE ID.--391530079244404. PERMIT NUMBER.--GA-73-2182.
 LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Rd., 500 ft west of the intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 180 ft; casing diameter 4 in., to 120 ft; open hole
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from June 4, 1980 to Oct. 1990.
 DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 3.0 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
 PERIOD OF RECORD.--June 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.89 ft below land surface, May 11, 1981; lowest measured, 54.18 ft below land surface, May 14, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	49.67	DEC 13	49.18	FEB 5	46.08	APR 24	45.31	JUN 20	49.85	AUG 14	50.75
NOV 14	48.92	JAN 9	44.65	MAR 12	46.19	MAY 22	48.86	JUL 17	50.27	SEP 18	51.36
WATER YEAR 1991		HIGHEST	44.65	JAN 9, 1991		LOWEST	51.36	SEP 18, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

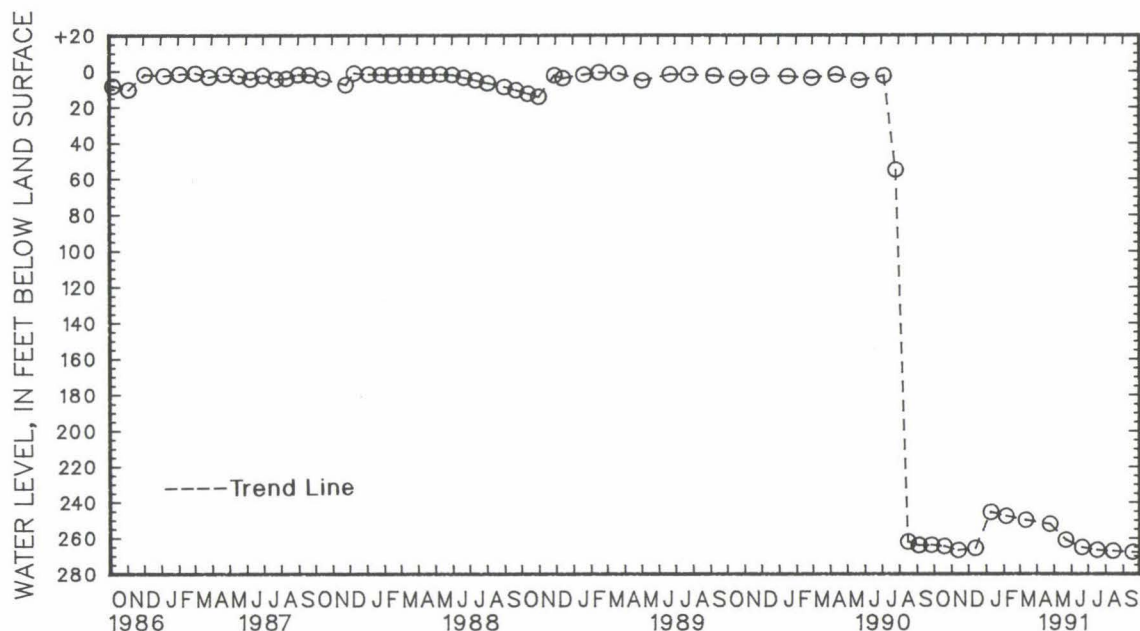
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 27. SITE ID.--391530079244404. PERMIT NUMBER.--GA-73-2182.
 LOCATION.--Lat 39°15'13", long 79°24'44", Hydrologic Unit 02070002, 0.6 mi west of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 656 ft; casing diameter 4 in., to 117 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from June 11, 1980 to July 26, 1990.
 DATUM.--Elevation of land surface is 2,760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 3.0 ft above land surface datum.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well.
 PERIOD OF RECORD.--June 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.32 ft below land surface, March 6, 1989; lowest measured, 267.79 ft below land surface, Sept. 18, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	264.55	DEC 13	265.59	FEB 5	247.67	APR 24	252.12	JUN 20	265.18	AUG 14	267.18
NOV 13	266.80	JAN 9	245.51	MAR 12	249.90	MAY 22	261.04	JUL 17	266.67	SEP 18	267.79
WATER YEAR 1991		HIGHEST	245.51	JAN 9, 1991	LOWEST	267.79	SEP 18, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 28. SITE ID.--391513079243603. PERMIT NUMBER.--GA-73-2183.

LOCATION.--Lat 39°15'13", long 79°24'36", Hydrologic Unit 02070002, 0.6 mi west of Wilson.

Owner: U.S. Geological Survey.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 556 ft; steel casing diameter 4 in., to 57.5 ft; plastic casing diameter 4 in. from 57.5 to 516.5 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 21, 1980 to February 1984.

DATUM.--Elevation of land surface is 2,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.95 ft above land surface.

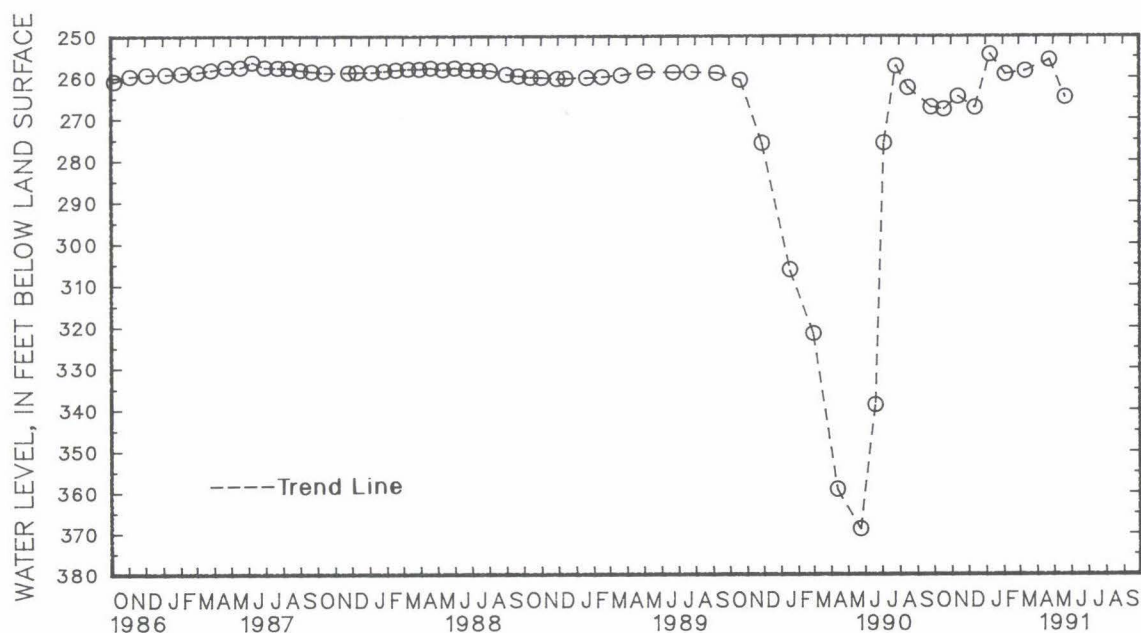
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations. Water levels discontinued due to collapse and undermining of the well.

PERIOD OF RECORD.--April 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 214.20 ft below land surface, July 21, 1980; lowest measured, 369.08 ft below land surface, May 23, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	267.94	DEC 13	267.52	FEB 5	259.39	APR 24	255.90
NOV 13	264.85	JAN 9	254.53	MAR 12	258.61	MAY 22	265.06
WATER YEAR 1991		HIGHEST	254.53	JAN 9, 1991	LOWEST	267.94	OCT 19, 1990



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 30. SITE ID.--391513079243605. PERMIT NUMBER.--GA-73-2185.

LOCATION.--Lat 39°15'13", long 79°24'36", Hydrologic Unit 02070002, 0.6 mi west of Wilson.

Owner: U.S. Geological Survey.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 85 ft; casing diameter 4 in., to 82 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval.

DATUM.--Elevation of land surface is 2,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

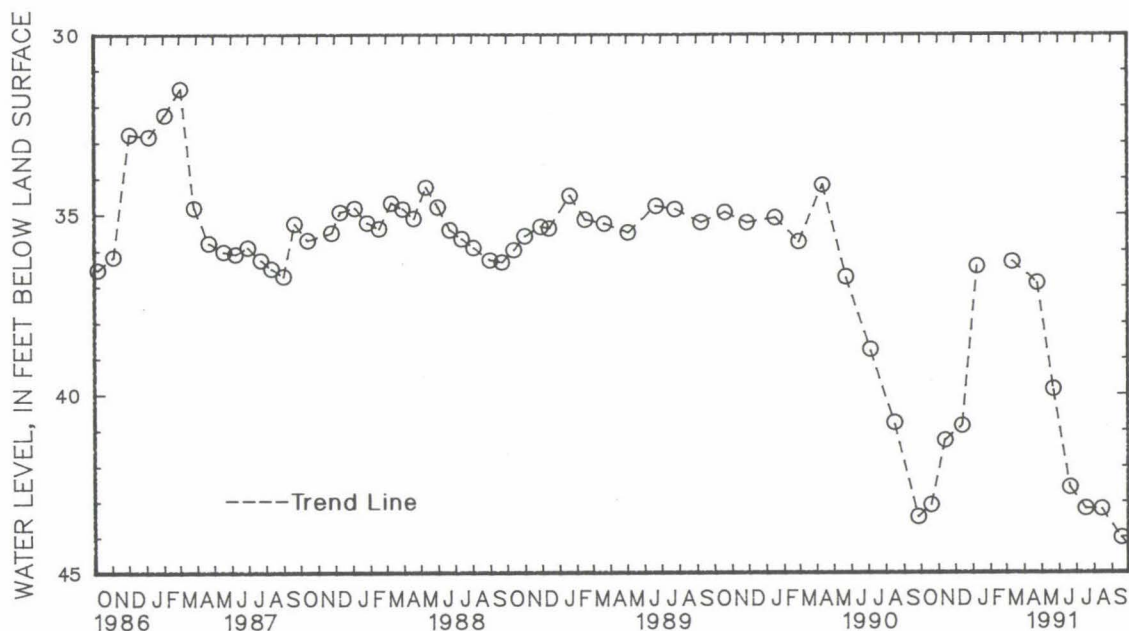
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.

PERIOD OF RECORD.--June 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.58 ft below land surface, April 16, 1981;
lowest measured, 44.04 ft below land surface, Sept. 18, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	43.12	DEC 13	40.88	MAR 12	36.32	MAY 22	39.91	JUL 17	43.23	SEP 18	44.04
NOV 13	41.29	JAN 9	36.45	APR 24	36.92	JUN 20	42.64	AUG 14	43.24		
WATER YEAR 1991		HIGHEST	36.32	MAR 12. 1991		LOWEST	44.04	SEP 18. 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 31. SITE ID.--391602079240301. PERMIT NUMBER.--GA-81-1332.
 LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 500 ft northeast of intersection with Fairview Rd., 1.0 mile north of Wilson.
 Owner: Mettiki Coal Corp.
 AQUIFER.-- Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth to 795 ft; casing diameter 6 in., to 795 ft; perforated casing from 760 to 795 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval.
 DATUM.--Elevation of land surface is 2,676.51 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.2 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--March 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 216.49 ft below land surface, May 25, 1989; lowest measured, 236.45 ft below land surface, April 19, 1988.

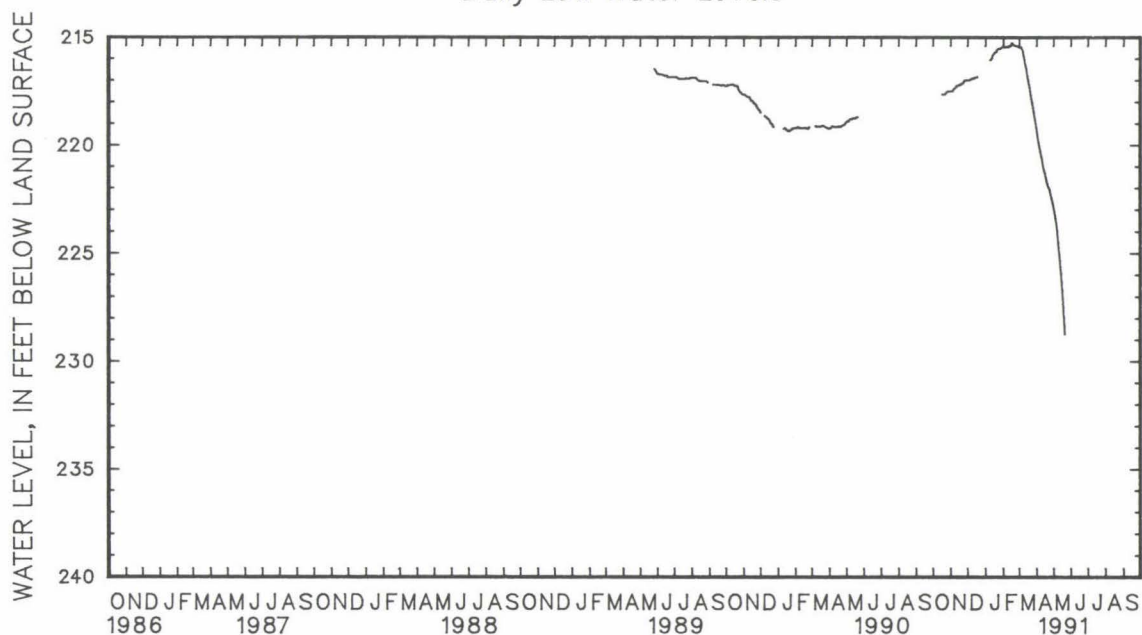
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	217.50	217.50	216.99	216.99	---	---	215.44	215.44	215.46	215.44
2	---	---	217.50	217.50	216.99	216.98	---	---	215.44	215.44	215.46	215.45
3	---	---	217.50	217.50	216.98	216.98	---	---	215.45	215.44	215.45	215.45
4	---	---	217.50	217.46	216.98	216.96	---	---	215.44	215.44	215.45	215.45
5	---	---	217.46	217.40	216.96	216.96	---	---	215.44	215.44	215.50	215.45
6	---	---	217.40	217.38	216.96	216.94	---	---	215.44	215.44	215.57	215.51
7	---	---	217.38	217.36	216.94	216.91	---	---	215.44	215.43	215.65	215.57
8	---	---	217.36	217.36	216.91	216.91	---	---	215.43	215.43	215.77	215.66
9	---	---	217.36	217.33	216.91	216.90	---	---	215.43	215.43	215.89	215.78
10	---	---	217.32	217.26	216.90	216.90	216.04	216.03	215.43	215.41	216.03	215.90
11	---	---	217.26	217.24	216.90	216.90	216.03	215.97	215.41	215.40	216.18	216.04
12	---	---	217.24	217.24	216.90	216.86	215.97	215.87	215.40	215.40	216.31	216.18
13	---	---	217.24	217.24	216.86	216.86	215.87	215.81	215.40	215.38	216.42	216.32
14	---	---	217.24	217.24	216.86	216.86	215.81	215.78	215.37	215.29	216.55	216.43
15	---	---	---	---	216.86	216.86	215.78	215.75	215.29	215.27	216.75	216.56
16	---	---	217.21	217.21	216.86	216.85	215.75	215.69	215.27	215.27	216.94	216.75
17	217.65	217.65	217.21	217.18	216.85	216.83	215.69	215.67	215.27	215.26	217.09	216.95
18	217.65	217.65	217.18	217.18	216.83	216.75	215.67	215.67	215.30	215.26	217.21	217.10
19	217.65	217.65	217.18	217.15	---	---	215.66	215.66	215.33	215.30	217.35	217.22
20	217.65	217.65	217.15	217.14	---	---	215.66	215.57	215.36	215.33	217.52	217.36
21	217.65	217.64	217.14	217.14	---	---	215.57	215.54	215.38	215.36	217.68	217.53
22	217.64	217.62	217.14	217.10	---	---	215.54	215.53	215.39	215.39	217.86	217.69
23	217.62	217.57	217.10	217.04	---	---	215.53	215.52	215.41	215.39	218.00	217.86
24	217.57	217.55	217.04	217.01	---	---	215.52	215.52	215.41	215.40	218.12	218.00
25	217.55	217.52	217.00	217.00	---	---	215.52	215.52	215.41	215.41	218.28	218.12
26	217.52	217.51	217.00	217.00	---	---	215.52	215.52	215.41	215.41	218.43	218.28
27	217.51	217.51	217.00	216.99	---	---	215.52	215.49	215.41	215.41	218.58	218.44
28	217.51	217.51	216.99	216.99	---	---	215.49	215.47	215.44	215.41	218.72	218.58
29	217.51	217.51	216.99	216.99	---	---	215.47	215.47	---	---	218.85	218.74
30	217.51	217.51	216.99	216.99	---	---	215.47	215.45	---	---	219.01	218.85
31	217.51	217.50	---	---	---	---	215.45	215.44	---	---	219.19	219.02
MONTH	217.65	217.50	217.50	216.99	216.99	216.75	216.04	215.44	215.45	215.26	219.19	215.44

GROUND-WATER LEVELS
MARYLAND--Continued
GARRETT COUNTY--Continued
GA Fb 31--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	219.36	219.19	222.98	222.85	---	---	---	---	---	---	259.09	259.04
2	219.54	219.37	223.11	222.98	---	---	---	---	---	---	259.14	259.10
3	219.74	219.55	223.26	223.11	---	---	---	---	---	---	259.18	259.14
4	219.91	219.75	223.41	223.27	---	---	---	---	---	---	259.28	259.19
5	220.04	219.91	223.59	223.41	---	---	---	---	---	---	259.34	259.28
6	220.19	220.05	223.75	223.59	---	---	---	---	---	---	259.38	259.34
7	220.31	220.19	223.98	223.76	---	---	---	---	---	---	259.45	259.39
8	220.44	220.32	224.23	223.99	---	---	---	---	---	---	259.50	259.45
9	220.55	220.44	224.50	224.25	---	---	---	---	---	---	259.54	259.50
10	220.66	220.55	224.77	224.50	---	---	---	---	---	---	259.55	259.54
11	220.83	220.67	225.06	224.78	---	---	---	---	---	---	259.57	259.56
12	221.00	220.83	225.35	225.09	---	---	---	---	---	---	259.60	259.57
13	221.12	221.00	225.66	225.37	---	---	---	---	---	---	259.60	259.60
14	221.24	221.13	225.97	225.67	---	---	---	---	---	---	259.60	259.60
15	221.33	221.24	226.33	225.99	---	---	---	---	---	---	259.61	259.60
16	221.45	221.34	226.71	226.34	---	---	---	---	258.41	258.38	259.61	259.61
17	221.55	221.45	227.10	226.73	---	---	---	---	258.46	258.41	259.77	259.61
18	221.66	221.56	227.51	227.12	---	---	---	---	258.50	258.46	259.78	259.77
19	221.77	221.66	227.93	227.54	---	---	---	---	258.52	258.50	259.80	259.78
20	221.86	221.77	228.35	227.95	---	---	---	---	258.55	258.52	259.83	259.80
21	221.94	221.86	228.76	228.36	---	---	---	---	258.60	258.55	259.87	259.83
22	221.99	221.94	---	---	---	---	---	---	258.65	258.60	259.91	259.87
23	222.04	222.00	---	---	---	---	---	---	258.72	258.65	259.93	259.91
24	222.13	222.04	---	---	---	---	---	---	258.80	258.72	259.95	259.94
25	222.27	222.13	---	---	---	---	---	---	258.86	258.80	259.95	259.95
26	222.38	222.27	---	---	---	---	---	---	258.90	258.86	259.96	259.95
27	222.49	222.38	---	---	---	---	---	---	258.93	258.90	259.97	259.96
28	222.60	222.50	---	---	---	---	---	---	258.98	258.94	260.09	259.97
29	222.72	222.60	---	---	---	---	---	---	259.00	258.98	260.12	260.09
30	222.85	222.72	---	---	---	---	---	---	259.02	259.00	260.18	260.12
31	---	---	---	---	---	---	---	---	259.04	259.02	---	---
MONTH	222.85	219.19	228.76	222.85	---	---	---	---	259.04	258.38	260.18	259.04

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 32. SITE ID.--391602079240302. PERMIT NUMBER.--GA-81-1333.
 LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd.,
 500 ft northeast of intersection with Fairview Road, 1.0 mile north of Wilson.
 Owner: Mettiki Coal Corp.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 736 ft; casing diameter 6 in., to 736 ft;
 perforated casing from 720 to 736 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval.
 DATUM.--Elevation of land surface is 2,677.21 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.2 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining
 operations. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--March 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 206.71 ft below land surface, March 25, 1988;
 lowest measured, 255.89 ft below land surface, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	214.55	214.52	213.99	213.98	213.94	213.93
2	---	---	---	---	---	---	214.51	214.50	213.98	213.97	213.94	213.94
3	---	---	---	---	---	---	214.50	214.49	213.97	213.97	213.95	213.94
4	---	---	---	---	---	---	214.49	214.48	213.97	213.94	213.95	213.95
5	---	---	---	---	---	---	214.47	214.45	213.94	213.93	213.96	213.95
6	---	---	---	---	---	---	214.44	214.40	213.93	213.90	213.96	213.96
7	---	---	---	---	---	---	214.40	214.40	213.90	213.89	213.97	213.96
8	---	---	---	---	---	---	214.39	214.38	213.90	213.89	213.97	213.97
9	---	---	---	---	---	---	214.38	214.36	213.90	213.90	213.98	213.97
10	---	---	---	---	---	---	214.36	214.35	213.91	213.90	214.00	213.98
11	---	---	---	---	---	---	214.35	214.35	213.91	213.91	214.09	214.01
12	---	---	---	---	---	---	214.35	214.34	213.92	213.91	---	---
13	---	---	---	---	---	---	214.34	214.34	213.92	213.92	214.12	214.11
14	---	---	---	---	---	---	214.34	214.34	213.93	213.92	214.20	214.13
15	---	---	---	---	214.67	214.66	214.34	214.31	213.93	213.93	214.31	214.20
16	---	---	---	---	214.66	214.66	214.33	214.31	213.93	213.92	214.44	214.31
17	---	---	---	---	214.66	214.65	214.31	214.27	213.93	213.91	214.57	214.44
18	---	---	---	---	214.65	214.65	214.27	214.26	213.91	213.90	214.67	214.57
19	---	---	---	---	214.65	214.65	214.26	214.24	213.91	213.90	214.79	214.67
20	---	---	---	---	214.64	214.64	214.24	214.22	213.91	213.90	214.94	214.80
21	---	---	---	---	214.64	214.64	214.22	214.19	213.91	213.91	215.09	214.94
22	---	---	---	---	214.64	214.63	214.19	214.18	213.91	213.90	215.21	215.09
23	---	---	---	---	214.63	214.63	214.18	214.16	213.91	213.91	215.39	215.22
24	---	---	---	---	214.63	214.62	214.16	214.13	213.91	213.89	215.53	215.39
25	---	---	---	---	214.62	214.62	214.13	214.12	213.92	213.92	215.70	215.54
26	---	---	---	---	214.62	214.61	214.12	214.11	213.92	213.90	215.88	215.70
27	---	---	---	---	214.61	214.61	214.11	214.08	213.93	213.92	216.00	215.89
28	---	---	---	---	214.61	214.60	214.08	214.06	213.93	213.93	216.16	216.00
29	---	---	---	---	214.60	214.60	214.06	214.05	---	---	216.30	216.16
30	---	---	---	---	214.60	214.56	214.05	214.01	---	---	216.47	216.30
31	---	---	---	---	214.56	214.55	214.01	213.99	---	---	216.66	216.47
MONTH	---	---	---	---	214.67	214.55	214.55	213.99	213.99	213.89	216.66	213.93

Daily Low Water Levels

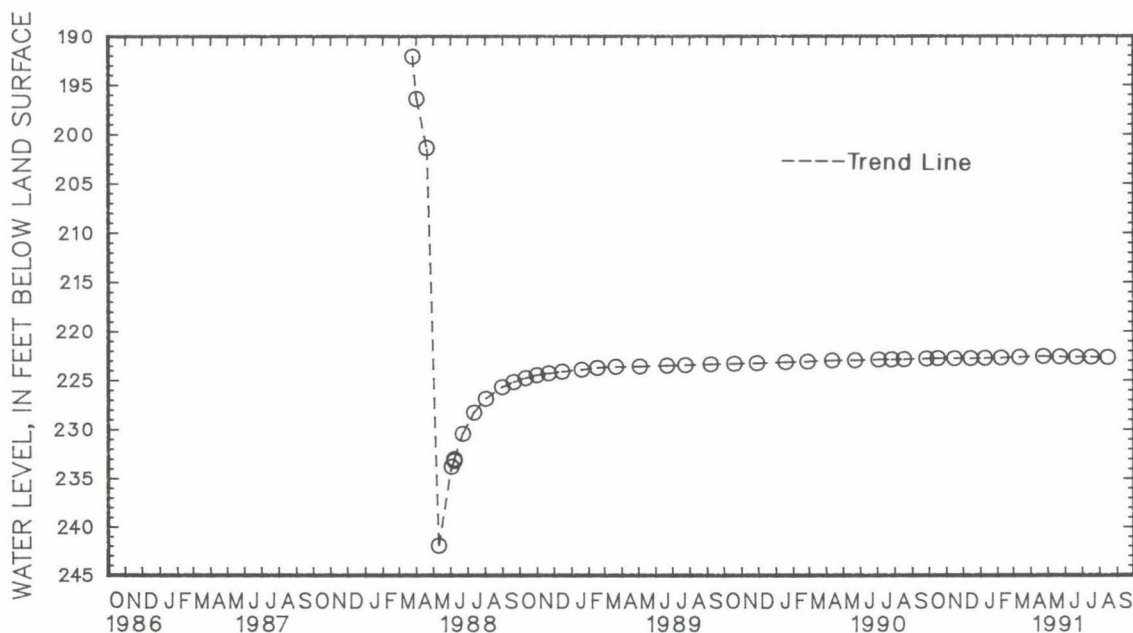


GROUND-WATER LEVELS
MARYLAND--Continued
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 33. SITE ID.--391602079240303. PERMIT NUMBER.--GA-81-1334.
LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd.,
500 ft. northeast of intersection with Fairview Road, 1.0 mile north of Wilson.
Owner: Mettiki Coal Corp.
AQUIFER.-- Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 570 ft; casing diameter 6 in., to 570 ft;
perforated casing from 550 to 570 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
water-level recorder--60-minute recorder interval.
DATUM.--Elevation of land surface is 2,677 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.6 ft above land surface.
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining
operations.
PERIOD OF RECORD.--March 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 192.12 ft below land surface, March 25, 1988;
lowest measured, 242.00 ft below land surface, May 10, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 16	222.77	DEC 14	222.77	FEB 7	222.71	APR 23	222.57	JUN 20	222.65	AUG 15	222.69	
NOV 15	222.78	JAN 9	222.74	MAR 12	222.66	MAY 22	222.62	JUL 17	222.65			
WATER YEAR 1991		HIGHEST	222.57	APR 23, 1991	LOWEST	222.78	NOV 15, 1990					



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 34. SITE ID.--391602079240304. PERMIT NUMBER.--GA-81-1331.

LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 500 ft northeast of intersection with Fairview Road, 1.0 mile north of Wilson.

Owner: Mettiki Coal Corp.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 390 ft; casing diameter 6 in., to 390 ft; perforated casing from 370 to 390 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval.

DATUM.--Elevation of land surface is 2,677 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 3.2 ft above land surface.

REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations. Missing data due to recorder malfunction.

PERIOD OF RECORD.--February 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 202.64 ft below land surface, March 25, 1989; lowest measured, 255.04 ft below land surface, Sept. 30, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	212.02	212.02	212.03	212.03	211.91	211.90	211.43	211.42	210.94	210.81	211.23	211.14
2	212.02	212.02	212.03	212.03	211.91	211.91	211.42	211.42	210.95	210.94	211.23	211.23
3	212.04	212.02	212.03	212.02	211.91	211.81	211.42	211.41	210.94	210.94	211.23	211.23
4	212.04	212.01	212.02	211.98	211.81	211.81	211.41	211.41	210.94	210.94	211.25	211.23
5	212.01	212.01	211.98	211.80	211.81	211.81	211.41	211.37	210.94	210.92	211.49	211.25
6	212.04	212.01	211.82	211.80	211.81	211.81	211.36	211.34	210.93	210.93	211.54	211.50
7	212.06	212.04	211.85	211.82	211.81	211.81	211.34	211.32	210.93	210.89	211.85	211.54
8	212.07	212.06	211.87	211.85	211.81	211.81	211.32	211.30	210.90	210.90	212.11	211.85
9	212.07	212.07	211.88	211.87	211.82	211.81	211.30	211.27	210.90	210.90	212.31	212.11
10	212.07	212.07	211.87	211.80	211.83	211.83	211.28	211.28	210.90	210.89	212.53	212.32
11	212.07	212.07	211.80	211.80	211.83	211.83	211.28	211.19	210.89	210.89	212.74	212.54
12	212.07	212.07	211.82	211.80	211.83	211.83	211.19	211.00	210.89	210.89	212.90	212.76
13	212.07	212.02	211.85	211.82	211.83	211.82	211.01	211.00	210.90	210.80	213.03	212.91
14	212.02	212.02	211.89	211.85	211.86	211.82	211.02	211.01	210.80	210.64	213.27	213.07
15	212.02	212.02	211.92	211.89	211.86	211.79	211.02	211.01	210.65	210.64	213.67	213.28
16	212.10	212.03	211.92	211.84	211.79	211.79	211.02	210.88	210.84	210.68	213.90	213.67
17	212.10	212.10	211.84	211.83	211.80	211.79	210.88	210.87	210.90	210.85	214.07	213.91
18	212.10	212.01	211.83	211.83	211.79	211.59	210.89	210.88	210.95	210.90	214.09	214.07
19	212.03	212.01	211.83	211.83	211.68	211.59	210.98	210.89	211.00	210.95	214.36	214.10
20	212.08	212.05	211.83	211.83	211.78	211.68	210.96	210.84	211.01	211.00	214.65	214.37
21	212.09	212.08	211.84	211.83	211.79	211.77	210.84	210.83	211.06	211.02	214.84	214.65
22	212.09	212.07	211.84	211.82	211.79	211.76	210.85	210.83	211.06	211.06	215.05	214.85
23	212.07	212.01	211.82	211.69	211.76	211.60	210.85	210.85	211.09	211.06	215.20	215.06
24	212.01	212.01	211.69	211.69	211.60	211.58	210.85	210.84	211.10	211.10	215.40	215.20
25	212.01	212.01	211.69	211.69	211.60	211.57	210.88	210.85	211.10	211.10	215.65	215.40
26	212.01	212.01	211.77	211.69	211.65	211.60	210.89	210.87	211.10	211.10	215.85	215.65
27	212.02	212.01	211.80	211.78	211.65	211.64	210.87	210.84	211.10	211.10	215.98	215.85
28	212.02	212.02	211.80	211.80	211.64	211.62	210.84	210.83	211.13	211.10	216.13	216.00
29	212.03	212.02	211.86	211.80	211.62	211.54	210.83	210.83	---	---	216.29	216.14
30	212.03	212.03	211.90	211.87	211.54	211.37	210.83	210.75	---	---	216.67	216.30
31	212.03	212.03	---	---	211.42	211.37	210.80	210.75	---	---	216.95	216.68
MONTH	212.10	212.01	212.03	211.69	211.91	211.37	211.43	210.75	211.13	210.64	216.95	211.14

GROUND-WATER LEVELS

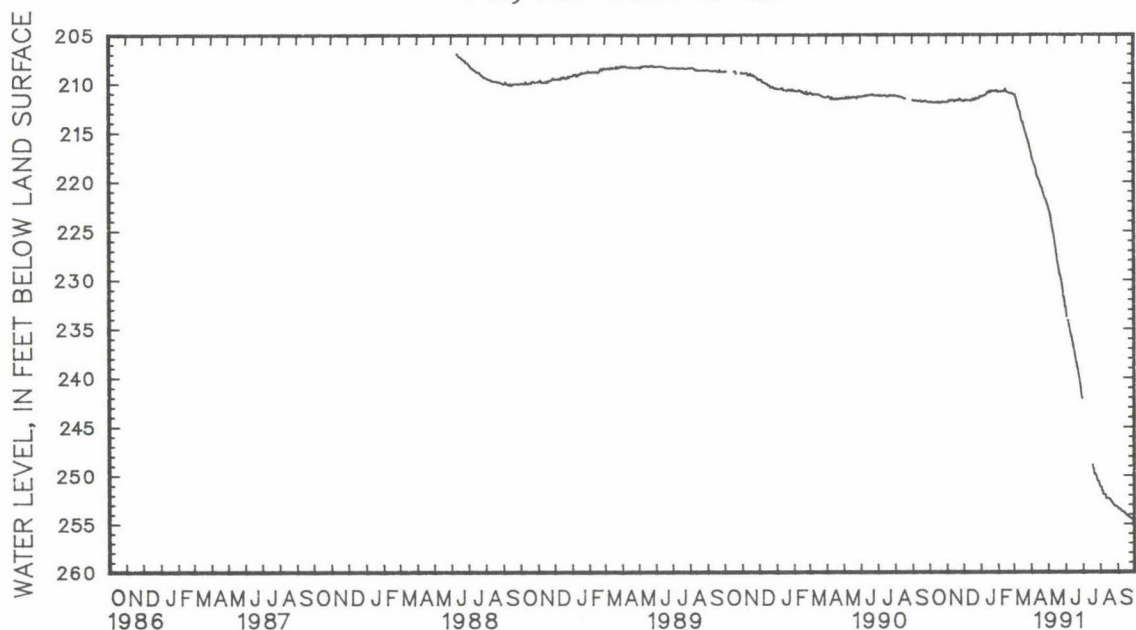
MARYLAND--Continued

GARRETT COUNTY--Continued

GA Fb 34--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	217.16	216.96	222.69	222.54	232.94	232.94	---	---	251.33	251.19	253.42	253.34
2	217.50	217.17	222.95	222.69	233.57	232.94	---	---	251.34	251.33	253.57	253.42
3	217.75	217.50	223.16	222.95	233.95	233.56	---	---	251.36	251.34	253.60	253.57
4	217.95	217.75	223.33	223.16	---	---	---	---	251.74	251.36	253.60	253.60
5	218.10	217.95	223.56	223.35	234.37	234.00	---	---	251.74	251.74	253.61	253.60
6	218.29	218.10	223.89	223.56	234.75	234.37	---	---	252.09	251.74	253.67	253.61
7	218.48	218.29	224.27	223.89	235.02	234.75	---	---	252.11	252.09	253.80	253.75
8	218.60	218.48	224.58	224.29	235.33	235.02	---	---	252.12	252.11	253.82	253.80
9	218.78	218.61	224.93	224.58	235.63	235.33	---	---	252.12	252.12	253.85	253.82
10	219.02	218.78	225.28	224.94	235.86	235.63	---	---	252.12	252.11	253.85	253.85
11	219.38	219.03	225.58	225.29	236.06	235.86	---	---	252.50	252.12	253.85	253.85
12	219.66	219.39	225.93	225.60	236.38	236.07	---	---	252.51	252.50	253.97	253.85
13	219.76	219.67	226.29	225.94	236.68	236.40	---	---	252.51	252.51	254.00	253.97
14	219.91	219.77	226.70	226.29	237.04	236.77	---	---	252.51	252.51	254.05	254.00
15	220.00	219.91	227.16	226.73	237.28	237.05	---	---	---	---	254.07	254.05
16	220.19	220.00	227.57	227.17	237.56	237.28	---	---	252.53	252.51	254.23	254.07
17	220.36	220.20	227.98	227.58	237.88	237.56	---	---	252.54	252.53	254.26	254.23
18	220.54	220.37	228.48	228.00	238.25	237.88	249.13	248.76	252.66	252.54	254.27	254.26
19	220.65	220.54	228.79	228.49	238.62	238.26	249.47	249.13	252.66	252.66	254.27	254.27
20	220.81	220.66	229.17	228.79	238.81	238.62	249.53	249.47	252.67	252.66	254.34	254.30
21	220.86	220.81	229.56	229.17	239.17	238.82	250.02	249.53	252.90	252.67	254.44	254.34
22	221.20	220.86	229.78	229.56	239.38	239.18	250.02	250.01	252.92	252.90	254.48	254.44
23	221.36	221.20	229.97	229.78	239.74	239.39	250.01	250.01	253.00	252.92	254.51	254.48
24	221.56	221.36	230.16	229.96	240.09	239.75	250.17	250.01	253.14	253.06	254.56	254.51
25	221.74	221.56	230.57	230.17	240.39	240.11	250.37	250.17	253.19	253.15	254.56	254.56
26	221.89	221.75	230.96	230.57	240.79	240.39	250.57	250.37	253.26	253.19	254.57	254.56
27	221.98	221.89	231.37	230.96	241.22	240.79	250.77	250.57	253.27	253.26	254.69	254.57
28	222.16	221.98	231.93	231.37	241.78	241.32	250.77	250.77	253.29	253.27	254.81	254.74
29	222.36	222.16	231.94	231.93	242.22	241.79	250.77	250.77	253.33	253.29	254.99	254.82
30	222.54	222.36	232.35	231.94	242.34	242.28	250.98	250.77	253.33	253.33	255.04	255.00
31	---	---	232.94	232.34	---	---	251.20	250.98	253.34	253.33	---	---
MONTH	222.54	216.96	232.94	222.54	242.34	232.94	251.20	248.76	253.34	251.19	255.04	253.34

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 35. SITE ID.--391715079223101. PERMIT NUMBER.--GA-81-1339.

LOCATION.--Lat 39°17'15", long 79°22'31", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 0.6 mi. southwest of intersection with U.S. Route 50, 0.6 mi. southwest of Ft. Pendleton.

Owner: Mettiki Coal Corp.

AQUIFER.-- Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 700 ft; casing diameter 6 in., to 700 ft; perforated casing from 670 to 700 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval.

DATUM.--Elevation of land surface is 2,565 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 2.1 ft above land surface.

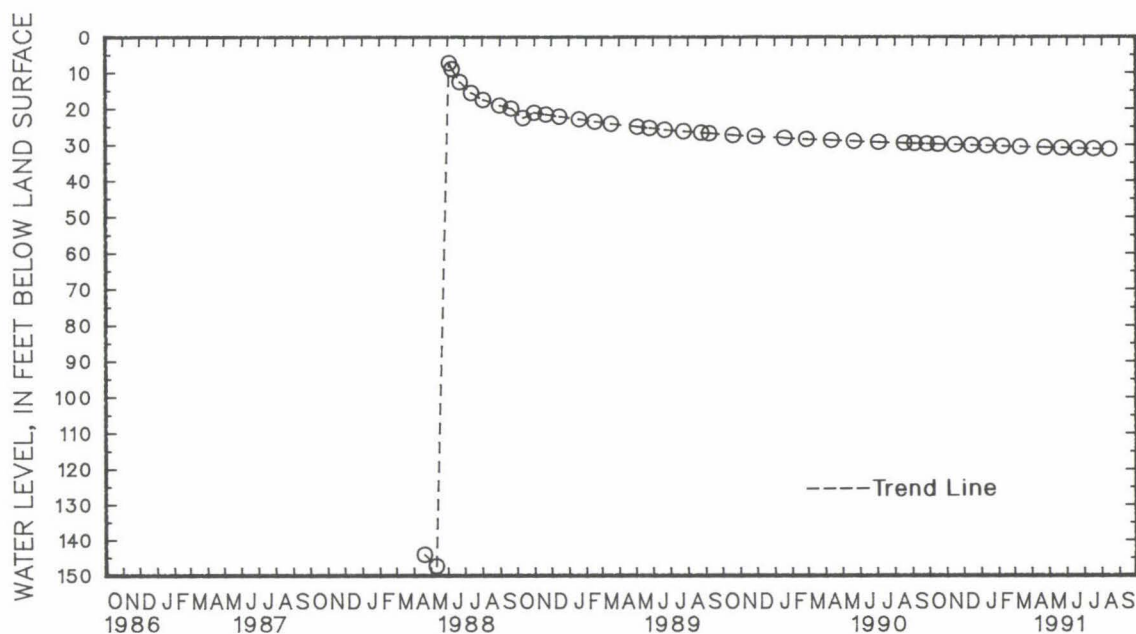
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations. Water level measured at 7.29 ft on June 3, 1988 after injection test.

PERIOD OF RECORD.--April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.29 ft below land surface, June 3, 1988; lowest measured, 147.43 ft below land surface, May 10, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	30.15	DEC 14	30.44	FEB 7	30.73	APR 23	31.13	JUN 20	31.37	AUG 14	31.58
NOV 15	30.29	JAN 10	30.55	MAR 11	30.93	MAY 22	31.24	JUL 17	31.47		
WATER YEAR 1991		HIGHEST	30.15	OCT 16, 1990		LOWEST	31.58	AUG 14, 1991			



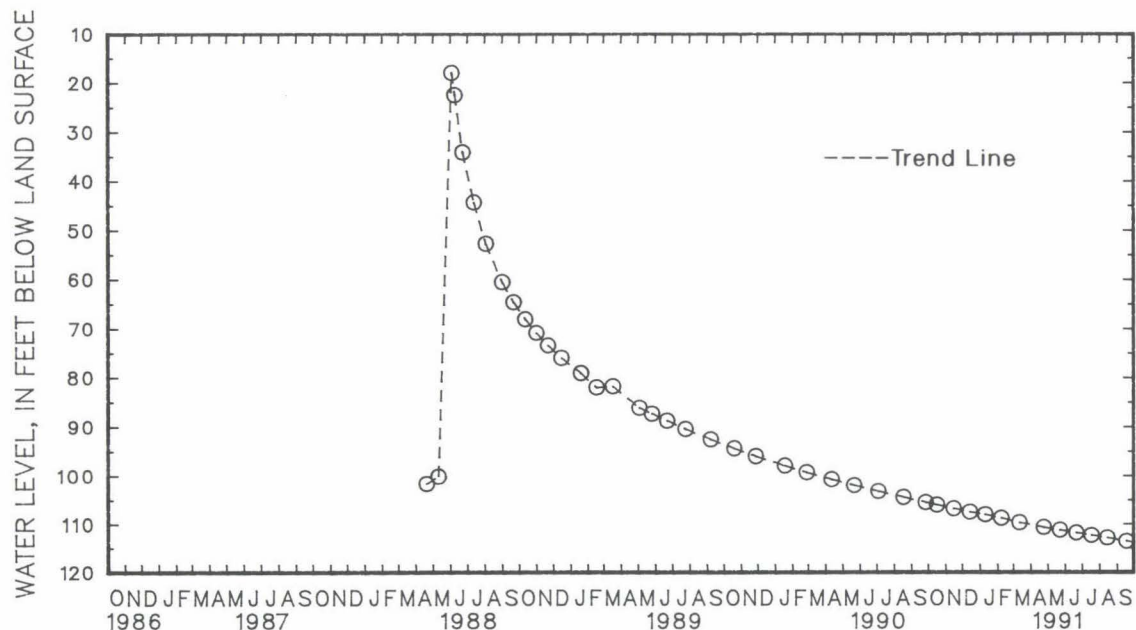
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 36. SITE ID.--391715079223102. PERMIT NUMBER.--GA-81-1343.
LOCATION.--Lat 39°17'15", long 79°22'31", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 0.6 mi. southwest of intersection with U.S. Route 50, 0.6 mi. southwest of Ft. Pendleton.
Owner: Mettiki Coal Corp.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 631 ft; casing diameter 6 in., to 631 ft; perforated casing from 620 to 631 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval.
DATUM.--Elevation of land surface is 2,565 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 2.6 ft above land surface.
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations. Water level measured at 17.95 ft on June 3, 1988 after injection test.
PERIOD OF RECORD.--April 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.95 ft below land surface, June 3, 1988; lowest measured, 113.73 ft below land surface, Sept. 17, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	106.31	DEC 14	107.75	FEB 7	109.00	APR 23	110.88	JUN 20	112.02	AUG 14	113.05
NOV 15	107.07	JAN 10	108.28	MAR 11	109.91	MAY 22	111.44	JUL 17	112.53	SEP 17	113.73
WATER YEAR 1991		HIGHEST	106.31	OCT 16, 1990		LOWEST	113.73	SEP 17, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

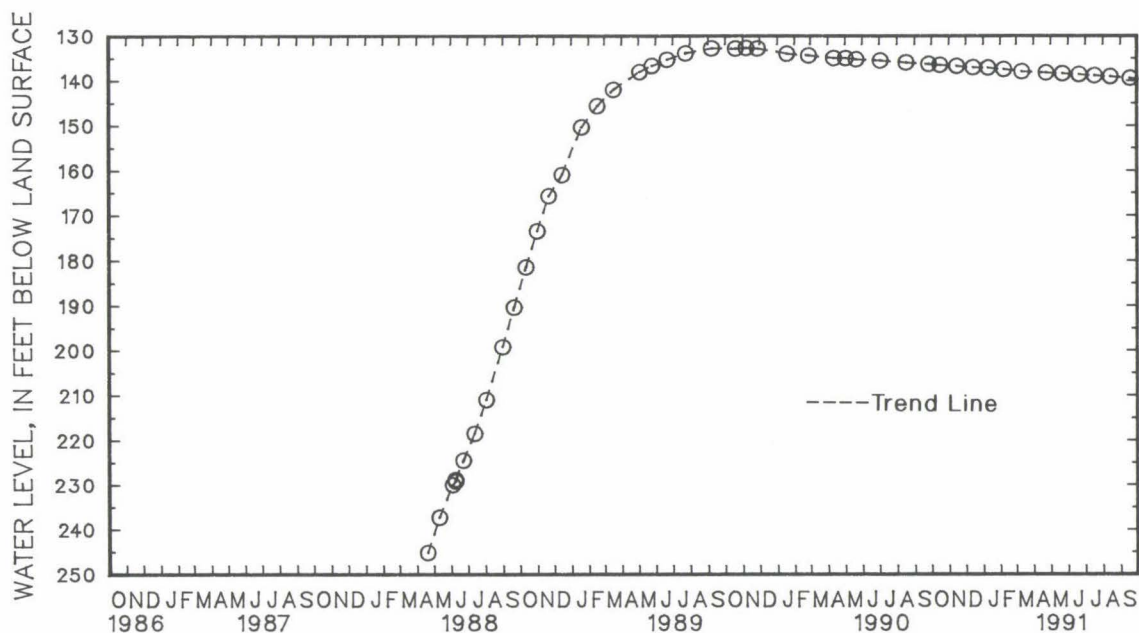
```

WELL NUMBER.--GA Fb 37. SITE ID.--391715079223103. PERMIT NUMBER.--GA-81-1341.
LOCATION.--Lat 39°17'15", long 79°22'31", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd.,
0.6 mi. southwest of intersection with U.S. Route 50, 0.6 mi. southwest of Ft. Pendleton.
Owner: Mettiki Coal Corp.
AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 470 ft; casing diameter 6 in., to 470 ft;
perforated casing from 430 to 470 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
water-level recorder--60-minute recorder interval.
DATUM.--Elevation of land surface is 2,565 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 3.2 ft above land surface.
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining
operations.
PERIOD OF RECORD.--April 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 132.70 ft below land surface, Nov. 6 and 7, 1989;
lowest measured, 245.19 ft below land surface, April 19, 1988.

```

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 16	136.49	DEC 14	137.04	FEB 7	137.47	APR 23	138.24	JUN 20	138.62	AUG 14	139.08
NOV 15	136.75	JAN 10	137.13	MAR 11	137.97	MAY 22	138.42	JUL 17	138.87	SEP 18	139.45
WATER YEAR 1991		HIGHEST	136.49	OCT 16, 1990		LOWEST	139.45	SEP 18, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 38. SITE ID.--391715079223104. PERMIT NUMBER.--GA-81-1340.

LOCATION.--Lat 39°17'15", long 79°22'31", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 0.6 mi. southwest of intersection with U.S. Route 50, 0.6 mi. southwest of Ft. Pendleton.

Owner: Mettiki Coal Corp.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 230 ft; casing diameter 5.56 in., to 230 ft; perforated casing from 215 to 230 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval.

DATUM.--Elevation of land surface is 2,565 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.2 ft above land surface.

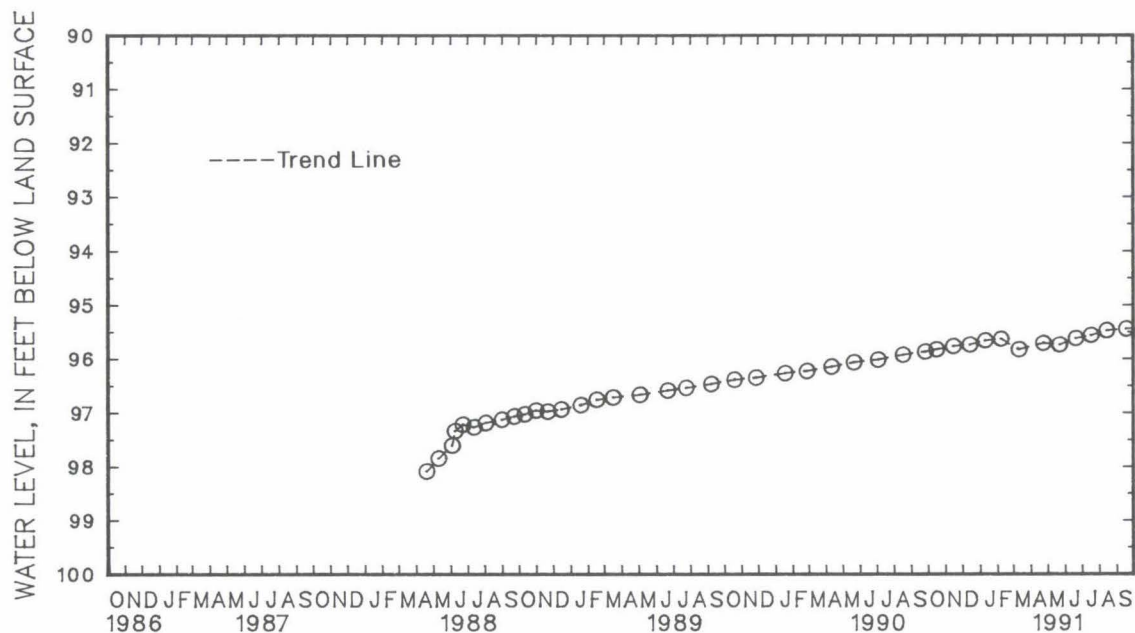
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.

PERIOD OF RECORD.--April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 95.44 ft below land surface, Sept. 18, 1991; lowest measured, 98.09 ft below land surface, April 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	95.83	DEC 14	95.74	FEB 7	95.63	APR 23	95.71	JUN 20	95.62	AUG 14	95.47
NOV 15	95.77	JAN 10	95.66	MAR 11	95.83	MAY 22	95.74	JUL 17	95.56	SEP 18	95.44
WATER YEAR 1991		HIGHEST	95.44	SEP 18, 1991	LOWEST	95.83	OCT 16, 1990 MAR 11, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 39. SITE ID.--391715079223105. PERMIT NUMBER.--GA-81-1344.

LOCATION.--Lat 39°47'15", long 79°22'31", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 0.6 mi. southwest of intersection with U.S. Route 50, 0.6 mi. southwest of Ft. Pendleton.

Owner: Mettiki Coal Corp.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 97 ft; casing diameter 6 in., to 42 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 2,565 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.2 ft above land surface.

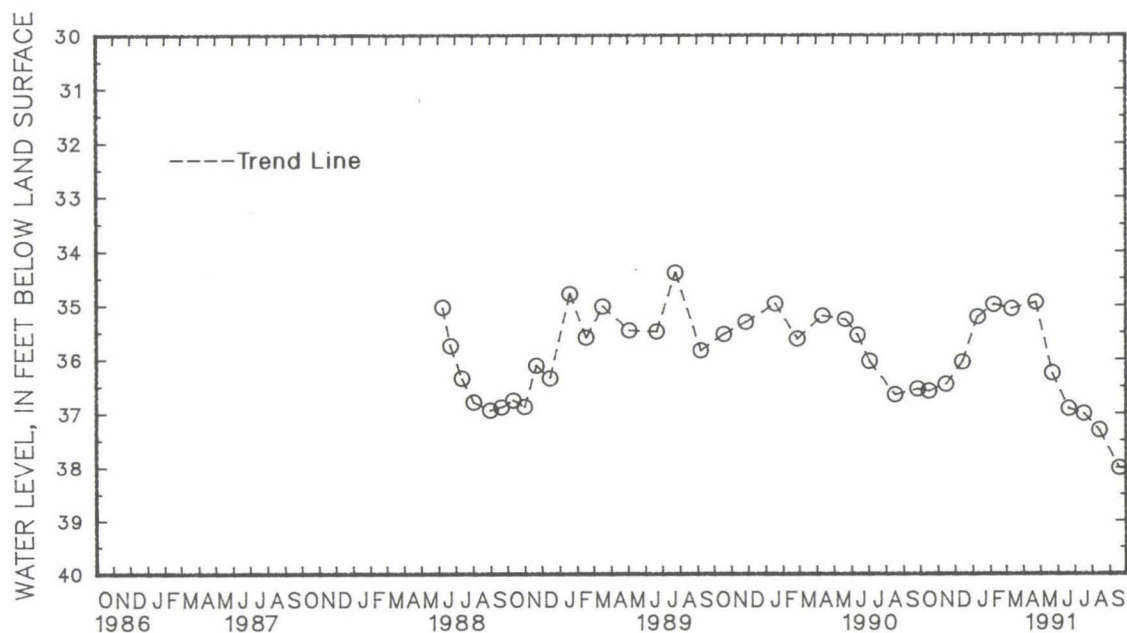
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.

PERIOD OF RECORD.--June 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.40 ft below land surface, July 24, 1989;
lowest measured, 38.05 ft below land surface, Sept. 18, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 16	36.62	DEC 14	36.07	FEB 7	34.99	APR 23	34.95	JUN 20	36.95	AUG 14	37.35	NOV 15	36.49	JAN 10	35.22
				MAR 11		MAY 22		JUL 17		SEP 18					
WATER YEAR 1991		HIGHEST		34.95		APR 23, 1991		LOWEST		38.05		SEP 18, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Ga 16. SITE ID.--391420079264901. PERMIT NUMBER.--GA-81-0953.
 LOCATION.--Lat 39°14'20", long 79°26'49", Hydrologic Unit 02070002, east of Kempton Rd., 100 ft north of
 Laurel Run, 2.8 mi southwest of Wilson.
 Owner: Mettiki Coal Co.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 147 ft; casing diameter 6 in., to 110 ft,
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--60-minute recorder interval.
 DATUM.--Elevation of land surface is 2,690 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of shelter floor, 3.2 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining
 operations. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--November 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 93.07 ft below land surface, Jan. 6, 1987;
 lowest measured, 145.05 ft below land surface, Sept. 22, 1988.

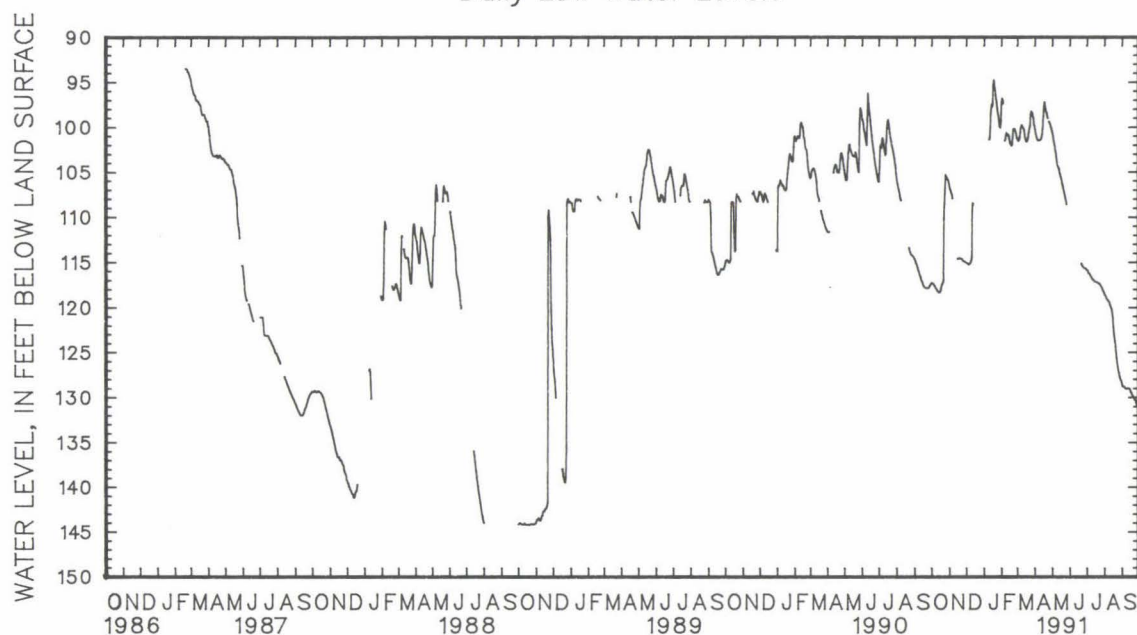
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	117.35	117.34	106.67	106.35	115.12	115.09	---	---	97.43	96.76	101.29	101.19
2	117.41	117.34	106.94	106.69	115.15	115.13	---	---	96.79	96.71	101.47	101.11
3	117.42	117.41	107.12	106.95	115.16	115.10	---	---	97.00	96.78	101.57	101.39
4	117.54	117.42	107.35	107.17	115.25	115.10	---	---	97.34	97.00	101.39	101.19
5	117.62	117.55	107.50	107.32	115.30	115.25	---	---	---	---	101.19	100.65
6	117.77	117.62	107.93	107.52	115.25	115.20	---	---	---	---	100.62	100.06
7	117.87	117.77	---	---	115.20	115.07	---	---	101.52	101.30	100.06	99.97
8	117.98	117.88	---	---	115.07	114.92	---	---	101.28	100.86	99.95	99.78
9	118.08	117.99	---	---	114.91	114.56	---	---	100.85	100.65	99.78	99.63
10	118.20	118.08	---	---	114.51	109.54	101.35	101.17	100.63	100.55	99.91	99.65
11	118.32	118.20	---	---	109.29	108.48	101.15	100.37	100.86	100.62	100.03	99.91
12	118.38	118.32	---	---	108.48	108.30	100.31	98.42	100.96	100.82	100.13	100.03
13	118.41	118.38	---	---	108.60	108.29	98.33	97.39	100.85	100.67	100.28	100.10
14	118.41	118.33	---	---	---	---	97.49	97.33	101.00	100.60	100.84	100.28
15	118.33	118.15	114.66	114.65	---	---	97.71	97.53	101.48	101.00	101.28	100.85
16	118.14	117.85	114.65	114.51	---	---	97.55	95.47	101.70	101.49	101.58	101.29
17	117.85	117.61	114.60	114.51	---	---	95.36	94.41	101.88	101.61	101.65	101.58
18	117.60	117.44	114.61	114.60	---	---	94.79	94.35	102.03	101.88	101.58	101.43
19	117.46	117.32	114.60	114.60	---	---	95.17	94.81	102.10	102.01	101.44	101.05
20	117.32	117.12	114.64	114.60	---	---	95.65	95.14	101.98	101.11	101.03	100.60
21	117.11	111.00	114.64	114.64	---	---	96.39	95.66	101.05	100.23	100.56	100.21
22	110.23	108.57	114.64	114.64	---	---	96.93	96.41	100.21	99.92	100.20	99.89
23	108.54	107.22	114.67	114.64	---	---	97.35	96.94	100.18	100.09	99.87	98.64
24	107.12	105.40	114.80	114.68	---	---	97.93	97.38	100.17	100.09	98.60	98.18
25	105.35	105.21	114.91	114.80	---	---	98.42	97.95	100.28	100.18	98.27	98.16
26	105.43	105.21	114.93	114.91	---	---	98.70	98.42	100.46	100.28	98.33	98.26
27	105.57	105.43	114.93	114.93	---	---	99.06	98.74	100.88	100.47	98.37	98.27
28	105.77	105.40	115.00	114.93	---	---	99.71	99.08	101.20	100.89	98.81	98.31
29	105.89	105.76	115.02	115.00	---	---	99.97	99.74	---	---	98.94	98.74
30	106.01	105.89	115.09	115.03	---	---	100.07	99.62	---	---	99.66	98.96
31	106.33	106.01	---	---	---	---	99.48	97.49	---	---	99.86	99.67
MONTH	118.41	105.21	115.09	106.35	115.30	108.29	101.35	94.35	102.10	96.71	101.65	98.16

GROUND-WATER LEVELS
MARYLAND--Continued
GARRETT COUNTY--Continued
GA Ga 16--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	100.23	99.83	100.72	100.40	---	---	115.95	115.91	118.62	118.46	128.81	128.45
2	100.66	100.23	101.02	100.73	---	---	116.02	115.95	118.78	118.62	128.84	128.81
3	100.96	100.67	101.50	101.03	---	---	116.22	116.02	118.89	118.78	128.85	128.84
4	101.21	100.97	101.83	101.51	---	---	116.31	116.22	119.06	118.90	128.86	128.85
5	101.42	101.21	102.16	101.89	---	---	116.35	116.31	119.15	119.06	128.95	128.86
6	101.49	101.42	102.69	102.16	---	---	116.48	116.35	119.25	119.16	129.02	128.95
7	101.50	101.47	103.09	102.70	---	---	116.62	116.48	119.31	119.25	129.07	129.02
8	101.48	101.39	103.41	103.11	---	---	116.67	116.62	119.40	119.31	129.10	129.07
9	101.49	101.39	103.92	103.48	---	---	116.78	116.67	119.51	119.40	129.10	129.09
10	101.42	101.30	104.30	103.92	---	---	116.93	116.78	119.77	119.51	129.09	129.09
11	101.38	101.08	104.46	104.30	---	---	116.97	116.93	119.92	119.78	129.09	129.09
12	101.07	100.82	104.59	104.46	---	---	117.01	116.97	120.13	119.93	129.09	129.09
13	100.79	100.17	104.79	104.59	---	---	117.11	117.01	120.27	120.23	129.09	129.08
14	100.11	98.91	105.12	104.79	---	---	117.19	117.11	120.66	120.29	129.12	129.08
15	98.85	97.89	105.44	105.14	---	---	117.22	117.19	121.20	120.67	129.19	129.12
16	97.83	97.24	105.65	105.45	---	---	117.23	117.22	122.19	121.20	129.47	129.19
17	97.22	97.08	105.94	105.65	---	---	---	---	122.77	122.25	129.50	129.46
18	97.58	97.22	106.28	105.95	---	---	117.28	117.24	123.31	122.81	129.71	129.50
19	97.92	97.58	106.55	106.29	---	---	117.31	117.28	123.79	123.32	129.83	129.71
20	98.25	97.94	106.82	106.56	---	---	117.34	117.31	124.39	123.82	129.92	129.83
21	98.42	98.25	107.13	106.85	115.21	115.10	117.41	117.34	125.09	124.41	130.03	129.92
22	98.84	98.42	107.45	107.12	115.37	115.21	117.43	117.41	125.64	125.11	130.12	130.03
23	98.99	98.84	107.70	107.45	115.50	115.37	117.51	117.44	126.23	125.72	130.32	130.12
24	---	---	107.99	107.71	115.58	115.50	117.60	117.51	126.63	126.24	130.34	130.33
25	99.40	99.32	108.32	108.00	115.65	115.62	117.69	117.60	126.97	126.63	130.40	130.31
26	99.53	99.40	108.62	108.32	115.71	115.65	117.81	117.69	127.29	126.97	130.65	130.40
27	99.64	99.51	---	---	115.75	115.71	117.94	117.81	127.71	127.30	130.85	130.65
28	99.93	99.63	---	---	115.75	115.74	118.06	117.94	127.90	127.72	131.17	130.89
29	100.10	99.91	---	---	115.80	115.75	118.19	118.06	128.09	127.92	131.39	131.18
30	100.40	100.06	---	---	115.91	115.80	118.34	118.19	128.22	128.10	131.60	131.40
31	---	---	---	---	---	---	118.46	118.34	128.44	128.22	---	---
MONTH	101.50	97.08	108.62	100.40	115.91	115.10	118.46	115.91	128.44	118.46	131.60	128.45

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY

WELL NUMBER.--HA Bd 31. SITE ID.--393902076160001.

LOCATION.--Lat 39°39'02", long 76°16'00", Hydrologic Unit 02050306, at Dublin.

Owner: Walter Lee Moody, Sr.

AQUIFER.--Baltimore Gabbro Complex of Paleozoic age. Aquifer code: 300BLMR.

WELL CHARACTERISTICS.--Dug, stone-lined, water-table well, measured depth 25.9 ft; approximate diameter 36 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level

recorder from July 9, 1954 to Aug. 5, 1958.

DATUM.--Elevation of land surface is 460 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wood floor, 0.10 ft above land surface.

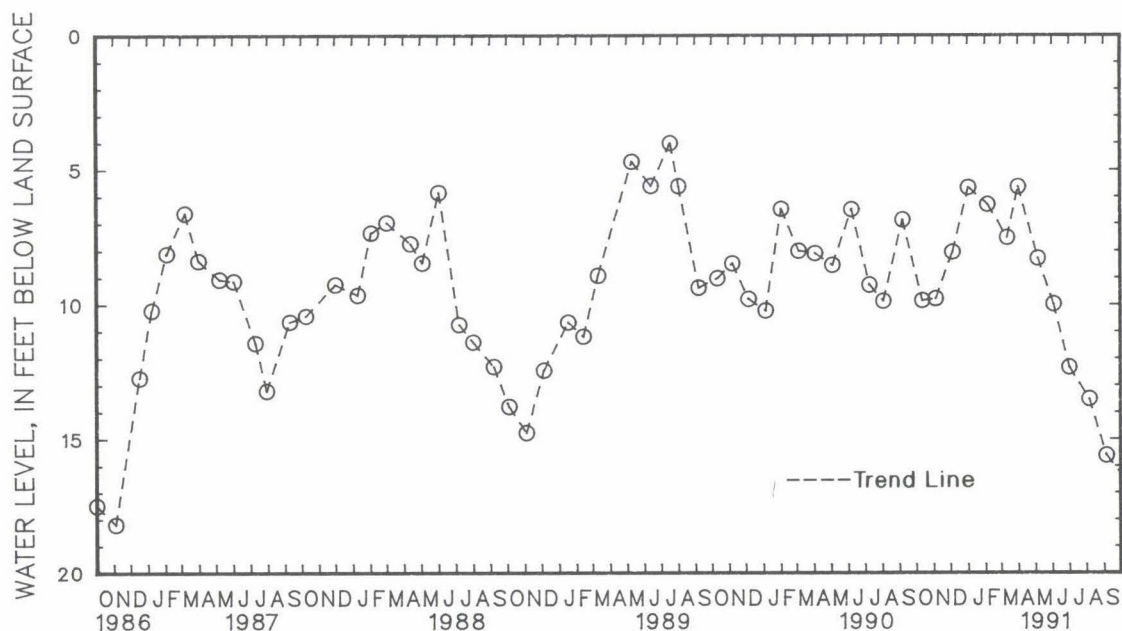
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.00 ft below land surface, March 8, 1979;
lowest measured, 19.59 ft below land surface, Feb. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

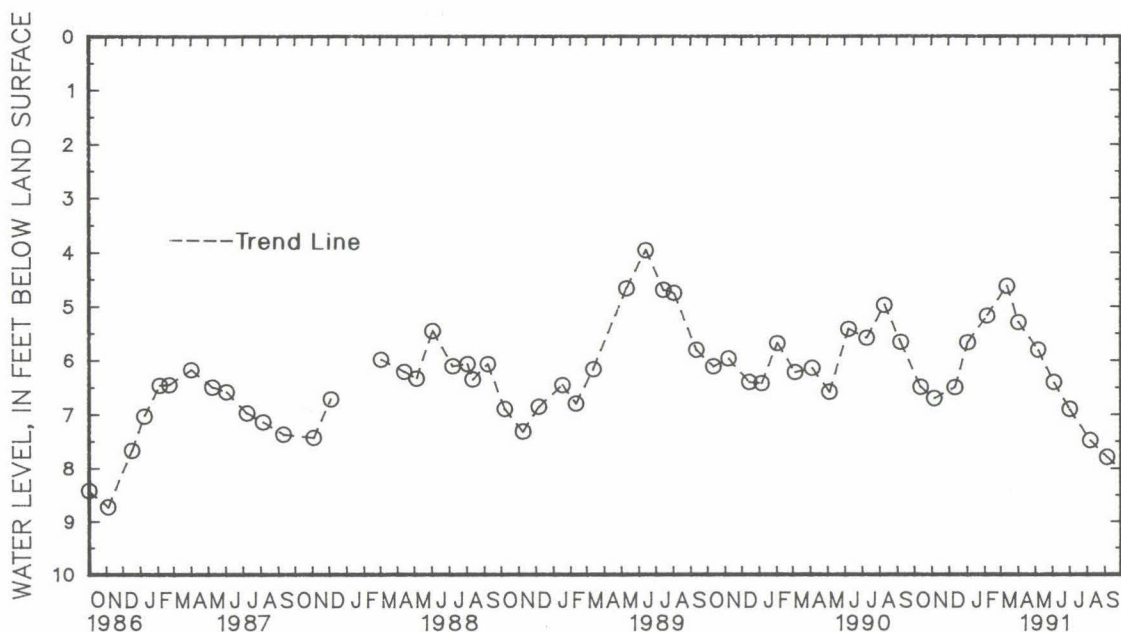
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	9.87	DEC 5	8.07	FEB 5	6.30	APR 1	5.64	JUN 3	10.00	AUG 6	13.53
NOV 5	9.80	JAN 2	5.67	MAR 12	7.53	MAY 6	8.30	JUL 1	12.36	SEP 5	15.63
WATER YEAR 1991		HIGHEST	5.64	APR 1, 1991		LOWEST	15.63	SEP 5, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.59 ft below land surface, Sept. 27, 1975; lowest measured, 9.03 ft below land surface, Dec. 15, 1981.

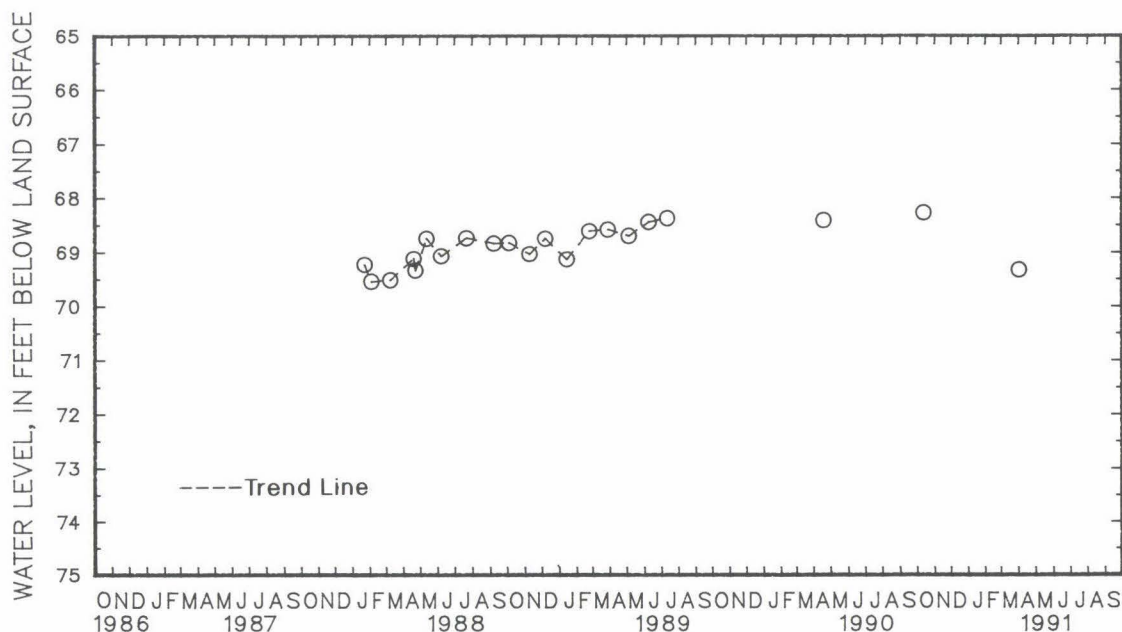
DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 12	6.53	DEC 11	6.53	FEB 5	5.18	APR 1	5.32	JUN 3	6.44	AUG 6	7.52				
NOV 5	6.74	JAN 2	5.68	MAR 12	4.63	MAY 6	5.84	JUL 1	6.94	SEP 5	7.83				
WATER YEAR 1991		HIGHEST	4.63	MAR 12, 1991		LOWEST	7.83	SEP 5, 1991							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--HA Dd 89. SITE ID.--392529076180901. PERMIT NUMBER.--HA-81-4130.
LOCATION.--Lat 39°25'29", long 76°18'09", Hydrologic Unit 02060003, at Edgewood Elementary School on Cedar Drive,
Edgewood.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 271PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 140 ft; casing diameter 4 in., to 120 ft;
screen diameter 4 in. from 120 to 140 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Equipped with digital
water-level recorder--15-minute recorder interval from Jan. 1, 1988 to July 11, 1989.
DATUM.--Elevation of land surface is 99.05 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder platform, 1.80 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--January 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.29 ft below land surface, Oct. 12, 1990;
lowest measured, 69.58 ft below land surface, Feb. 3, 1988

DATE	WATER LEVEL	DATE	WATER LEVEL			
OCT 12	68.29	APR 1	69.36			
WATER YEAR 1991	HIGHEST	68.29	OCT 12, 1990	LOWEST	69.36	APR 1, 1991



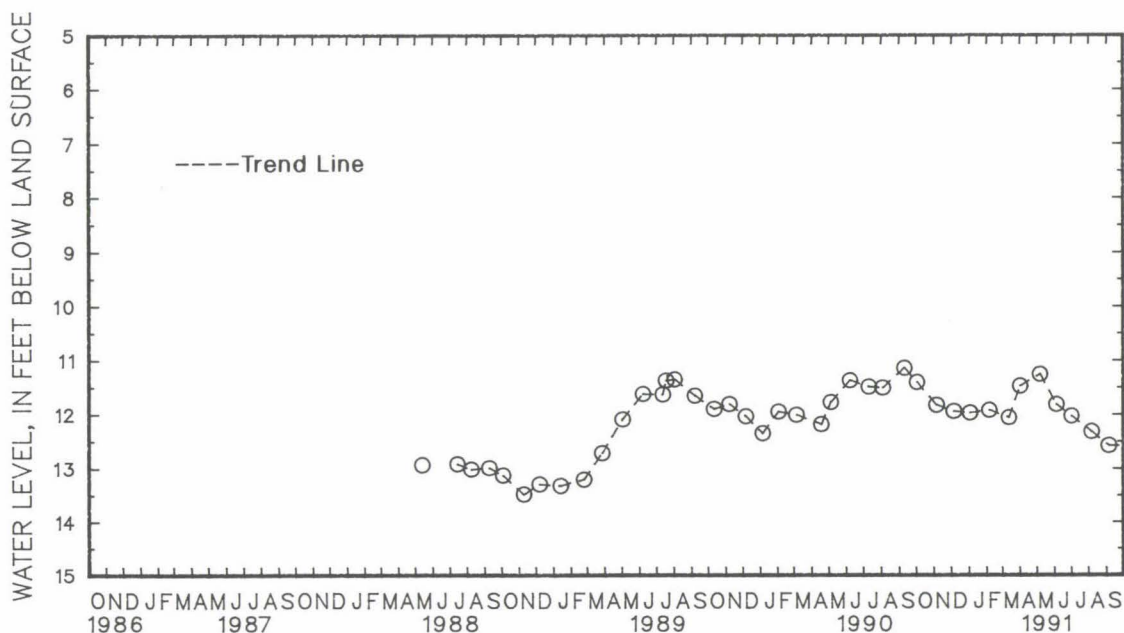
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued

WELL NUMBER.--HA Dd 91. SITE ID.--392721076150301. PERMIT NUMBER.--HA-81-4136.
LOCATION.--Lat 39°27'21", long 76°15'03", Hydrologic Unit 02060003, at William Longley Park, near intersection of Long Bar Harbor and Longley Rds., Long Bar Harbor.
Owner: U.S. Geological Survey.
AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 78 ft; casing diameter 4 in., to 58 ft, and 68 to 78 ft; screen diameter 4 in. from 58 to 68 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 19.73 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.90 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.15 ft below land surface, Sept .10, 1990; lowest measured, 13.51 ft below land surface, Nov. 9, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	11.42	DEC 5	11.97	FEB 5	11.95	APR 1	11.49	JUN 4	11.84	AUG 6	12.35
NOV 5	11.85	JAN 2	12.00	MAR 12	12.09	MAY 6	11.27	JUL 1	12.06	SEP 5	12.61
WATER YEAR 1991		HIGHEST	11.27	MAY 6, 1991	LOWEST	12.61	SEP 5, 1991				



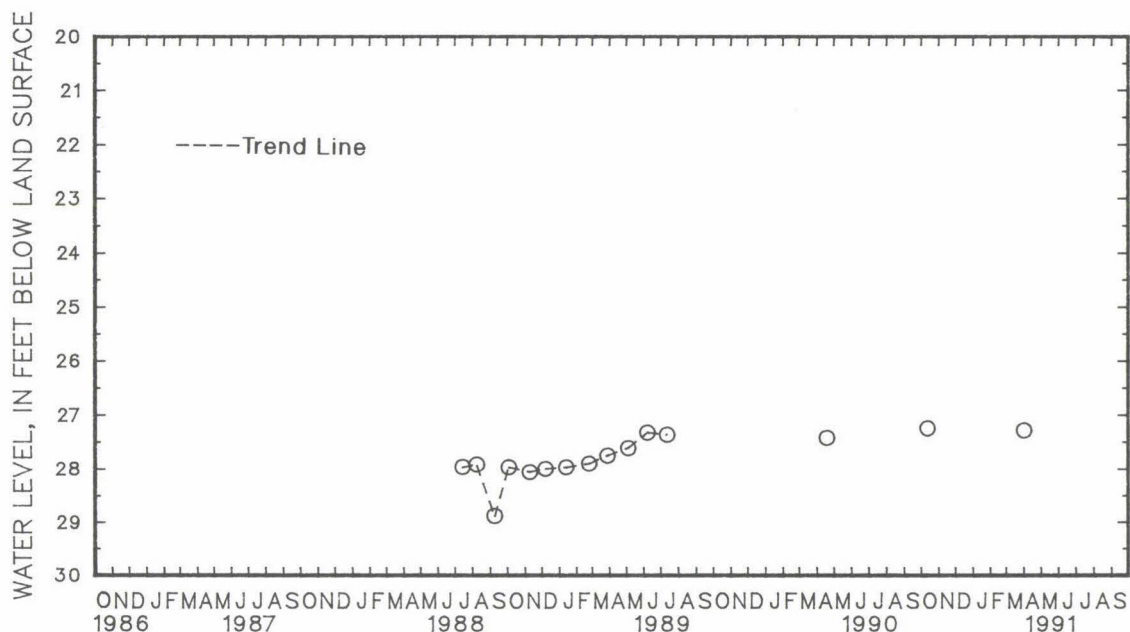
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

HARFORD COUNTY--Continued

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL			
OCT 12	27.25	APR 1	27.29			
WATER YEAR 1991	HIGHEST	27.25	OCT 12, 1990	LOWEST	27.29	APR 1, 1991



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 66. SITE ID.--392921076100401. PERMIT NUMBER.--HA-69-0394.

LOCATION.--Lat 39°29'21", long 76°10'04", Hydrologic Unit 02060003, at Short Lane, near Aberdeen.

Owner: Harford County Metropolitan Commission.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 135 ft; casing diameter 4 in., to 45 ft; screen diameter 4 in. from 45 to 66 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from Dec. 12, 1986 to July 11, 1989.

DATUM.--Elevation of land surface is 67.75 ft above National Geodetic Vertical Datum of 1929.

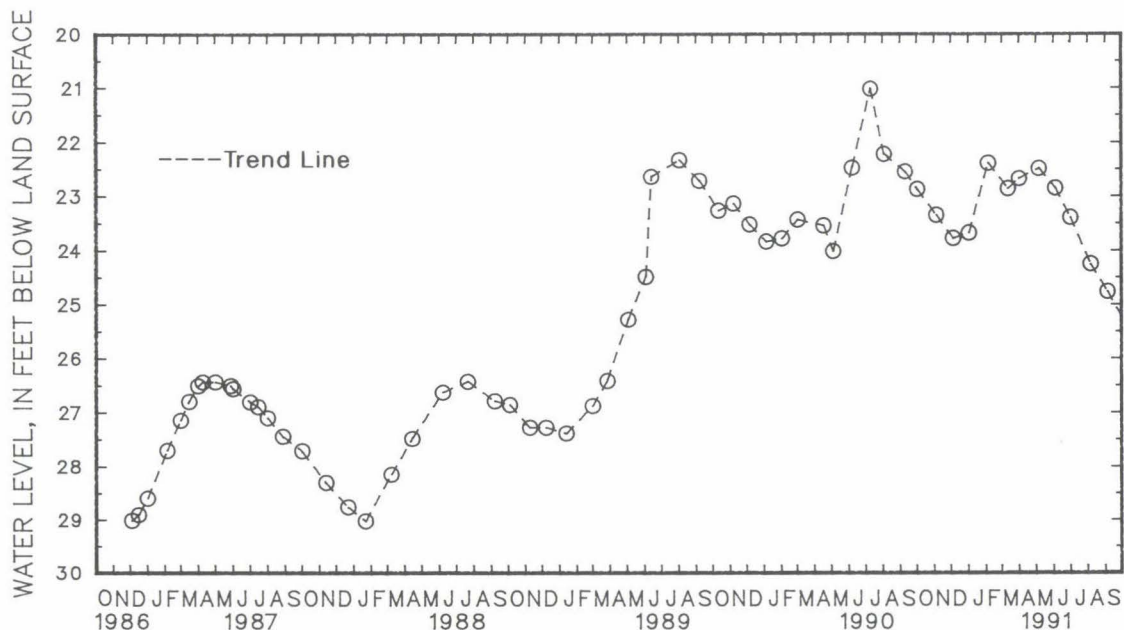
Measuring point: Top of casing, 1.61 ft above land surface.

PERIOD OF RECORD.--October 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.31 ft below land surface, July 28, 1975; lowest measured, 29.07 ft below land surface, Jan. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	22.90	DEC 5	23.81	FEB 5	22.40	APR 1	22.69	JUN 4	22.87	AUG 6	24.29
NOV 5	23.38	JAN 2	23.71	MAR 12	22.88	MAY 6	22.50	JUL 1	23.42	SEP 5	24.80
WATER YEAR 1991		HIGHEST	22.40	FEB 5, 1991	LOWEST	24.80	SEP 5, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

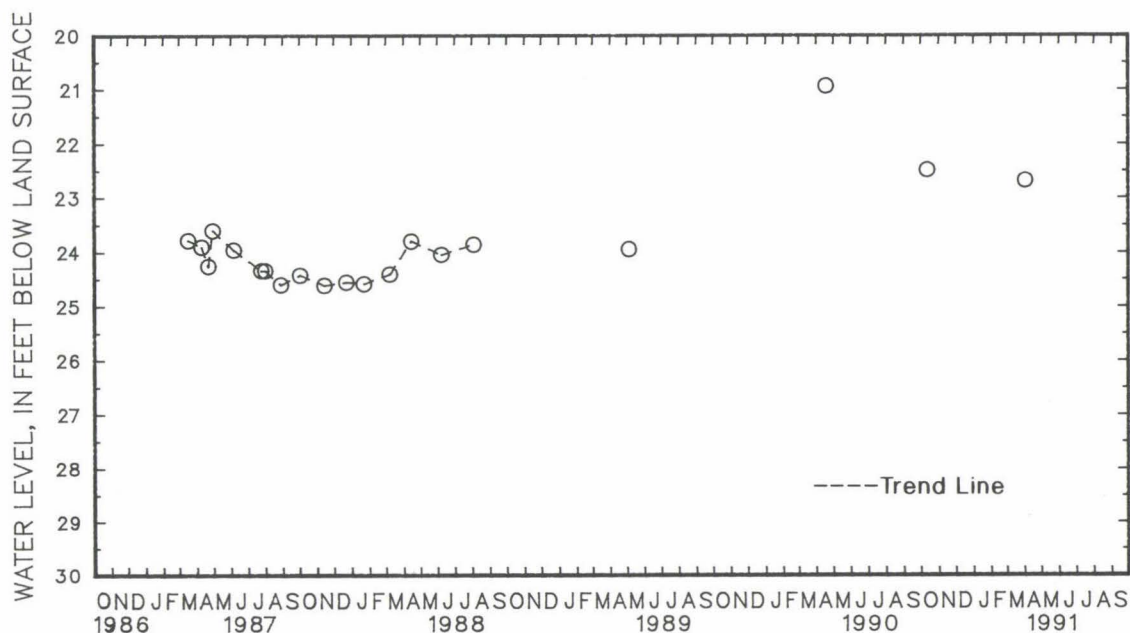
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 151. SITE ID.--392628076133101. PERMIT NUMBER.--HA-81-0952.
 LOCATION.--Lat 39°26'28", long 76°13'31", Hydrologic Unit 02060003, 2.1 mi. south of Perryman,
 0.5 mi. west of Chelsea Rd.
 Owner: Baltimore Gas & Electric.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 4 in., to 168 ft;
 screen diameter 4 in. from 168 to 178 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Equipped with
 digital water-level recorder--15-minute recorder interval from March 1, 1987 to July 11, 1989.
 DATUM.--Elevation of land surface is 31.74 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.45 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--March 1987 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.94 ft below land surface, April 18, 1990;
 lowest measured, 25.00 ft below land surface, Aug. 13, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER LEVEL YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	22.51	APR 2	22.71
WATER YEAR 1991	HIGHEST	22.51	OCT 12, 1990
	LOWEST	22.71	APR 2, 1991



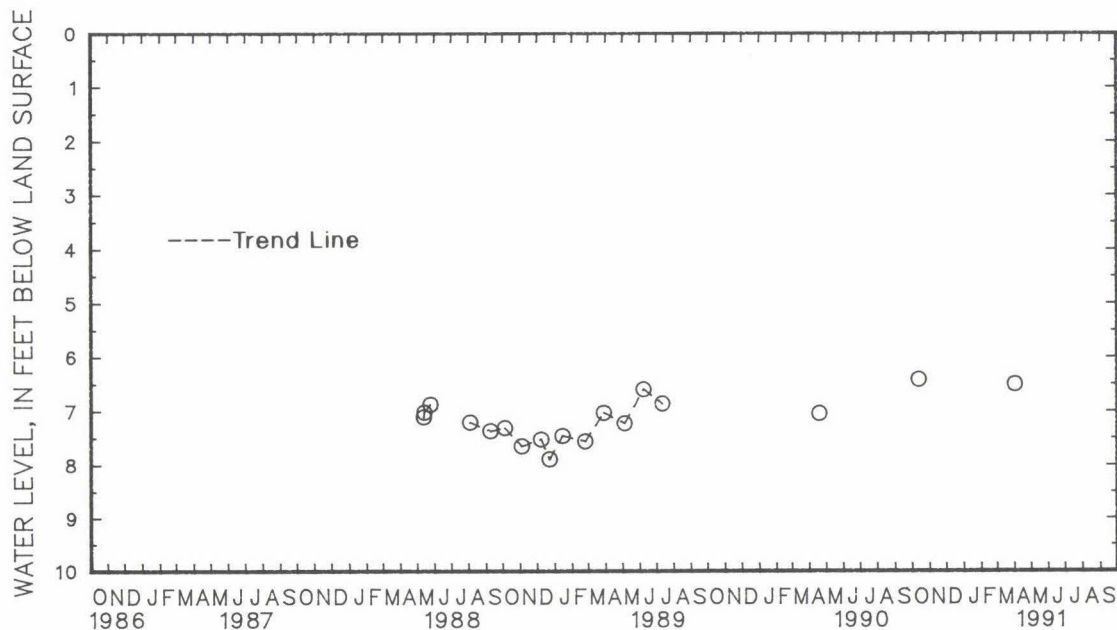
5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued

WELL NUMBER.--HA De 181. SITE ID.--392606076145801. PERMIT NUMBER.--HA-81-4134.
LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003. northeast end of Kennard Ave.,
at Willoughby Beach, Crestwood.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 4 in., to 264 ft
and 269 to 275 ft and 260 to 290 ft; screen diameter 4 in. from 264 to 269 ft and 275 to 280 ft.
INSTRUMENTATION.--Equipped with digital water-level recorder--15-minute recorder interval from May 24, 1988 to
July 11, 1989. Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 12.22 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.10 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well. Harford County Coastal Plain Project observation well.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.43 ft below land surface, Oct. 12 1990;
lowest measured, 7.93 ft below land surface, Dec. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER LEVEL YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	6.43	APR 1	6.52
WATER YEAR 1991 HIGHEST 6.43 OCT 12, 1990 LOWEST 6.52 APR 1, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND WATER LEVELS

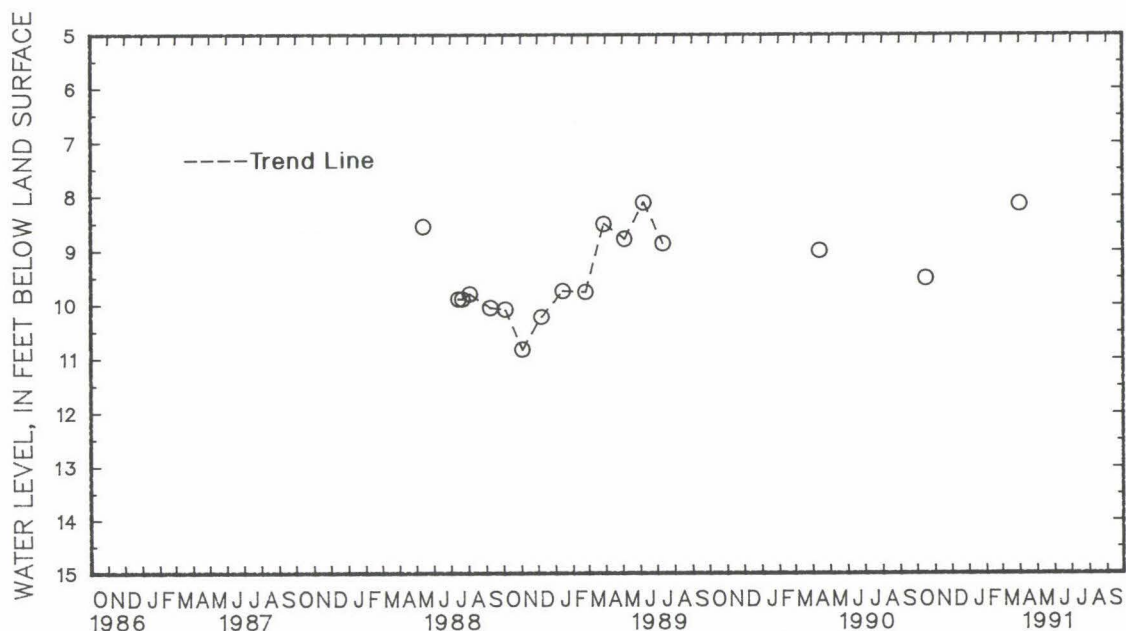
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 182. SITE ID.--392606076145802. PERMIT NUMBER.--HA-81-4135.
 LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003, northeast end of Kennard Ave.,
 at Willoughby Beach, Crestwood.
 Owner: U.S. Geological Survey.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 40 ft; casing diameter 4 in., to 30 ft;
 screen diameter 4 in. from 30 to 40 ft.
 INSTRUMENTATION.--Equipped with digital water-level recorder--15-minute recorder interval from July 21, 1988 to
 July 11, 1989. Measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 12.29 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.52 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Harford County Coastal Plain Project observation well.
 PERIOD OF RECORD.--May 1988 to July 1989.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.12 ft below land surface, June 7, 1989;
 lowest measured, 10.87 ft below land surface, Nov. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	9.54	APR 1	8.15
WATER YEAR 1991 HIGHEST 8.15 APR 01, 1991 LOWEST 9.54 OCT 16, 1990			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

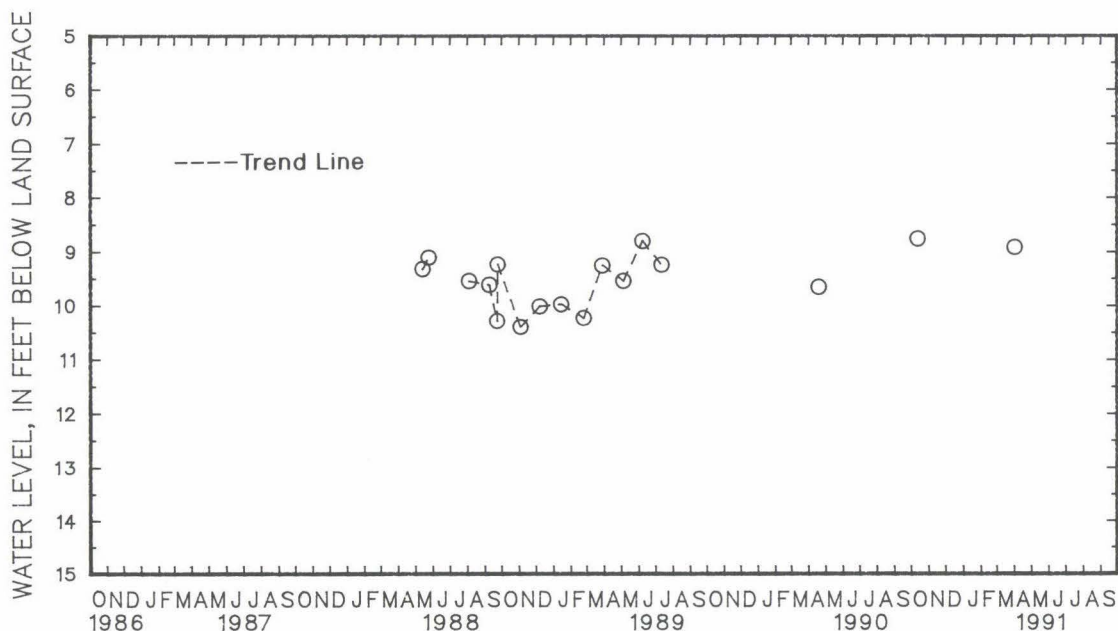
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 183. SITE ID.--392606076145803. PERMIT NUMBER.--HA-81-4577.
 LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003, northeast end of Kennard Ave.,
 at Willoughby Beach, Crestwood.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 175 ft; casing diameter 4 in., to 155 ft;
 and 165 to 175 ft; screen diameter 4 in. from 155 to 165 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Equipped with digital
 water-level recorder--15-minute recorder interval from May 24, 1988 to July 11, 1989.
 DATUM.--Elevation of land surface is 12.53 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.53 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to July 1989, April 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.77 ft below land surface, OCT. 12, 1990;
 lowest measured, 10.43 ft below land surface, NOV. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	8.77	APR 1	8.93
WATER YEAR 1991	HIGHEST	8.77	OCT 12, 1990
	LOWEST	10.43	NOV 3, 1988



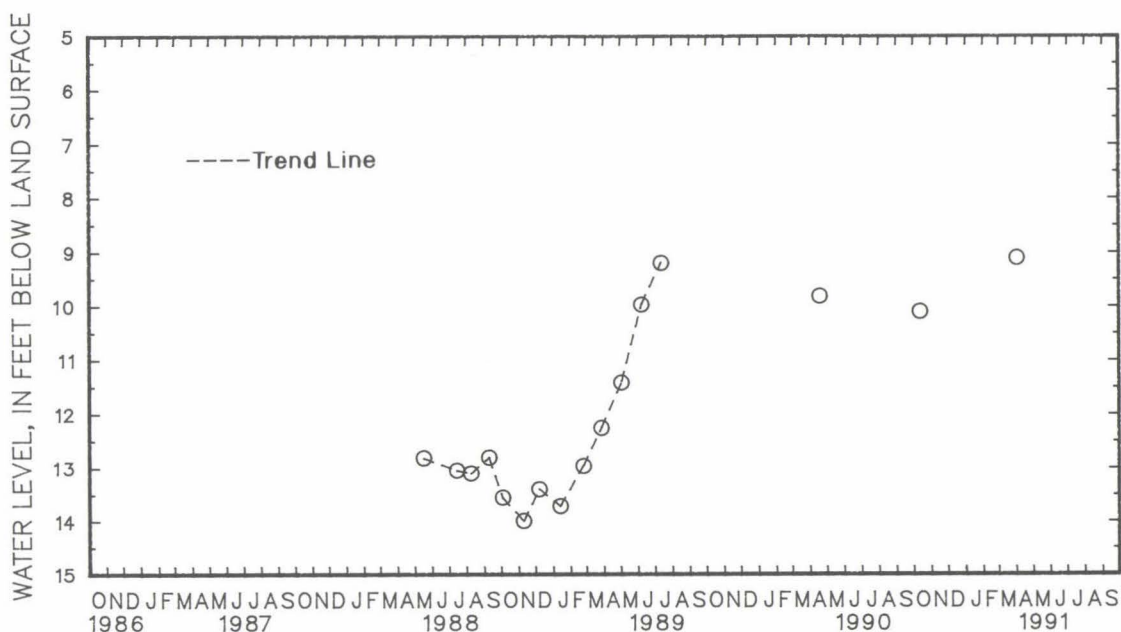
5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued

WELL NUMBER.--HA De 195. SITE ID.--392914076110301. PERMIT NUMBER.--HA-81-4142.
LOCATION.--Lat 39°29'14", long 76°11'03", Hydrologic Unit 02060003, .2 mi on Cranberry Run Dr., near Perryman.
Owner: U.S. Geological Survey.
AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TBLT.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 45 ft; casing diameter 4 in., to 35 ft; and 45 to 55 ft; screen diameter 4 in. from 35 to 45 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from May 1988 to July 1989.
DATUM.--Elevation of land surface is 52.70 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.38 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.11 ft below land surface, April 2, 1991; lowest measured, 14.01 ft below land surface, Nov. 9, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	10.12	APR 2	9.11
WATER YEAR 1991 HIGHEST 9.11 APR 2, 1991 LOWEST 10.12 OCT 12, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

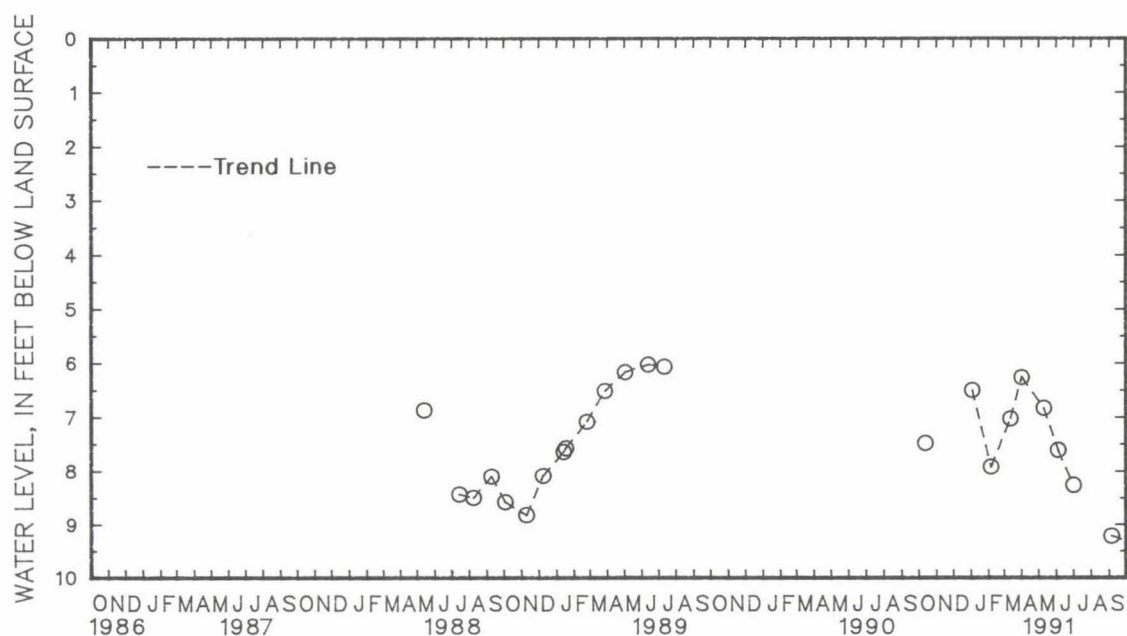
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued

WELL NUMBER.--HA De 198. SITE ID.--392819076130902. PERMIT NUMBER.--HA-81-4141.
LOCATION.--Lat 39°28'19", long 76°13'09", Hydrologic Unit 02060003, northwest end of Fords Lane, Perryman.
Owner: U.S. Geological Survey.
AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 4 in., to 9 ft; screen diameter 4 in. from 9 to 19 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from July 1988 to July 1989.
DATUM.--Elevation of land surface is 18.92 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.50 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.31 ft below land surface, April 18, 1990; lowest measured, 9.67 ft below land surface, Nov 12, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	7.51	FEB 5	7.95	APR 1	6.27	JUN 4	7.64	SEP 5	9.23
JAN 3	6.51	MAR 12	7.04	MAY 10	6.85	JUL 1	8.2		
WATER YEAR 1991		HIGHEST	6.27	APR 1, 1991	LOWEST	9.23	SEP 5, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

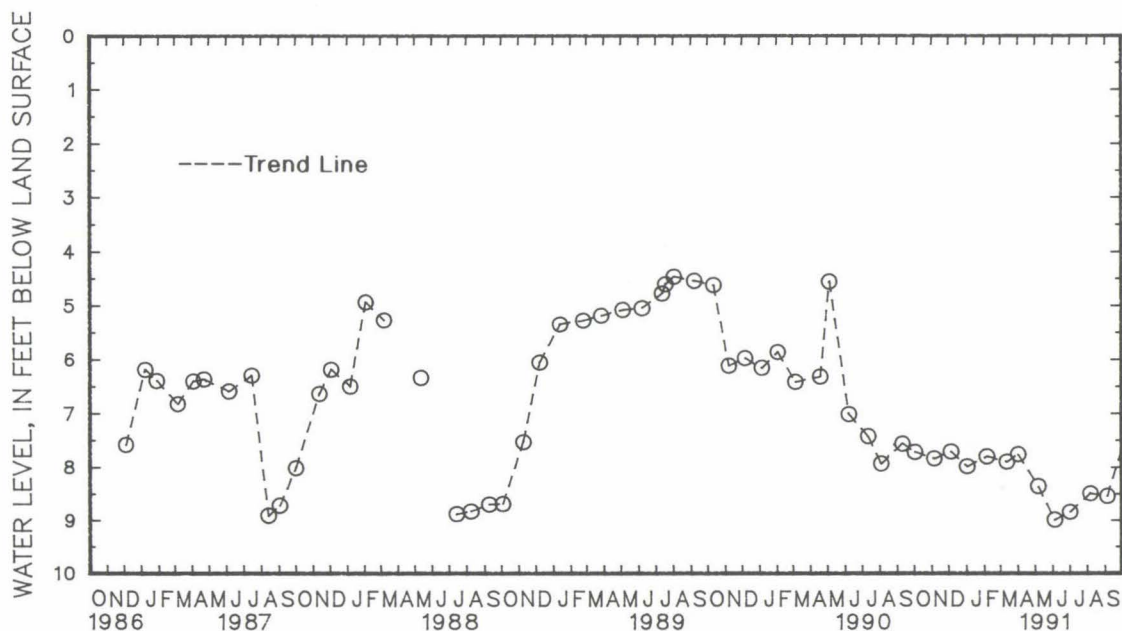
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued

WELL NUMBER.--HA Ec 11. SITE ID.--392433076203301. PERMIT NUMBER.--HA-04-7211.
LOCATION.--Lat 39°24'33", long 76°20'33", Hydrologic Unit 02060003, off Trimble Rd., Joppatowne.
Owner: Joppatowne Utilities Corp.
AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 68 ft; diameter of casing 6 in., to 63 ft; screen diameter 2 in. from 63 to 68 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from May 23, 1962 to Dec. 17, 1983.
DATUM.--Elevation of land surface is 11.7 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.50 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--May 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, at land surface, May 24, 1962; lowest measured, 12.80 ft below land surface, May 26, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	7.75	DEC 5	7.74	FEB 5	7.83	APR 1	7.79	JUN 4	9.01	AUG 6	8.51
NOV 5	7.87	JAN 2	8.02	MAR 12	7.93	MAY 6	8.39	JUL 1	8.86	SEP 5	8.56
WATER YEAR 1991		HIGHEST	7.74	DEC 5, 1990	LOWEST	9.01	JUN 4, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ec 47. SITE ID.--392408076210102. PERMIT NUMBER.--HA-81-4125.
 LOCATION.--Lat 39°24'33", long 76°20'33", Hydrologic Unit 02060003, in park on Kearney Dr., Joppatowne.
 Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation well, depth 20 ft; diameter of casing 4 in., to 3 ft, and 13 to 20 ft; screen diameter 4 in. from 3 to 13 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel. Measured monthly from May 1988 to June 1989.

DATUM.--Elevation of land surface is 23.30 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.15 ft above land surface.

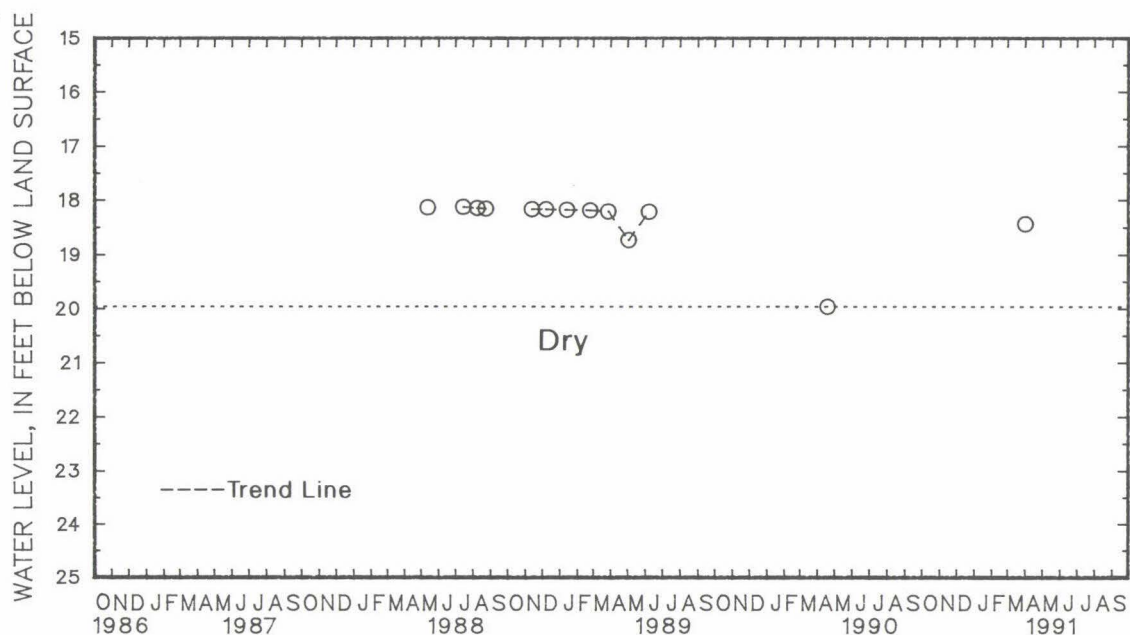
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.20 ft below land surface, Nov. 12, 1988 and Dec. 7, 1988; lowest measured, dry, on April 4, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL
APR 1	18.45



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 24. SITE ID.--392343076161901.

LOCATION.--Lat 39°23'43", long 76°16'19", Hydrologic Unit 02060003, at Bush River Rd. and 29th St., about 2 mi southeast of Edgewood.

Owner: U.S. Army.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PFSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 149 ft; casing diameter 18 in., to 73 ft; casing diameter 10 in. from 65 to 120 ft; screen diameter 10 in. from 120 to 135 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from Jan. 24, 1950, to June 6, 1961.

DATUM.--Elevation of land surface is 12.8 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.15 ft above land surface.

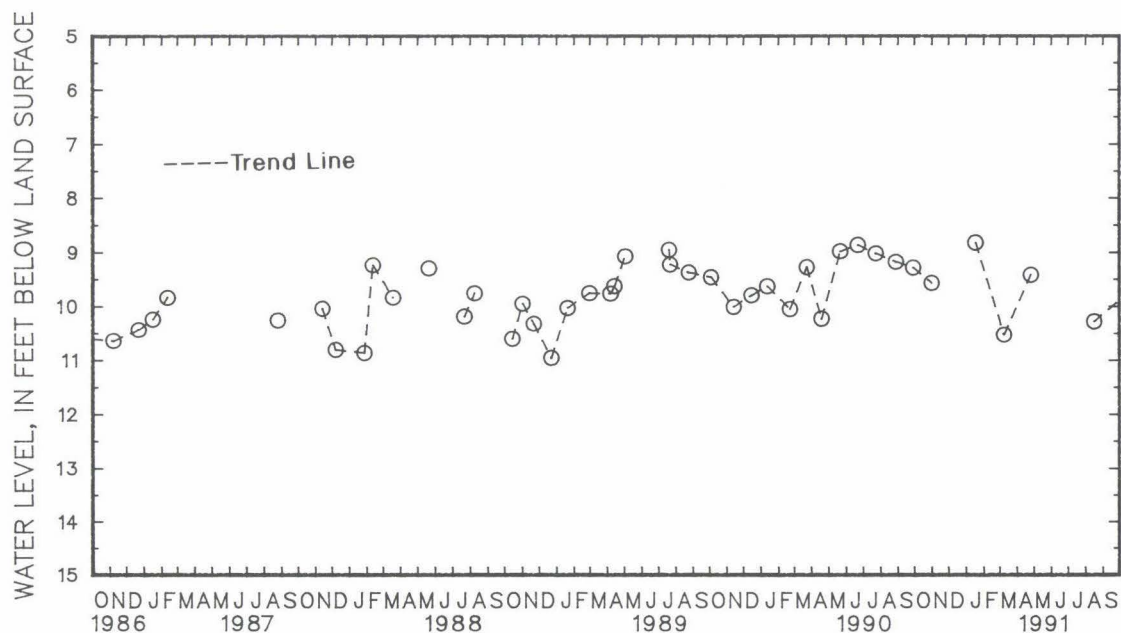
REMARKS.--Maryland Water-Level Network observation well. Water level measured, 8.24 ft below land-surface datum, April 13, 1944.

PERIOD OF RECORD.-- September 1949, January 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.41 ft below land surface, Sept. 17, 1984; lowest measured, 42.55 ft below land surface, June 26, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	9.59	JAN 17	8.83	MAR 8	10.56	APR 25	9.43	AUG 16	10.31
WATER YEAR 1991		HIGHEST	8.83	JAN 17, 1991	LOWEST	10.56	MAR 8, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

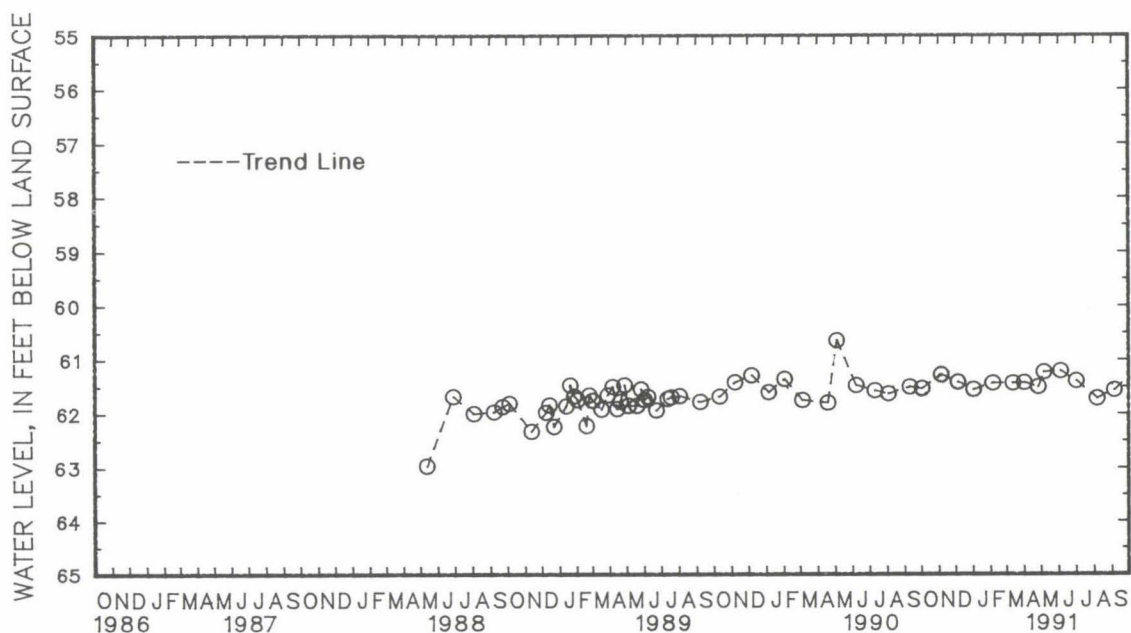
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 48. SITE ID.--392455076192102. PERMIT NUMBER.--HA-81-4178.
 LOCATION.--Lat 39°24'55", long 76°19'21", Hydrologic Unit 02060003, 0.2 mi east of intersection of MD Rt. 152 and Trimble Rd., Edgewood Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 133 ft; casing diameter 4 in., to 118 ft; screen diameter 4 in. from 118 to 128 ft.
 INSTRUMENTATION.--Monthly measurement with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 91.20 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 2.58 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.65 ft below land surface, May 4, 1990; lowest measured, 63.00 ft below land surface, May 12, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	61.56	JAN 2	61.58	APR 1	61.45	JUN 4	61.23	SEP 5	61.59
NOV 5	61.30	FEB 5	61.46	26	61.53	JUL 1	61.42		
DEC 5	61.44	MAR 12	61.46	MAY 6	61.25	AUG 6	61.75		
WATER YEAR 1991		HIGHEST	61.23	JUN 4, 1991	LOWEST	61.75	AUG 6, 1991		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--CONTINUED

WELL NUMBER.--HA Ed 52. SITE ID.--392405076183701. PERMIT NUMBER.--HA-81-4077.

LOCATION.--Lat 39°24'05", long 76°18'37", Hydrologic Unit 02060003, at Edgewood Arsenal.

Owner: U.S. Army.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21 ft; casing diameter 4 in., to 16 ft; screen diameter 4 in. from 16 to 21 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Apr. 6, 1988 to current year.

DATUM.--Elevation of land surface is 11.9 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.73 ft above land surface.

REMARKS.--Canal Creek Hydrologic Assessment Project observation well CC-44A.

PERIOD OF RECORD.--April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.87 ft above sea level, June 9, 1989; lowest measured, 8.58 ft above sea level, Sept. 15, 16, and 17, 1991.

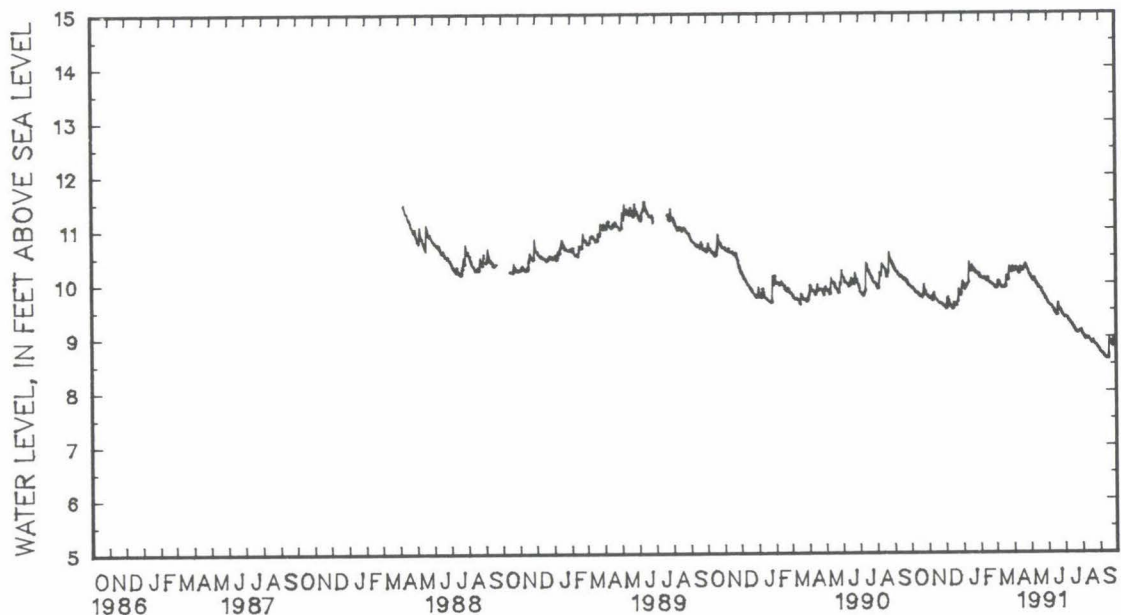
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.95	9.93	9.75	9.75	9.54	9.54	10.03	9.99	10.11	10.10	9.91	9.90
2	9.94	9.91	9.75	9.71	9.54	9.52	10.00	9.98	10.11	10.10	9.93	9.91
3	9.91	9.90	9.74	9.73	9.72	9.52	9.98	9.95	10.11	10.10	9.95	9.90
4	9.95	9.90	9.73	9.72	9.92	9.72	9.95	9.88	10.10	10.09	10.18	9.95
5	9.95	9.91	9.74	9.72	9.82	9.73	9.91	9.87	10.09	10.08	10.10	10.02
6	9.91	9.88	9.74	9.70	9.73	9.68	9.91	9.90	10.08	10.07	10.04	10.01
7	9.88	9.87	9.70	9.69	9.68	9.64	9.94	9.90	10.12	10.08	10.05	9.99
8	9.87	9.85	9.69	9.67	9.64	9.61	9.95	9.94	10.11	10.09	9.99	9.96
9	9.86	9.83	9.67	9.67	9.61	9.59	10.00	9.95	10.09	10.08	9.96	9.95
10	9.84	9.83	10.02	9.67	9.59	9.57	10.01	9.99	10.08	10.07	9.95	9.93
11	9.83	9.83	9.92	9.82	9.57	9.55	10.60	10.00	10.07	10.05	9.93	9.91
12	9.84	9.81	9.82	9.77	9.55	9.54	10.64	10.38	10.05	10.04	9.91	9.91
13	9.83	9.81	9.77	9.73	9.54	9.52	10.38	10.29	10.10	10.04	9.91	9.91
14	9.82	9.81	9.73	9.70	9.52	9.51	10.29	10.26	10.14	10.10	9.95	9.91
15	9.81	9.78	9.70	9.69	9.71	9.51	10.26	10.22	10.11	10.04	9.95	9.92
16	9.78	9.76	9.69	9.68	9.71	9.63	10.42	10.22	10.04	10.02	9.92	9.91
17	9.76	9.75	9.68	9.66	9.63	9.59	10.42	10.32	10.02	10.01	9.92	9.91
18	9.91	9.75	9.66	9.65	9.67	9.58	10.32	10.28	10.01	10.00	10.36	9.92
19	9.86	9.77	9.65	9.64	9.66	9.59	10.28	10.27	10.01	10.00	10.24	10.13
20	9.77	9.76	9.64	9.62	9.59	9.57	10.28	10.26	10.01	9.99	10.13	10.09
21	9.76	9.74	9.63	9.62	9.67	9.57	10.26	10.23	9.99	9.98	10.09	10.07
22	9.74	9.73	9.62	9.62	9.67	9.65	10.23	10.21	9.99	9.97	10.08	10.05
23	10.22	9.74	9.63	9.62	9.87	9.65	10.24	10.21	9.97	9.95	10.63	10.05
24	10.10	9.97	9.63	9.61	9.98	9.88	10.23	10.19	9.96	9.95	10.42	10.30
25	9.97	9.92	9.61	9.60	9.88	9.82	10.19	10.18	9.95	9.94	10.30	10.24
26	9.92	9.87	9.60	9.58	9.82	9.78	10.20	10.18	9.94	9.93	10.24	10.22
27	9.87	9.85	9.58	9.58	9.78	9.76	10.20	10.18	9.93	9.92	10.25	10.23
28	9.91	9.82	9.58	9.57	9.79	9.76	10.20	10.17	9.92	9.91	10.25	10.21
29	9.82	9.78	9.57	9.55	9.88	9.79	10.17	10.15	---	---	10.31	10.20
30	9.78	9.77	9.55	9.54	10.31	9.88	10.18	10.16	---	---	10.32	10.29
31	9.77	9.75	---	---	10.31	10.03	10.18	10.11	---	---	10.29	10.28
MONTH	10.22	9.73	10.02	9.54	10.31	9.51	10.64	9.87	10.14	9.91	10.63	9.90

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--CONTINUED
HA Ed 52--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.28	10.25	10.14	10.11	9.66	9.62	9.37	9.35	9.08	9.06	8.77	8.73
2	10.25	10.23	10.11	10.09	9.64	9.60	9.37	9.35	9.06	9.03	8.73	8.71
3	10.24	10.22	10.09	10.06	9.63	9.60	9.37	9.36	9.04	9.02	8.75	8.70
4	10.28	10.24	10.06	10.04	9.62	9.59	9.36	9.35	9.03	9.01	8.71	8.69
5	10.29	10.28	10.04	10.03	9.60	9.58	9.36	9.35	9.01	8.97	8.71	8.68
6	10.29	10.27	10.20	10.03	9.60	9.58	9.35	9.33	8.98	8.96	8.68	8.68
7	10.27	10.24	10.18	10.08	9.59	9.56	9.34	9.31	8.97	8.96	8.69	8.67
8	10.24	10.24	10.08	10.04	9.58	9.54	9.33	9.30	8.97	8.94	8.69	8.66
9	10.24	10.22	10.05	10.03	9.56	9.52	9.30	9.28	9.04	8.94	8.67	8.64
10	10.22	10.18	10.04	10.01	9.54	9.51	9.29	9.27	9.03	8.98	8.65	8.62
11	10.26	10.17	10.01	10.00	9.53	9.49	9.28	9.24	8.98	8.96	8.65	8.61
12	10.31	10.27	10.00	9.97	9.51	9.47	9.25	9.23	8.96	8.94	8.65	8.60
13	10.32	10.29	9.97	9.95	9.48	9.45	9.28	9.24	8.95	8.93	8.61	8.59
14	10.32	10.27	9.97	9.95	9.46	9.43	9.25	9.22	8.93	8.92	8.63	8.59
15	10.36	10.26	9.95	9.91	9.45	9.42	9.22	9.19	8.93	8.92	8.63	8.58
16	10.32	10.23	9.92	9.89	9.44	9.41	9.20	9.18	9.05	8.90	8.59	8.58
17	10.33	10.23	9.95	9.89	9.42	9.39	9.18	9.16	8.95	8.89	9.31	8.58
18	10.33	10.26	9.94	9.90	9.87	9.40	9.17	9.14	8.89	8.87	9.30	8.95
19	10.34	10.25	9.90	9.89	9.69	9.62	9.15	9.12	8.91	8.87	8.98	8.91
20	10.34	10.29	9.89	9.87	9.62	9.57	9.13	9.10	8.99	8.91	8.98	8.92
21	10.41	10.29	9.87	9.83	9.57	9.53	9.12	9.08	8.95	8.91	8.93	8.88
22	10.41	10.35	9.83	9.81	9.53	9.51	9.11	9.09	8.91	8.88	8.88	8.85
23	10.35	10.30	9.81	9.79	9.51	9.49	9.10	9.08	8.88	8.87	8.85	8.83
24	10.33	10.31	9.81	9.78	9.49	9.46	9.09	9.06	8.87	8.85	8.83	8.81
25	10.31	10.27	9.79	9.76	9.47	9.44	9.09	9.07	8.85	8.84	8.96	8.83
26	10.27	10.24	9.77	9.74	9.45	9.43	9.11	9.08	8.85	8.83	9.03	8.96
27	10.24	10.21	9.76	9.73	9.43	9.41	9.12	9.10	8.85	8.82	8.96	8.92
28	10.21	10.16	9.74	9.70	9.42	9.40	9.11	9.08	8.83	8.80	8.92	8.88
29	10.16	10.15	9.71	9.68	9.40	9.38	9.10	9.09	8.81	8.78	8.88	8.86
30	10.16	10.14	9.70	9.66	9.38	9.36	9.10	9.09	8.79	8.77	8.86	8.84
31	---	---	9.68	9.64	---	---	9.09	9.07	8.79	8.76	---	---
MONTH	10.41	10.14	10.20	9.64	9.87	9.36	9.37	9.06	9.08	8.76	9.31	8.58

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 59. SITE ID.--392035076172203. PERMIT NUMBER.--HA-81-2985.

LOCATION.--Lat 39°20'35", long 76°17'22", Hydrologic Unit 02060003, at Edgewood Arsenal.

Owner: U.S. Army.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 72 ft; casing diameter 4 in., to 67 ft; screen diameter 4 in. from 67 to 72 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from July 6, 1987 to current year.

DATUM.--Elevation of land surface is 8.3 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.61 ft above land surface.

REMARKS.--Canal Creek Hydrologic Assessment Project observation well CC-1C. Missing data due to recorder malfunction.

PERIOD OF RECORD.--July 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.21 ft above sea level, June 9, 1989; lowest measured, 5.39 ft above sea level, Sept. 4, 1987, and Nov. 15, and 16, 1987.

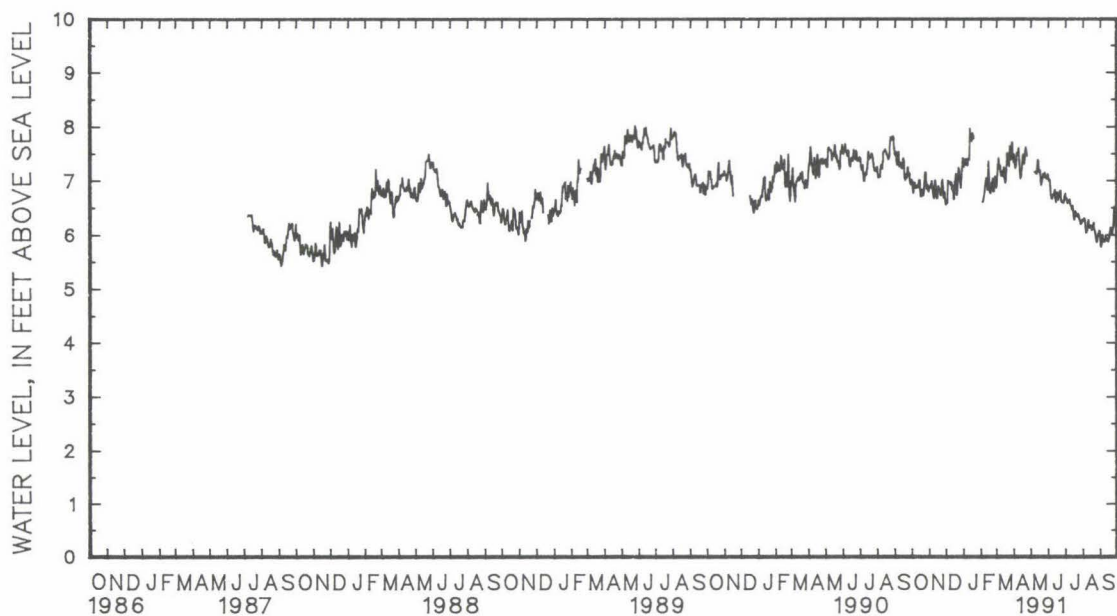
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.03	6.96	6.88	6.84	6.63	6.54	7.35	7.24	---	---	7.06	6.89
2	7.03	6.84	6.89	6.85	6.65	6.56	7.47	7.35	---	---	7.34	7.07
3	6.84	6.75	6.90	6.86	6.97	6.56	7.47	7.38	---	---	7.53	7.27
4	7.10	6.83	6.97	6.90	7.15	6.98	7.38	7.29	6.62	6.58	7.65	7.40
5	6.99	6.94	7.18	6.97	7.04	6.96	7.42	7.28	6.71	6.62	7.40	7.21
6	6.94	6.90	7.19	6.83	7.06	6.96	7.45	7.38	6.74	6.67	7.52	7.21
7	6.90	6.86	6.89	6.80	6.99	6.93	7.38	7.30	6.91	6.75	7.54	7.26
8	6.88	6.85	6.86	6.66	7.03	6.95	7.38	7.27	6.96	6.87	7.26	7.13
9	6.92	6.87	6.87	6.65	6.99	6.90	7.51	7.39	7.05	6.97	7.16	7.07
10	6.90	6.86	7.37	6.87	7.09	6.94	7.49	7.38	7.07	7.02	7.19	7.15
11	6.90	6.87	7.17	6.98	6.94	6.81	7.96	7.38	7.04	6.92	7.16	7.10
12	6.98	6.87	7.06	6.91	7.02	6.88	8.12	7.96	6.92	6.81	7.14	7.06
13	7.11	6.98	6.92	6.74	7.12	6.87	8.09	7.81	7.33	6.93	7.29	7.14
14	7.09	6.99	6.74	6.65	6.87	6.63	7.83	7.77	7.60	7.34	7.34	7.23
15	7.01	6.82	6.78	6.65	7.13	6.64	7.81	7.73	7.46	7.13	7.23	7.01
16	6.82	6.69	7.04	6.78	7.15	6.96	8.14	7.76	7.13	6.84	7.01	6.94
17	6.78	6.68	7.08	6.87	7.09	6.93	8.13	7.87	6.88	6.76	7.18	6.98
18	7.22	6.78	6.86	6.81	7.46	7.10	7.90	7.84	6.81	6.74	7.63	7.18
19	7.07	6.80	6.88	6.82	7.33	6.84	7.92	7.78	7.00	6.81	7.64	7.50
20	6.80	6.70	6.83	6.72	6.84	6.71	---	---	7.08	6.94	7.50	7.34
21	6.80	6.71	6.75	6.70	7.07	6.78	---	---	7.01	6.90	7.41	7.29
22	6.91	6.80	6.95	6.75	7.21	7.07	---	---	7.22	7.01	7.39	7.27
23	7.23	6.92	7.20	6.95	7.46	7.22	---	---	7.01	6.78	7.66	7.25
24	7.23	7.13	7.20	6.99	7.61	7.18	---	---	7.00	6.78	7.78	7.63
25	7.21	7.13	7.02	6.88	7.17	7.06	---	---	7.08	7.00	7.63	7.44
26	7.21	6.95	6.88	6.66	7.11	6.95	---	---	7.11	7.05	7.47	7.38
27	6.95	6.82	6.75	6.66	7.03	6.85	---	---	7.08	6.94	7.83	7.47
28	7.03	6.89	6.86	6.76	7.16	7.04	---	---	6.94	6.85	7.89	7.70
29	6.93	6.81	6.86	6.63	7.39	7.16	---	---	---	---	7.81	7.70
30	6.90	6.78	6.63	6.53	7.74	7.40	---	---	---	---	7.82	7.42
31	6.90	6.86	---	---	7.75	7.28	---	---	---	---	7.46	7.33
MONTH	7.23	6.68	7.37	6.53	7.75	6.54	8.14	7.24	7.60	6.58	7.89	6.89

GROUND-WATER LEVELS
 MARYLAND--Continued
 HARFORD COUNTY--Continued
 HA Ed 59--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.57	7.47	---	---	7.10	7.01	6.74	6.64	6.28	6.23	6.03	5.77
2	7.47	7.31	---	---	7.02	6.97	6.72	6.65	6.30	6.25	5.79	5.74
3	7.30	7.22	---	---	7.04	6.99	6.71	6.61	6.32	6.27	5.96	5.79
4	7.36	7.24	---	---	7.05	6.87	6.61	6.56	6.33	6.25	6.08	5.96
5	7.52	7.36	---	---	6.87	6.71	6.63	6.58	6.25	6.11	6.08	5.96
6	7.55	7.50	---	---	6.71	6.65	6.62	6.59	6.11	6.01	5.96	5.88
7	7.56	7.51	---	---	6.71	6.64	6.63	6.59	6.06	6.01	5.88	5.84
8	7.59	7.51	7.20	7.14	6.80	6.71	6.67	6.62	6.17	6.06	5.88	5.84
9	7.65	7.59	7.18	7.12	6.77	6.70	6.63	6.55	6.36	6.17	5.88	5.84
10	7.66	7.37	7.21	7.15	6.76	6.70	6.56	6.52	6.36	6.24	6.02	5.87
11	7.37	7.14	7.25	7.11	6.84	6.75	6.55	6.49	6.24	6.14	6.03	5.96
12	7.14	7.02	7.42	7.25	6.86	6.80	6.51	6.44	6.13	6.10	5.95	5.87
13	7.28	7.05	7.42	7.37	6.79	6.64	6.66	6.51	6.17	6.12	5.92	5.87
14	7.28	7.19	7.41	7.36	6.65	6.58	6.61	6.42	6.17	6.14	6.04	5.88
15	7.54	7.27	7.36	7.18	6.77	6.64	6.42	6.30	6.19	6.13	5.89	5.84
16	7.51	7.45	7.18	7.13	6.79	6.75	6.31	6.25	6.13	6.06	5.94	5.89
17	7.56	7.47	7.30	7.17	6.75	6.63	6.42	6.31	6.12	6.06	6.23	5.93
18	7.48	7.32	7.26	6.96	6.88	6.62	6.45	6.40	6.16	6.12	6.19	6.02
19	7.37	7.30	6.96	6.90	6.71	6.67	6.42	6.37	6.27	6.16	6.20	6.10
20	7.56	7.37	7.03	6.95	6.79	6.71	6.37	6.32	6.23	6.19	6.12	6.08
21	7.81	7.56	7.11	7.03	6.82	6.78	6.37	6.31	6.20	6.07	6.08	6.02
22	7.81	7.61	7.14	7.10	6.81	6.79	6.36	6.30	6.07	6.02	6.08	5.99
23	7.61	7.53	7.11	7.05	6.78	6.62	6.46	6.35	6.04	5.97	6.18	6.08
24	7.60	7.45	7.13	7.04	6.62	6.58	6.39	6.32	5.97	5.88	6.35	6.13
25	---	---	7.16	7.12	6.60	6.57	6.33	6.26	5.88	5.83	6.56	6.36
26	---	---	7.12	7.04	6.61	6.57	6.26	6.22	5.94	5.84	6.60	6.49
27	---	---	7.09	7.03	6.60	6.56	6.22	6.17	6.01	5.93	6.48	6.31
28	---	---	7.09	7.03	6.71	6.60	6.20	6.17	6.03	5.98	6.31	6.19
29	---	---	7.07	7.01	6.74	6.70	6.23	6.18	6.05	6.00	6.27	6.18
30	---	---	7.18	7.07	6.78	6.73	6.27	6.23	6.13	6.04	6.21	6.12
31	---	---	7.15	7.10	---	---	6.27	6.25	6.16	6.03	---	---
MONTH	7.81	7.02	7.42	6.90	7.10	6.56	6.74	6.17	6.36	5.83	6.60	5.74

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 60. SITE ID.--392035076172204. PERMIT NUMBER.--HA-81-2986.

LOCATION.--Lat 39°20'35", long 76°17'22", Hydrologic Unit 02060003, at Edgewood Arsenal.

Owner: U.S. Army.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 154 ft; casing diameter 4 in., to 149 ft; screen diameter 4 in. from 149 to 154 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from July 14, 1987 to current year.

DATUM.--Elevation of land surface is 8.3 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.78 ft above land surface.

REMARKS.--Canal Creek Hydrologic Assessment Project observation well CC-1D. Missing data due to recorder malfunction.

PERIOD OF RECORD.--July 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.54 ft above sea level, May 29, 1990; lowest measured, 5.89 ft above sea level, Sept. 28, 1987.

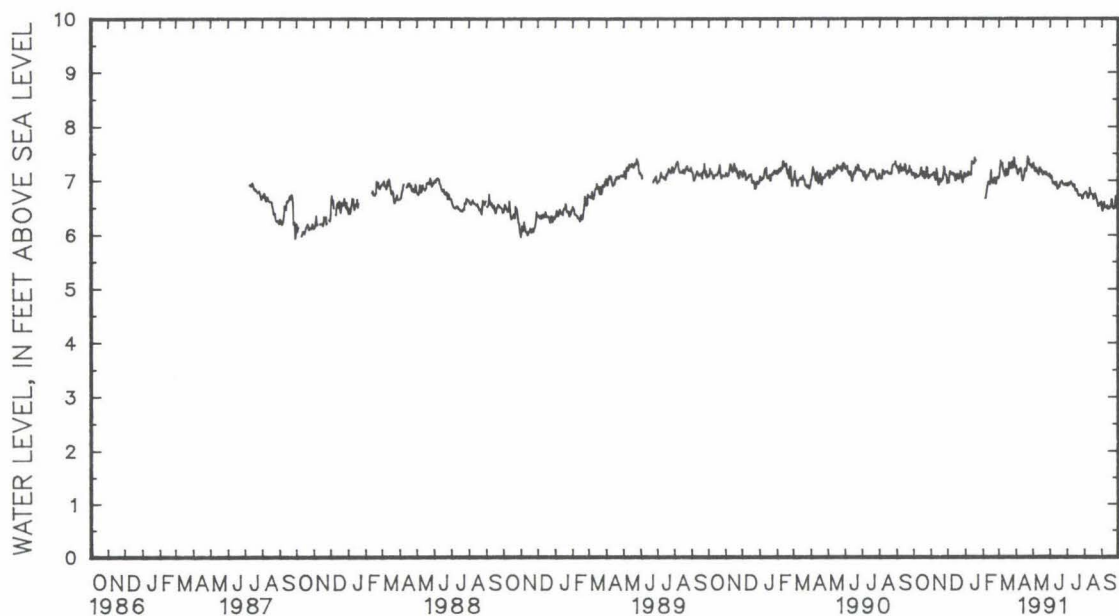
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.14	7.12	7.10	7.09	6.96	6.93	7.07	7.05	---	---	7.10	7.04
2	7.13	7.07	7.10	7.08	6.99	6.94	7.11	7.06	---	---	7.23	7.10
3	7.06	7.02	7.10	7.08	7.12	6.94	7.12	7.10	---	---	7.36	7.23
4	7.16	7.03	7.12	7.09	7.22	7.12	7.10	7.08	---	---	7.43	7.36
5	7.14	7.10	7.20	7.12	7.19	7.15	7.14	7.07	6.70	6.65	7.36	7.28
6	7.10	7.07	7.21	7.13	7.15	7.13	7.15	7.14	6.78	6.70	7.40	7.28
7	7.07	7.06	7.13	7.11	7.13	7.10	7.16	7.12	6.87	6.79	7.41	7.31
8	7.06	7.05	7.12	7.02	7.13	7.10	7.12	7.10	6.91	6.87	7.31	7.21
9	7.07	7.05	7.06	6.99	7.12	7.10	7.16	7.12	6.96	6.91	7.20	7.16
10	7.08	7.06	7.33	7.07	7.18	7.12	7.14	7.09	6.99	6.96	7.16	7.14
11	7.11	7.08	7.27	7.20	7.14	7.08	7.36	7.09	6.98	6.94	7.14	7.08
12	7.18	7.11	7.21	7.12	7.14	7.08	7.40	7.35	6.94	6.91	7.08	7.06
13	7.24	7.18	7.12	7.00	7.19	7.10	7.40	7.31	7.11	6.91	7.19	7.07
14	7.24	7.22	7.00	6.90	7.10	6.98	7.32	7.30	7.25	7.11	7.24	7.19
15	7.22	7.15	6.93	6.90	7.13	6.98	7.33	7.31	7.24	7.17	7.20	7.10
16	7.15	7.07	7.05	6.94	7.14	7.09	7.48	7.31	7.17	7.01	7.11	7.08
17	7.08	7.06	7.07	7.01	7.10	7.08	7.47	7.41	7.01	6.95	7.16	7.09
18	7.33	7.08	7.01	6.96	7.27	7.10	7.41	7.38	6.95	6.93	7.36	7.16
19	7.27	7.14	6.99	6.96	7.22	7.06	7.40	7.36	7.02	6.93	7.36	7.32
20	7.14	7.02	7.00	6.98	7.06	7.01	---	---	7.06	7.02	7.32	7.25
21	7.04	7.02	7.02	6.99	7.09	7.01	---	---	7.03	7.01	7.25	7.23
22	7.09	7.04	7.11	7.02	7.14	7.09	---	---	7.10	7.03	7.25	7.21
23	7.28	7.10	7.27	7.11	7.29	7.15	---	---	7.04	6.92	7.33	7.21
24	7.27	7.23	7.27	7.24	7.33	7.15	---	---	6.99	6.92	7.38	7.33
25	7.24	7.22	7.25	7.21	7.15	7.06	---	---	7.05	7.00	7.34	7.25
26	7.24	7.10	7.21	7.10	7.06	6.98	---	---	7.09	7.04	7.25	7.22
27	7.10	7.02	7.10	7.09	7.00	6.94	---	---	7.07	7.04	7.42	7.25
28	7.15	7.03	7.14	7.09	7.08	7.01	---	---	7.05	7.02	7.46	7.41
29	7.14	7.07	7.14	7.04	7.11	7.06	---	---	---	---	7.47	7.41
30	7.07	7.05	7.04	6.93	7.28	7.12	---	---	---	---	7.46	7.28
31	7.10	7.07	---	---	7.28	7.07	---	---	---	---	7.27	7.22
MONTH	7.33	7.02	7.33	6.90	7.33	6.93	7.48	7.05	7.25	6.65	7.47	7.04

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Ed 60--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.28	7.25	7.33	7.29	7.10	7.07	6.92	6.88	6.75	6.74	6.57	6.44
2	7.26	7.18	7.33	7.31	7.07	7.02	6.95	6.88	6.76	6.75	6.44	6.41
3	7.18	7.12	7.31	7.24	7.09	7.06	6.95	6.93	6.77	6.76	6.53	6.44
4	7.13	7.10	7.24	7.18	7.10	7.05	6.92	6.90	6.79	6.77	6.59	6.53
5	7.20	7.13	7.18	7.15	7.05	6.95	6.94	6.90	6.78	6.73	6.62	6.57
6	7.20	7.18	7.30	7.17	6.95	6.92	6.94	6.93	6.73	6.67	6.57	6.50
7	7.18	7.18	7.30	7.21	6.94	6.92	6.96	6.94	6.67	6.65	6.50	6.48
8	7.21	7.18	7.21	7.17	6.96	6.94	6.99	6.96	6.71	6.67	6.49	6.48
9	7.26	7.21	7.17	7.13	6.96	6.92	6.98	6.94	6.86	6.71	6.48	6.47
10	7.28	7.18	7.14	7.11	6.92	6.89	6.94	6.91	6.87	6.84	6.54	6.48
11	7.18	7.05	7.14	7.09	6.96	6.91	6.93	6.91	6.84	6.77	6.54	6.51
12	7.05	6.98	7.24	7.14	6.96	6.95	6.91	6.87	6.77	6.73	6.51	6.45
13	7.07	6.98	7.24	7.22	6.95	6.87	7.00	6.90	6.73	6.73	6.45	6.44
14	7.07	7.03	7.24	7.22	6.87	6.82	6.99	6.90	6.73	6.72	6.53	6.45
15	7.20	7.06	7.24	7.18	6.88	6.83	6.90	6.82	6.73	6.72	6.50	6.48
16	7.20	7.18	7.18	7.15	6.89	6.88	6.82	6.79	6.72	6.65	6.51	6.48
17	7.24	7.20	7.24	7.17	6.89	6.86	6.81	6.79	6.65	6.63	6.77	6.51
18	7.23	7.16	7.24	7.12	7.04	6.86	6.81	6.81	6.69	6.64	6.72	6.62
19	7.21	7.16	7.12	7.09	6.94	6.94	6.81	6.78	6.74	6.67	6.64	6.61
20	7.32	7.21	7.13	7.10	6.96	6.94	6.78	6.73	6.77	6.73	6.61	6.50
21	7.44	7.32	7.14	7.13	6.97	6.96	6.73	6.71	6.77	6.69	6.50	6.46
22	7.45	7.43	7.15	7.14	6.98	6.97	6.72	6.69	6.69	6.65	6.47	6.45
23	7.43	7.38	7.14	7.11	6.98	6.93	6.74	6.70	6.65	6.61	6.52	6.47
24	7.43	7.38	7.13	7.09	6.93	6.91	6.73	6.71	6.61	6.55	6.60	6.51
25	7.38	7.29	7.16	7.13	6.92	6.91	6.71	6.70	6.55	6.50	6.71	6.60
26	7.29	7.26	7.15	7.10	6.92	6.91	6.72	6.70	6.53	6.50	6.73	6.68
27	7.31	7.28	7.11	7.09	6.92	6.89	6.71	6.67	6.56	6.53	6.67	6.58
28	7.31	7.25	7.11	7.09	6.93	6.90	6.67	6.64	6.57	6.55	6.58	6.51
29	7.25	7.22	7.10	7.06	6.93	6.92	6.69	6.65	6.56	6.55	6.53	6.50
30	7.30	7.24	7.11	7.08	6.92	6.92	6.72	6.69	6.58	6.55	6.51	6.47
31	---	---	7.11	7.10	---	---	6.74	6.72	6.60	6.58	---	---
MONTH	7.45	6.98	7.33	7.06	7.10	6.82	7.00	6.64	6.87	6.50	6.77	6.41

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 80. SITE ID.--392334076171303. PERMIT NUMBER.--HA-81-3008.
 LOCATION.--Lat 39°23'34", long 76°17'13", Hydrologic Unit 02060003, at Edgewood Arsenal.
 Owner: U.S. Army.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 95 ft; casing diameter 4 in., to 90 ft; screen diameter 4 in. from 90 to 95 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Apr. 14, 1987 to current year.
 DATUM.--Elevation of land surface is 18.1 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.65 ft above land surface.
 REMARKS.--Canal Creek Hydrologic Assessment Project observation well CC-8C. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--April 1987 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.84 ft above sea level, April 22, 1991; lowest measured, 4.63 ft above sea level, Sept. 4, 1987.

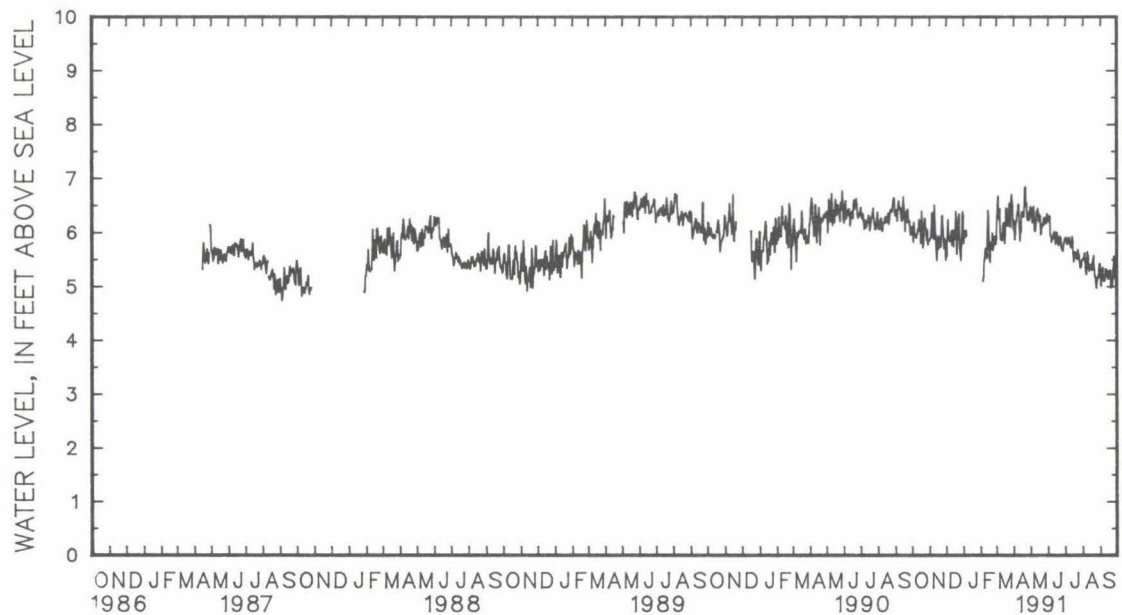
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.01	5.88	5.85	5.70	5.61	5.35	5.79	5.56	---	---	5.88	5.68
2	6.09	5.77	5.89	5.73	5.56	5.46	6.02	5.78	---	---	6.27	5.89
3	5.82	5.67	5.90	5.78	6.03	5.39	6.02	5.88	---	---	6.50	6.14
4	6.18	5.80	6.03	5.81	6.23	5.92	5.91	5.76	---	---	6.67	6.26
5	5.99	5.88	6.36	5.94	5.94	5.69	6.02	5.76	5.09	4.91	6.25	6.00
6	5.95	5.87	6.36	5.85	5.85	5.74	6.03	5.92	5.17	5.03	6.43	6.00
7	5.92	5.83	5.90	5.74	5.83	5.69	5.94	5.76	5.48	5.16	6.43	5.99
8	5.90	5.80	5.90	5.54	5.87	5.76	---	---	5.50	5.32	5.99	5.79
9	5.95	5.85	5.88	5.54	5.84	5.68	---	---	5.68	5.51	5.86	5.70
10	5.97	5.84	6.51	5.89	6.02	5.76	---	---	5.70	5.58	5.94	5.85
11	6.06	5.90	6.12	5.82	5.76	5.58	---	---	5.65	5.48	5.85	5.76
12	6.03	5.89	5.94	5.68	5.91	5.69	---	---	5.52	5.32	5.92	5.74
13	6.23	6.04	5.70	5.47	6.04	5.75	---	---	6.05	5.53	6.13	5.90
14	6.20	6.02	5.47	5.33	5.73	5.40	---	---	6.41	6.05	6.17	5.98
15	6.12	5.80	5.66	5.38	6.01	5.45	---	---	6.29	5.83	5.98	5.75
16	5.80	5.64	5.92	5.62	6.01	5.73	---	---	5.82	5.41	5.79	5.69
17	5.85	5.65	5.93	5.70	5.87	5.65	---	---	5.48	5.36	5.98	5.70
18	6.40	5.82	5.70	5.58	6.39	5.87	---	---	5.44	5.29	6.45	5.99
19	6.13	5.71	5.87	5.67	6.26	5.60	---	---	5.72	5.43	6.43	6.19
20	5.71	5.55	5.86	5.66	5.59	5.37	---	---	5.81	5.57	6.18	6.01
21	5.77	5.57	5.73	5.60	5.86	5.52	---	---	5.69	5.48	6.12	5.93
22	5.96	5.74	6.00	5.67	5.96	5.79	---	---	5.98	5.66	6.12	5.93
23	6.26	5.94	6.30	6.01	6.18	5.97	---	---	5.66	5.39	6.36	5.92
24	6.25	5.97	6.31	5.99	6.34	5.70	---	---	5.74	5.42	6.54	6.22
25	6.08	5.97	6.06	5.85	5.70	5.49	---	---	5.90	5.69	6.21	5.94
26	6.04	5.67	5.85	5.54	5.63	5.43	---	---	5.92	5.79	6.10	5.90
27	5.85	5.59	5.70	5.54	5.48	5.28	---	---	5.85	5.73	6.52	6.05
28	6.04	5.77	5.88	5.68	5.74	5.48	---	---	5.78	5.64	6.70	6.38
29	5.77	5.59	5.82	5.48	6.01	5.67	---	---	---	---	6.58	6.38
30	5.83	5.59	5.48	5.29	6.39	5.97	---	---	---	---	6.52	5.97
31	5.84	5.71	---	---	6.31	5.62	---	---	---	---	6.07	5.93
MONTH	6.40	5.55	6.51	5.29	6.39	5.28	6.03	5.56	6.41	4.91	6.70	5.68

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Ed 80--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.22	6.07	6.47	6.30	6.24	6.18	5.87	5.76	5.49	5.35	5.23	4.91
2	6.06	5.86	6.44	6.31	6.21	6.13	5.90	5.83	5.52	5.39	5.00	4.89
3	5.86	5.75	6.35	6.17	6.26	6.15	5.89	5.73	5.51	5.42	5.13	4.98
4	5.97	5.78	6.18	6.09	6.30	5.94	5.78	5.67	5.61	5.42	5.32	5.14
5	6.18	5.98	6.21	6.04	5.94	5.84	5.83	5.72	5.46	5.23	5.34	5.09
6	6.22	6.12	6.48	6.21	5.93	5.72	5.82	5.70	5.28	5.09	5.14	5.02
7	6.33	6.19	6.26	5.98	5.82	5.68	5.86	5.72	5.22	5.09	5.10	4.99
8	6.39	6.23	6.03	5.92	5.90	5.76	5.90	5.74	5.35	5.17	5.10	5.01
9	6.52	6.37	6.02	5.88	5.88	5.74	5.81	5.63	5.64	5.31	5.11	5.00
10	6.51	6.11	6.06	5.93	5.90	5.74	5.74	5.63	5.56	5.40	5.32	5.06
11	6.10	5.84	6.18	5.93	5.99	5.85	5.74	5.61	5.39	5.26	5.31	5.17
12	5.84	5.70	6.38	6.14	6.01	5.90	5.71	5.58	5.28	5.21	5.18	5.06
13	6.04	5.73	6.38	6.30	5.91	5.74	5.92	5.71	5.34	5.21	5.25	5.08
14	6.01	5.90	6.44	6.34	5.78	5.68	5.83	5.58	5.39	5.26	5.28	5.09
15	6.38	6.01	6.35	6.16	5.97	5.78	5.58	5.38	5.39	5.27	5.14	5.03
16	6.33	6.25	6.20	6.10	6.00	5.90	5.45	5.31	5.31	5.17	5.21	5.11
17	6.37	6.27	6.31	6.15	5.97	5.80	5.56	5.42	5.30	5.18	5.25	5.13
18	6.29	6.15	6.30	5.89	5.86	5.67	5.63	5.51	5.41	5.30	5.21	5.09
19	6.29	6.14	5.96	5.87	5.76	5.68	5.58	5.47	5.51	5.35	5.29	4.97
20	6.47	6.27	6.00	5.88	5.82	5.70	5.55	5.39	5.56	5.31	4.96	4.88
21	6.81	6.48	6.10	5.94	5.88	5.77	5.51	5.39	5.32	5.15	4.98	4.88
22	6.84	6.50	6.15	6.04	5.92	5.79	5.50	5.40	5.19	5.11	5.01	4.87
23	6.51	6.36	6.13	6.00	5.89	5.62	5.67	5.47	5.17	5.06	5.13	4.99
24	6.54	6.26	6.24	6.00	5.72	5.61	5.58	5.46	5.06	4.94	5.32	5.02
25	6.26	6.11	6.27	6.13	5.69	5.57	5.58	5.41	4.97	4.87	5.54	5.32
26	6.22	6.09	6.16	6.06	5.67	5.58	5.43	5.36	5.09	4.92	5.52	5.37
27	6.36	6.18	6.21	6.06	5.65	5.58	5.35	5.24	5.16	5.05	5.37	5.12
28	6.36	6.13	6.19	6.09	5.77	5.63	5.34	5.24	5.16	5.09	5.15	4.96
29	6.23	6.10	6.17	6.07	5.81	5.74	5.37	5.30	5.21	5.10	5.05	4.93
30	6.39	6.21	6.34	6.15	5.88	5.79	5.48	5.33	5.39	5.18	5.02	4.83
31	---	---	6.33	6.24	---	---	5.48	5.38	5.41	5.23	---	---
MONTH	6.84	5.70	6.48	5.87	6.30	5.57	5.92	5.24	5.64	4.87	5.54	4.83

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFROD COUNTY--Continued

WELL NUMBER.--HA Fd 6. SITE ID.--391817076173701.

LOCATION.--Lat 39°18'11", long 76°17'39", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21 ft; casing diameter 4 in., to 6 ft; screen diameter 4 in. from 6 to 21 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Nov. 16, 1987 to current year.

DATUM.--Elevation of land surface is 9.76 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.68 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well TH6.

PERIOD OF RECORD.--November 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.03 ft above sea level, Jan. 12, 1991; lowest measured, 1.14 ft below sea level, Sept. 17, 1991.

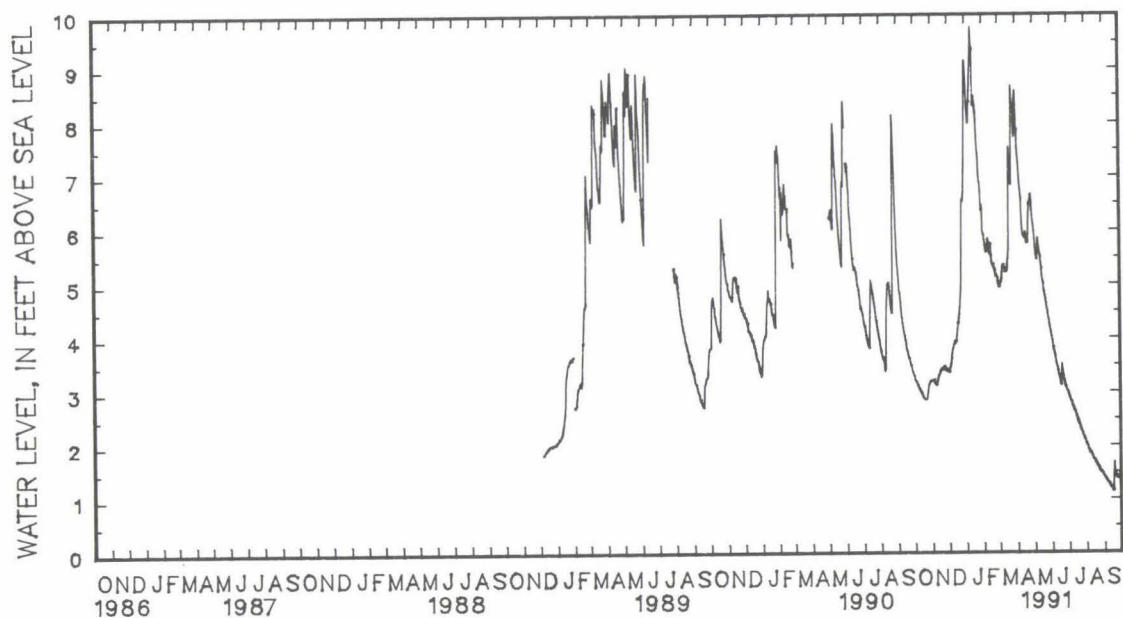
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3.28	3.26	3.21	3.20	3.39	3.37	9.22	9.13	5.96	5.90	5.02	4.93
2	3.26	3.20	3.22	3.20	3.38	3.36	9.17	8.95	5.96	5.90	5.13	5.00
3	3.20	3.19	3.21	3.20	3.47	3.36	8.95	8.62	5.90	5.81	5.10	4.94
4	3.22	3.17	3.22	3.20	3.51	3.46	8.62	8.27	5.81	5.71	5.14	5.02
5	3.17	3.14	3.24	3.21	3.61	3.51	8.27	8.15	5.71	5.63	5.20	5.07
6	3.14	3.11	3.24	3.16	3.69	3.61	8.20	7.97	5.63	5.57	5.46	5.20
7	3.11	3.09	3.18	3.16	3.76	3.69	8.37	7.97	5.70	5.59	5.46	5.33
8	3.09	3.06	3.17	3.12	3.81	3.76	8.58	8.37	5.84	5.70	5.41	5.34
9	3.06	3.04	3.16	3.11	3.86	3.81	9.03	8.58	5.87	5.83	5.42	5.34
10	3.04	3.01	3.25	3.16	3.90	3.86	9.16	8.94	5.85	5.80	5.43	5.35
11	3.01	2.99	3.27	3.19	3.92	3.87	9.92	9.16	5.80	5.62	5.35	5.27
12	2.99	2.98	3.30	3.25	3.96	3.92	10.03	9.76	5.63	5.54	5.28	5.23
13	2.98	2.96	3.32	3.30	3.98	3.93	9.76	9.46	5.77	5.63	5.25	5.23
14	2.96	2.93	3.35	3.31	3.93	3.90	9.49	9.36	5.89	5.74	5.26	5.22
15	2.94	2.90	3.39	3.35	4.10	3.93	9.36	8.30	5.74	5.51	5.34	5.24
16	2.90	2.88	3.45	3.39	4.15	4.09	8.72	8.31	5.51	5.40	5.47	5.34
17	2.88	2.87	3.46	3.41	4.27	4.15	8.72	8.48	5.45	5.33	5.61	5.46
18	2.91	2.86	3.43	3.41	4.39	4.27	8.53	8.33	5.36	5.32	7.54	5.61
19	2.87	2.85	3.44	3.42	4.43	4.37	8.33	8.20	5.42	5.35	7.80	7.54
20	2.86	2.85	3.43	3.40	4.55	4.43	8.32	8.03	5.44	5.28	7.73	7.37
21	2.86	2.85	3.42	3.40	4.71	4.55	8.05	7.75	5.35	5.26	7.36	7.18
22	2.87	2.85	3.46	3.42	4.90	4.71	7.75	7.46	5.43	5.22	7.18	6.86
23	2.95	2.87	3.49	3.46	5.57	4.90	7.53	7.40	5.22	5.13	8.85	6.83
24	3.05	2.95	3.49	3.44	6.61	5.57	7.40	7.06	5.24	5.14	8.93	8.67
25	3.14	3.05	3.46	3.43	6.63	6.52	7.06	6.89	5.23	5.15	8.68	8.41
26	3.16	3.13	3.43	3.39	6.65	6.58	6.97	6.84	5.15	5.10	8.41	8.30
27	3.18	3.13	3.42	3.39	6.68	6.53	6.89	6.70	5.10	5.00	8.46	8.30
28	3.21	3.18	3.44	3.41	7.19	6.68	6.80	6.47	5.02	4.95	8.45	7.87
29	3.20	3.19	3.43	3.38	8.09	7.19	6.47	6.36	---	---	8.43	7.72
30	3.21	3.19	3.38	3.36	9.33	8.09	6.51	6.44	---	---	8.68	8.43
31	3.21	3.19	---	---	9.43	9.14	6.46	5.96	---	---	8.66	8.58
MONTH	3.28	2.85	3.49	3.11	9.43	3.36	10.03	5.96	5.96	4.95	8.93	4.93

GROUND-WATER LEVELS
MARYLAND--Continued
HARFROD COUNTY--Continued
HA Fd 6--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.61	8.22	6.08	5.97	4.05	3.99	2.95	2.91	2.04	2.02	1.41	1.39
2	8.22	7.85	5.97	5.82	3.99	3.94	2.91	2.88	2.02	1.99	1.39	1.38
3	7.85	7.52	5.84	5.64	3.94	3.89	2.88	2.85	1.99	1.97	1.38	1.36
4	7.52	7.35	5.64	5.51	3.89	3.81	2.85	2.82	1.97	1.93	1.36	1.35
5	7.35	7.23	5.51	5.44	3.81	3.73	2.82	2.80	1.93	1.90	1.35	1.33
6	7.23	7.01	5.73	5.44	3.73	3.68	2.80	2.78	1.90	1.87	1.33	1.31
7	7.01	6.83	5.87	5.73	3.68	3.64	2.78	2.74	1.87	1.86	1.31	1.29
8	6.83	6.71	5.88	5.84	3.64	3.59	2.76	2.72	1.86	1.85	1.29	1.28
9	6.72	6.57	5.84	5.75	3.59	3.53	2.72	2.68	1.85	1.84	1.28	1.27
10	6.59	6.20	5.77	5.61	3.53	3.48	2.68	2.66	1.84	1.81	1.27	1.26
11	6.20	5.99	5.61	5.56	3.48	3.43	2.66	2.63	1.81	1.78	1.26	1.23
12	5.99	5.88	5.57	5.49	3.43	3.36	2.63	2.61	1.78	1.76	1.23	1.22
13	5.94	5.87	5.49	5.38	3.36	3.30	2.61	2.58	1.76	1.74	1.22	1.20
14	5.91	5.84	5.38	5.27	3.30	3.26	2.58	2.54	1.75	1.73	1.20	1.18
15	6.02	5.87	5.27	5.12	3.26	3.22	2.54	2.50	1.73	1.71	1.18	1.17
16	5.98	5.95	5.12	5.05	3.22	3.17	2.50	2.47	1.71	1.69	1.17	1.15
17	6.02	5.91	5.06	5.00	3.17	3.12	2.47	2.45	1.69	1.67	1.66	1.14
18	5.91	5.76	5.00	4.86	3.78	3.11	2.45	2.42	1.67	1.65	1.94	1.49
19	5.78	5.74	4.86	4.82	3.72	3.50	2.42	2.38	1.65	1.63	1.94	1.68
20	5.77	5.74	4.82	4.76	3.50	3.42	2.38	2.35	1.63	1.61	1.68	1.53
21	6.28	5.76	4.76	4.70	3.42	3.35	2.35	2.31	1.62	1.59	1.53	1.46
22	6.51	6.29	4.70	4.63	3.35	3.28	2.31	2.29	1.59	1.57	1.46	1.43
23	6.53	6.48	4.63	4.54	3.28	3.20	2.29	2.26	1.57	1.55	1.43	1.39
24	6.56	6.48	4.54	4.50	3.20	3.14	2.26	2.23	1.55	1.53	1.39	1.38
25	6.71	6.56	4.50	4.42	3.14	3.09	2.23	2.20	1.53	1.51	1.38	1.37
26	6.70	6.65	4.42	4.36	3.09	3.06	2.20	2.17	1.51	1.50	1.39	1.38
27	6.68	6.53	4.36	4.31	3.06	3.03	2.17	2.15	1.51	1.49	1.42	1.39
28	6.53	6.26	4.30	4.24	3.03	3.01	2.15	2.11	1.49	1.47	1.45	1.42
29	6.26	6.15	4.23	4.17	3.01	2.98	2.11	2.09	1.47	1.46	1.48	1.46
30	6.22	6.08	4.18	4.12	2.98	2.95	2.09	2.07	1.46	1.44	1.50	1.48
31	---	---	4.12	4.05	---	---	2.07	2.04	1.44	1.41	---	---
MONTH	8.61	5.74	6.08	4.05	4.05	2.95	2.95	2.04	2.04	1.41	1.94	1.14

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 8. SITE ID.--391816076173801.

LOCATION.--Lat 39°18'16", long 76°17'40", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21 ft; casing diameter 4 in., to 6 ft; screen diameter 4 in. from 6 to 21 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Nov. 16, 1987 to current year.

DATUM.--Elevation of land surface is 6.17 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.67 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well TH8.

PERIOD OF RECORD.--November 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.16 ft above sea level, March 24, 1991; lowest measured, 0.69 ft below sea level, Sept. 12, 1991.

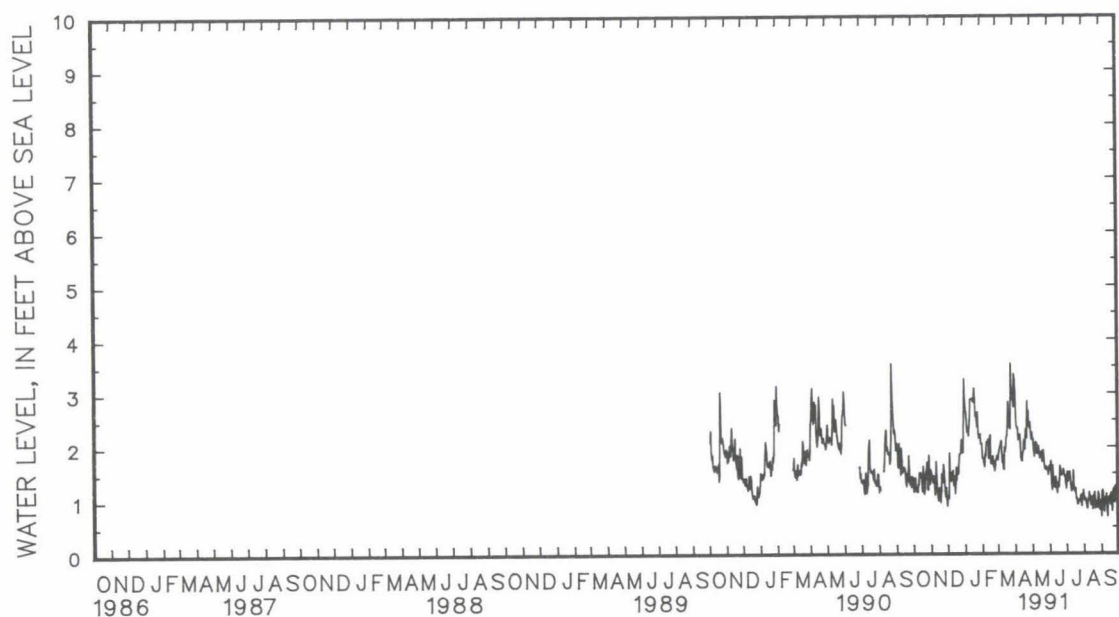
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.45	1.15	2.03	1.52	1.71	1.06	2.87	2.68	2.03	1.78	2.03	1.75
2	1.90	1.38	1.91	1.46	1.52	1.08	2.87	2.65	1.94	1.78	2.32	1.88
3	1.55	1.17	1.78	1.39	2.07	1.03	2.87	2.50	1.94	1.74	2.29	1.94
4	2.05	1.41	1.83	1.33	2.38	1.88	2.73	2.27	1.78	1.66	2.56	1.99
5	1.82	1.16	2.27	1.45	2.03	1.38	2.50	2.27	1.97	1.62	2.31	2.03
6	1.64	1.23	2.28	1.44	1.72	1.39	2.54	2.26	2.16	1.86	2.59	2.10
7	1.63	1.18	1.73	1.30	1.73	1.35	2.36	2.20	2.28	1.82	2.60	2.10
8	1.60	1.15	1.74	1.10	1.71	1.51	2.53	2.36	2.25	2.08	2.10	1.87
9	1.67	1.29	1.72	1.18	1.74	1.46	2.88	2.49	2.41	2.09	1.87	1.70
10	1.81	1.29	2.33	1.72	1.95	1.55	2.88	2.88	2.33	2.08	2.11	1.83
11	2.10	1.51	1.76	1.43	1.55	1.27	2.89	2.88	2.32	2.13	1.94	1.58
12	2.00	1.47	1.79	1.20	1.85	1.33	2.89	2.89	2.13	1.77	2.01	1.57
13	1.91	1.51	1.20	1.05	1.69	1.44	2.90	2.89	2.46	1.87	2.36	1.99
14	1.85	1.43	1.11	.99	1.48	1.12	2.90	2.90	2.86	2.20	2.18	1.92
15	1.82	1.40	1.73	1.11	1.94	1.30	2.99	2.84	2.75	2.21	2.36	1.97
16	1.60	1.16	1.60	1.23	1.91	1.61	3.09	2.83	2.20	1.68	2.42	2.17
17	1.83	1.34	1.45	1.11	1.68	1.37	3.55	3.09	1.88	1.68	2.54	2.20
18	2.34	1.63	1.21	.95	1.86	1.59	3.31	2.91	1.84	1.67	3.46	2.32
19	2.15	1.27	1.91	1.17	1.86	1.59	2.93	2.56	2.09	1.73	3.41	2.83
20	1.43	1.11	1.90	1.49	1.82	1.49	2.93	2.62	2.21	1.82	3.02	2.62
21	1.63	1.21	1.81	1.33	1.86	1.69	3.07	2.51	1.85	1.63	2.82	2.43
22	1.83	1.42	1.83	1.41	1.86	1.86	2.64	2.37	2.08	1.71	2.68	2.35
23	2.29	1.54	1.93	1.66	1.88	1.86	3.38	2.64	1.79	1.54	3.97	2.33
24	2.30	1.58	1.95	1.54	2.78	1.88	3.17	2.31	2.09	1.60	4.16	3.55
25	2.02	1.71	1.71	1.35	2.33	2.13	2.31	2.16	2.15	1.74	3.55	2.95
26	1.78	1.19	1.36	1.09	2.29	2.07	2.43	2.16	2.01	1.75	3.29	2.88
27	2.22	1.19	1.37	1.06	2.07	1.89	2.43	2.21	2.09	1.83	3.49	3.08
28	2.75	1.84	1.56	1.23	2.69	1.89	2.36	2.23	2.07	1.83	3.53	2.88
29	1.83	1.30	1.49	.98	3.39	2.54	2.28	2.05	---	---	3.49	2.74
30	1.98	1.30	1.07	.89	3.93	3.26	2.07	2.06	---	---	3.81	3.35
31	1.99	1.57	---	---	3.83	2.87	2.07	2.04	---	---	3.57	3.26
MONTH	2.75	1.11	2.33	.89	3.93	1.03	3.55	2.04	2.86	1.54	4.16	1.57

GROUND-WATER LEVELS
 MARYLAND--Continued
 HARFORD COUNTY--Continued
 HA Fd 8--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.44	3.06	2.52	2.14	1.89	1.56	1.78	1.35	1.42	1.06	1.20	.69
2	3.05	2.63	2.60	2.14	1.94	1.63	2.02	1.52	1.50	.99	1.61	1.15
3	2.63	2.38	2.26	1.92	2.05	1.72	1.68	1.34	1.32	1.01	1.78	1.18
4	2.65	2.34	2.16	1.81	1.93	1.28	1.76	1.43	1.48	1.02	1.69	1.11
5	2.70	2.35	2.17	1.90	1.84	1.19	2.02	1.47	1.45	.93	1.43	.83
6	2.34	2.12	2.97	2.04	2.17	1.64	1.82	1.52	1.40	.85	1.20	.78
7	2.48	2.13	2.58	2.08	2.00	1.41	2.04	1.43	1.41	.84	1.40	.96
8	2.39	2.16	2.29	2.07	1.88	1.37	1.91	1.29	1.43	.99	1.45	1.04
9	2.48	2.22	2.17	1.87	1.76	1.24	1.81	1.18	1.80	1.01	1.34	.98
10	2.28	2.05	2.16	1.86	1.79	1.23	1.75	1.16	1.65	1.14	1.43	1.11
11	2.03	1.79	2.44	1.92	2.07	1.43	1.77	1.29	1.46	1.08	1.43	.79
12	2.02	1.73	2.58	2.01	1.77	1.32	1.72	1.20	1.30	.95	1.10	.69
13	2.24	1.72	2.21	1.89	1.54	1.18	2.13	1.55	1.27	.90	1.42	1.04
14	2.09	1.87	2.28	1.78	1.64	1.13	1.73	1.24	1.44	1.05	1.56	1.00
15	2.55	1.93	2.35	1.88	1.87	1.31	1.52	1.16	1.50	.97	1.24	1.04
16	2.51	2.12	2.36	1.80	1.72	1.32	1.46	1.15	1.23	.82	1.55	1.07
17	2.51	2.12	2.45	1.90	1.59	1.24	1.64	1.21	1.23	.95	1.34	.91
18	2.28	1.95	2.20	1.71	1.98	1.37	1.64	1.02	1.54	1.08	1.35	1.13
19	2.86	2.29	2.55	1.76	1.98	1.63	1.35	1.03	1.46	.99	1.67	1.05
20	2.78	2.33	2.39	1.93	1.89	1.58	1.42	.92	1.95	1.14	1.05	.79
21	2.88	2.16	2.08	1.80	1.95	1.46	1.35	.92	1.14	.84	1.44	.99
22	3.42	2.85	2.03	1.65	1.95	1.46	1.36	.98	1.27	.87	1.47	1.19
23	2.84	2.51	1.88	1.58	1.97	1.48	1.48	.97	1.38	.97	1.52	1.21
24	3.03	2.66	2.18	1.57	2.13	1.48	1.40	1.01	1.28	.96	1.38	.95
25	2.65	2.39	2.35	1.62	2.09	1.57	1.67	1.02	1.32	.85	1.67	1.23
26	2.72	2.35	1.87	1.56	1.95	1.52	1.39	1.08	1.43	1.14	1.65	1.26
27	2.83	2.45	2.16	1.59	1.85	1.44	1.28	.95	1.41	1.09	1.61	1.15
28	2.68	2.25	2.11	1.58	1.86	1.45	1.29	.88	1.36	.93	1.56	1.13
29	2.54	2.12	1.86	1.47	1.69	1.31	1.40	1.10	1.21	.81	1.58	1.22
30	2.71	2.26	2.04	1.55	1.62	1.21	1.52	1.02	1.39	.98	1.48	.88
31	---	---	2.03	1.63	---	---	1.53	1.18	1.50	.97	---	---
MONTH	3.44	1.72	2.97	1.47	2.17	1.13	2.13	.88	1.95	.81	1.78	.69

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 21. SITE ID.--391814076173801. PERMIT NUMBER.--HA-88-1043.
 LOCATION.--Lat 39°18'14", long 76°17'38", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 81.3 ft; casing diameter 4 in., to 73.8 ft;
 screen diameter 4 in. from 73.8 to 81.3 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Jan. 12, 1990 to current year.
 DATUM.--Elevation of land surface is 7.67 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.00 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF31. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.56 ft above sea level, Oct. 28, 1991;
 lowest measured, 1.18 ft below sea level, Feb. 26, 1990.

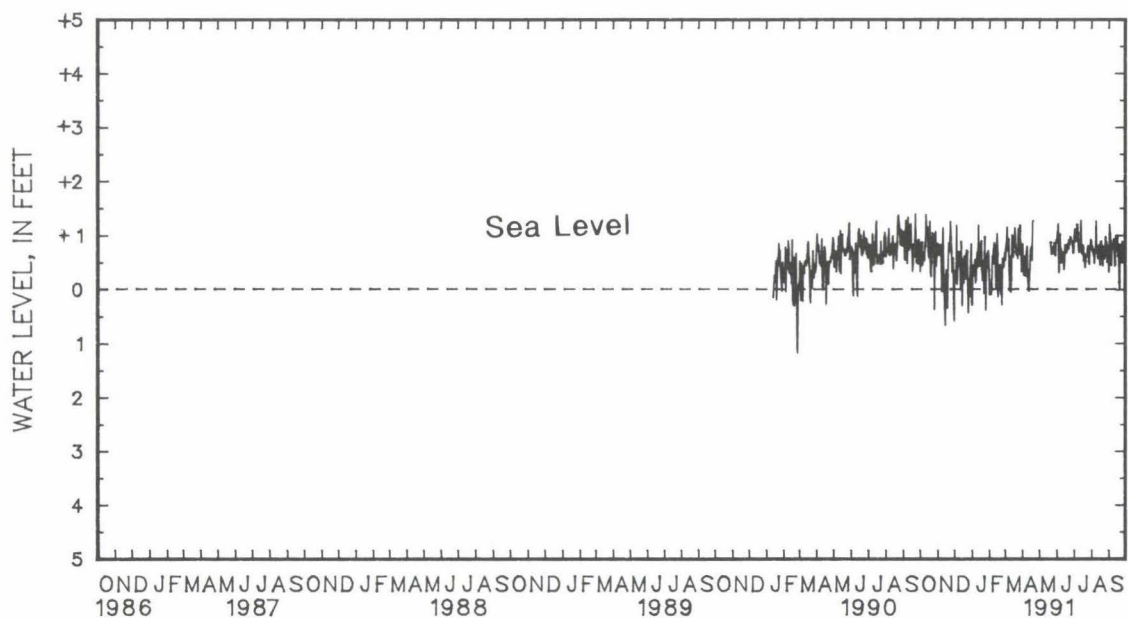
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	+1.05	+3.33	+1.73	+8.4	+1.45	+3.4	+1.01	.30	+.69	.10	+1.31	+.54
2	+1.66	+.57	+1.62	+.77	+.98	+.15	+1.25	+.38	+.76	+.11	+1.70	+.78
3	+1.20	+.45	+1.48	+.65	+2.04	+.14	+1.17	+.44	+.67	+.08	+1.53	+.84
4	+1.93	+.88	+1.64	+.64	+2.37	+1.19	+.95	+.26	+.53	.09	+2.06	+1.15
5	+1.36	+.45	+2.21	+.82	+1.37	+.10	+1.14	+.36	+1.03	+.01	+1.42	+.71
6	+1.38	+.64	+2.11	+.64	+1.28	+.43	+1.13	+.54	+1.28	+.61	+1.79	+.94
7	+1.34	+.55	+1.45	+.64	+1.28	+.45	+.77	+.12	+1.43	+.48	+1.78	+.74
8	+1.41	+.54	+1.37	.05	+1.28	+.70	+.74	+.17	+1.20	+.73	+.91	+.35
9	+1.58	+.78	+1.70	+.70	+1.40	+.54	+.91	+.53	+1.43	+.86	+.78	.02
10	+1.63	+.82	+2.27	+1.14	+1.50	+.57	+1.30	+.69	+1.33	+.81	+1.05	+.61
11	+2.03	+1.39	+1.17	+.47	+.86	.01	+1.54	+.42	+1.29	+.54	+.65	.05
12	+1.89	+1.11	+1.18	.05	+1.49	+.88	+1.86	+1.19	+.72	+.04	+1.05	+.17
13	+1.85	+1.15	+.17	.33	+1.25	+.32	+1.35	+.62	+1.68	+.68	+1.60	+1.01
14	+1.76	+1.03	+.30	.67	+.65	.31	+1.89	+.65	+2.19	+1.03	+1.15	+.64
15	+1.72	+.71	+1.29	+.23	+1.46	+.55	+1.30	+.44	+1.81	+.68	+1.32	+.60
16	+1.40	+.59	+1.06	+.36	+1.14	+.39	+2.00	+.64	+.67	.14	+1.40	+.85
17	+1.69	+.87	+.73	.01	+.97	+.12	+1.62	+.90	+.92	+.26	+1.65	+.89
18	+2.40	+1.26	+.61	.35	+1.86	+.62	+1.10	+.45	+.85	+.01	+1.98	+1.14
19	+1.68	+.32	+1.66	+.40	+1.42	+.23	+.95	+.17	+1.21	+.32	+1.75	+.85
20	+1.06	+.24	+1.51	+.86	+1.05	+.20	+1.43	+.53	+1.41	+.45	+1.53	+.67
21	+1.33	+.49	+1.40	+.71	+1.49	+.65	+1.57	+.36	+.86	.09	+1.50	+.64
22	+1.63	+.87	+1.76	+.83	+1.34	+.72	+1.10	.08	+1.15	+.27	+1.41	+.71
23	+1.96	+1.04	+1.83	+1.26	+1.30	+.71	+2.12	+.97	+.65	.29	+1.69	+.57
24	+1.95	+.72	+1.83	+.98	+1.19	.04	+1.75	+.37	+1.29	+.57	+2.02	+1.13
25	+1.51	+.99	+1.43	+.74	+.61	.44	+.56	.39	+1.38	+.54	+1.21	+.65
26	+1.12	.38	+.99	+.32	+.80	+.18	+1.47	+.36	+1.17	+.41	+1.65	+.65
27	+1.97	+.31	+1.09	+.37	+.56	.14	+1.29	+.48	+1.29	+.56	+1.93	+1.18
28	+2.56	+1.07	+1.30	+.58	+1.13	+.05	+1.37	+.66	+1.36	+.68	+2.00	+.90
29	+1.07	+.43	+1.13	.33	+1.63	+.49	+1.41	+.40	---	---	+1.46	+.80
30	+1.58	+.61	+.47	.59	+1.80	+.84	+1.74	+.71	---	---	+1.20	+.33
31	+1.64	+.84	---	---	+.99	.25	+1.31	+.37	---	---	+1.43	+.64
MONTH	+2.56	.38	+2.27	.67	+2.37	.44	+2.12	.39	+2.19	.29	+2.06	.05

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 21--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+1.59	+.84	---	---	+1.48	+.92	+1.76	+.95	+1.52	+.81	+1.76	+.32
2	+1.25	+.50	---	---	+1.57	+1.07	+1.92	+1.11	+1.56	+.74	+1.95	+1.20
3	+.90	+.26	---	---	+1.74	+1.21	+1.53	+.89	+1.57	+.69	+1.87	+1.04
4	+1.11	+.46	---	---	+1.65	+.31	+1.85	+1.09	+1.49	+.71	+1.82	+.90
5	+1.30	+.60	---	---	+1.69	+.37	+1.99	+1.09	+1.41	+.66	+1.54	+.44
6	+.81	+.25	---	---	+1.95	+1.02	+1.76	+1.20	+1.44	+.48	+1.48	+.72
7	+1.16	+.62	---	---	+1.73	+.76	+2.04	+1.05	+1.50	+.70	+1.56	+.84
8	+1.18	+.69	---	---	+1.61	+.74	+1.87	+.88	+1.95	+.74	+1.61	+.84
9	+1.35	+.79	---	---	+1.48	+.49	+1.77	+.69	+1.95	+1.27	+1.48	+.79
10	+1.14	+.21	---	---	+1.53	+.53	+1.71	+.70	+1.56	+.74	+1.63	+.92
11	+.47	+.00	---	---	+1.93	+.68	+1.75	+.82	+1.45	+.67	+1.23	+.43
12	+.80	.03	---	---	+1.60	+.62	+1.70	+.80	+1.27	+.58	+1.31	+.46
13	+1.19	+.19	---	---	+1.22	+.37	+2.21	+1.28	+1.33	+.57	+1.80	+.98
14	+1.11	+.38	---	---	+1.40	+.50	+1.58	+.74	+1.57	+.82	+1.59	+.79
15	+1.75	+.74	---	---	+1.73	+.82	+1.39	+.66	+1.21	+.64	+1.78	+.97
16	+1.58	+.78	---	---	+1.56	+.80	+1.45	+.68	+1.21	+.45	+1.74	+1.00
17	+1.60	+.74	---	---	+1.35	+.68	+1.53	+.81	+1.63	+.75	+1.49	+.60
18	+1.46	+.54	---	---	+1.35	+.71	+1.59	+.53	+1.43	+.89	+1.67	+.83
19	+2.09	+1.26	---	---	+1.42	+.80	+1.22	+.65	+2.23	+.69	+1.73	+.13
20	+2.05	+1.27	---	---	+1.42	+.84	+1.33	+.41	+2.02	+.81	+1.03	+.01
21	---	---	+1.44	+.87	+1.56	+.76	+1.26	+.51	+1.28	+.43	+1.29	+.83
22	---	---	+1.41	+.65	+1.61	+.91	+1.26	+.63	+1.44	+.71	+1.36	+.82
23	---	---	+1.31	+.67	+1.68	+.83	+1.45	+.63	+1.44	+.77	+1.44	+.69
24	---	---	+1.62	+.77	+1.88	+.97	+1.33	+.63	+1.28	+.57	+1.29	+.51
25	---	---	+1.93	+.68	+1.84	+.95	+1.73	+.79	+1.37	+.66	+1.69	+.88
26	---	---	+1.39	+.67	+1.71	+.89	+1.38	+.80	+1.49	+.98	+1.33	+.70
27	---	---	+1.72	+.86	+1.60	+.88	+1.13	+.49	+1.40	+.88	+1.33	+.53
28	---	---	+1.69	+.76	+1.63	+.88	+1.23	+.47	+1.25	+.67	+1.33	+.55
29	---	---	+1.40	+.63	+1.42	+.67	+1.38	+.80	+1.23	+.51	+1.21	+.71
30	---	---	+1.69	+.86	+1.35	+.68	+1.60	+.80	+1.65	+.81	+1.19	+.09
31	---	---	+1.68	+.91	---	---	+1.57	+.92	+1.32	+.54	---	---
MONTH	+2.09	.03	+1.93	+.63	+1.95	+.31	+2.21	+.41	+2.23	+.43	+1.95	+.01

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--County

WELL NUMBER.--HA Fd 22. SITE ID.--391814076173802. PERMIT NUMBER.--HA-88-1044.
LOCATION.--Lat 39°18'14", long 76°17'38", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
Aberdeen Proving Ground.
Owner: U.S. Army.
AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
WELL CHARACTERISTICS.--Drilled, observation, confining unit well, depth 54.4 ft; casing diameter 4 in., to 49.4 ft;
screen diameter 4 in. from 49.4 to 54.4 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
recorder--15-minute recorder interval from Jan. 17, 1990 to current year.
DATUM.--Elevation of land surface is 7.60 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.03 ft above land surface.
REMARKS.--J-Field Remedial Investigation observation well JF32. Missing data due to recorder malfunction.
PERIOD OF RECORD.--January 1990 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.31 ft above sea level, Jan. 17, 1991;
lowest measured, 0.91 ft above sea level, Sept. 13, 1991.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.80	1.76	1.77	1.75	1.51	1.50	2.53	2.44	2.83	2.73	2.25	2.24
2	1.77	1.73	1.77	1.76	1.50	1.46	2.61	2.53	2.72	2.65	2.32	2.25
3	1.73	1.69	1.77	1.76	1.51	1.44	2.66	2.61	2.65	2.59	2.36	2.32
4	1.72	1.69	1.77	1.75	1.61	1.51	2.67	2.66	2.58	2.52	2.44	2.36
5	1.72	1.68	1.80	1.76	1.61	1.60	2.69	2.67	2.52	2.49	2.43	2.41
6	1.69	1.67	1.81	1.78	1.64	1.60	2.70	2.69	2.49	2.47	2.49	2.40
7	1.68	1.65	1.78	1.74	1.65	1.64	2.70	2.69	2.49	2.46	2.52	2.49
8	1.65	1.62	1.76	1.68	1.69	1.65	2.69	2.68	2.49	2.48	2.51	2.47
9	1.63	1.62	1.68	1.67	1.70	1.68	2.72	2.68	2.53	2.49	2.47	2.42
10	1.63	1.61	1.77	1.67	1.74	1.70	2.76	2.72	2.56	2.53	2.42	2.40
11	1.65	1.61	1.77	1.75	1.74	1.71	2.87	2.76	2.57	2.56	2.40	2.33
12	1.67	1.65	1.76	1.72	1.73	1.71	3.04	2.87	2.57	2.51	2.33	2.30
13	1.72	1.67	1.72	1.65	1.74	1.73	3.11	3.04	2.57	2.51	2.33	2.30
14	1.74	1.72	1.65	1.57	1.74	1.68	3.20	3.11	2.67	2.57	2.34	2.33
15	1.75	1.72	1.57	1.55	1.73	1.67	3.21	3.19	2.68	2.66	2.34	2.33
16	1.72	1.68	1.56	1.54	1.74	1.73	3.30	3.21	2.66	2.57	2.36	2.34
17	1.67	1.65	1.55	1.53	1.73	1.72	3.31	3.30	2.57	2.52	2.39	2.36
18	1.74	1.66	1.53	1.48	1.83	1.73	3.31	3.30	2.52	2.45	2.52	2.39
19	1.74	1.69	1.51	1.48	1.83	1.82	3.31	3.28	2.45	2.43	2.60	2.52
20	1.69	1.64	1.52	1.50	1.82	1.79	3.29	3.28	2.44	2.41	2.70	2.60
21	1.64	1.62	1.53	1.51	1.86	1.80	3.30	3.24	2.41	2.37	2.77	2.70
22	1.64	1.62	1.57	1.53	1.91	1.86	3.24	3.17	2.37	2.36	2.79	2.77
23	1.73	1.64	1.67	1.57	2.01	1.91	3.18	3.16	2.35	2.28	2.86	2.79
24	1.74	1.72	1.70	1.67	2.05	2.01	3.18	3.12	2.28	2.26	2.96	2.86
25	1.75	1.73	1.72	1.70	2.03	2.01	3.12	3.04	2.27	2.25	3.02	2.96
26	1.75	1.69	1.72	1.69	2.07	2.03	3.04	3.00	2.27	2.25	3.10	3.02
27	1.71	1.68	1.69	1.66	2.08	2.06	3.01	2.96	2.26	2.25	3.17	3.10
28	1.77	1.71	1.66	1.65	2.15	2.08	2.97	2.94	2.26	2.24	3.24	3.17
29	1.75	1.71	1.65	1.58	2.23	2.15	2.94	2.90	---	---	3.26	3.24
30	1.74	1.71	1.58	1.51	2.38	2.23	2.91	2.89	---	---	3.27	3.24
31	1.75	1.74	---	---	2.44	2.38	2.91	2.83	---	---	3.24	3.23
MONTH	1.80	1.61	1.81	1.48	2.44	1.44	3.31	2.44	2.83	2.24	3.27	2.24

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--County
HA Fd 22--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.26	3.24	2.89	2.88	---	---	---	---	---	---	1.00	.93
2	3.26	3.24	2.88	2.85	---	---	---	---	---	---	.95	.93
3	3.24	3.17	2.85	2.78	---	---	---	---	1.21	1.20	.95	.93
4	3.17	3.12	2.78	2.72	---	---	---	---	1.23	1.20	.98	.94
5	3.12	3.08	2.72	2.66	---	---	---	---	1.21	1.17	1.01	.98
6	3.08	3.03	2.72	2.66	---	---	---	---	1.17	1.11	1.00	.99
7	3.03	3.00	2.71	2.66	---	---	---	---	1.12	1.10	.99	.98
8	3.00	2.97	2.67	2.66	---	---	---	---	1.11	1.09	.98	.97
9	2.97	2.96	2.67	2.64	---	---	---	---	1.22	1.09	.98	.96
10	2.96	2.91	2.64	2.63	---	---	---	---	1.24	1.22	.99	.97
11	2.91	2.79	2.62	2.61	---	---	---	---	1.22	1.21	.99	.96
12	2.79	2.67	2.63	2.61	---	---	---	---	1.21	1.18	.96	.92
13	2.67	2.62	2.61	2.60	---	---	---	---	1.18	1.15	.92	.91
14	2.62	2.58	2.60	2.59	---	---	---	---	1.16	1.14	.95	.92
15	2.61	2.57	2.59	2.54	---	---	---	---	1.15	1.12	.96	.95
16	2.63	2.60	2.54	2.50	---	---	---	---	1.12	1.08	.98	.96
17	2.66	2.63	2.50	2.48	---	---	---	---	1.09	1.07	---	---
18	2.67	2.66	2.49	2.43	---	---	---	---	1.09	1.07	---	---
19	2.70	2.67	2.43	2.42	---	---	---	---	1.08	1.07	---	---
20	2.71	2.69	---	---	---	---	---	---	1.15	1.08	---	---
21	2.76	2.71	---	---	---	---	---	---	1.14	1.11	---	---
22	2.83	2.76	---	---	---	---	---	---	1.11	1.09	---	---
23	2.88	2.83	---	---	---	---	---	---	1.09	1.07	---	---
24	2.95	2.88	---	---	---	---	---	---	1.07	1.04	---	---
25	2.94	2.92	---	---	---	---	---	---	1.04	1.00	---	---
26	2.95	2.92	---	---	---	---	---	---	1.00	.99	---	---
27	2.96	2.95	---	---	---	---	---	---	1.00	.99	---	---
28	2.96	2.94	---	---	---	---	---	---	1.00	1.00	---	---
29	2.94	2.91	---	---	---	---	---	---	1.00	.99	---	---
30	2.91	2.89	---	---	---	---	---	---	1.01	.99	---	---
31	---	---	---	---	---	---	---	---	1.02	1.00	---	---
MONTH	3.26	2.57	2.89	2.42	---	---	---	---	1.24	.99	1.01	.91

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 23. SITE ID.--391814076173803. PERMIT NUMBER.--HA-88-1045.
 LOCATION.--Lat 39°18'14", long 76°17'38", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20 ft; casing diameter 4 in., to 15 ft;
 screen diameter 4 in. from 15 to 20 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Jan. 12, 1990 to current year.
 DATUM.--Elevation of land surface is 7.23 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.00 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF33. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.30 ft above sea level, Dec. 30, and 31, 1990;
 lowest measured, 1.51 ft above sea level, Sept. 12, 1991.

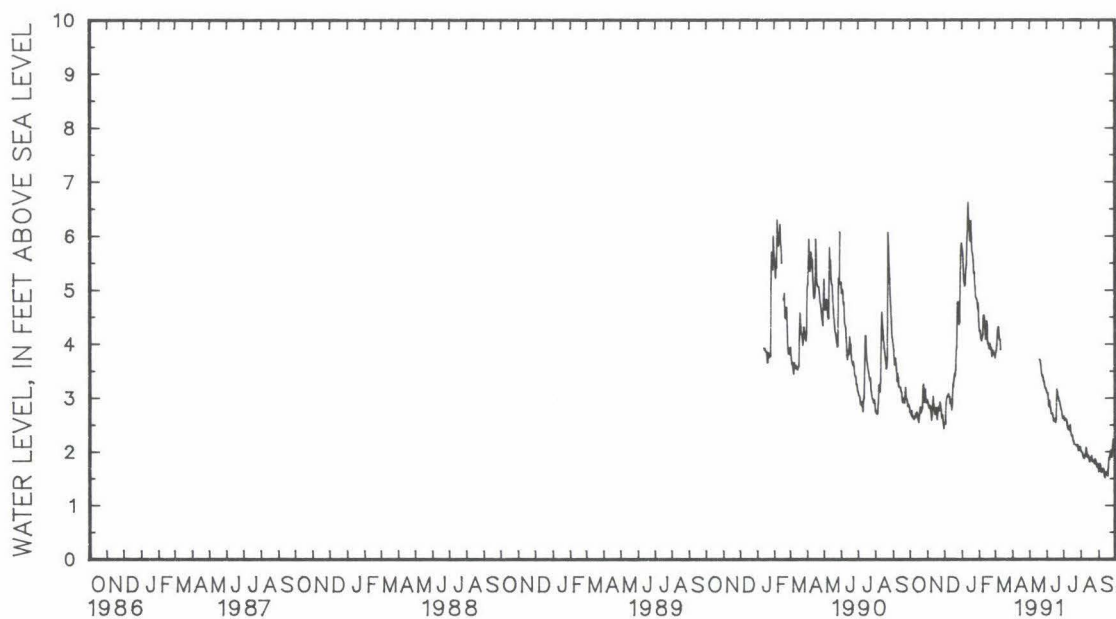
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.83	2.73	3.06	2.95	2.76	2.53	5.88	5.77	4.41	4.23	3.84	3.74
2	2.92	2.75	3.01	2.90	2.71	2.54	5.88	5.70	4.31	4.25	3.99	3.83
3	2.77	2.68	2.96	2.84	2.90	2.52	5.75	5.46	4.31	4.18	3.97	3.87
4	2.93	2.75	2.95	2.81	3.21	2.90	5.50	5.18	4.20	4.09	4.31	3.97
5	2.86	2.64	3.07	2.85	3.21	2.99	5.23	5.13	4.17	4.05	4.32	4.21
6	2.77	2.66	3.07	2.80	3.15	3.03	5.24	5.08	4.22	4.11	4.42	4.27
7	2.76	2.62	2.88	2.76	3.16	3.02	5.38	5.10	4.54	4.16	4.42	4.31
8	2.73	2.60	2.86	2.58	3.14	3.07	5.47	5.38	4.59	4.51	4.31	4.19
9	2.73	2.64	2.84	2.65	3.12	3.02	5.97	5.46	4.63	4.53	4.19	4.08
10	2.77	2.63	3.20	2.84	3.18	3.02	6.20	5.97	4.53	4.46	4.08	4.08
11	2.85	2.70	3.12	3.02	3.02	2.89	6.61	6.11	4.46	4.29	4.08	3.89
12	2.84	2.71	3.11	2.87	3.12	2.96	6.76	6.62	4.28	4.08	---	---
13	2.82	2.73	2.87	2.77	3.06	2.94	6.68	6.32	4.43	4.15	---	---
14	2.80	2.68	2.77	2.69	2.94	2.77	6.34	6.21	4.70	4.42	---	---
15	2.77	2.61	2.95	2.75	3.28	2.87	6.27	5.93	4.68	4.34	---	---
16	2.65	2.54	2.91	2.81	3.32	3.26	6.56	5.90	4.34	4.00	---	---
17	2.71	2.59	2.88	2.71	3.34	3.20	6.56	6.28	4.08	4.01	---	---
18	3.08	2.68	2.71	2.60	3.69	3.32	6.28	5.96	4.01	3.91	---	---
19	3.06	2.82	2.94	2.71	3.69	3.44	5.96	5.71	4.14	3.96	---	---
20	2.85	2.72	2.94	2.82	3.54	3.40	5.80	5.66	4.21	4.00	---	---
21	2.83	2.73	2.90	2.76	3.92	3.51	5.86	5.56	4.02	3.89	---	---
22	2.87	2.79	2.93	2.79	3.99	3.89	5.55	5.31	4.12	3.92	---	---
23	3.38	2.82	2.99	2.92	4.74	3.93	5.60	5.33	3.91	3.76	---	---
24	3.38	3.21	3.00	2.85	5.13	4.75	5.56	5.08	4.01	3.82	---	---
25	3.34	3.25	2.90	2.77	4.97	4.78	5.08	4.87	4.00	3.87	---	---
26	3.25	2.92	2.77	2.64	4.79	4.55	5.09	4.85	3.92	3.83	---	---
27	3.27	2.94	2.73	2.62	4.55	4.36	5.03	4.84	3.88	3.81	---	---
28	3.42	3.16	2.78	2.67	5.14	4.41	5.01	4.81	3.87	3.79	---	---
29	3.15	2.91	2.75	2.51	5.82	5.14	4.81	4.65	---	---	---	---
30	3.08	2.91	2.53	2.43	6.30	5.82	4.91	4.75	---	---	---	---
31	3.09	2.96	---	---	6.30	5.87	4.89	4.42	---	---	---	---
MONTH	3.42	2.54	3.20	2.43	6.30	2.52	6.76	4.42	4.70	3.76	4.42	3.74

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 23--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	3.17	3.10	2.71	2.62	2.14	2.03	1.79	1.62
2	---	---	---	---	3.15	3.08	2.78	2.65	2.14	1.99	1.87	1.75
3	---	---	---	---	3.16	3.08	2.68	2.58	2.08	1.98	1.93	1.77
4	---	---	---	---	3.13	2.86	2.67	2.60	2.11	1.97	1.89	1.74
5	---	---	---	---	3.00	2.83	2.73	2.60	2.07	1.92	1.82	1.62
6	---	---	---	---	3.09	2.94	2.68	2.59	2.03	1.87	1.73	1.61
7	---	---	---	---	3.02	2.83	2.71	2.55	2.02	1.87	1.78	1.67
8	---	---	---	---	2.94	2.79	2.67	2.49	2.02	1.92	1.78	1.68
9	---	---	---	---	2.87	2.70	2.61	2.42	2.26	1.91	1.74	1.65
10	---	---	---	---	2.84	2.70	2.57	2.41	2.23	2.07	1.75	1.67
11	---	---	---	---	2.90	2.71	2.57	2.43	2.12	2.00	1.75	1.55
12	---	---	---	---	2.80	2.66	2.53	2.40	2.05	1.93	1.62	1.51
13	---	---	---	---	2.69	2.57	2.65	2.49	2.00	1.89	1.69	1.61
14	---	---	---	---	2.68	2.56	2.54	2.37	2.01	1.92	1.74	1.59
15	---	---	---	---	2.73	2.60	2.41	2.30	2.03	1.89	1.65	1.61
16	---	---	---	---	2.67	2.58	2.38	2.28	1.95	1.81	1.74	1.62
17	---	---	---	---	2.65	2.54	2.40	2.29	1.91	1.85	1.74	1.55
18	---	---	---	---	3.16	2.59	2.39	2.20	1.99	1.88	1.93	1.70
19	---	---	3.70	3.70	3.25	3.16	2.29	2.20	1.96	1.84	2.07	1.88
20	---	---	3.81	3.69	3.23	3.11	2.29	2.13	2.13	1.91	1.93	1.85
21	---	---	3.72	3.61	3.20	3.01	2.25	2.13	1.91	1.81	2.08	1.93
22	---	---	3.66	3.49	3.13	3.01	2.24	2.13	1.91	1.81	2.09	2.01
23	---	---	3.56	3.41	3.10	2.94	2.25	2.12	1.93	1.83	2.09	2.02
24	---	---	3.57	3.41	3.08	2.93	2.22	2.10	1.89	1.81	2.04	1.89
25	---	---	3.62	3.37	3.03	2.87	2.27	2.10	1.88	1.77	2.17	2.00
26	---	---	3.42	3.31	2.94	2.82	2.19	2.12	1.91	1.85	2.34	2.13
27	---	---	3.44	3.30	2.87	2.78	2.15	2.04	1.91	1.83	2.34	2.23
28	---	---	3.41	3.23	2.84	2.73	2.12	2.01	1.88	1.77	2.34	2.21
29	---	---	3.27	3.18	2.76	2.64	2.15	2.08	1.83	1.71	2.32	2.21
30	---	---	3.30	3.18	2.69	2.61	2.18	2.06	1.86	1.76	2.27	2.04
31	---	---	3.27	3.14	---	---	2.19	2.08	1.89	1.74	---	---
MONTH	---	---	3.81	3.14	3.25	2.54	2.78	2.01	2.26	1.71	2.34	1.51

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 26. SITE ID.--391824076172701. PERMIT NUMBER.--HA-88-1061.
 LOCATION.--Lat 39°18'24", long 76°17'27", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 79 ft; casing diameter 4 in., to 74 ft;
 screen diameter 4 in. from 74 to 79 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Jan. 17, 1990 to current year.
 DATUM.--Elevation of land surface is 10.18 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.80 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF91. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.59 ft above sea level, Oct. 28, 1990;
 lowest measured, 1.12 ft below sea level, Feb. 16, 1990.

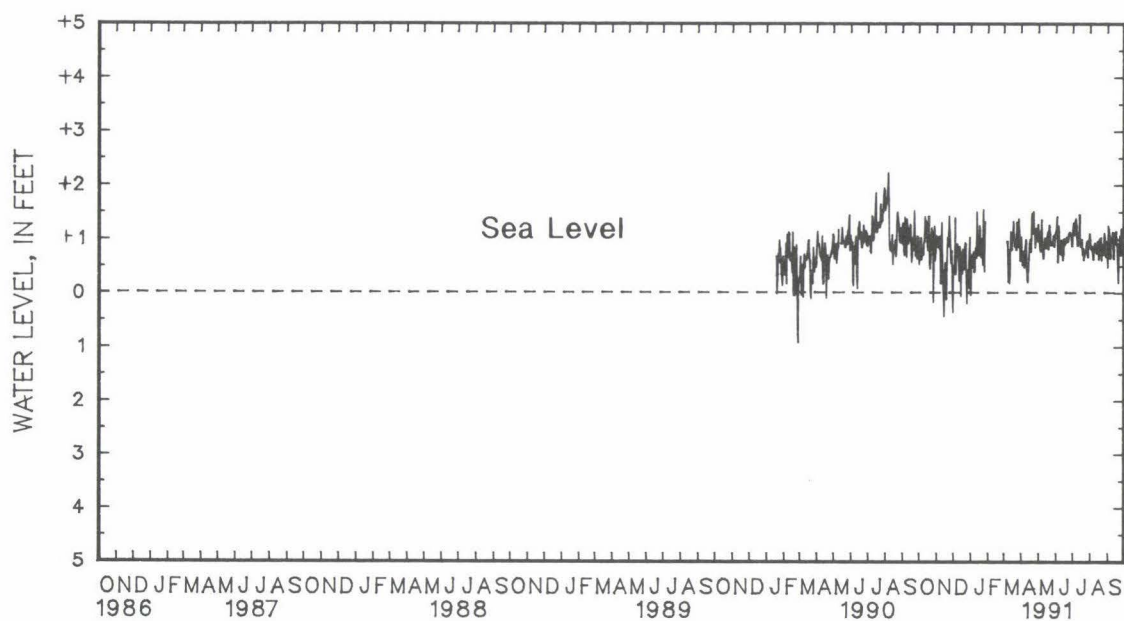
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	+1.13	+5.53	+1.78	+1.04	+1.50	+5.50	+1.08	.05	---	---	---	---
2	+1.70	+8.82	+1.66	+9.97	+1.07	+3.38	+1.32	+6.62	---	---	---	---
3	+1.24	+6.62	+1.52	+8.85	+2.10	+3.38	+1.27	+7.70	---	---	---	---
4	+1.94	+1.02	+1.67	+8.84	+2.41	+1.40	+1.23	+4.47	---	---	---	---
5	+1.49	+6.62	+2.26	+1.05	+1.65	+3.35	+1.21	+6.60	---	---	---	---
6	+1.41	+8.80	+2.26	+8.89	+1.34	+6.65	+1.23	+7.76	---	---	---	---
7	+1.37	+7.72	+1.49	+8.85	+1.34	+6.67	.91	+3.38	---	---	+1.86	+9.95
8	+1.41	+7.71	+1.49	+8.18	+1.36	+9.91	.80	+3.39	---	---	+1.03	+6.60
9	+1.54	+9.93	+1.63	+7.78	+1.34	+7.74	+1.02	+7.72	---	---	.84	+2.21
10	+1.65	+9.96	+2.32	+1.31	+1.59	+7.78	+1.41	+8.83	---	---	+1.14	+8.80
11	+2.07	+1.42	+1.31	+7.71	.85	+2.23	+1.67	+6.65	---	---	.80	+1.18
12	+1.93	+1.28	+1.26	+1.16	+1.56	+8.86	+1.92	+1.50	---	---	+1.16	+3.36
13	+1.88	+1.33	.33	.08	+1.32	+7.73	+1.49	+8.85	---	---	+1.67	+1.14
14	+1.80	+1.20	.41	.44	.79	.07	+1.96	+8.86	---	---	+1.29	+8.84
15	+1.76	+9.94	+1.35	+4.40	+1.54	+7.75	+1.59	+7.70	---	---	+1.42	+8.80
16	+1.45	+7.79	+1.12	+5.56	+1.40	+7.71	+2.16	+9.90	---	---	+1.48	+1.04
17	+1.73	+1.05	.93	+3.33	+1.04	+3.36	+1.95	+1.25	---	---	+1.70	+1.10
18	+2.39	+1.42	.71	.13	+1.86	+8.81	+1.38	+9.91	---	---	+2.03	+1.33
19	+1.93	+5.55	+1.73	+5.58	+1.74	+4.47	+1.30	+6.66	---	---	+1.81	+1.07
20	+1.12	+4.45	+1.69	+1.03	+1.13	+4.44	+1.80	+1.01	---	---	+1.60	+8.87
21	+1.39	+6.68	+1.55	+8.87	+1.56	+8.84	+1.96	+9.93	---	---	+1.56	+8.85
22	+1.67	+1.03	+1.80	+1.01	+1.56	+9.93	+1.56	+5.52	---	---	+1.49	+9.93
23	+2.02	+1.20	+1.86	+1.43	+1.39	+9.91	+2.65	+1.55	---	---	+1.72	+8.80
24	+2.01	+8.86	+1.89	+1.16	+1.31	+1.19	+2.30	+1.09	---	---	+2.08	+1.32
25	+1.58	+1.13	+1.53	+9.93	.58	.20	+1.21	+3.39	---	---	+1.36	+8.86
26	+1.22	.18	+1.09	+5.55	.90	+4.42	+2.14	+1.16	---	---	+1.72	+8.86
27	+2.01	+3.38	+1.17	+5.58	.66	+0.09	+2.00	+1.32	---	---	+1.98	+1.38
28	+2.59	+1.24	+1.38	+7.78	+1.21	+2.24	---	---	---	---	+2.06	+1.18
29	+1.24	+6.60	+1.21	.02	+1.70	+6.68	---	---	---	---	+1.54	+1.04
30	+1.63	+7.73	.56	.36	+1.84	+1.03	---	---	---	---	+1.30	+6.60
31	+1.68	+1.06	---	---	+1.42	+0.02	---	---	---	---	+1.51	+8.83
MONTH	+2.59	.18	+2.32	.44	+2.41	.20	+2.65	.05	---	---	+2.08	+1.18

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 26--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+1.65	+1.04	+1.76	+1.15	+1.58	+1.12	+1.74	+1.13	+1.51	+0.99	+1.25	+0.47
2	+1.31	+0.72	+1.81	+1.09	+1.67	+1.26	+1.98	+1.30	+1.60	+0.82	+1.78	+1.25
3	+0.99	+0.51	+1.39	+0.81	+1.82	+1.42	+1.62	+1.08	+1.38	+0.86	+1.98	+1.18
4	+1.19	+0.66	+1.37	+0.77	+1.75	+0.57	+1.77	+1.27	+1.58	+0.86	+1.90	+1.07
5	+1.37	+0.77	+1.43	+1.03	+1.65	+0.57	+2.07	+1.28	+1.50	+0.78	+1.60	+0.66
6	+0.90	+0.47	+2.27	+1.36	+2.04	+1.24	+1.83	+1.38	+1.44	+0.62	+1.31	+0.64
7	+1.25	+0.71	+1.53	+0.78	+1.81	+0.96	+2.10	+1.25	+1.44	+0.62	+1.57	+0.95
8	+1.26	+0.86	+1.23	+0.83	+1.68	+0.95	+1.95	+1.07	+1.50	+0.85	+1.62	+1.01
9	+1.44	+0.99	+1.20	+0.64	+1.55	+0.72	+1.80	+0.88	+1.96	+0.92	+1.50	+0.96
10	+1.23	+0.50	+1.22	+0.64	+1.58	+0.71	+1.75	+0.88	+1.73	+0.91	+1.64	+1.13
11	+0.61	+0.24	+1.61	+0.85	+1.98	+0.98	+1.79	+1.02	+1.46	+0.83	+1.63	+0.64
12	+0.89	+0.20	+1.86	+1.02	+1.64	+0.86	+1.73	+0.99	+1.28	+0.74	+1.28	+0.63
13	+1.26	+0.41	+1.55	+0.91	+1.28	+0.61	+2.28	+1.45	+1.33	+0.74	+1.64	+1.12
14	+1.19	+0.62	+1.66	+0.84	+1.45	+0.71	+1.69	+0.96	+1.52	+0.96	+1.82	+0.96
15	+1.80	+0.92	+1.77	+0.99	+1.77	+1.01	+1.44	+0.86	+1.58	+0.83	+1.43	+1.12
16	+1.64	+0.99	+1.81	+1.00	+1.61	+1.00	+1.39	+0.87	+1.26	+0.62	+1.82	+1.14
17	+1.65	+0.95	+1.92	+1.13	+1.43	+0.90	+1.55	+0.99	+1.25	+0.88	+1.55	+0.88
18	+1.52	+0.76	+1.63	+0.81	+1.45	+0.93	+1.63	+0.71	+1.65	+1.01	+1.28	+0.89
19	+2.17	+1.43	+2.10	+1.17	+1.50	+1.01	+1.29	+0.82	+1.66	+0.83	+1.76	+0.50
20	+2.12	+1.47	+1.90	+1.26	+1.50	+1.03	+1.39	+0.61	+2.28	+1.03	+0.74	+0.19
21	+1.75	+1.10	+1.55	+1.10	+1.62	+0.95	+1.31	+0.67	+1.14	+0.60	+1.33	+0.74
22	+2.39	+1.51	+1.52	+0.89	+1.68	+0.96	+1.32	+0.73	+1.33	+0.79	+1.40	+0.98
23	+1.69	+1.15	+1.41	+0.89	+1.73	+1.01	+1.50	+0.78	+1.46	+0.90	+1.48	+1.06
24	+2.03	+1.14	+1.73	+0.90	+1.94	+1.09	+1.39	+0.79	+1.31	+0.81	+1.35	+0.70
25	+1.31	+0.84	+2.01	+0.95	+1.90	+1.13	+1.77	+0.93	+1.37	+0.71	+1.72	+1.19
26	+1.62	+0.99	+1.47	+0.89	+1.76	+1.10	+1.43	+0.96	+1.51	+1.11	+1.63	+0.88
27	+1.80	+1.20	+1.79	+1.06	+1.66	+1.07	+1.20	+0.68	+1.48	+1.02	+1.38	+0.71
28	+1.75	+1.09	+1.77	+1.02	+1.69	+1.08	+1.29	+0.66	+1.43	+0.82	+1.37	+0.72
29	+1.67	+0.96	+1.48	+0.86	+1.49	+0.87	+1.44	+0.96	+1.26	+0.67	+1.38	+0.88
30	+1.93	+1.27	+1.77	+1.07	+1.41	+0.87	+1.63	+0.96	+1.56	+0.95	+1.27	+0.29
31	---	---	+1.75	+1.12	---	---	+1.64	+1.10	+1.67	+0.86	---	---
MONTH	+2.39	+0.20	+2.27	+0.64	+2.04	+0.57	+2.28	+0.61	+2.28	+0.60	+1.98	+0.19

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 27. SITE ID.--391824076172702. PERMIT NUMBER.--HA-88-1062.

LOCATION.--Lat 39°18'24", long 76°17'27", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT

WELL CHARACTERISTICS.--Drilled, observation, confining unit well, depth 55.5 ft; casing diameter 4 in., to 50.5 ft; screen diameter 4 in. from 50.5 to 55.5 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from January 17, 1990 to current year.

DATUM.--Elevation of land surface is 10.60 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.11 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well JF92. Missing data due to recorder malfunction.

PERIOD OF RECORD.--January 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.10 ft above sea level, March 30, 1991; lowest measured, 0.64 ft above sea level, Sept. 1, 1991.

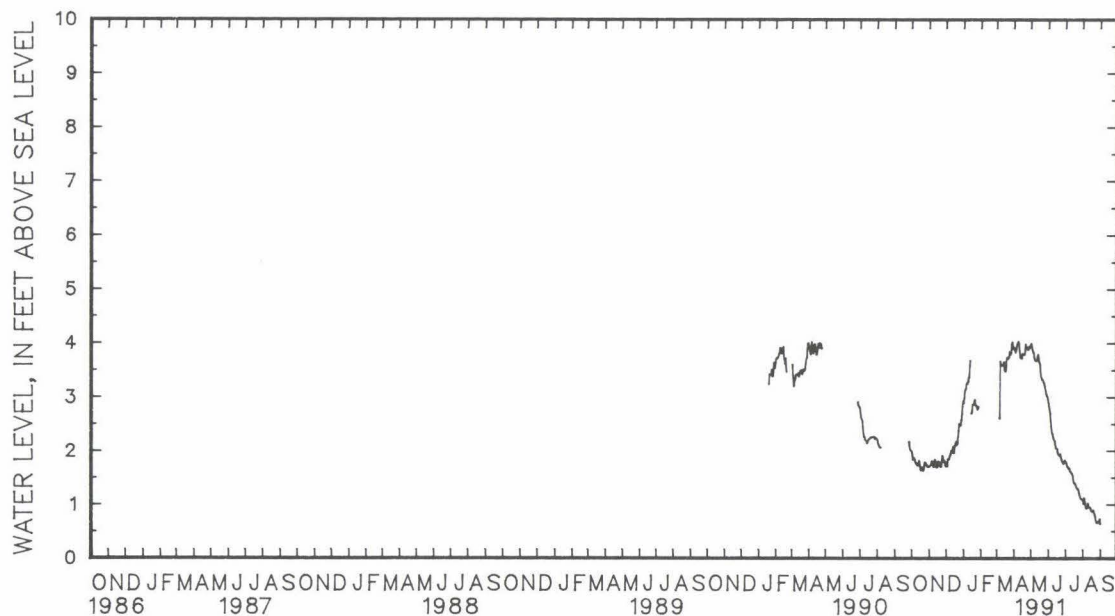
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.00	1.98	1.71	1.70	1.73	1.71	2.99	2.89	---	---	---	---
2	1.98	1.91	1.72	1.71	1.73	1.71	3.11	2.99	---	---	---	---
3	1.91	1.83	1.74	1.72	1.84	1.71	3.14	3.11	---	---	---	---
4	1.91	1.84	1.80	1.74	1.91	1.84	3.15	3.14	---	---	---	---
5	1.89	1.86	1.91	1.80	1.87	1.84	3.24	3.15	---	---	---	---
6	1.86	1.84	1.92	1.80	1.89	1.84	3.28	3.24	---	---	3.72	2.61
7	1.84	1.80	1.81	1.78	1.90	1.89	3.28	3.26	---	---	3.73	3.66
8	1.80	1.77	1.81	1.71	1.96	1.90	3.29	3.25	---	---	3.66	3.61
9	1.77	1.77	1.76	1.70	1.99	1.95	3.38	3.29	---	---	3.61	3.58
10	1.77	1.74	1.96	1.76	2.04	1.99	3.38	3.36	---	---	3.62	3.60
11	1.74	1.72	1.92	1.83	2.02	1.97	3.57	3.36	---	---	3.62	3.60
12	1.75	1.72	1.85	1.81	2.07	1.99	3.69	3.57	---	---	3.60	3.59
13	1.82	1.75	1.81	1.74	2.13	2.07	3.70	3.67	---	---	3.65	3.60
14	1.82	1.81	1.74	1.69	2.08	1.96	---	---	---	---	3.68	3.65
15	1.81	1.74	1.71	1.69	2.14	1.96	2.73	2.70	---	---	3.66	3.50
16	1.74	1.67	1.82	1.71	2.15	2.10	2.91	2.73	---	---	3.53	3.48
17	1.67	1.64	1.84	1.80	2.15	2.09	2.91	2.86	---	---	3.53	3.48
18	1.80	1.65	1.80	1.77	2.35	2.15	2.88	2.86	---	---	3.73	3.54
19	1.79	1.69	1.80	1.78	2.34	2.17	2.93	2.86	---	---	3.74	3.73
20	1.69	1.63	1.79	1.73	2.17	2.11	3.02	2.93	---	---	3.73	3.71
21	1.63	1.62	1.73	1.70	2.26	2.13	3.05	2.95	---	---	3.74	3.71
22	1.69	1.63	1.79	1.71	2.36	2.26	2.95	2.85	---	---	3.75	3.74
23	1.81	1.69	1.93	1.79	2.53	2.36	2.90	2.85	---	---	3.84	3.73
24	1.81	1.78	1.93	1.90	2.61	2.50	2.90	2.84	---	---	3.89	3.84
25	1.82	1.78	1.92	1.88	2.50	2.46	2.85	2.77	---	---	3.86	3.80
26	1.83	1.77	1.88	1.79	2.52	2.50	2.83	2.77	---	---	3.82	3.79
27	1.77	1.72	1.81	1.79	2.56	2.48	2.85	2.80	---	---	3.98	3.82
28	1.77	1.73	1.86	1.81	2.67	2.56	2.87	2.82	---	---	4.03	3.98
29	1.74	1.70	1.86	1.78	2.83	2.67	---	---	---	---	4.09	4.02
30	1.72	1.70	1.78	1.71	3.03	2.83	---	---	---	---	4.10	3.95
31	1.73	1.70	---	---	3.05	2.93	---	---	---	---	3.95	3.90
MONTH	2.00	1.62	1.96	1.69	3.05	1.71	3.70	2.70	---	---	4.10	2.61

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 27--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.96	3.92	4.00	3.97	2.96	2.89	1.84	1.80	1.09	1.08	.73	.64
2	3.95	3.90	4.00	3.99	2.89	2.83	1.80	1.79	1.12	1.01	---	---
3	3.90	3.86	3.99	3.94	2.83	2.78	1.79	1.74	1.13	1.12	---	---
4	3.87	3.83	3.94	3.88	2.78	2.70	1.74	1.70	1.14	1.11	---	---
5	3.95	3.88	3.88	3.83	2.70	2.53	1.70	1.70	1.11	1.03	---	---
6	3.98	3.92	3.87	3.83	2.53	2.41	1.70	1.67	1.03	.95	---	---
7	4.01	3.98	3.85	3.74	2.41	2.33	1.67	1.66	.95	.93	---	---
8	4.03	4.01	3.74	3.71	2.33	2.31	1.68	1.67	.94	.93	---	---
9	4.06	4.03	3.71	3.68	2.31	2.25	1.68	1.62	1.03	.94	---	---
10	4.06	4.00	3.68	3.68	2.25	2.22	1.62	1.61	1.04	1.02	---	---
11	4.00	3.87	3.68	3.67	2.22	2.20	1.61	1.59	1.02	.97	---	---
12	3.87	3.74	3.76	3.68	2.20	2.18	1.59	1.57	.97	.95	---	---
13	3.74	3.72	3.79	3.76	2.18	2.09	1.60	1.57	.95	.95	---	---
14	3.74	3.72	3.79	3.79	2.09	2.04	1.60	1.52	.95	.94	---	---
15	3.80	3.72	3.79	3.72	2.05	2.04	1.52	1.43	.94	.92	---	---
16	3.80	3.80	3.72	3.64	2.05	2.04	1.43	1.39	.92	.88	---	---
17	3.83	3.80	3.64	3.62	2.04	1.98	1.39	1.38	.88	.87	---	---
18	3.83	3.80	3.62	3.48	1.98	1.93	1.39	1.39	.88	.88	---	---
19	3.80	3.79	3.48	3.38	1.93	1.92	1.39	1.36	.91	.88	---	---
20	3.85	3.79	3.38	3.34	1.93	1.91	1.36	1.32	.90	.89	---	---
21	3.99	3.83	3.34	3.32	1.94	1.93	1.32	1.30	.89	.85	---	---
22	4.00	3.98	3.32	3.32	1.94	1.94	1.30	1.28	.85	.82	---	---
23	3.98	3.95	3.32	3.28	1.94	1.87	1.32	1.29	.82	.78	---	---
24	3.97	3.93	3.27	3.26	1.87	1.84	1.31	1.26	.78	.71	---	---
25	3.95	3.90	3.26	3.22	1.84	1.80	1.26	1.21	.71	.67	---	---
26	3.90	3.88	3.22	3.16	1.80	1.78	1.21	1.17	.67	.66	---	---
27	3.95	3.89	3.16	3.12	1.78	1.76	1.17	1.13	.68	.66	---	---
28	3.96	3.94	3.12	3.06	1.79	1.76	1.13	1.11	.68	.68	---	---
29	3.94	3.93	3.06	3.02	1.82	1.79	1.11	1.11	.69	.68	---	---
30	3.97	3.92	3.02	3.01	1.84	1.82	1.11	1.09	.73	.69	---	---
31	---	---	3.01	2.97	---	---	1.10	1.09	.75	.73	---	---
MONTH	4.06	3.72	4.00	2.97	2.96	1.76	1.84	1.09	1.14	.66	.73	.64

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 28. SITE ID.--391824076172703. PERMIT NUMBER.--HA-88-1063.
 LOCATION.--Lat 39°18'24", long 76°17'27", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 4 in., to 20 ft;
 screen diameter 4 in. from 20 to 25 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Jan. 17, 1990 to current year.
 DATUM.--Elevation of land surface is 10.28 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.98 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF93. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.96 ft above sea level, March 24, 1991;
 lowest measured, 0.68 ft above sea level, Aug. 2, 1991.

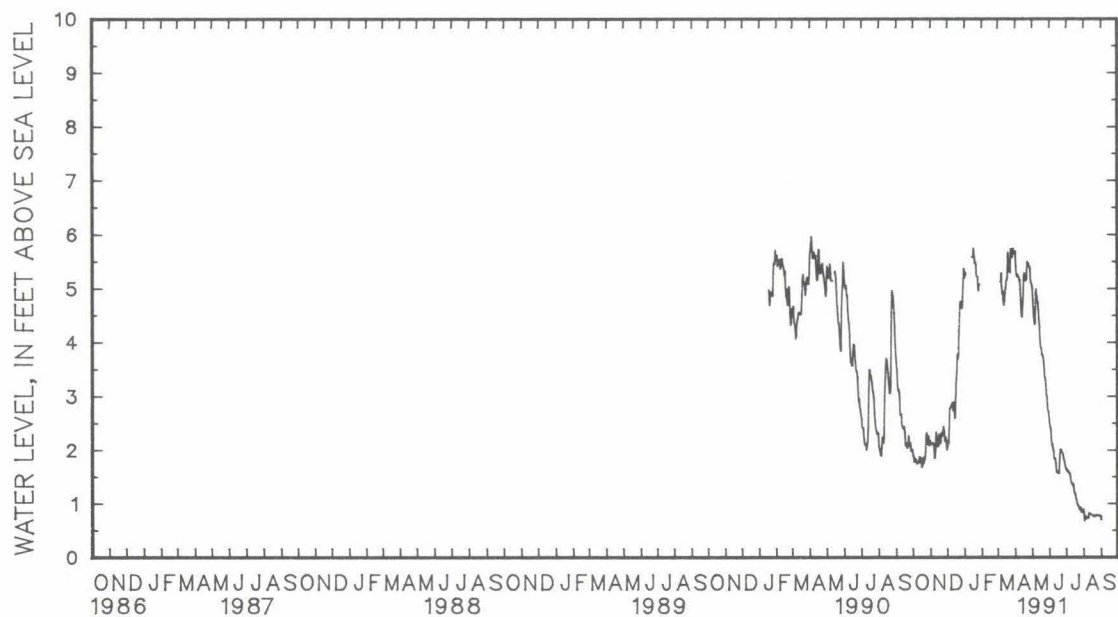
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.01	1.88	2.18	2.14	2.25	2.04	5.30	5.20	---	---	---	---
2	1.97	1.89	2.18	2.12	2.25	2.15	5.38	5.30	---	---	---	---
3	1.89	1.77	2.15	2.11	2.40	2.12	5.39	5.26	---	---	---	---
4	2.01	1.81	2.12	2.10	2.85	2.41	---	---	---	---	---	---
5	2.01	1.83	2.13	2.12	2.87	2.77	---	---	---	---	---	---
6	1.85	1.81	2.13	2.10	2.86	2.77	---	---	---	---	5.34	5.13
7	1.82	1.77	2.10	2.09	2.87	2.81	---	---	---	---	5.40	5.28
8	1.79	1.74	2.09	1.84	2.90	2.83	---	---	---	---	5.27	5.05
9	1.78	1.75	1.98	1.84	2.90	2.85	---	---	---	---	5.05	4.91
10	1.81	1.76	2.42	1.99	2.99	2.88	---	---	---	---	4.98	4.95
11	1.87	1.76	2.42	2.33	2.93	2.73	---	---	---	---	4.96	4.76
12	1.88	1.86	2.39	2.25	2.93	2.76	---	---	---	---	4.77	4.69
13	1.93	1.86	2.25	2.16	2.94	2.89	---	---	---	---	4.90	4.77
14	1.92	1.85	2.15	2.06	2.89	2.59	---	---	---	---	5.00	4.90
15	1.85	1.82	2.29	2.08	3.07	2.61	5.77	5.59	---	---	5.15	5.00
16	1.82	1.67	2.30	2.29	3.31	3.08	5.90	5.59	---	---	5.17	5.13
17	1.71	1.68	2.31	2.27	3.43	3.31	5.91	5.75	---	---	5.23	5.16
18	2.00	1.71	2.26	2.13	3.95	3.44	5.75	5.61	---	---	5.71	5.23
19	2.00	1.85	2.34	2.16	3.97	3.77	5.61	5.47	---	---	5.75	5.67
20	1.85	1.75	2.36	2.31	3.77	3.69	5.59	5.50	---	---	5.67	5.49
21	1.84	1.79	2.32	2.25	4.17	3.76	5.63	5.47	---	---	5.49	5.42
22	1.95	1.84	2.35	2.27	4.49	4.17	5.47	5.24	---	---	5.46	5.32
23	2.29	1.95	2.52	2.35	4.75	4.50	5.43	5.23	---	---	5.74	5.30
24	2.36	2.29	2.54	2.43	4.93	4.75	5.43	5.21	---	---	5.96	5.74
25	2.39	2.32	2.43	2.35	4.82	4.71	5.21	4.96	---	---	5.90	5.66
26	2.37	2.11	2.34	2.17	4.80	4.76	5.13	4.96	---	---	5.66	5.58
27	2.24	2.10	2.23	2.16	4.76	4.63	5.14	5.06	---	---	5.85	5.64
28	2.47	2.25	2.33	2.23	5.02	4.70	5.16	5.08	---	---	5.90	5.74
29	2.37	2.09	2.33	2.13	5.36	5.02	---	---	---	---	5.74	5.65
30	2.20	2.08	2.13	2.00	5.67	5.37	---	---	---	---	5.78	5.67
31	2.22	2.17	---	---	5.68	5.30	---	---	---	---	5.72	5.66
MONTH	2.47	1.67	2.54	1.84	5.68	2.04	5.90	5.06	---	---	5.96	4.69

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 28--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.76	5.69	5.08	5.01	2.60	2.48	1.64	1.62	.89	.83	.77	.70
2	5.68	5.43	5.01	4.81	2.47	2.41	1.71	1.63	.86	.68	---	---
3	5.43	5.26	4.81	4.55	2.41	2.40	1.68	1.60	.80	.77	---	---
4	5.26	5.23	4.55	4.41	2.40	2.20	1.59	1.58	.82	.76	---	---
5	5.33	5.26	4.41	4.33	2.19	2.07	1.64	1.59	.77	.72	---	---
6	5.32	5.23	4.92	4.35	2.17	2.11	1.61	1.56	.75	.72	---	---
7	5.23	5.21	5.01	4.92	2.12	2.02	1.60	1.56	.73	.73	---	---
8	5.21	5.16	5.03	4.99	2.04	1.97	1.59	1.51	.73	.73	---	---
9	5.18	5.16	4.99	4.86	1.97	1.84	1.51	1.41	.85	.73	---	---
10	5.16	4.93	4.87	4.78	1.86	1.82	1.43	1.38	.85	.82	---	---
11	4.92	4.63	4.78	4.74	1.89	1.83	1.43	1.37	.82	.82	---	---
12	4.63	4.48	4.76	4.62	1.83	1.75	1.37	1.34	.82	.81	---	---
13	4.69	4.47	4.62	4.42	1.75	1.60	1.49	1.36	.81	.80	---	---
14	4.87	4.69	4.42	4.28	1.60	1.57	1.45	1.30	.80	.80	---	---
15	5.25	4.87	4.28	4.01	1.64	1.58	1.30	1.21	.80	.79	---	---
16	5.33	5.25	4.01	3.90	1.64	1.59	1.21	1.18	.79	.78	---	---
17	5.35	5.29	3.94	3.88	1.64	1.56	1.21	1.18	.78	.78	---	---
18	5.29	5.15	3.94	3.77	1.82	1.56	1.19	1.10	.78	.78	---	---
19	5.19	5.15	3.83	3.77	2.00	1.82	1.13	1.06	.78	.76	---	---
20	5.19	5.16	3.83	3.72	2.04	2.00	1.09	.99	.81	.76	---	---
21	5.49	5.18	3.75	3.65	2.07	2.01	1.02	.98	.80	.78	---	---
22	5.67	5.50	3.64	3.52	2.03	1.99	1.00	.95	.78	.78	---	---
23	5.61	5.48	3.51	3.35	2.03	1.96	.99	.94	.78	.78	---	---
24	5.51	5.48	3.36	3.32	2.01	1.94	.98	.89	.78	.78	---	---
25	5.48	5.42	3.36	3.22	1.98	1.90	.98	.89	.78	.78	---	---
26	5.43	5.41	3.22	3.03	1.90	1.84	.95	.92	.78	.78	---	---
27	5.44	5.37	3.03	2.99	1.84	1.79	.93	.86	.78	.78	---	---
28	5.37	5.15	3.00	2.84	1.80	1.77	.87	.84	.78	.78	---	---
29	5.15	5.10	2.84	2.73	1.77	1.69	.91	.87	.78	.77	---	---
30	5.13	5.08	2.75	2.71	1.69	1.64	.93	.88	.77	.77	---	---
31	---	---	2.75	2.60	---	---	.94	.89	.77	.77	---	---
MONTH	5.76	4.47	5.08	2.60	2.60	1.56	1.71	.84	.89	.68	.77	.70

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 29. SITE ID.--391812076173101. PERMIT NUMBER.--HA-88-1046.

LOCATION.--Lat 39°18'12", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT

WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 90 ft; casing diameter 4 in., to 85 ft; screen diameter 4 in. from 85 to 90 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Jan. 12, 1990 to current year.

DATUM.--Elevation of land surface is 10.22 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.83 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well JF41. Missing data due to recorder malfunction.

PERIOD OF RECORD.--January 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.02 ft above sea level, Jan. 30, 1991; lowest measured, 1.03 ft below sea level, Feb. 26, 1990.

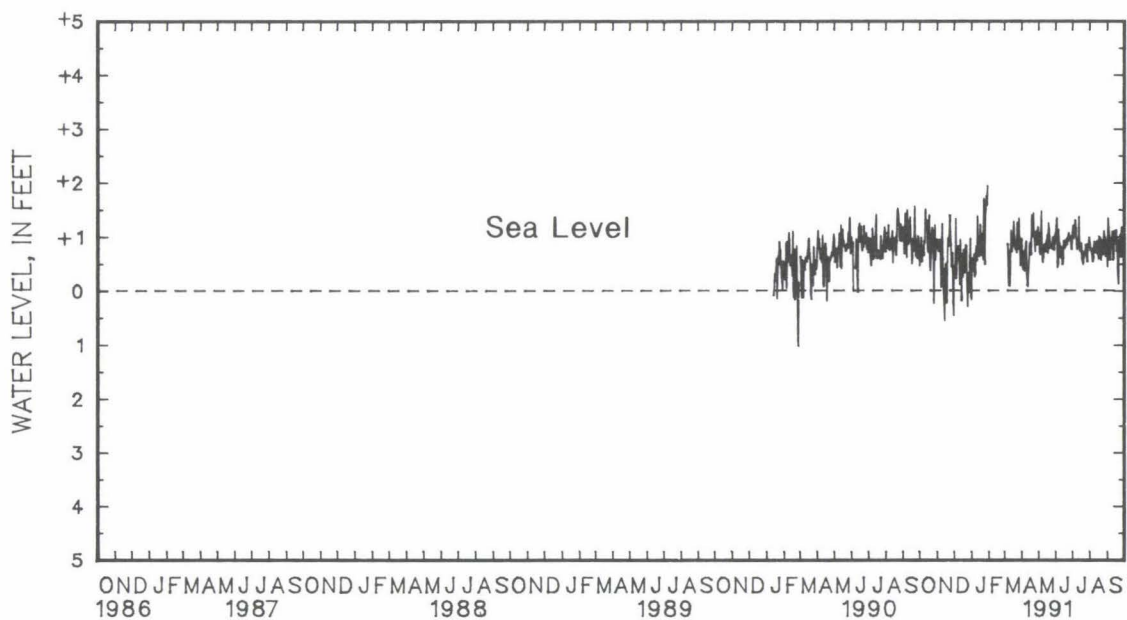
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
(READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	+1.15	+ .46	+1.84	+ .95	+1.60	+ .46	+1.15	.17	---	---	---	---
2	+1.78	+ .66	+1.73	+ .87	+1.10	+ .27	+1.40	+ .53	---	---	---	---
3	+1.33	+ .54	+1.60	+ .76	+2.18	+ .26	+1.33	+ .60	---	---	---	---
4	+2.04	+ .99	+1.76	+ .74	+2.52	+1.34	+1.18	+ .38	---	---	---	---
5	+1.49	+ .54	+2.35	+ .95	+1.58	+ .23	+1.30	+ .51	---	---	---	---
6	+1.51	+ .76	+2.27	+ .76	+1.42	+ .57	+1.30	+ .68	---	---	---	---
7	+1.47	+ .66	+1.58	+ .76	+1.42	+ .58	+ .93	+ .26	---	---	+1.92	+ .87
8	+1.54	+ .66	+1.51	+ .06	+1.42	+ .83	+ .83	+ .32	---	---	+1.04	+ .50
9	+1.73	+ .89	+1.81	+ .81	+1.50	+ .67	+1.05	+ .69	---	---	+ .89	+ .10
10	+1.76	+ .92	+2.41	+1.25	+1.65	+ .70	+1.47	+ .83	---	---	+1.18	+ .74
11	+2.17	+1.52	+1.26	+ .60	+ .93	+ .12	+1.70	+ .56	---	---	+ .78	+ .08
12	+2.01	+1.24	+1.31	+ .06	+1.63	+ .95	+2.01	+1.39	---	---	+1.18	+ .31
13	+1.97	+1.30	+ .31	.20	+1.41	+ .51	+1.52	+ .76	---	---	+1.74	+1.12
14	+1.89	+1.15	+ .43	.55	+ .78	.18	+2.04	+ .79	---	---	+1.29	+ .77
15	+1.85	+ .78	+1.43	+ .36	+1.61	+ .69	+1.44	+ .64	---	---	+1.47	+ .73
16	+1.54	+ .72	+1.19	+ .50	+1.32	+ .59	+2.30	+ .87	---	---	+1.55	+ .97
17	+1.82	+1.00	+ .86	+ .13	+1.10	+ .26	+1.92	+1.23	---	---	+1.78	+1.02
18	+2.53	+1.41	+ .73	.23	+1.99	+ .76	+1.49	+ .88	---	---	+2.11	+1.29
19	+1.77	+ .48	+1.80	+ .54	+1.66	+ .37	+1.46	+ .66	---	---	+1.88	+ .98
20	+1.19	+ .38	+1.66	+ .98	+1.18	+ .34	+2.02	+1.06	---	---	+1.67	+ .80
21	+1.48	+ .62	+1.54	+ .83	+1.64	+ .79	+2.20	+1.01	---	---	+1.64	+ .77
22	+1.76	+1.00	+1.90	+ .95	+1.58	+ .85	+1.84	+ .58	---	---	+1.56	+ .84
23	+2.11	+1.17	+1.95	+1.40	+1.46	+ .84	+2.91	+1.71	---	---	+1.82	+ .71
24	+2.07	+ .84	+1.95	+1.10	+1.34	+ .11	+2.54	+1.24	---	---	+2.16	+1.27
25	+1.66	+1.12	+1.58	+ .86	+ .67	.30	+1.49	+ .50	---	---	+1.37	+ .77
26	+1.27	.24	+1.11	+ .45	+ .94	+ .33	+2.46	+1.34	---	---	+1.78	+ .82
27	+2.25	+ .55	+1.22	+ .50	+ .69	.03	+2.36	+1.51	---	---	+2.07	+1.35
28	+2.73	+1.22	+1.45	+ .70	+1.27	+ .15	+2.51	+1.77	---	---	+2.13	+1.02
29	+1.22	+ .58	+1.25	.20	+1.78	+ .62	+2.62	+1.59	---	---	+1.61	+ .93
30	+1.74	+ .84	+ .60	.46	+1.94	+ .97	3.02	+1.94	---	---	+1.34	+ .47
31	+1.79	+ .95	---	---	+1.23	.11	---	---	---	---	+1.56	+ .77
MONTH	+2.73	.24	+2.41	.55	+2.52	.30	3.02	.17	---	---	+2.16	+ .08

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 29--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+1.72	+ .96	+1.81	+1.06	+1.63	+1.05	+1.85	+1.05	+1.57	+ .88	+1.57	+ .45
2	+1.38	+ .62	+1.86	+ .99	+1.72	+1.21	+2.03	+1.21	+1.63	+ .76	+1.89	+1.35
3	+1.02	+ .40	+1.42	+ .72	+1.87	+1.35	+1.65	+ .97	+1.45	+ .78	+2.09	+1.18
4	+1.24	+ .59	+1.40	+ .68	+1.79	+ .43	+1.90	+1.19	+1.65	+ .77	+2.00	+1.03
5	+1.44	+ .71	+1.48	+ .95	+1.77	+ .50	+2.09	+1.18	+1.57	+ .71	+1.73	+ .58
6	+ .92	+ .37	+2.32	+1.48	+2.08	+1.14	+1.86	+1.31	+1.50	+ .54	+1.42	+ .58
7	+1.30	+ .75	+1.53	+ .70	+1.85	+ .88	+2.14	+1.15	+1.52	+ .61	+1.70	+ .91
8	+1.31	+ .81	+1.25	+ .74	+1.74	+ .85	+1.97	+ .94	+1.58	+ .77	+1.74	+ .97
9	+1.48	+ .92	+1.22	+ .53	+1.61	+ .62	+1.85	+ .77	+2.09	+ .91	+1.62	+ .92
10	+1.27	+ .34	+1.26	+ .61	+1.66	+ .64	+1.80	+ .78	+1.84	+ .86	+1.77	+1.10
11	+ .61	+ .12	+1.67	+ .78	+2.06	+ .81	+1.84	+ .89	+1.60	+ .79	+1.62	+ .57
12	+ .91	+ .08	+1.92	+ .86	+1.73	+ .75	+1.78	+ .88	+1.42	+ .71	+1.45	+ .59
13	+1.32	+ .34	+1.63	+ .80	+1.36	+ .50	+2.33	+1.38	+1.48	+ .70	+1.88	+1.11
14	+1.24	+ .51	+1.75	+ .73	+1.53	+ .62	+1.68	+ .82	+1.71	+ .93	+1.93	+ .92
15	+1.87	+ .86	+1.84	+ .88	+1.84	+ .93	+1.49	+ .74	+1.71	+ .81	+1.66	+1.11
16	+1.71	+ .89	+1.89	+ .91	+1.68	+ .91	+1.50	+ .74	+1.36	+ .59	+1.91	+1.12
17	+1.72	+ .84	+1.99	+1.04	+1.48	+ .79	+1.61	+ .88	+1.40	+ .88	+1.64	+ .73
18	+1.60	+ .67	+1.63	+ .70	+1.48	+ .82	+1.68	+ .60	+1.77	+1.01	+1.36	+ .94
19	+2.23	+1.39	+2.15	+1.26	+1.55	+ .90	+1.31	+ .72	+1.85	+ .81	+1.85	+ .31
20	+2.18	+1.41	+1.95	+1.18	+1.55	+ .94	+1.42	+ .49	+2.39	+ .97	+ .79	+ .13
21	+1.87	+1.01	+1.61	+1.01	+1.68	+ .86	+1.35	+ .60	+1.21	+ .57	+1.43	+ .78
22	+2.46	+1.44	+1.57	+ .79	+1.73	+ .98	+1.36	+ .70	+1.44	+ .82	+1.50	+ .94
23	+1.74	+1.05	+1.47	+ .81	+1.79	+ .93	+1.55	+ .70	+1.58	+ .90	+1.58	+1.04
24	+2.09	+ .99	+1.78	+ .87	+2.00	+1.07	+1.43	+ .68	+1.42	+ .78	+1.43	+ .63
25	+1.32	+ .73	+2.08	+ .82	+1.94	+1.03	+1.79	+ .85	+1.49	+ .68	+1.81	+1.18
26	+1.67	+ .90	+1.53	+ .79	+1.81	+1.00	+1.46	+ .86	+1.63	+1.11	+1.52	+ .82
27	+1.86	+1.10	+1.85	+ .99	+1.71	+ .98	+1.20	+ .56	+1.55	+1.00	+1.47	+ .64
28	+1.81	+ .98	+1.82	+ .92	+1.74	+ .98	+1.32	+ .54	+1.43	+ .79	+1.47	+ .66
29	+1.73	+ .86	+1.54	+ .76	+1.54	+ .77	+1.47	+ .86	+1.38	+ .64	+1.47	+ .83
30	+1.99	+1.19	+1.83	+ .99	+1.47	+ .77	+1.67	+ .86	+1.77	+ .93	+1.35	+ .21
31	---	---	+1.81	+1.03	---	---	+1.66	+ .99	+1.79	+ .83	---	---
MONTH	+2.46	+ .08	+2.32	+ .53	+2.08	+ .43	+2.33	+ .49	+2.39	+ .54	+2.09	+ .13

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 30. SITE ID.--391812076173102. PERMIT NUMBER.--HA-88-1047.
 LOCATION.--Lat 39°18'12", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, confining unit well, depth 62 ft; casing diameter 4 in., to 57 ft;
 screen diameter 4 in. from 57 to 62 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Jan. 17, 1990 to current year.
 DATUM.--Elevation of land surface is 10.30 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.85 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF42. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.59 ft above sea level, Feb. 15, and 16, 1991,
 and April 24, and 25, 1991; lowest measured, 1.45 ft above sea level, Aug. 9, 1991.

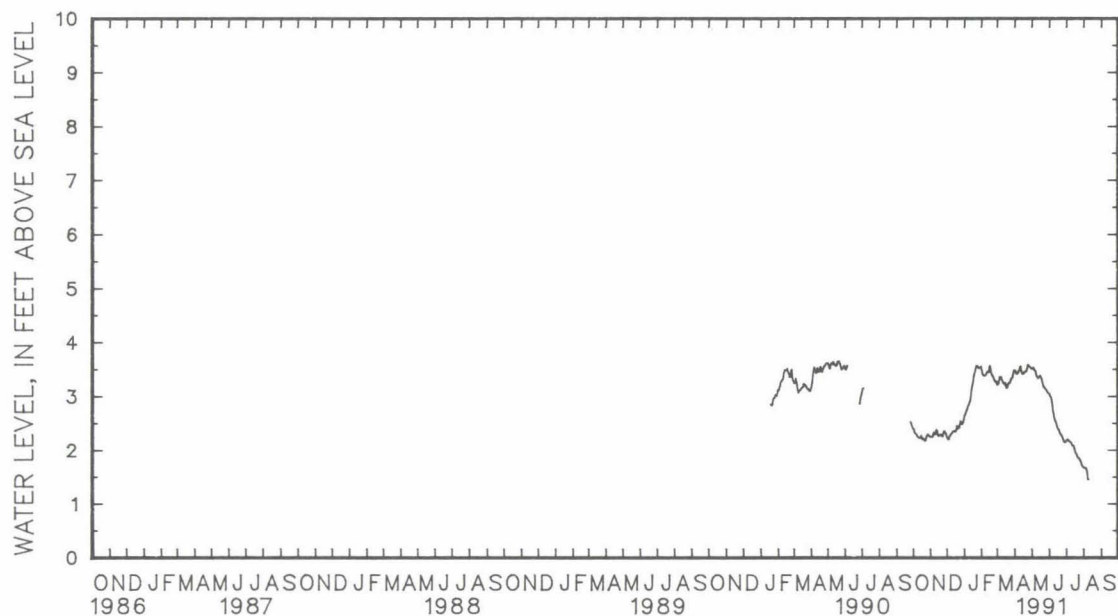
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.40	2.38	2.25	2.24	2.26	2.23	2.65	2.64	3.55	3.49	3.24	3.21
2	2.38	2.37	2.24	2.24	2.23	2.21	2.68	2.65	3.49	3.43	3.24	3.21
3	2.37	2.32	2.24	2.24	2.21	2.19	2.72	2.68	3.43	3.40	3.28	3.24
4	2.32	2.31	2.26	2.24	2.25	2.20	2.74	2.72	3.40	3.39	3.35	3.28
5	2.31	2.30	2.30	2.26	2.26	2.25	2.76	2.74	3.39	3.38	3.36	3.35
6	2.30	2.29	2.33	2.30	2.28	2.26	2.80	2.76	3.38	3.38	3.36	3.35
7	2.30	2.28	2.33	2.32	2.29	2.28	2.83	2.80	3.39	3.38	3.38	3.36
8	2.28	2.25	2.32	2.30	2.31	2.29	2.84	2.83	3.40	3.39	3.38	3.35
9	2.25	2.24	2.30	2.29	2.32	2.31	2.88	2.84	3.43	3.40	3.35	3.31
10	2.24	2.23	2.35	2.29	2.34	2.32	2.91	2.88	3.45	3.43	3.31	3.29
11	2.23	2.22	2.37	2.35	2.34	2.34	2.94	2.91	3.46	3.45	3.29	3.26
12	2.23	2.22	2.37	2.37	2.35	2.34	3.05	2.95	3.46	3.44	3.26	3.24
13	2.24	2.22	2.37	2.35	2.37	2.35	3.13	3.05	3.46	3.44	3.24	3.23
14	2.26	2.24	2.35	2.30	2.37	2.35	3.19	3.13	3.55	3.46	3.25	3.23
15	2.27	2.26	2.30	2.27	2.35	2.34	3.23	3.19	3.59	3.55	3.25	3.24
16	2.27	2.24	2.27	2.26	2.37	2.35	3.30	3.23	3.59	3.56	3.24	3.19
17	2.24	2.20	2.29	2.27	2.38	2.37	3.38	3.30	3.56	3.51	3.19	3.15
18	2.21	2.20	2.29	2.28	2.43	2.38	3.42	3.38	3.51	3.45	3.18	3.15
19	2.22	2.21	2.29	2.28	2.46	2.44	3.45	3.42	3.45	3.40	3.22	3.18
20	2.22	2.20	2.29	2.28	2.46	2.42	3.51	3.45	3.40	3.39	3.24	3.22
21	2.20	2.17	2.28	2.26	2.42	2.40	3.56	3.51	3.39	3.36	3.25	3.24
22	2.17	2.17	2.26	2.25	2.42	2.41	3.57	3.56	3.36	3.35	3.25	3.25
23	2.21	2.17	2.30	2.25	2.47	2.42	3.57	3.56	3.35	3.32	3.26	3.25
24	2.25	2.21	2.34	2.30	2.53	2.47	3.57	3.56	3.32	3.28	3.31	3.27
25	2.28	2.25	2.37	2.34	2.53	2.53	3.56	3.53	3.28	3.28	3.33	3.31
26	2.30	2.28	2.37	2.35	2.53	2.52	3.53	3.52	3.28	3.27	3.33	3.33
27	2.30	2.29	2.35	2.33	2.52	2.48	3.52	3.52	3.27	3.27	3.35	3.33
28	2.29	2.28	2.33	2.32	2.50	2.48	3.54	3.52	3.27	3.24	3.41	3.35
29	2.29	2.27	2.32	2.30	2.52	2.50	3.54	3.53	---	---	3.47	3.41
30	2.27	2.25	2.30	2.26	2.59	2.52	3.55	3.53	---	---	3.50	3.47
31	2.25	2.25	---	---	2.64	2.59	3.56	3.55	---	---	3.50	3.48
MONTH	2.40	2.17	2.37	2.24	2.64	2.19	3.57	2.64	3.59	3.24	3.50	3.15

GROUND-WATER LEVELS
 MARYLAND--Continued
 HARFORD COUNTY--Continued
 HA Fd 30--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.48	3.48	3.52	3.51	3.05	3.03	2.18	2.17	1.69	1.67	---	---
2	3.48	3.47	3.53	3.52	3.03	3.00	2.19	2.18	1.67	1.66	---	---
3	3.47	3.43	3.53	3.53	3.00	2.98	2.19	2.19	1.66	1.66	---	---
4	3.43	3.41	3.53	3.51	2.98	2.95	2.19	2.18	1.66	1.66	---	---
5	3.41	3.41	3.51	3.48	2.95	2.89	2.18	2.17	1.66	1.65	---	---
6	3.44	3.42	3.48	3.48	2.89	2.82	2.17	2.16	1.65	1.61	---	---
7	3.47	3.44	3.48	3.46	2.82	2.73	2.15	2.15	1.61	1.57	---	---
8	3.50	3.47	3.46	3.42	2.73	2.68	2.15	2.15	1.57	1.46	---	---
9	3.54	3.50	3.42	3.38	2.68	2.62	2.15	2.14	1.47	1.45	---	---
10	3.57	3.54	3.38	3.35	2.62	2.57	2.14	2.12	---	---	---	---
11	3.57	3.55	3.35	3.33	2.57	2.54	2.12	2.10	---	---	---	---
12	3.55	3.48	3.34	3.33	2.54	2.52	2.10	2.08	---	---	---	---
13	3.48	3.44	3.36	3.34	2.52	2.49	2.08	2.08	---	---	---	---
14	3.44	3.41	3.38	3.36	2.49	2.44	2.08	2.07	---	---	---	---
15	3.42	3.41	3.39	3.38	2.44	2.41	2.07	2.04	---	---	---	---
16	3.43	3.42	3.38	3.36	2.41	2.39	2.04	1.99	---	---	---	---
17	3.45	3.43	3.36	3.34	2.39	2.38	1.99	1.95	---	---	---	---
18	3.46	3.45	3.34	3.32	2.38	2.36	1.95	1.93	---	---	---	---
19	3.46	3.45	3.32	3.26	2.36	2.33	1.93	1.91	---	---	---	---
20	3.46	3.45	3.26	3.22	2.33	2.30	1.91	1.89	---	---	---	---
21	3.51	3.46	3.22	3.18	2.30	2.28	1.89	1.87	---	---	---	---
22	3.57	3.51	3.18	3.16	2.28	2.28	1.87	1.85	---	---	---	---
23	3.58	3.57	3.16	3.15	2.28	2.26	1.85	1.84	---	---	---	---
24	3.59	3.58	3.15	3.13	2.26	2.23	1.84	1.83	---	---	---	---
25	3.59	3.57	3.13	3.13	2.23	2.20	1.83	1.81	---	---	---	---
26	3.57	3.55	3.13	3.11	2.20	2.17	1.81	1.79	---	---	---	---
27	3.55	3.54	3.11	3.09	2.17	2.15	1.79	1.76	---	---	---	---
28	3.54	3.53	3.09	3.08	2.15	2.14	1.76	1.73	---	---	---	---
29	3.53	3.52	3.08	3.06	2.16	2.14	1.73	1.71	---	---	---	---
30	3.52	3.51	3.06	3.05	2.17	2.16	1.71	1.69	---	---	---	---
31	---	---	3.05	3.05	---	---	1.69	1.68	---	---	---	---
MONTH	3.59	3.41	3.53	3.05	3.05	2.14	2.19	1.68	1.69	1.45	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 31. SITE ID.--391812076173103. PERMIT NUMBER.--HA-88-1048.
 LOCATION.--Lat 39°18'12", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 35 ft; casing diameter 4 in., to 30 ft;
 screen diameter 4 in. from 30 to 35 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Jan. 12, 1990 to current year.
 DATUM.--Elevation of land surface is 12.72 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.90 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF43.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.30 ft above sea level, Jan. 13, 1991;
 lowest measured, 0.77 ft above sea level, Sept. 13, and 14, 1991.

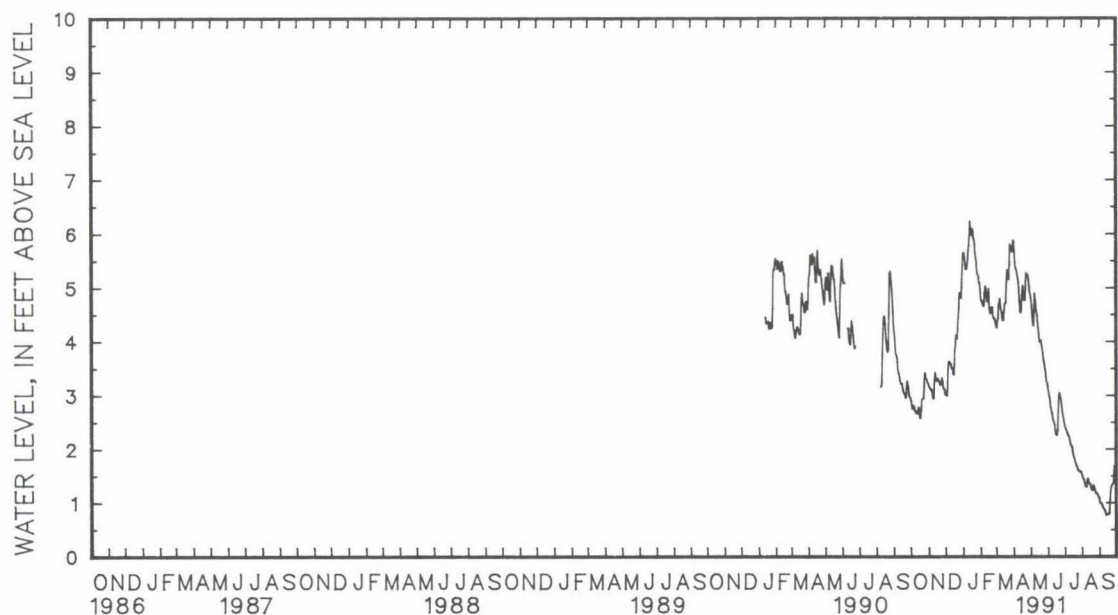
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.95	2.90	3.21	3.17	3.02	3.00	5.70	5.65	4.99	4.78	4.29	4.26
2	2.90	2.83	3.17	3.15	3.02	3.01	5.66	5.65	4.78	4.75	4.38	4.26
3	2.83	2.75	3.15	3.12	3.09	2.99	5.66	5.56	4.76	4.75	4.43	4.38
4	2.80	2.75	3.12	3.10	3.50	3.09	5.56	5.42	4.75	4.70	4.68	4.43
5	2.82	2.80	3.12	3.10	3.62	3.50	5.42	5.35	4.70	4.67	4.73	4.68
6	2.82	2.78	3.14	3.11	3.64	3.62	5.35	5.35	4.67	4.65	4.79	4.71
7	2.78	2.73	3.11	3.05	3.64	3.62	5.41	5.35	4.89	4.67	4.85	4.79
8	2.73	2.70	3.05	2.97	3.62	3.61	5.52	5.41	5.03	4.89	4.83	4.71
9	2.70	2.69	2.97	2.93	3.61	3.58	5.68	5.52	5.05	5.03	4.71	4.60
10	2.69	2.66	3.27	2.94	3.60	3.58	5.77	5.68	5.05	5.00	4.60	4.56
11	2.66	2.66	3.42	3.27	3.59	3.50	5.94	5.77	5.00	4.90	4.56	4.47
12	2.70	2.66	3.44	3.42	3.50	3.49	6.27	5.94	4.89	4.74	4.47	4.39
13	2.77	2.70	3.43	3.35	3.52	3.50	6.30	6.23	4.79	4.74	4.40	4.39
14	2.79	2.77	3.35	3.27	3.51	3.39	6.23	6.11	5.03	4.79	4.57	4.40
15	2.77	2.71	3.27	3.26	3.55	3.38	6.11	5.99	5.04	4.98	4.70	4.57
16	2.71	2.60	3.31	3.27	3.83	3.55	6.08	5.97	4.98	4.70	4.71	4.69
17	2.60	2.57	3.33	3.31	3.91	3.83	6.16	6.09	4.70	4.58	4.71	4.70
18	2.72	2.57	3.32	3.27	4.12	3.91	6.14	6.04	4.58	4.52	5.09	4.71
19	2.92	2.72	3.27	3.26	4.15	4.11	6.04	5.91	4.61	4.52	5.38	5.09
20	2.93	2.92	3.27	3.23	4.11	4.05	5.91	5.90	4.69	4.61	5.38	5.33
21	2.93	2.93	3.23	3.19	4.20	4.05	5.90	5.82	4.69	4.63	5.33	5.26
22	2.93	2.93	3.20	3.19	4.43	4.20	5.81	5.64	4.65	4.63	5.26	5.18
23	3.17	2.93	3.32	3.20	4.58	4.43	5.64	5.56	4.64	4.46	5.41	5.16
24	3.41	3.17	3.34	3.32	4.91	4.58	5.56	5.49	4.46	4.42	5.83	5.41
25	3.46	3.41	3.32	3.26	4.94	4.91	5.49	5.32	4.45	4.43	5.85	5.81
26	3.46	3.39	3.26	3.15	4.94	4.90	5.32	5.25	4.45	4.42	5.81	5.70
27	3.39	3.30	3.15	3.12	4.90	4.81	5.27	5.24	4.42	4.35	5.76	5.69
28	3.36	3.30	3.14	3.12	4.99	4.81	5.25	5.20	4.35	4.29	5.81	5.76
29	3.35	3.27	3.15	3.10	5.28	4.99	5.20	5.09	---	---	5.76	5.67
30	3.27	3.23	3.10	3.01	5.61	5.28	5.13	5.09	---	---	5.89	5.70
31	3.23	3.21	---	---	5.71	5.61	5.14	4.99	---	---	5.90	5.88
MONTH	3.46	2.57	3.44	2.93	5.71	2.99	6.30	4.99	5.05	4.29	5.90	4.26

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 31--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.89	5.86	4.87	4.80	3.17	3.08	2.46	2.40	1.54	1.50	1.09	1.02
2	5.86	5.68	4.80	4.69	3.08	3.01	2.40	2.38	1.50	1.46	1.02	.99
3	5.68	5.47	4.69	4.53	3.01	2.97	2.38	2.35	1.46	1.44	.99	.99
4	5.47	5.36	4.53	4.38	2.97	2.90	2.35	2.31	1.44	1.43	.99	.99
5	5.36	5.34	4.38	4.29	2.90	2.79	2.31	2.30	1.43	1.37	.99	.96
6	5.35	5.31	4.60	4.29	2.79	2.73	2.30	2.26	1.37	1.32	.96	.93
7	5.31	5.24	4.92	4.60	2.73	2.68	2.26	2.24	1.32	1.30	.93	.92
8	5.24	5.18	4.93	4.90	2.68	2.64	2.24	2.23	1.35	1.30	.92	.89
9	5.18	5.12	4.90	4.78	2.64	2.56	2.23	2.18	1.41	1.29	.89	.87
10	5.12	5.00	4.78	4.67	2.56	2.52	2.18	2.13	1.49	1.41	.87	.86
11	5.00	4.75	4.67	4.54	2.52	2.49	2.13	2.09	1.49	1.45	.86	.83
12	4.75	4.57	4.53	4.48	2.49	2.45	2.09	2.05	1.45	1.41	.83	.78
13	4.57	4.53	4.48	4.37	2.45	2.35	2.07	2.05	1.40	1.38	.78	.77
14	4.75	4.57	4.37	4.27	2.35	2.28	2.07	2.02	1.38	1.35	.78	.77
15	4.93	4.75	4.27	4.14	2.28	2.27	2.02	1.93	1.35	1.34	.78	.78
16	5.05	4.93	4.14	4.02	2.27	2.25	1.93	1.87	1.34	1.29	.80	.78
17	5.05	5.04	4.02	3.98	2.35	2.27	1.87	1.85	1.29	1.26	.81	.79
18	5.04	4.90	4.08	4.00	2.71	2.35	1.85	1.82	1.26	1.24	1.05	.81
19	4.90	4.80	4.07	4.01	3.00	2.71	1.82	1.77	1.24	1.23	1.19	1.05
20	4.80	4.76	4.02	3.94	3.07	3.00	1.77	1.73	1.32	1.23	1.28	1.19
21	4.98	4.76	3.94	3.86	3.07	3.04	1.73	1.70	1.35	1.32	1.32	1.28
22	5.28	4.99	3.86	3.78	3.04	3.00	1.70	1.67	1.34	1.30	1.34	1.32
23	5.30	5.27	3.78	3.68	3.00	2.95	1.67	1.65	1.30	1.26	1.36	1.34
24	5.27	5.24	3.68	3.62	2.95	2.88	1.65	1.60	1.26	1.22	1.38	1.36
25	5.28	5.25	3.62	3.57	2.88	2.80	1.60	1.59	1.22	1.18	1.52	1.38
26	5.28	5.23	3.57	3.47	2.80	2.71	1.59	1.59	1.18	1.17	1.68	1.52
27	5.23	5.17	3.47	3.41	2.71	2.63	1.59	1.59	1.17	1.17	1.70	1.68
28	5.17	5.04	3.41	3.33	2.63	2.59	1.59	1.57	1.17	1.15	1.70	1.69
29	5.04	4.92	3.33	3.25	2.59	2.52	1.57	1.57	1.15	1.12	1.69	1.69
30	4.92	4.87	3.25	3.23	2.52	2.46	1.58	1.57	1.12	1.11	1.69	1.66
31	---	---	3.23	3.17	---	---	1.58	1.54	1.11	1.09	---	---
MONTH	5.89	4.53	4.93	3.17	3.17	2.25	2.46	1.54	1.54	1.09	1.70	.77

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 32. SITE ID.--391809076174301. PERMIT NUMBER.--HA-88-1037.
 LOCATION.--Lat 39°18'09", long 76°17'43", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 90 ft; casing diameter 4 in., to 85 ft;
 screen diameter 4 in. from 85 to 90 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Dec. 21, 1989 to current year.
 DATUM.--Elevation of land surface is 7.42 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.75 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF11.
 PERIOD OF RECORD.--December 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.71 ft above sea level, Oct. 28, 1990;
 lowest measured, 0.97 ft below sea level, Dec. 24, 1989.

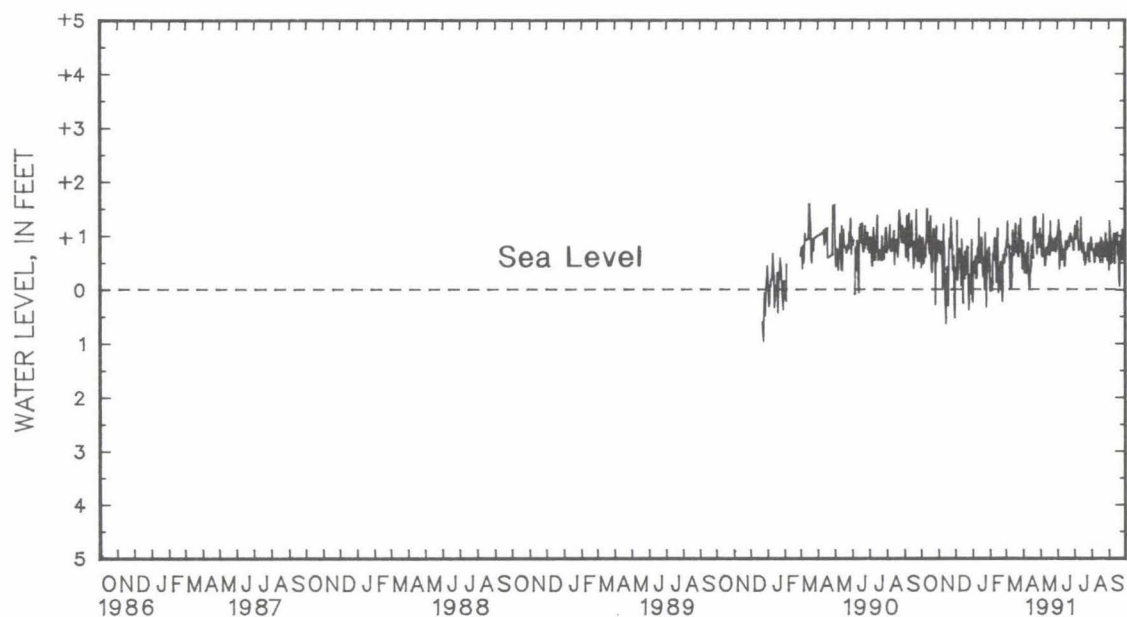
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	+1.16	+.40	+1.83	+.90	+1.58	+.40	+1.14	.24	+.80	.04	+1.46	+.61
2	+1.77	+.56	+1.72	+.81	+1.10	+.21	+1.38	+.45	+.88	+.18	+1.85	+.88
3	+1.33	+.48	+1.59	+.68	+2.17	+.20	+1.31	+.51	+.78	+.15	+1.68	+.95
4	+2.06	+.96	+1.75	+.66	+2.49	+1.28	+1.13	+.31	+.64	.02	+2.21	+1.27
5	+1.49	+.49	+2.34	+.88	+1.51	+.17	+1.28	+.43	+1.14	+.08	+1.55	+.78
6	+1.51	+.70	+2.21	+.68	+1.40	+.49	+1.28	+.61	+1.41	+.66	+1.89	+.83
7	+1.47	+.60	+1.55	+.68	+1.41	+.50	+.92	+.20	+1.55	+.55	+1.88	+.80
8	+1.54	+.60	+1.46	+.00	+1.41	+.76	+.80	+.27	+1.32	+.80	+1.00	+.41
9	+1.75	+.86	+1.83	+.74	+1.49	+.58	+1.03	+.62	+1.57	+.95	+.88	+.03
10	+1.77	+.89	+2.39	+1.21	+1.62	+.62	+1.44	+.77	+1.45	+.91	+1.14	+.66
11	+2.17	+1.49	+1.23	+.53	+.92	+.07	+1.66	+.49	+1.42	+.60	+.71	+.00
12	+2.02	+1.20	+1.29	+.01	+1.60	+.93	+2.01	+1.32	+.83	+.13	+1.14	+.24
13	+1.99	+1.25	+.27	.29	+1.38	+.38	+1.49	+.69	+1.82	+.80	+1.71	+1.10
14	+1.91	+1.11	+.40	.64	+.74	.26	+2.02	+.72	+2.33	+1.13	+1.25	+.69
15	+1.86	+.72	+1.40	+.29	+1.58	+.61	+1.31	+.50	+1.95	+.73	+1.42	+.64
16	+1.54	+.66	+1.18	+.42	+1.25	+.49	+2.13	+.69	+.71	.06	+1.51	+.91
17	+1.83	+.97	+.83	+.02	+1.10	+.20	+1.70	+.96	+1.05	+.35	+1.76	+.95
18	+2.56	+1.36	+.69	.31	+1.99	+.70	+1.21	+.51	+.98	+.08	+2.11	+1.22
19	+1.73	+.40	+1.78	+.47	+1.58	+.30	+1.06	+.24	+1.35	+.39	+1.86	+.90
20	+1.20	+.32	+1.62	+.94	+1.17	+.27	+1.55	+.59	+1.55	+.51	+1.63	+.71
21	+1.47	+.56	+1.51	+.77	+1.62	+.72	+1.68	+.42	+1.00	.01	+1.60	+.68
22	+1.77	+.97	+1.88	+.90	+1.53	+.80	+1.23	.01	+1.29	+.34	+1.53	+.76
23	+2.12	+1.13	+1.95	+1.33	+1.43	+.78	+2.24	+1.06	+.78	.23	+1.83	+.61
24	+2.07	+.81	+1.95	+1.05	+1.32	+.06	+1.85	+.45	+1.43	+.64	+2.13	+1.19
25	+1.65	+1.09	+1.54	+.79	+.66	.38	+.65	.33	+1.52	+.61	+1.31	+.69
26	+1.25	.29	+1.09	+.36	+.92	+.26	+1.58	+.43	+1.32	+.49	+1.76	+.80
27	+2.21	+.49	+1.20	+.42	+.67	.08	+1.41	+.53	+1.44	+.64	+2.07	+1.32
28	+2.71	+1.18	+1.42	+.62	+1.26	+.11	+1.50	+.72	+1.51	+.75	+2.13	+.92
29	+1.20	+.52	+1.24	.28	+1.77	+.54	+1.54	+.46	---	---	+1.58	+.86
30	+1.74	+.77	+.58	.53	+1.95	+.93	+1.88	+.78	---	---	+1.31	+.38
31	+1.79	+.90	---	---	+1.16	.18	+1.34	+.42	---	---	+1.54	+.69
MONTH	+2.71	.29	+2.39	.64	+2.49	.38	+2.24	.33	+2.33	.23	+2.21	+.00

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 32--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+1.70	+.90	+1.80	+1.00	+1.61	+1.00	+1.89	+1.02	+1.62	+.85	+1.58	+.36
2	+1.35	+.53	+1.86	+.94	+1.70	+1.15	+2.05	+1.18	+1.65	+.73	+1.86	+1.27
3	+1.00	+.31	+1.39	+.64	+1.87	+1.29	+1.65	+.94	+1.46	+.75	+2.07	+1.11
4	+1.22	+.51	+1.38	+.61	+1.78	+.37	+1.99	+1.15	+1.68	+.75	+1.99	+.96
5	+1.41	+.64	+1.50	+.90	+1.83	+.46	+2.12	+1.15	+1.60	+.69	+1.70	+.48
6	+.90	+.30	+2.31	+1.40	+2.08	+1.09	+1.88	+1.27	+1.52	+.50	+1.39	+.50
7	+1.27	+.68	+1.50	+.63	+1.86	+.83	+2.17	+1.11	+1.55	+.61	+1.67	+.83
8	+1.28	+.74	+1.24	+.67	+1.74	+.80	+2.00	+.90	+1.64	+.77	+1.72	+.89
9	+1.45	+.87	+1.21	+.45	+1.61	+.55	+1.88	+.72	+2.09	+.85	+1.60	+.84
10	+1.25	+.26	+1.24	+.55	+1.66	+.59	+1.82	+.74	+1.83	+.79	+1.75	+1.04
11	+.55	+.05	+1.65	+.73	+2.07	+.74	+1.87	+.85	+1.58	+.70	+1.53	+.48
12	+.89	+.00	+1.93	+.77	+1.74	+.69	+1.81	+.84	+1.39	+.63	+1.43	+.50
13	+1.30	+.32	+1.62	+.73	+1.36	+.43	+2.34	+1.34	+1.46	+.61	+1.88	+1.04
14	+1.22	+.43	+1.76	+.65	+1.54	+.55	+1.69	+.77	+1.70	+.86	+1.92	+.85
15	+1.86	+.80	+1.85	+.81	+1.87	+.90	+1.50	+.69	+1.70	+.74	+1.66	+1.04
16	+1.69	+.82	+1.90	+.86	+1.70	+.87	+1.57	+.70	+1.34	+.50	+1.89	+1.06
17	+1.71	+.76	+2.01	+.99	+1.47	+.74	+1.64	+.86	+1.41	+.82	+1.62	+.63
18	+1.57	+.58	+1.58	+.63	+1.48	+.77	+1.70	+.55	+1.75	+.96	+1.33	+.88
19	+2.20	+1.32	+2.14	+1.27	+1.55	+.85	+1.32	+.68	+1.85	+.74	+1.84	+.22
20	+2.16	+1.34	+1.95	+.80	+1.55	+.90	+1.43	+.45	+2.36	+.89	+.76	+.06
21	+1.89	+.96	+1.58	+.95	+1.68	+.80	+1.37	+.55	+1.19	+.49	+1.40	+.73
22	+2.42	+1.35	+1.54	+.72	+1.74	+.98	+1.37	+.67	+1.40	+.75	+1.47	+.88
23	+1.71	+1.00	+1.44	+.75	+1.79	+.88	+1.57	+.67	+1.56	+.84	+1.56	+.99
24	+2.07	+.91	+1.75	+.84	+2.00	+1.04	+1.43	+.65	+1.40	+.70	+1.40	+.55
25	+1.29	+.65	+2.08	+.73	+1.96	+.99	+1.83	+.84	+1.46	+.61	+1.80	+1.11
26	+1.65	+.83	+1.53	+.72	+1.83	+.96	+1.49	+.85	+1.61	+1.05	+1.44	+.75
27	+1.85	+1.03	+1.85	+.95	+1.73	+.95	+1.23	+.52	+1.52	+.93	+1.45	+.56
28	+1.79	+.91	+1.83	+.83	+1.75	+.95	+1.33	+.51	+1.36	+.71	+1.45	+.58
29	+1.70	+.79	+1.54	+.70	+1.54	+.72	+1.48	+.84	+1.35	+.54	+1.45	+.76
30	+1.98	+1.13	+1.82	+.94	+1.47	+.73	+1.69	+.84	+1.76	+.87	+1.33	+.14
31	---	---	+1.80	+.97	---	---	+1.66	+.97	+1.76	+.75	---	---
MONTH	+2.42	+.00	+2.31	+.45	+2.08	+.37	+2.34	+.45	+2.36	+.49	+2.07	+.06

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 33. SITE ID.--391809076174302. PERMIT NUMBER.--HA-88-1038.
 LOCATION.--Lat 39°18'09", long 76°17'43", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, confining unit well, depth 55 ft; casing diameter 4 in., to 50 ft;
 screen diameter 4 in. from 50 to 55 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Dec. 21, 1989 to current year.
 DATUM.--Elevation of land surface is 7.30 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.60 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF12. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--December 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.45 ft above sea level, May 2, 3, and 4, 1991;
 lowest measured, 0.75 ft above sea level, Sept. 24, and 25, 1991, and Sept. 30, 1991.

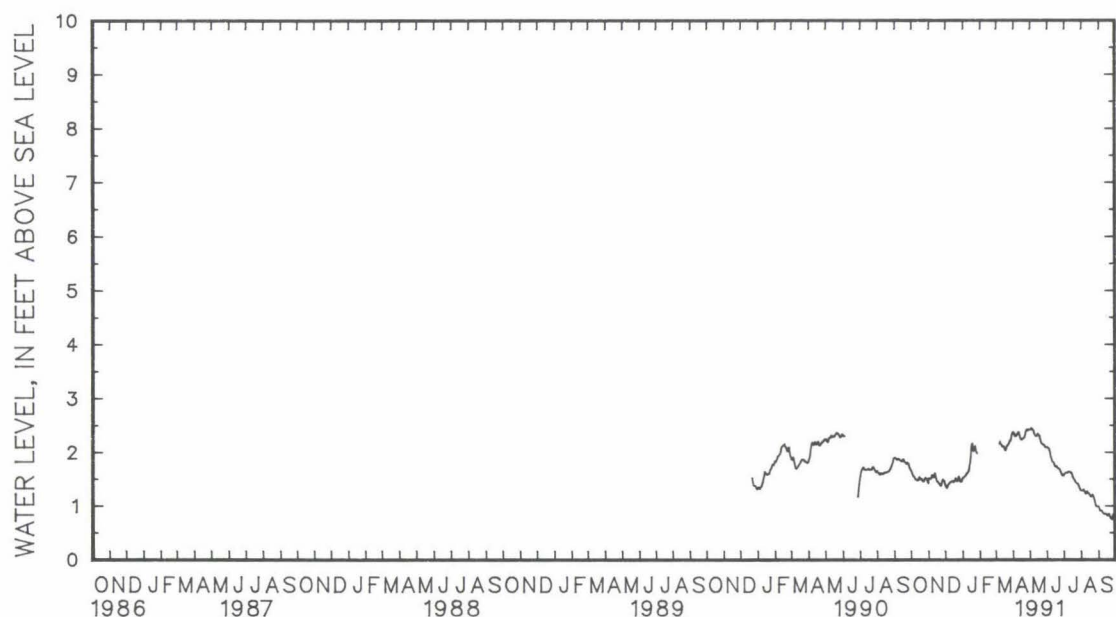
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.66	1.64	1.52	1.51	1.41	1.38	1.53	1.52	---	---	---	---
2	1.64	1.62	1.51	1.50	1.38	1.35	1.53	1.52	---	---	---	---
3	1.62	1.58	1.50	1.50	1.35	1.33	1.55	1.53	---	---	---	---
4	1.58	1.56	1.51	1.50	1.37	1.33	1.55	1.55	---	---	---	---
5	1.56	1.55	1.54	1.51	1.39	1.37	1.56	1.55	---	---	---	---
6	1.55	1.54	1.58	1.54	1.41	1.39	1.58	1.56	---	---	---	---
7	1.54	1.52	1.58	1.57	1.41	1.41	1.60	1.58	---	---	2.19	2.16
8	1.52	1.50	1.58	1.56	1.43	1.41	1.60	1.60	---	---	2.19	2.19
9	1.50	1.48	1.56	1.53	1.44	1.43	1.62	1.60	---	---	2.19	2.16
10	1.48	1.48	1.58	1.53	1.46	1.44	1.64	1.62	---	---	2.16	2.15
11	1.48	1.47	1.60	1.58	1.46	1.45	1.66	1.64	---	---	2.15	2.13
12	1.47	1.47	1.61	1.60	1.46	1.45	1.75	1.66	---	---	2.13	2.11
13	1.50	1.47	1.60	1.58	1.48	1.46	1.82	1.75	---	---	2.11	2.11
14	1.53	1.50	1.58	1.52	1.48	1.46	1.90	1.82	---	---	2.12	2.11
15	1.54	1.53	1.52	1.47	1.46	1.44	2.11	1.91	---	---	2.12	2.10
16	1.53	1.52	1.47	1.45	1.47	1.45	2.21	2.11	---	---	2.10	2.06
17	1.52	1.49	1.45	1.45	1.47	1.46	2.20	2.15	---	---	2.06	2.04
18	1.50	1.49	1.45	1.43	1.51	1.46	2.19	2.16	---	---	2.06	2.03
19	1.51	1.50	1.43	1.42	1.53	1.51	2.18	2.04	---	---	2.10	2.06
20	1.51	1.49	1.42	1.40	1.53	1.49	2.07	2.02	---	---	2.12	2.10
21	1.49	1.46	1.40	1.38	1.49	1.46	2.09	2.04	---	---	2.13	2.12
22	1.46	1.45	1.38	1.37	1.47	1.46	2.24	2.09	---	---	2.15	2.13
23	1.47	1.45	1.42	1.37	1.51	1.47	2.23	2.11	---	---	2.16	2.15
24	1.50	1.47	1.46	1.42	1.55	1.51	2.11	2.03	---	---	2.21	2.16
25	1.53	1.50	1.50	1.46	1.55	1.54	2.03	2.00	---	---	2.21	2.20
26	1.53	1.52	1.50	1.49	1.54	1.51	2.12	1.98	---	---	2.21	2.21
27	1.53	1.51	1.49	1.47	1.51	1.46	---	---	---	---	2.24	2.21
28	1.51	1.50	1.47	1.47	1.46	1.45	---	---	---	---	2.30	2.24
29	1.50	1.47	1.47	1.46	1.45	1.45	---	---	---	---	2.35	2.30
30	1.47	1.44	1.46	1.41	1.50	1.45	---	---	---	---	2.38	2.35
31	1.52	1.42	---	---	1.53	1.50	---	---	---	---	2.38	2.37
MONTH	1.66	1.42	1.61	1.37	1.55	1.33	2.24	1.52	---	---	2.38	2.03

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 33--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.37	2.37	2.43	2.42	2.09	2.09	1.59	1.58	1.29	1.28	1.00	.98
2	2.37	2.36	2.45	2.43	2.09	2.08	1.60	1.59	1.28	1.28	.98	.94
3	2.36	2.33	2.45	2.45	2.08	2.07	1.61	1.60	1.29	1.28	.94	.91
4	2.33	2.30	2.45	2.44	2.07	2.06	1.61	1.61	1.30	1.29	.91	.91
5	2.30	2.30	2.44	2.42	2.06	2.03	1.61	1.61	1.30	1.30	.92	.91
6	2.31	2.30	2.42	2.42	2.03	1.99	1.61	1.61	1.30	1.27	.92	.91
7	2.33	2.31	2.42	2.40	1.99	1.92	1.62	1.61	1.31	1.25	.91	.89
8	2.35	2.33	2.40	2.36	1.92	1.89	1.63	1.62	1.25	1.23	.89	.88
9	2.37	2.35	2.36	2.34	1.89	1.86	1.64	1.63	1.24	1.22	.88	.86
10	2.39	2.37	2.34	2.32	1.86	1.83	1.63	1.63	1.26	1.24	.86	.85
11	2.39	2.37	2.32	2.30	1.83	1.81	1.63	1.63	1.27	1.26	.86	.85
12	2.37	2.32	2.30	2.30	1.81	1.80	1.63	1.62	1.26	1.25	.86	.85
13	2.32	2.27	2.32	2.30	1.80	1.78	1.62	1.62	1.25	1.23	.85	.85
14	2.27	2.24	2.34	2.32	1.78	1.75	1.63	1.62	1.23	1.22	.85	.85
15	2.24	2.23	2.35	2.34	1.75	1.73	1.62	1.59	1.22	1.21	.85	.83
16	2.24	2.23	2.34	2.33	1.73	1.72	1.59	1.55	1.21	1.19	.83	.82
17	2.25	2.24	2.33	2.32	1.73	1.72	1.55	1.52	1.19	1.18	.83	.82
18	2.26	2.25	2.32	2.30	1.73	1.73	1.52	1.51	1.18	1.17	.85	.83
19	2.26	2.26	2.30	2.25	1.73	1.71	1.51	1.49	1.19	1.17	.86	.85
20	2.27	2.26	2.25	2.20	1.71	1.70	1.49	1.47	1.21	1.19	.86	.84
21	2.32	2.27	2.20	2.17	1.70	1.69	1.47	1.45	1.21	1.20	.84	.81
22	2.37	2.32	2.17	2.16	1.69	1.69	1.45	1.43	1.20	1.18	.81	.77
23	2.40	2.37	2.16	2.15	1.69	1.68	1.43	1.42	1.18	1.15	.77	.76
24	2.42	2.40	2.15	2.14	1.68	1.66	1.42	1.42	1.15	1.11	.76	.75
25	2.42	2.42	2.14	2.14	1.66	1.63	1.42	1.41	1.11	1.07	.79	.75
26	2.42	2.41	2.14	2.13	1.63	1.60	1.41	1.39	1.07	1.03	.83	.79
27	2.42	2.41	2.13	2.12	1.60	1.58	1.39	1.37	1.03	1.00	.84	.83
28	2.42	2.42	2.12	2.10	1.58	1.56	1.37	1.34	1.00	.99	.84	.82
29	2.42	2.42	2.10	2.09	1.56	1.56	1.34	1.32	.99	.99	.82	.79
30	2.42	2.42	2.09	2.09	1.58	1.56	1.32	1.29	.99	.99	.79	.75
31	---	---	2.09	2.09	---	---	1.29	1.29	1.00	.99	---	---
MONTH	2.42	2.23	2.45	2.09	2.09	1.56	1.64	1.29	1.31	.99	1.00	.75

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 34. SITE ID.--391809076174303. PERMIT NUMBER.--HA-88-1039.
 LOCATION.--Lat 39°18'09", long 76°17'43", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25.5 ft; casing diameter 4 in., to 20.5 ft;
 screen diameter 4 in. from 20.5 to 25.5 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Dec. 21, 1989 to current year.
 DATUM.--Elevation of land surface is 7.18 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.95 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF13.
 PERIOD OF RECORD.--December 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.26 ft above sea level, Jan. 12, 1991;
 lowest measured, 0.15 ft below sea level, Sept. 12, 1991.

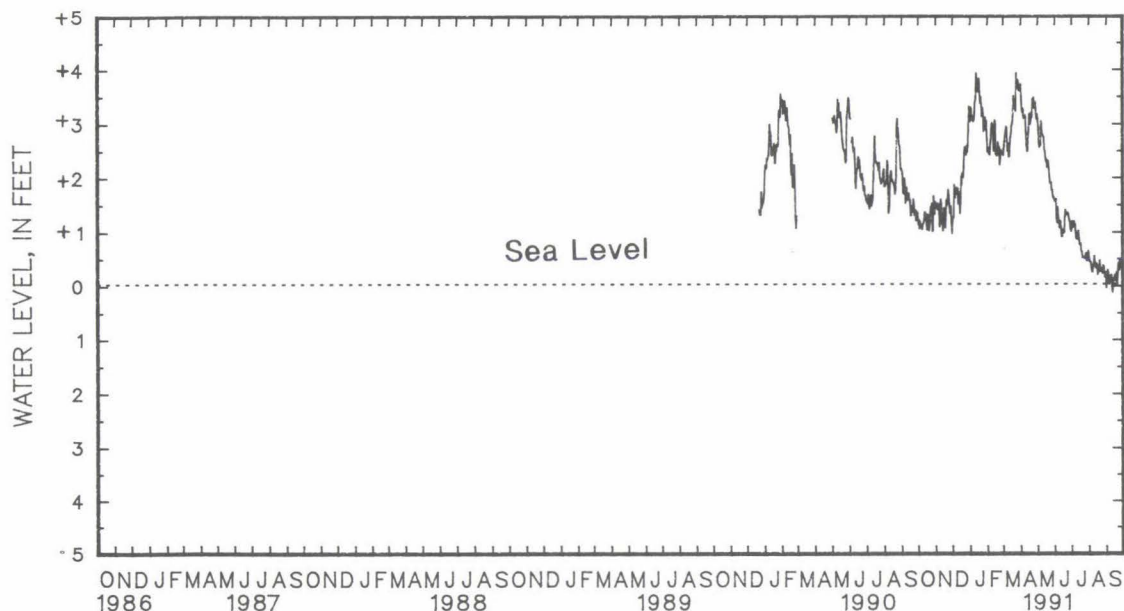
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	+1.33	+1.10	+1.68	+1.51	+1.57	+1.14	+3.34	+3.04	+2.74	+2.46	+2.54	+2.40
2	+1.41	+1.18	+1.63	+1.49	+1.53	+1.25	+3.44	+3.30	+2.65	+2.53	+2.79	+2.52
3	+1.18	+1.03	+1.59	+1.42	+1.84	+1.24	+3.45	+3.27	+2.66	+2.53	+2.79	+2.65
4	+1.51	+1.16	+1.59	+1.39	+2.15	+1.85	+3.34	+3.07	+2.55	+2.43	+3.09	+2.76
5	+1.48	+1.08	+1.83	+1.49	+2.02	+1.61	+3.22	+3.09	+2.62	+2.41	+3.02	+2.85
6	+1.23	+1.10	+1.84	+1.47	+1.85	+1.68	+3.26	+3.13	+2.75	+2.60	+3.22	+2.93
7	+1.22	+1.05	+1.54	+1.39	+1.86	+1.68	+3.13	+3.04	+3.02	+2.69	+3.25	+2.91
8	+1.19	+1.02	+1.53	+1.07	+1.86	+1.79	+3.20	+3.06	+3.05	+2.96	+2.91	+2.67
9	+1.21	+1.11	+1.56	+1.16	+1.86	+1.73	+3.40	+3.20	+3.12	+3.00	+2.67	+2.48
10	+1.29	+1.12	+1.98	+1.57	+1.99	+1.78	+3.60	+3.40	+3.05	+2.94	+2.75	+2.62
11	+1.47	+1.17	+1.77	+1.51	+1.78	+1.50	+3.92	+3.47	+2.99	+2.86	+2.68	+2.37
12	+1.49	+1.33	+1.62	+1.24	+1.93	+1.61	+4.26	+3.93	+2.85	+2.48	+2.61	+2.37
13	+1.49	+1.33	+1.24	+1.12	+1.88	+1.70	+4.22	+3.83	+3.07	+2.61	+2.87	+2.61
14	+1.47	+1.31	+1.16	+0.99	+1.70	+1.32	+4.02	+3.76	+3.39	+3.05	+2.85	+2.74
15	+1.41	+1.20	+1.57	+1.17	+2.06	+1.50	+4.01	+3.59	+3.39	+2.98	+2.99	+2.80
16	+1.18	+1.01	+1.55	+1.41	+2.10	+2.00	+4.10	+3.61	+2.97	+2.42	+3.04	+2.95
17	+1.29	+1.11	+1.52	+1.27	+2.06	+1.86	+4.10	+3.83	+2.59	+2.43	+3.10	+2.99
18	+1.69	+1.28	+1.26	+1.05	+2.51	+2.06	+3.83	+3.60	+2.54	+2.39	+3.67	+3.10
19	+1.66	+1.12	+1.70	+1.25	+2.51	+2.07	+3.60	+3.38	+2.76	+2.50	+3.70	+3.50
20	+1.17	+0.99	+1.70	+1.56	+2.16	+1.99	+3.60	+3.48	+2.89	+2.64	+3.53	+3.40
21	+1.27	+1.10	+1.67	+1.47	+2.54	+2.17	+3.69	+3.36	+2.63	+2.42	+3.49	+3.31
22	+1.45	+1.27	+1.75	+1.55	+2.60	+2.50	+3.35	+3.13	+2.73	+2.54	+3.43	+3.27
23	+1.73	+1.42	+1.87	+1.75	+2.76	+2.56	+3.75	+3.28	+2.53	+2.22	+3.92	+3.23
24	+1.74	+1.38	+1.88	+1.66	+2.85	+2.56	+3.73	+3.19	+2.66	+2.32	+4.21	+3.93
25	+1.57	+1.49	+1.72	+1.53	+2.57	+2.42	+3.18	+2.85	+2.67	+2.49	+4.04	+3.69
26	+1.50	+0.98	+1.53	+1.32	+2.70	+2.58	+3.30	+2.93	+2.62	+2.45	+3.83	+3.66
27	+1.62	+0.99	+1.46	+1.31	+2.63	+2.47	+3.28	+3.06	+2.55	+2.45	+4.02	+3.80
28	+2.03	+1.63	+1.59	+1.44	+2.90	+2.57	+3.27	+3.10	+2.55	+2.44	+4.05	+3.74
29	+1.74	+1.30	+1.56	+1.14	+3.32	+2.87	+3.11	+2.88	---	---	+3.76	+3.62
30	+1.64	+1.30	+1.14	+0.94	+3.64	+3.31	+3.27	+3.04	---	---	+3.76	+3.60
31	+1.70	+1.53	---	---	+3.63	+3.10	+3.27	+2.74	---	---	+3.81	+3.60
MONTH	+2.03	+0.98	+1.98	+0.94	+3.64	+1.14	+4.26	+2.74	+3.39	+2.22	+4.21	+2.37

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 34--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+3.88	+3.72	+3.19	+3.08	+1.64	+1.54	+1.16	+1.02	+.67	+.49	+.23	.07
2	+3.72	+3.41	+3.13	+2.90	+1.64	+1.55	+1.37	+1.16	+.64	+.42	+.40	+.07
3	+3.41	+3.23	+2.90	+2.64	+1.70	+1.57	+1.22	+1.06	+.55	+.41	+.51	+.26
4	+3.33	+3.20	+2.67	+2.55	+1.67	+1.22	+1.19	+1.07	+.61	+.40	+.45	+.24
5	+3.40	+3.26	+2.65	+2.57	+1.42	+1.14	+1.34	+1.16	+.55	+.30	+.34	+.04
6	+3.27	+3.09	+3.32	+2.59	+1.62	+1.42	+1.27	+1.12	+.47	+.23	+.18	+.00
7	+3.22	+3.09	+3.28	+3.03	+1.54	+1.25	+1.31	+1.10	+.51	+.22	+.29	+.13
8	+3.19	+3.09	+3.11	+2.99	+1.43	+1.19	+1.27	+.99	+.51	+.35	+.30	+.16
9	+3.24	+3.14	+3.01	+2.81	+1.32	+1.06	+1.16	+.85	+.80	+.34	+.25	+.12
10	+3.15	+2.86	+2.90	+2.78	+1.27	+1.04	+1.06	+.83	+.79	+.51	+.26	+.17
11	+2.86	+2.58	+2.91	+2.75	+1.42	+1.16	+1.09	+.89	+.56	+.40	+.26	.06
12	+2.63	+2.47	+2.99	+2.73	+1.27	+1.05	+1.01	+.83	+.46	+.32	.01	.15
13	+2.80	+2.47	+2.73	+2.54	+1.06	+.88	+1.27	+.98	+.41	+.30	+.16	.03
14	+2.89	+2.78	+2.64	+2.46	+1.06	+.87	+1.15	+.85	+.46	+.37	+.31	+.10
15	+3.24	+2.87	+2.58	+2.35	+1.20	+.95	+.89	+.74	+.54	+.33	+.18	+.11
16	+3.30	+3.17	+2.47	+2.28	+1.12	+1.00	+.86	+.72	+.41	+.18	+.34	+.17
17	+3.30	+3.12	+2.50	+2.31	+1.11	+.95	+.88	+.74	+.34	+.20	+.26	+.07
18	+3.12	+2.98	+2.46	+2.17	+1.28	+.97	+.89	+.60	+.50	+.29	+.29	+.15
19	+3.32	+3.05	+2.52	+2.17	+1.48	+1.25	+.73	+.60	+.44	+.29	+.50	+.22
20	+3.33	+3.19	+2.49	+2.28	+1.49	+1.37	+.75	+.49	+.77	+.44	+.21	.01
21	+3.43	+3.11	+2.30	+2.14	+1.51	+1.29	+.67	+.49	+.49	+.24	+.40	+.12
22	+3.79	+3.44	+2.20	+1.99	+1.48	+1.29	+.65	+.48	+.41	+.24	+.45	+.36
23	+3.63	+3.40	+2.06	+1.88	+1.52	+1.32	+.70	+.49	+.45	+.29	+.50	+.40
24	+3.60	+3.47	+2.13	+1.87	+1.58	+1.32	+.66	+.47	+.40	+.26	+.50	+.27
25	+3.47	+3.28	+2.22	+1.88	+1.53	+1.30	+.75	+.46	+.34	+.20	+.68	+.44
26	+3.43	+3.30	+1.91	+1.75	+1.43	+1.24	+.67	+.56	+.44	+.34	+.69	+.44
27	+3.50	+3.38	+1.96	+1.75	+1.33	+1.19	+.62	+.47	+.45	+.34	+.54	+.36
28	+3.39	+3.17	+1.94	+1.68	+1.33	+1.16	+.55	+.43	+.40	+.23	+.52	+.35
29	+3.22	+3.08	+1.73	+1.60	+1.20	+1.02	+.67	+.55	+.30	+.13	+.53	+.44
30	+3.31	+3.16	+1.82	+1.61	+1.10	+.98	+.73	+.56	+.33	+.21	+.52	+.17
31	---	---	+1.79	+1.59	---	---	+.76	+.61	+.43	+.18	---	---
MONTH	+3.88	+2.47	+3.32	+1.59	+1.70	+.87	+1.37	+.43	+.80	+.13	+.69	.15

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 36. SITE ID.--391809076174602. PERMIT NUMBER.--HA-88-1041.

LOCATION.--Lat 39°18'09", long 76°17'46", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT

WELL CHARACTERISTICS.--Drilled, observation, confining unit well, depth 52.5 ft; casing diameter 4 in., to 47.5 ft; screen diameter 4 in. from 47.5 to 52.5 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Dec. 21, 1989 to current year.

DATUM.--Elevation of land surface is 2.99 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.65 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well JF22. Missing data due to recorder malfunction.

PERIOD OF RECORD.--December 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.77 ft above sea level, April 1, 1991, and April 24, 25, and 26, 1991; lowest measured, 0.60 ft above sea level, Dec. 25, and 26, 1989.

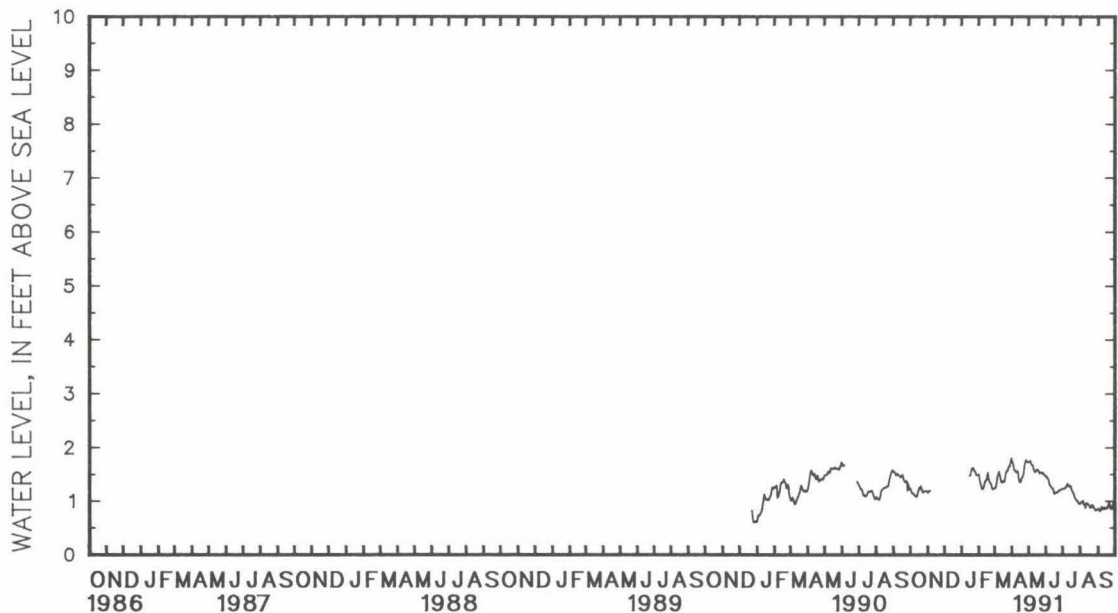
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.22	1.21	1.17	1.17	---	---	---	---	1.50	1.43	1.25	1.24
2	1.21	1.18	1.18	1.17	---	---	---	---	1.43	1.37	1.30	1.25
3	1.18	1.15	1.19	1.18	---	---	---	---	1.37	1.32	1.37	1.30
4	1.15	1.14	1.21	1.19	---	---	---	---	1.32	1.28	1.46	1.37
5	1.14	1.13	---	---	---	---	---	---	1.28	1.24	1.49	1.46
6	1.13	1.13	---	---	---	---	---	---	1.24	1.22	1.53	1.49
7	1.13	1.11	---	---	---	---	---	---	1.24	1.22	1.56	1.53
8	1.11	1.10	---	---	---	---	---	---	1.27	1.24	1.56	1.55
9	1.10	1.09	---	---	---	---	---	---	1.32	1.27	1.55	1.51
10	1.09	1.08	---	---	---	---	---	---	1.36	1.32	1.51	1.47
11	1.10	1.08	---	---	---	---	---	---	1.39	1.36	1.47	1.41
12	1.14	1.10	---	---	---	---	---	---	1.39	1.38	1.41	1.36
13	1.19	1.14	---	---	---	---	---	---	1.41	1.38	1.36	1.35
14	1.23	1.19	---	---	---	---	---	---	1.50	1.41	1.37	1.35
15	1.26	1.23	---	---	---	---	1.49	1.47	1.55	1.50	1.38	1.37
16	1.26	1.25	---	---	---	---	1.56	1.49	1.55	1.53	1.38	1.36
17	1.25	1.23	---	---	---	---	1.60	1.56	1.53	1.48	1.36	1.36
18	1.27	1.22	---	---	---	---	1.61	1.60	1.48	1.40	1.45	1.36
19	1.27	1.27	---	---	---	---	1.61	1.61	1.40	1.36	1.52	1.45
20	1.27	1.23	---	---	---	---	1.62	1.61	1.36	1.35	1.55	1.52
21	1.23	1.19	---	---	---	---	1.63	1.62	1.35	1.33	1.57	1.55
22	1.19	1.16	---	---	---	---	1.62	1.58	1.33	1.32	1.57	1.57
23	1.17	1.16	---	---	---	---	1.58	1.56	1.32	1.27	1.60	1.57
24	1.18	1.17	---	---	---	---	1.56	1.56	1.27	1.23	1.64	1.60
25	1.18	1.18	---	---	---	---	1.56	1.53	1.23	1.22	1.65	1.64
26	1.18	1.18	---	---	---	---	1.53	1.49	1.23	1.22	1.65	1.65
27	1.18	1.18	---	---	---	---	1.49	1.48	1.24	1.23	1.69	1.65
28	1.18	1.18	---	---	---	---	1.49	1.48	1.24	1.24	1.74	1.69
29	1.18	1.18	---	---	---	---	1.49	1.48	---	---	1.80	1.74
30	1.18	1.18	---	---	---	---	1.50	1.48	---	---	1.81	1.80
31	1.18	1.16	---	---	---	---	1.51	1.50	---	---	1.81	1.77
MONTH	1.27	1.08	1.21	1.17	---	---	1.63	1.47	1.55	1.22	1.81	1.24

GROUND-WATER LEVELS
 MARYLAND--Continued
 HARFORD COUNTY--Continued
 HA Fd 36--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.77	1.74	1.75	1.73	1.46	1.46	1.24	1.23	.97	.96	.87	.85
2	1.74	1.71	1.76	1.75	1.46	1.44	1.23	1.23	.98	.97	.85	.82
3	1.71	1.65	1.75	1.75	1.44	1.43	1.24	1.23	1.00	.98	.82	.81
4	1.65	1.59	1.75	1.72	1.43	1.42	1.25	1.24	1.01	1.00	.85	.82
5	1.59	1.58	1.72	1.68	1.42	1.39	1.26	1.25	1.01	1.00	.89	.85
6	1.58	1.57	1.69	1.68	1.38	1.33	1.27	1.26	1.00	.96	.90	.89
7	1.57	1.55	1.69	1.68	1.33	1.30	1.30	1.27	.96	.93	.90	.88
8	1.55	1.55	1.68	1.65	1.30	1.29	1.32	1.30	---	---	.88	.87
9	1.56	1.55	1.65	1.60	1.29	1.27	1.33	1.32	.92	.88	.87	.86
10	1.57	1.56	1.60	1.57	1.27	1.25	1.32	1.31	.96	.92	.88	.87
11	1.56	1.52	1.57	1.55	1.25	1.24	1.31	1.29	.97	.96	.89	.88
12	1.52	1.42	1.56	1.55	1.24	1.24	1.29	1.27	.97	.96	.89	.88
13	1.42	1.37	1.58	1.56	1.24	1.22	1.28	1.27	.96	.95	.88	.86
14	1.37	1.35	1.60	1.58	1.22	1.17	1.29	1.28	.95	.94	.87	.86
15	1.36	1.35	1.60	1.59	1.17	1.14	1.28	1.26	.94	.93	.87	.87
16	1.40	1.36	1.59	1.58	1.14	1.14	1.26	1.21	.93	.91	.89	.87
17	1.43	1.40	1.58	1.58	1.16	1.14	1.21	1.19	.91	.89	.92	.89
18	1.45	1.43	1.58	1.56	1.17	1.16	1.19	1.17	.89	.88	.96	.92
19	1.47	1.45	1.56	1.53	1.17	1.16	1.17	1.15	.90	.88	.97	.96
20	1.52	1.47	1.53	1.52	1.16	1.16	1.15	1.12	.93	.90	.97	.95
21	1.62	1.52	1.53	1.52	1.17	1.16	1.12	1.08	.94	.93	.95	.90
22	1.69	1.62	1.54	1.53	1.19	1.17	1.08	1.05	.93	.92	.90	.87
23	1.73	1.69	1.54	1.53	1.20	1.19	1.05	1.04	.92	.90	.87	.86
24	1.77	1.73	1.53	1.53	1.21	1.20	1.04	1.02	.90	.87	.87	.86
25	1.77	1.77	1.53	1.52	1.21	1.20	1.02	1.01	.87	.85	.92	.87
26	1.77	1.75	1.53	1.52	1.21	1.20	1.01	1.00	.85	.83	.96	.93
27	1.75	1.74	1.52	1.51	1.22	1.21	1.00	.99	.83	.83	.96	.96
28	1.75	1.74	1.51	1.49	1.22	1.22	.99	.97	.84	.83	.96	.93
29	1.74	1.73	1.49	1.48	1.23	1.22	.97	.95	.85	.84	.93	.90
30	1.73	1.73	1.48	1.47	1.24	1.23	.95	.95	.86	.85	.90	.86
31	---	---	1.47	1.46	---	---	.96	.95	.87	.86	---	---
MONTH	1.77	1.35	1.76	1.46	1.46	1.14	1.33	.95	1.01	.83	.97	.81

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 37. SITE ID.--391809076174603. PERMIT NUMBER.--HA-88-1042.
 LOCATION.--Lat 39°18'09", long 76°17'46", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 4 in., to 16 ft;
 screen diameter 4 in. from 16 to 19 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Dec. 21, 1989 to current year.
 DATUM.--Elevation of land surface is 3.10 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.68 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF23. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--December 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.37 ft above sea level, March 28, 1991;
 lowest measured, 1.05 ft below sea level, Oct. 31, 1991.

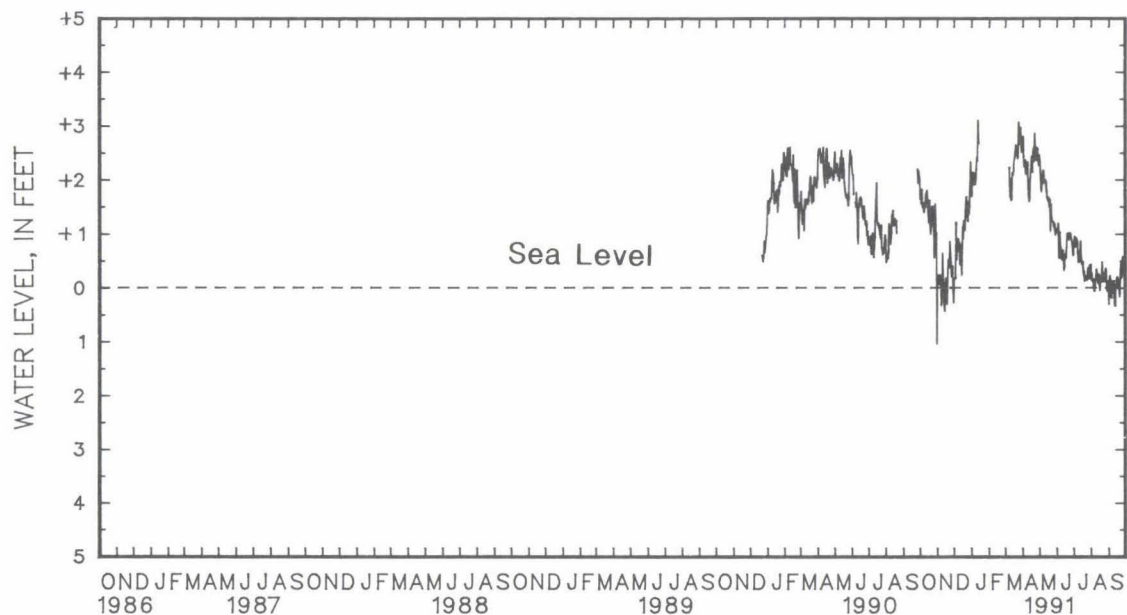
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	+2.00	+1.64	+ .68	+ .24	+ .88	+ .17	+2.37	+1.70	---	---	---	---
2	+2.35	+1.76	+ .59	+ .19	+ .66	+ .17	+2.53	+2.14	---	---	---	---
3	+1.90	+1.56	+ .48	+ .09	+1.37	+ .18	+2.51	+2.14	---	---	---	---
4	+2.42	+1.82	+ .58	+ .07	+1.72	+1.21	+2.43	+1.92	---	---	---	---
5	+2.21	+1.50	+ .98	+ .24	+1.33	+ .52	+2.38	+2.00	---	---	---	---
6	+1.92	+1.57	+ .98	+ .18	+1.14	+ .69	+2.40	+2.12	---	---	---	---
7	+1.92	+1.46	+ .51	+ .14	+1.14	+ .72	+2.20	+1.92	---	---	+2.85	+2.23
8	+1.84	+1.40	+ .51	.33	+1.15	+ .91	+2.23	+1.97	---	---	+2.23	+1.96
9	+1.85	+1.51	+ .62	.02	+1.15	+ .79	+2.47	+2.20	---	---	+2.02	+1.68
10	+1.95	+1.49	+1.22	+ .64	+1.32	+ .84	+2.79	+2.41	---	---	+2.23	+2.02
11	+2.20	+1.73	+ .66	+ .23	+ .84	+ .43	+3.10	+2.36	---	---	+2.02	+1.62
12	+2.19	+1.77	+ .55	.14	+1.31	+ .79	+3.38	+3.11	---	---	+2.13	+1.63
13	+2.13	+1.80	.09	.27	+1.13	+ .79	+3.14	+2.68	---	---	+2.51	+2.13
14	+2.05	+1.63	.03	.43	+ .76	+ .24	---	---	---	---	+2.33	+2.09
15	+1.95	+1.41	+ .65	.03	+1.48	+ .72	---	---	---	---	+2.56	+2.16
16	+1.58	+1.20	+ .50	+ .18	+1.46	+1.14	---	---	---	---	+2.61	+2.37
17	+1.75	+1.37	+ .41	+ .02	+1.34	+ .91	---	---	---	---	+2.73	+2.41
18	+2.34	+1.62	+ .16	.30	+1.99	+1.25	---	---	---	---	+3.13	+2.53
19	+2.06	+1.12	+ .91	+ .13	+1.95	+1.12	---	---	---	---	+3.10	+2.65
20	+1.38	+ .99	+ .90	+ .52	+1.51	+1.08	---	---	---	---	+2.91	+2.49
21	+1.55	+1.15	+ .82	+ .37	+2.00	+1.40	---	---	---	---	+2.87	+2.45
22	+1.74	+1.38	+ .96	+ .50	+2.00	+1.68	---	---	---	---	+2.80	+2.47
23	+2.05	+1.50	+1.08	+ .86	+2.03	+1.69	---	---	---	---	+3.24	+2.40
24	+2.04	+1.26	+1.10	+ .65	+2.09	+1.43	---	---	---	---	+3.52	+3.08
25	+1.68	+1.42	+ .86	+ .48	+1.63	+1.24	---	---	---	---	+3.08	+2.67
26	+1.45	+ .55	+ .55	+ .21	+1.85	+1.59	---	---	---	---	+3.14	+2.67
27	+1.90	+ .70	+ .58	+ .22	+1.68	+1.36	---	---	---	---	+3.35	+2.98
28	+2.35	+1.55	+ .78	+ .40	+2.14	+1.49	---	---	---	---	+3.37	+2.80
29	+1.55	+ .96	+ .69	.07	+2.60	+1.90	---	---	---	---	+2.99	+2.67
30	+1.62	+1.01	+ .17	.28	+2.81	+2.34	---	---	---	---	+2.91	+2.52
31	+1.66	-1.05	---	---	+2.66	+1.80	---	---	---	---	+3.05	+2.62
MONTH	+2.42	-1.05	+1.22	.43	+2.81	+ .17	+3.14	+1.70	---	---	+3.37	+1.62

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 37--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+3.15	+2.81	+2.66	+2.34	+1.30	+1.03	+1.11	+ .76	+ .69	+ .27	+ .27	.31
2	+2.82	+2.46	+2.64	+2.16	+1.35	+1.08	+1.38	+ .95	+ .69	+ .14	+ .62	+ .17
3	+2.51	+2.25	+2.24	+1.87	+1.47	+1.19	+1.10	+ .76	+ .53	+ .16	+ .80	+ .22
4	+2.62	+2.29	+2.12	+1.78	+1.40	+ .56	+1.16	+ .88	+ .67	+ .15	+ .70	+ .14
5	+2.71	+2.37	+2.13	+1.91	+1.21	+ .55	+1.37	+ .92	+ .58	+ .04	+ .50	+ .16
6	+2.37	+2.11	+3.00	+2.05	+1.52	+1.03	+1.23	+ .89	+ .51	.06	+ .27	.19
7	+2.54	+2.19	+2.72	+2.18	+1.37	+ .76	+1.35	+ .84	+ .51	.06	+ .50	+ .09
8	+2.52	+2.27	+2.46	+2.16	+1.20	+ .70	+1.27	+ .67	+ .60	+ .17	+ .52	+ .12
9	+2.60	+2.33	+2.37	+1.96	+1.08	+ .52	+1.12	+ .47	+1.03	+ .16	+ .40	+ .02
10	+2.43	+1.92	+2.28	+1.95	+1.06	+ .52	+1.03	+ .47	+ .94	+ .34	+ .44	+ .12
11	+1.92	+1.66	+2.41	+1.99	+1.33	+ .69	+1.07	+ .55	+ .67	+ .20	+ .44	.28
12	+1.99	+1.60	+2.55	+1.96	+1.07	+ .60	+ .98	+ .53	+ .52	+ .12	+ .09	.33
13	+2.19	+1.66	+2.21	+1.80	+ .78	+ .32	+1.43	+ .86	+ .47	+ .09	+ .38	+ .06
14	+2.35	+2.04	+2.18	+1.69	+ .87	+ .39	+1.13	+ .57	+ .61	+ .25	+ .54	+ .07
15	+2.79	+2.21	+2.17	+1.66	+1.08	+ .61	+ .86	+ .45	+ .68	+ .18	+ .35	+ .18
16	+2.80	+2.44	+2.10	+1.62	+ .95	+ .62	+ .82	+ .43	+ .45	.05	+ .65	+ .20
17	+2.76	+2.35	+2.14	+1.67	+ .88	+ .55	+ .88	+ .48	+ .39	+ .10	+ .47	+ .01
18	+2.55	+2.15	+2.01	+1.50	+1.11	+ .75	+ .90	+ .25	+ .66	+ .22	+ .47	+ .08
19	+2.97	+2.54	+2.28	+1.64	+1.32	+1.01	+ .63	+ .30	+ .59	+ .13	+ .84	+ .11
20	+2.93	+2.59	+2.17	+1.05	+1.33	+1.01	+ .70	+ .12	+1.11	+ .48	+ .15	.17
21	+2.88	+2.35	+1.84	+1.55	+1.38	+ .89	+ .61	+ .14	+ .51	+ .11	+ .62	+ .15
22	+3.35	+2.87	+1.76	+1.30	+1.36	+ .89	+ .60	+ .17	+ .58	+ .17	+ .71	+ .43
23	+2.88	+2.57	+1.60	+1.23	+1.43	+1.01	+ .69	+ .21	+ .66	+ .27	+ .75	+ .49
24	+3.06	+2.62	+1.76	+1.23	+1.57	+1.02	+ .61	+ .14	+ .56	+ .17	+ .64	+ .19
25	+2.65	+2.37	+1.95	+1.22	+1.51	+1.00	+ .83	+ .21	+ .50	+ .12	+ .96	+ .57
26	+2.81	+2.45	+1.49	+1.12	+1.36	+ .91	+ .67	+ .37	+ .65	+ .36	+ .94	+ .40
27	+2.92	+2.59	+1.67	+1.18	+1.23	+ .87	+ .56	+ .21	+ .61	+ .29	+ .71	+ .27
28	+2.82	+2.41	+1.65	+1.09	+1.23	+ .83	+ .52	+ .17	+ .53	+ .09	+ .71	+ .28
29	+2.68	+2.27	+1.35	+ .98	+1.04	+ .61	+ .70	+ .42	+ .37	.06	+ .73	+ .42
30	+2.83	+2.46	+1.54	+1.08	+ .92	+ .60	+ .81	+ .41	+ .51	+ .12	+ .67	.04
31	---	---	+1.50	+1.04	---	---	+ .82	+ .43	+ .62	+ .03	---	---
MONTH	+3.35	+1.60	+3.00	+ .98	+1.57	+ .32	+1.43	+ .12	+1.11	.06	+ .96	.33

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 38. SITE ID.--391826076173101. PERMIT NUMBER.--HA-88-1067.

LOCATION.--Lat 39°18'26", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT

WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 75 ft; casing diameter 4 in., to 72 ft; screen diameter 4 in. from 72 to 75 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--15-minute recorder interval from Jan. 17, 1990 to current year.

DATUM.--Elevation of land surface is 6.51 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.09 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well JF111.

PERIOD OF RECORD.--January 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.68 ft above sea level, Oct. 28, 1990; lowest measured, 1.00 ft below sea level, Feb. 26, 1990.

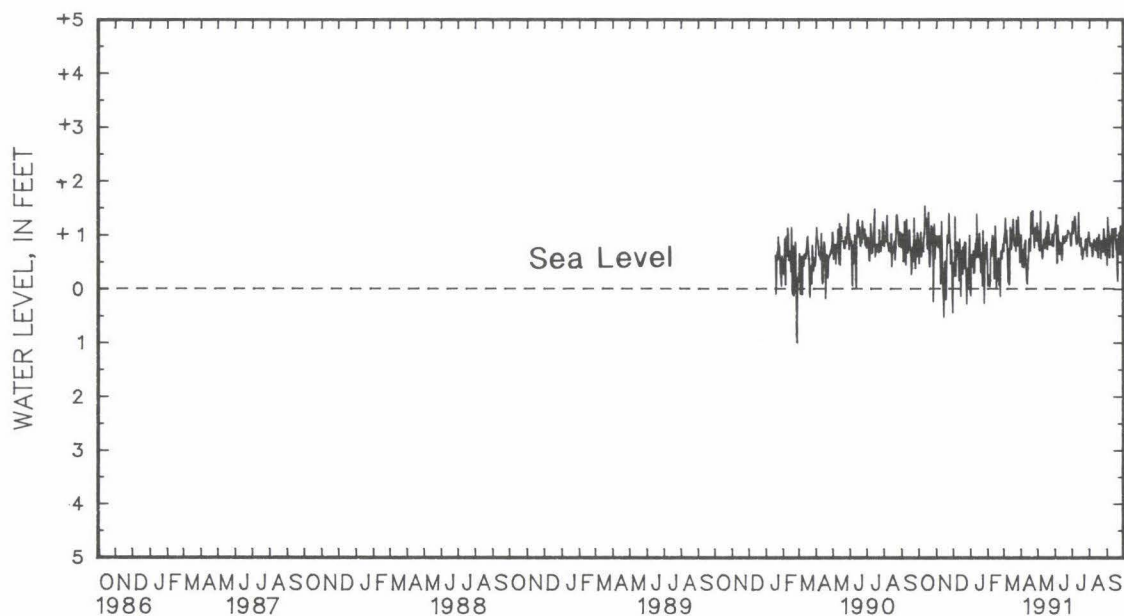
WATER LEVEL, IN FEET ABOVE AND BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
(READINGS ABOVE SEA LEVEL INDICATED BY "+")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	+1.14	+4.47	+1.80	+4.98	+1.54	+4.48	+1.11	.13	+4.77	+4.06	+1.39	+4.70
2	+1.74	+4.74	+1.68	+4.91	+1.05	+4.31	+1.36	+4.57	+4.84	+4.25	+1.79	+4.95
3	+1.30	+4.61	+1.54	+4.80	+2.18	+4.30	+1.27	+4.63	+4.79	+4.23	+1.62	+1.00
4	+2.03	+1.05	+1.71	+4.77	+2.48	+1.34	+1.21	+4.41	+4.61	+4.05	+2.16	+1.31
5	+1.45	+4.60	+2.32	+4.98	+1.60	+4.24	+1.25	+4.54	+1.11	+4.15	+1.53	+4.86
6	+1.47	+4.79	+2.30	+4.81	+1.37	+4.59	+1.25	+4.70	+1.37	+4.74	+1.89	+1.09
7	+1.42	+4.71	+1.52	+4.77	+1.35	+4.61	+4.90	+4.30	+1.54	+4.61	+1.89	+4.88
8	+1.51	+4.70	+1.49	+4.09	+1.38	+4.87	+4.80	+4.34	+1.31	+4.86	+1.02	+4.52
9	+1.67	+4.95	+1.70	+4.83	+1.42	+4.69	+1.03	+4.68	+1.53	+4.99	+4.88	+4.13
10	+1.72	+1.02	+2.37	+1.25	+1.61	+4.71	+1.42	+4.84	+1.41	+4.94	+1.15	+4.75
11	+2.11	+1.54	+1.25	+4.63	+4.92	+4.15	+1.71	+4.58	+1.38	+4.74	+4.76	+4.09
12	+1.99	+1.29	+1.27	+4.09	+1.59	+4.92	+1.96	+1.39	+4.81	+4.19	+1.17	+4.31
13	+1.95	+1.31	+4.28	.16	+1.36	+4.55	+1.47	+4.78	+1.76	+4.80	+1.69	+1.14
14	+1.85	+1.17	+4.41	.53	+4.78	.14	+1.98	+4.81	+2.30	+1.17	+1.26	+4.78
15	+1.81	+4.83	+1.38	+4.37	+1.58	+4.70	+1.47	+4.59	+1.94	+4.87	+1.44	+4.74
16	+1.49	+4.75	+1.15	+4.51	+1.33	+4.62	+2.09	+4.76	+4.86	+4.01	+1.50	+4.99
17	+1.79	+1.04	+4.88	+4.22	+1.09	+4.28	+1.77	+1.03	+1.01	+4.40	+1.74	+1.05
18	+2.51	+1.42	+4.71	.20	+1.98	+4.77	+1.18	+4.60	+4.93	+4.16	+2.07	+1.29
19	+1.82	+4.48	+1.78	+4.55	+1.70	+4.40	+1.02	+4.31	+1.30	+4.47	+1.83	+1.00
20	+1.15	+4.41	+1.70	+1.00	+1.15	+4.38	+1.50	+4.66	+1.51	+4.57	+1.63	+4.81
21	+1.43	+4.64	+1.56	+4.84	+1.59	+4.80	+1.65	+4.47	+4.95	+4.06	+1.59	+4.80
22	+1.71	+1.01	+1.86	+4.98	+1.57	+4.87	+1.18	+4.05	+1.24	+4.42	+1.50	+4.87
23	+2.06	+1.17	+1.91	+1.40	+1.40	+4.85	+2.25	+1.08	+4.71	.14	+1.78	+4.70
24	+2.03	+4.85	+1.92	+1.12	+1.31	+4.13	+1.83	+4.48	+1.39	+4.70	+2.14	+1.27
25	+1.61	+1.12	+1.53	+4.88	+4.63	.28	+4.64	.27	+1.48	+4.68	+1.33	+4.80
26	+1.22	.24	+1.09	+4.47	+4.91	+4.37	+1.54	+4.50	+1.27	+4.56	+1.75	+4.82
27	+2.20	+4.49	+1.18	+4.51	+4.65	+4.01	+1.37	+4.62	+1.37	+4.72	+2.03	+1.34
28	+2.68	+1.20	+1.40	+4.72	+1.25	+4.17	+1.45	+4.81	+1.43	+4.83	+2.10	+1.07
29	+1.20	+4.56	+1.24	.13	+1.74	+4.64	+1.49	+4.56	---	---	+1.55	+4.97
30	+1.67	+4.78	+4.57	.45	+1.89	+4.99	+1.81	+4.87	---	---	+1.32	+4.49
31	+1.72	+4.98	---	---	+1.28	.06	+1.49	+4.52	---	---	+1.53	+4.79
MONTH	+2.68	.24	+2.37	.53	+2.48	.28	+2.25	.27	+2.30	.14	+2.16	+4.09

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 38--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	+1.67	+ .99	+1.78	+1.09	+1.59	+1.08	+1.84	+1.09	+1.56	+ .94	+1.46	+ .44
2	+1.33	+ .64	+1.84	+1.02	+1.68	+1.23	+2.02	+1.25	+1.63	+ .80	+1.87	+1.33
3	+ .99	+ .41	+1.39	+ .75	+1.85	+1.37	+1.63	+1.03	+1.44	+ .83	+2.06	+1.16
4	+1.21	+ .61	+1.37	+ .71	+1.76	+ .47	+1.90	+1.20	+1.64	+ .84	+1.96	+1.03
5	+1.39	+ .72	+1.43	+ .99	+1.77	+ .50	+2.12	+1.22	+1.57	+ .77	+1.65	+ .58
6	+ .89	+ .40	+2.31	+1.44	+2.09	+1.18	+1.87	+1.34	+1.51	+ .60	+1.35	+ .58
7	+1.27	+ .73	+1.51	+ .72	+1.84	+ .90	+2.16	+1.20	+1.52	+ .64	+1.63	+ .92
8	+1.28	+ .82	+1.23	+ .78	+1.73	+ .89	+2.00	+1.00	+1.58	+ .83	+1.68	+ .98
9	+1.44	+ .90	+1.19	+ .56	+1.57	+ .64	+1.85	+ .83	+2.04	+ .91	+1.54	+ .93
10	+1.22	+ .39	+1.23	+ .60	+1.62	+ .65	+1.80	+ .83	+1.78	+ .87	+1.69	+1.11
11	+ .57	+ .15	+1.63	+ .80	+2.06	+ .85	+1.83	+ .95	+1.53	+ .81	+1.62	+ .58
12	+ .89	+ .10	+1.89	+ .91	+1.68	+ .78	+1.78	+ .94	+1.34	+ .72	+1.38	+ .59
13	+1.28	+ .38	+1.57	+ .84	+1.31	+ .53	+2.34	+1.42	+1.40	+ .71	+1.79	+1.11
14	+1.21	+ .54	+1.70	+ .76	+1.49	+ .65	+1.65	+ .90	+1.62	+ .94	+1.89	+ .92
15	+1.85	+ .87	+1.80	+ .92	+1.82	+ .98	+1.47	+ .80	+1.64	+ .81	+1.57	+1.10
16	+1.67	+ .93	+1.85	+ .96	+1.65	+ .94	+1.47	+ .80	+1.31	+ .58	+1.88	+1.12
17	+1.67	+ .86	+1.96	+1.08	+1.44	+ .85	+1.59	+ .94	+1.30	+ .89	+1.59	+ .74
18	+1.56	+ .70	+1.61	+ .73	+1.45	+ .86	+1.66	+ .64	+1.72	+1.01	+1.31	+ .92
19	+2.23	+1.40	+2.20	+1.24	+1.52	+ .95	+1.30	+ .77	+1.80	+ .80	+1.82	+ .35
20	+2.16	+1.42	+1.91	+1.19	+1.52	+ .98	+1.41	+ .55	+2.37	+ .89	+ .76	+ .14
21	+1.84	+1.03	+1.55	+1.03	+1.66	+ .89	+1.34	+ .63	+1.17	+ .56	+1.38	+ .75
22	+2.44	+1.44	+1.52	+ .82	+1.72	+ .98	+1.35	+ .73	+1.38	+ .80	+1.45	+ .94
23	+1.69	+1.09	+1.41	+ .84	+1.78	+ .96	+1.53	+ .74	+1.53	+ .89	+1.52	+1.04
24	+2.06	+1.04	+1.74	+ .86	+2.02	+1.08	+1.42	+ .73	+1.36	+ .78	+1.37	+ .64
25	+1.29	+ .76	+2.05	+ .84	+1.95	+1.06	+1.84	+ .91	+1.42	+ .69	+1.76	+1.17
26	+1.63	+ .92	+1.51	+ .81	+1.81	+1.04	+1.46	+ .92	+1.57	+1.11	+1.57	+ .83
27	+1.83	+1.14	+1.84	+1.02	+1.70	+1.03	+1.21	+ .62	+1.49	+1.00	+1.41	+ .64
28	+1.77	+1.02	+1.80	+ .93	+1.73	+1.02	+1.31	+ .60	+1.44	+ .80	+1.41	+ .67
29	+1.68	+ .89	+1.51	+ .79	+1.52	+ .80	+1.47	+ .93	+1.30	+ .63	+1.42	+ .84
30	+1.96	+1.22	+1.81	+1.02	+1.45	+ .82	+1.67	+ .92	+1.68	+ .93	+1.30	+ .23
31	---	---	+1.79	+1.05	---	---	+1.67	+1.05	+1.73	+ .83	---	---
MONTH	+2.44	+ .10	+2.31	+ .56	+2.09	+ .47	+2.34	+ .55	+2.37	+ .56	+2.06	+ .14

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 39. SITE ID.--391826076173102. PERMIT NUMBER.--HA-88-1068.
 LOCATION.--Lat 39°18'26", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, confining unit well, depth 50 ft; casing diameter 4 in., to 47 ft;
 screen diameter 4 in. from 47 to 50 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Jan. 17, 1990 to current year.
 DATUM.--Elevation of land surface is 6.77 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.42 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF112. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.32 ft above sea level, Jan. 13, 1991;
 lowest measured, 0.96 ft above sea level, Sept. 3, 4, and 5, 1991.

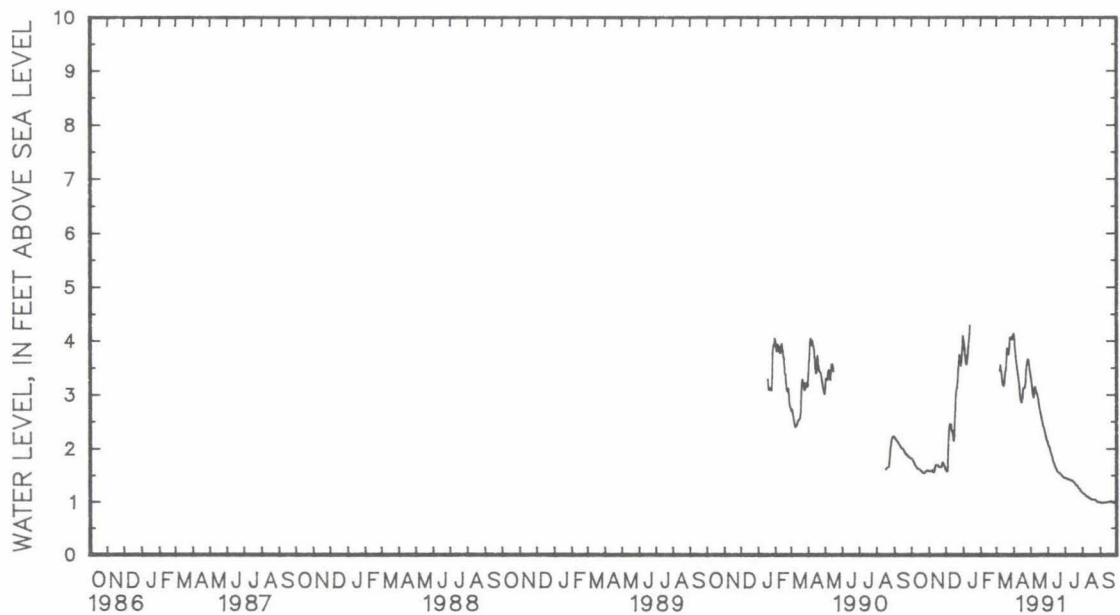
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.80	1.79	1.55	1.55	1.60	1.58	4.10	4.03	---	---	---	---
2	1.80	1.78	1.55	1.55	1.58	1.56	4.03	3.96	---	---	---	---
3	1.79	1.76	1.55	1.55	1.56	1.54	3.96	3.86	---	---	---	---
4	1.76	1.74	1.55	1.55	1.92	1.55	3.86	3.72	---	---	---	---
5	1.74	1.72	1.56	1.55	2.23	1.93	3.72	3.60	---	---	---	---
6	1.72	1.70	1.57	1.56	2.40	2.23	3.60	3.56	---	---	---	---
7	1.70	1.67	1.57	1.57	2.44	2.40	3.60	3.55	---	---	3.54	3.43
8	1.67	1.65	1.57	1.55	2.46	2.44	3.71	3.60	---	---	3.54	3.53
9	1.65	1.64	1.55	1.53	2.46	2.44	3.85	3.71	---	---	3.53	3.45
10	1.64	1.62	1.57	1.53	2.44	2.44	3.98	3.85	---	---	3.44	3.38
11	1.62	1.60	1.64	1.57	2.44	2.34	4.12	3.98	---	---	3.38	3.27
12	1.60	1.59	1.67	1.64	2.34	2.31	4.31	4.12	---	---	3.27	3.17
13	1.59	1.59	1.68	1.67	2.31	2.28	4.32	4.28	---	---	3.17	3.14
14	1.59	1.59	1.68	1.67	2.27	2.17	---	---	---	---	3.18	3.13
15	1.59	1.58	1.67	1.67	2.21	2.13	---	---	---	---	3.32	3.18
16	1.58	1.57	1.67	1.67	2.55	2.22	---	---	---	---	3.41	3.32
17	1.57	1.56	1.67	1.67	2.74	2.56	---	---	---	---	3.46	3.41
18	1.56	1.55	1.67	1.64	3.02	2.74	---	---	---	---	3.69	3.46
19	1.55	1.55	1.64	1.63	3.12	3.02	---	---	---	---	3.85	3.69
20	1.55	1.53	1.63	1.63	3.12	3.12	---	---	---	---	3.87	3.85
21	1.53	1.52	1.63	1.63	3.24	3.12	---	---	---	---	3.87	3.84
22	1.52	1.51	1.63	1.63	3.45	3.24	---	---	---	---	3.84	3.77
23	1.51	1.51	1.69	1.63	3.60	3.45	---	---	---	---	3.86	3.74
24	1.53	1.51	1.72	1.69	3.75	3.60	---	---	---	---	4.05	3.87
25	1.55	1.53	1.73	1.72	3.75	3.73	---	---	---	---	4.08	4.05
26	1.55	1.54	1.73	1.71	3.73	3.66	---	---	---	---	4.07	4.04
27	1.55	1.55	1.71	1.68	3.66	3.54	---	---	---	---	4.06	4.03
28	1.57	1.56	1.68	1.66	3.61	3.53	---	---	---	---	4.08	4.06
29	1.57	1.56	1.66	1.64	3.85	3.61	---	---	---	---	4.07	4.02
30	1.56	1.56	1.64	1.60	4.08	3.85	---	---	---	---	4.12	4.03
31	1.60	1.55	---	---	4.12	4.09	---	---	---	---	4.14	4.12
MONTH	1.80	1.51	1.73	1.53	4.12	1.54	4.32	3.55	---	---	4.14	3.13

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 39--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.14	4.13	3.38	3.31	2.09	2.05	1.43	1.43	1.16	1.15	.98	.98
2	4.13	4.02	3.31	3.24	2.06	2.02	1.43	1.42	1.18	1.14	.98	.97
3	4.02	3.85	3.24	3.14	2.02	2.00	1.42	1.42	1.14	1.13	.97	.96
4	3.85	3.72	3.14	3.04	2.00	1.97	1.42	1.42	1.13	1.13	.96	.96
5	3.72	3.62	3.04	2.95	1.97	1.92	1.42	1.40	1.13	1.12	.97	.96
6	3.62	3.53	2.96	2.92	1.92	1.88	1.40	1.40	1.12	1.10	.97	.97
7	3.53	3.44	3.08	2.97	1.88	1.85	1.40	1.40	1.10	1.09	.97	.97
8	3.44	3.36	3.12	3.08	1.85	1.81	1.40	1.40	1.09	1.08	.97	.97
9	3.36	3.30	3.12	3.12	1.81	1.77	1.40	1.39	1.08	1.08	.97	.97
10	3.30	3.22	3.12	3.08	1.77	1.74	1.39	1.39	1.08	1.07	.97	.97
11	3.22	3.08	3.08	3.03	1.74	1.71	1.39	1.38	1.07	1.07	.97	.97
12	3.08	2.95	3.03	3.00	1.71	1.69	1.38	1.38	1.07	1.06	.97	.97
13	2.95	2.87	3.00	2.95	1.69	1.65	1.38	1.38	1.06	1.05	.98	.97
14	2.87	2.83	2.95	2.90	1.65	1.62	1.38	1.38	1.05	1.05	.98	.98
15	2.89	2.83	2.90	2.83	1.62	1.60	1.38	1.36	1.05	1.04	.98	.98
16	3.01	2.89	2.83	2.76	1.60	1.58	1.36	1.35	1.04	1.03	.98	.98
17	3.09	3.01	2.76	2.70	1.58	1.55	1.35	1.34	1.03	1.02	.99	.98
18	3.10	3.09	2.70	2.64	1.55	1.54	1.34	1.33	1.02	1.02	.99	.99
19	3.10	3.10	2.64	2.59	1.54	1.53	1.33	1.32	1.02	1.02	.99	.99
20	3.11	3.10	2.61	2.54	1.53	1.52	1.32	1.30	1.02	1.02	.99	.99
21	3.20	3.11	2.54	2.49	1.52	1.51	1.30	1.29	1.02	1.02	.99	.99
22	3.44	3.20	2.49	2.44	1.51	1.51	1.29	1.28	1.02	1.02	.99	.99
23	3.53	3.44	2.44	2.39	1.51	1.50	1.28	1.28	1.03	1.02	.99	.98
24	3.59	3.53	2.39	2.35	1.50	1.49	1.28	1.25	1.04	1.01	.98	.97
25	3.64	3.59	2.35	2.32	1.49	1.47	1.25	1.24	1.01	1.00	.98	.97
26	3.65	3.64	2.32	2.27	1.47	1.46	1.24	1.23	1.00	.99	.99	.98
27	3.65	3.63	2.27	2.23	1.46	1.45	1.23	1.21	.99	.98	.99	.99
28	3.63	3.55	2.23	2.20	1.45	1.44	1.21	1.20	.98	.98	.99	.99
29	3.55	3.45	2.20	2.15	1.44	1.43	1.20	1.18	.98	.98	.99	.99
30	3.45	3.38	2.15	2.12	1.43	1.43	1.18	1.17	.98	.98	.99	.98
31	---	---	2.12	2.09	---	---	1.17	1.16	.98	.98	---	---
MONTH	4.14	2.83	3.38	2.09	2.09	1.43	1.43	1.16	1.18	.98	.99	.96

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 40. SITE ID.--391826076173103. PERMIT NUMBER.--HA-88-1069.
 LOCATION.--Lat 39°18'26", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 4 in., to 22 ft;
 screen diameter 4 in. from 22 to 25 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level
 recorder--15-minute recorder interval from Jan. 17, 1990 to current year.
 DATUM.--Elevation of land surface is 6.77 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.52 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF113. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.55 ft above sea level, Jan. 12, 1991;
 lowest measured, 0.32 ft above sea level, July 20, 1991.

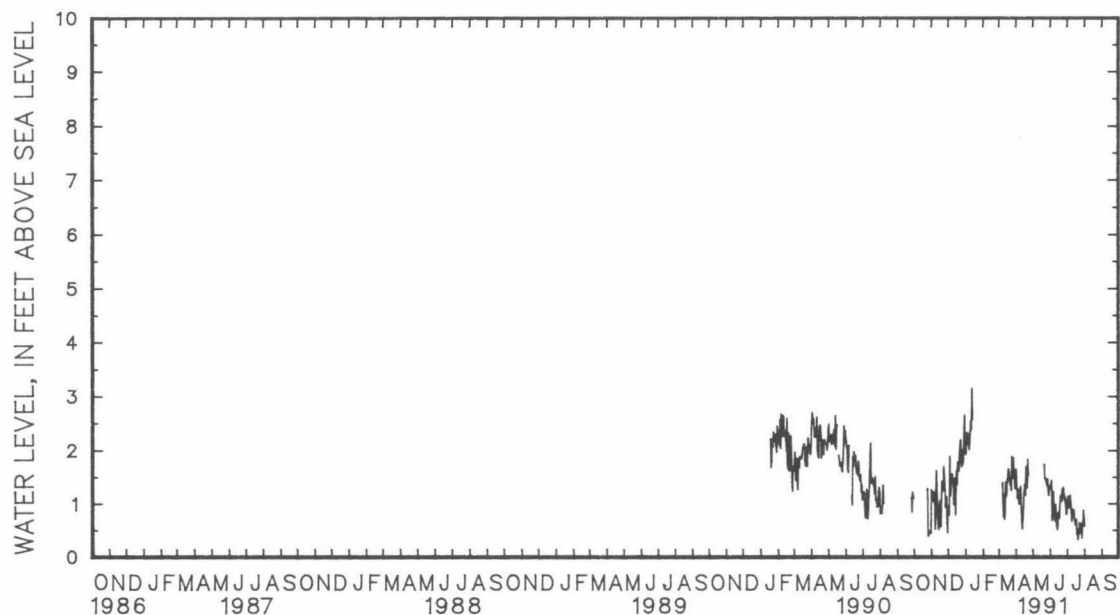
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.17	.63	1.96	1.26	1.86	.94	2.82	1.92	---	---	---	---
2	1.71	.89	1.85	1.17	1.50	.81	2.98	2.31	---	---	---	---
3	1.28	.69	1.53	1.06	2.32	.79	2.98	2.32	---	---	---	---
4	1.90	1.01	1.76	1.04	2.69	1.88	2.87	2.10	---	---	---	---
5	1.48	.66	2.32	1.21	2.24	1.15	2.65	2.17	---	---	---	---
6	---	---	2.30	1.08	2.02	1.37	2.76	2.29	---	---	---	---
7	---	---	1.68	1.04	2.03	1.38	2.48	2.01	---	---	2.12	1.37
8	---	---	1.67	.52	2.00	1.55	2.51	2.14	---	---	1.45	1.06
9	---	---	1.76	1.06	1.93	1.42	2.73	2.35	---	---	1.26	.75
10	---	---	2.39	1.61	2.16	1.45	3.09	2.54	---	---	1.52	1.17
11	---	---	1.62	1.16	1.45	.98	3.23	2.38	---	---	1.19	.70
12	---	---	1.71	.78	2.11	1.41	3.55	3.15	---	---	1.45	.79
13	---	---	.90	.65	1.92	1.47	3.15	2.57	---	---	1.86	1.40
14	---	---	1.00	.51	1.46	.79	---	---	---	---	1.54	1.13
15	---	---	1.81	.95	2.15	1.34	---	---	---	---	1.85	1.20
16	---	---	1.58	1.03	2.08	1.61	---	---	---	---	1.93	1.46
17	---	---	1.37	.90	2.02	1.37	---	---	---	---	2.09	1.46
18	---	---	1.19	.56	2.83	1.77	---	---	---	---	2.34	1.65
19	---	---	2.09	1.06	2.74	1.64	---	---	---	---	2.28	1.59
20	---	---	2.03	1.42	2.23	1.61	---	---	---	---	2.10	1.42
21	---	---	1.91	1.24	2.70	1.93	---	---	---	---	2.02	1.35
22	---	---	2.05	1.34	2.70	2.14	---	---	---	---	1.92	1.36
23	---	---	2.12	1.69	2.68	2.19	---	---	---	---	2.25	1.25
24	---	---	2.15	1.50	2.63	1.85	---	---	---	---	2.59	1.88
25	---	---	1.82	1.26	2.05	1.69	---	---	---	---	1.95	1.47
26	---	---	1.44	.93	2.46	2.00	---	---	---	---	2.22	1.49
27	---	---	1.50	.94	2.21	1.73	---	---	---	---	2.43	1.85
28	---	---	1.70	1.12	2.76	1.83	---	---	---	---	2.50	1.62
29	---	---	1.57	.63	3.25	2.29	---	---	---	---	2.01	1.51
30	---	---	1.03	.45	3.44	2.65	---	---	---	---	1.88	1.28
31	---	---	---	---	3.18	2.02	---	---	---	---	2.15	1.51
MONTH	1.90	.63	2.39	.45	3.44	.79	3.55	1.92	---	---	2.59	.70

GROUND-WATER LEVELS
MARYLAND--Continued
HARFORD COUNTY--Continued
HA Fd 40--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.23	1.63	---	---	1.74	1.27	1.72	1.02	1.08	.58	---	---
2	1.92	1.31	---	---	1.79	1.36	1.84	1.13	---	---	---	---
3	1.57	1.10	---	---	1.88	1.43	1.49	.92	---	---	---	---
4	1.70	1.19	---	---	1.78	.68	1.85	1.10	---	---	---	---
5	1.81	1.25	---	---	1.95	.72	1.67	1.07	---	---	---	---
6	1.41	.99	---	---	2.00	1.22	1.86	1.15	---	---	---	---
7	1.68	1.25	---	---	1.79	.94	1.78	1.03	---	---	---	---
8	1.64	1.26	---	---	1.64	.88	1.70	.84	---	---	---	---
9	1.74	1.31	---	---	1.50	.67	1.60	.67	---	---	---	---
10	1.56	.87	---	---	1.52	.97	1.53	.89	---	---	---	---
11	.99	.63	---	---	1.85	.74	1.57	.74	---	---	---	---
12	1.18	.53	---	---	1.53	.59	1.66	.81	---	---	---	---
13	1.47	.69	---	---	1.20	.51	1.95	.87	---	---	---	---
14	1.47	.92	---	---	1.34	.58	1.40	.70	---	---	---	---
15	2.04	1.21	---	---	1.60	.83	1.24	.60	---	---	---	---
16	2.03	1.35	---	---	1.42	.79	1.32	.60	---	---	---	---
17	2.03	1.32	---	---	1.28	.73	1.34	.69	---	---	---	---
18	1.87	1.16	---	---	1.59	.95	1.00	.42	---	---	---	---
19	2.36	1.69	---	---	1.66	1.13	1.09	.51	---	---	---	---
20	2.25	1.64	---	---	1.73	1.15	1.02	.32	---	---	---	---
21	2.11	1.30	2.19	1.73	1.75	1.05	1.03	.41	---	---	---	---
22	2.64	1.83	2.13	1.48	1.77	1.27	1.17	.47	---	---	---	---
23	2.04	1.53	1.99	1.44	1.81	1.11	1.13	.63	---	---	---	---
24	---	---	2.20	1.46	2.00	1.30	1.37	.45	---	---	---	---
25	---	---	2.44	1.35	1.95	1.17	1.37	.61	---	---	---	---
26	---	---	1.91	1.33	1.79	1.07	1.10	.56	---	---	---	---
27	---	---	2.15	1.45	1.68	1.11	.90	.35	---	---	---	---
28	---	---	2.10	1.25	1.68	.95	1.07	.56	---	---	---	---
29	---	---	1.79	1.16	1.47	.80	1.11	.62	---	---	---	---
30	---	---	1.99	1.31	1.38	.82	1.29	.87	---	---	---	---
31	---	---	1.96	1.29	---	---	1.26	.71	---	---	---	---
MONTH	2.64	.53	2.44	1.16	2.00	.51	1.95	.32	1.08	.58	---	---

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

327

MARYLAND--Continued

HOWARD COUNTY

WELL NUMBER.--HO Bd 1. SITE ID.--391910076565701.

LOCATION.--Lat 39°19'10", long 76°56'57", Hydrologic Unit 02060006, Slacks Corner near MD Rt. 32 and MD Rt. 99.

Owner: Maryland State Highway Administration.

AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.

WELL CHARACTERISTICS.--Dug, stone-lined, observation, water-table well, measured depth 48 ft; diameter 60 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 630 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Hole in center of steel plate well cover, 0.40 ft above land surface.

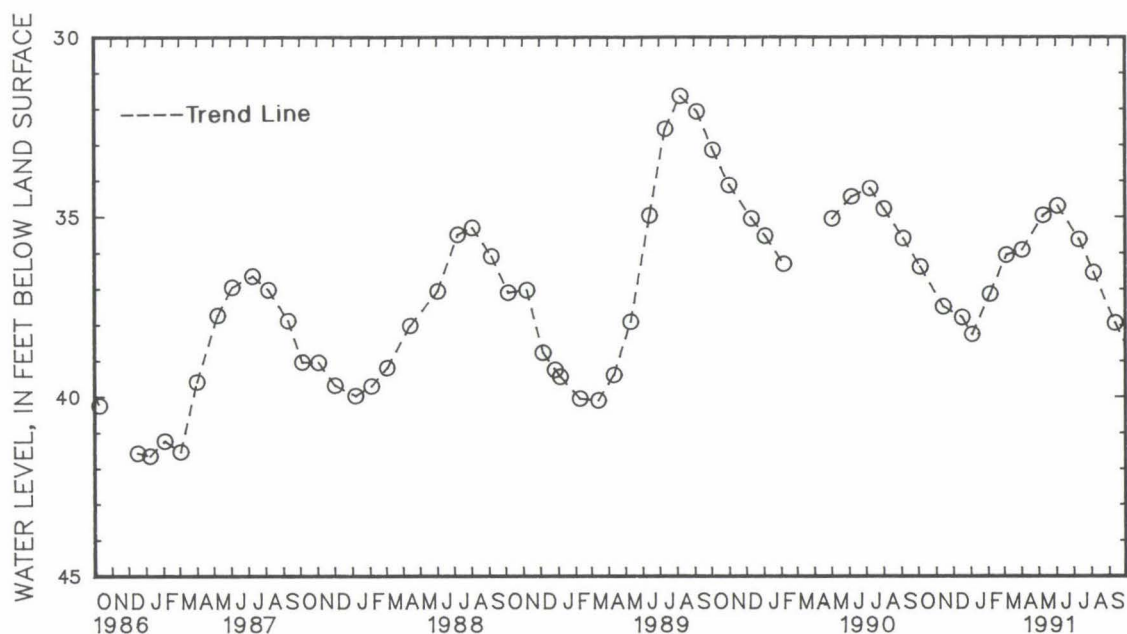
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.76 ft below land surface, July 3, 1972;
lowest measured, 46.88 ft below land surface, Sept. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	36.40	DEC 17	37.80	FEB 5	37.15	APR 3	35.92	JUN 4	34.70	AUG 5	36.55
NOV 14	37.50	JAN 4	38.27	MAR 6	36.06	MAY 10	34.96	JUL 11	35.63	SEP 12	37.95
WATER YEAR 1991		HIGHEST	34.70	JUN 4, 1991	LOWEST	38.27	JAN 4, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

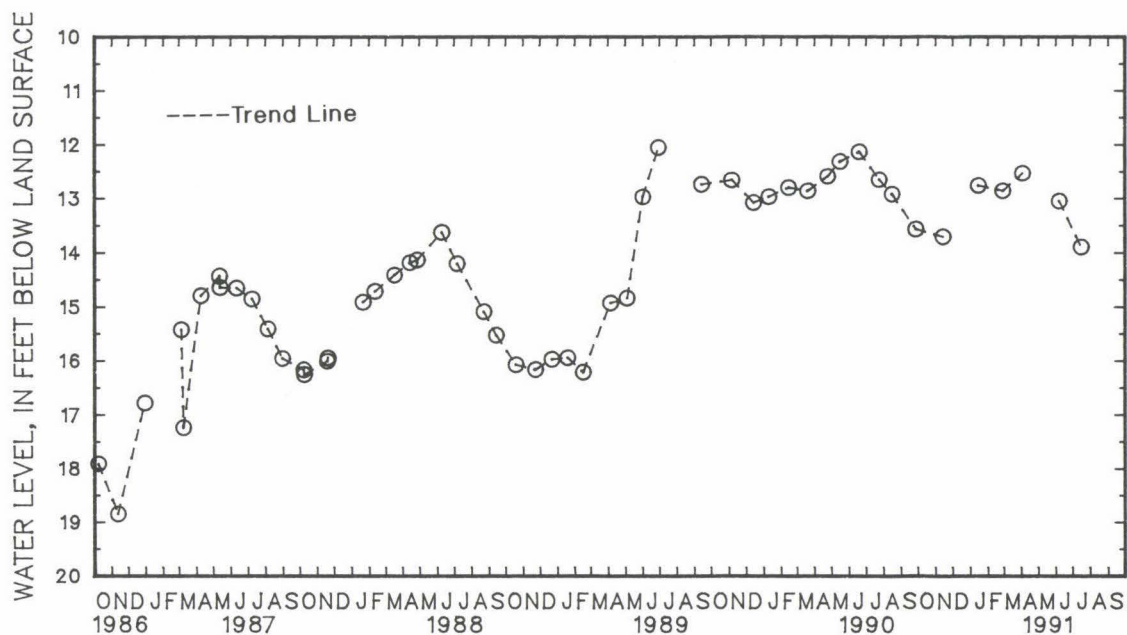
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 21. SITE ID.--391442076555301. PERMIT NUMBER.--HO-81-1574.
LOCATION.--Lat 39°14'43", long 76°55'50", Hydrologic Unit 02060006, south of Homewood Rd. at the University of Maryland Central Farm.
Owner: U.S. Geological Survey.
AQUIFER.--Loch Raven Formation of Paleozoic age. Aquifer code: 300LCRV.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 96 ft; casing diameter 6 in., to 55 ft; open hole.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--1-hour recorder interval from October 1986 to February 1988.
DATUM.--Elevation of land surface is 434.18 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.19 ft above land surface.
REMARKS.--Best Management Practices Project observation well.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.05 ft below land surface, June 29, 1989; lowest measured, 18.85 ft below land surface, Nov. 12, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

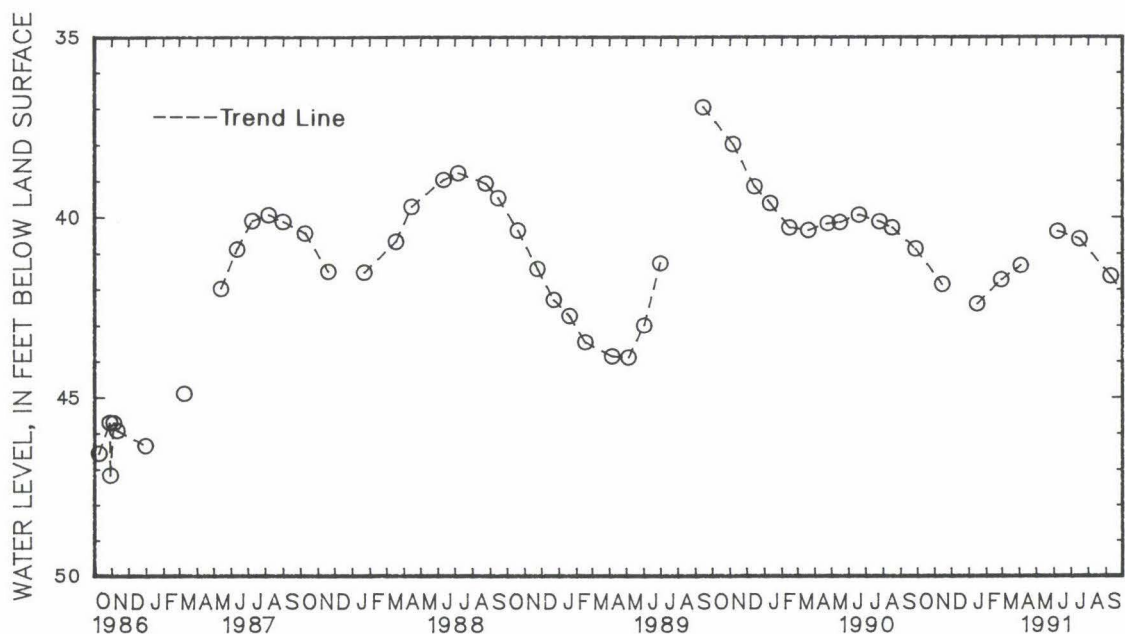
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14	13.71	JAN 15	12.76	FEB 27	12.86	APR 3	12.53	JUN 7	13.05	JUL 16	13.90
WATER YEAR 1991		HIGHEST	12.53	APR 3, 1991	LOWEST	13.90	JUL 16, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
NOV 14	41.91	FEB 27	41.77	JUN 7	40.41	SEP 9	41.67				
JAN 15	42.45	APR 3	41.37	JUL 16	40.62						
WATER YEAR 1991		HIGHEST	40.41	JUN 7, 1991		LOWEST	42.45	JAN 15, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

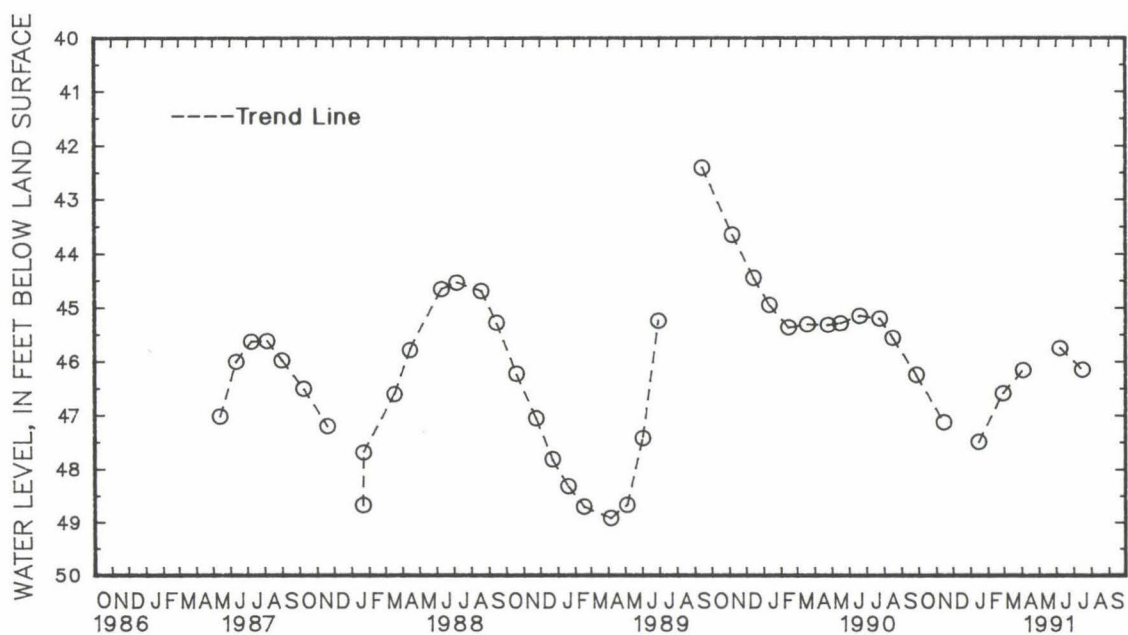
MARYLAND--Continued

HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 26. SITE ID.--391442076554701. PERMIT NUMBER.--HO-81-1579.
 LOCATION.--Lat 39°14'42", long 76°55'50", Hydrologic Unit 02060006, south of Homewood Rd. at the
 University of Maryland Central Farm.
 Owner: U.S. Geological Survey.
 AQUIFER.--Loch Raven Formation of Paleozoic age. Aquifer code: 300LCRV.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 143 ft; casing diameter 6 in., to 106 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-
 level recorder--1-hour recorder interval from October 1986 to August 1988.
 DATUM.--Elevation of land surface is 469.94 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 1.48 ft above land surface.
 REMARKS.--Best Management Practices Project observation well.
 PERIOD OF RECORD.--October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.41 ft below land surface, Sept. 14, 1989;
 lowest measured, 51.77 ft below land surface, Dec. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14	47.17	JAN 15	47.53	FEB 27	46.61	APR 3	46.17	JUN 7	45.76	JUL 16	46.17
WATER YEAR 1991		HIGHEST	45.76	JUN 7, 1991	LOWEST	47.53	JAN 15, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 28. SITE ID.--391447076554702.

LOCATION.--Lat 39°14'43", long 76°55'48", Hydrologic Unit 02060006, south of Homewood Rd. at the University of Maryland Central Farm.

Owner: U.S. Geological Survey.

AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 46 ft; casing diameter 3.5 in., to 41 ft; screen diameter 3.5 in. from 41 to 46 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 30, 1986 to current year.

DATUM.--Elevation of land surface is 453.11 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.17 ft above land surface.

REMARKS.--Best Management Practice Project observation well. Missing data due to recorder malfunction.

PERIOD OF RECORD.--October 1986 to current year.

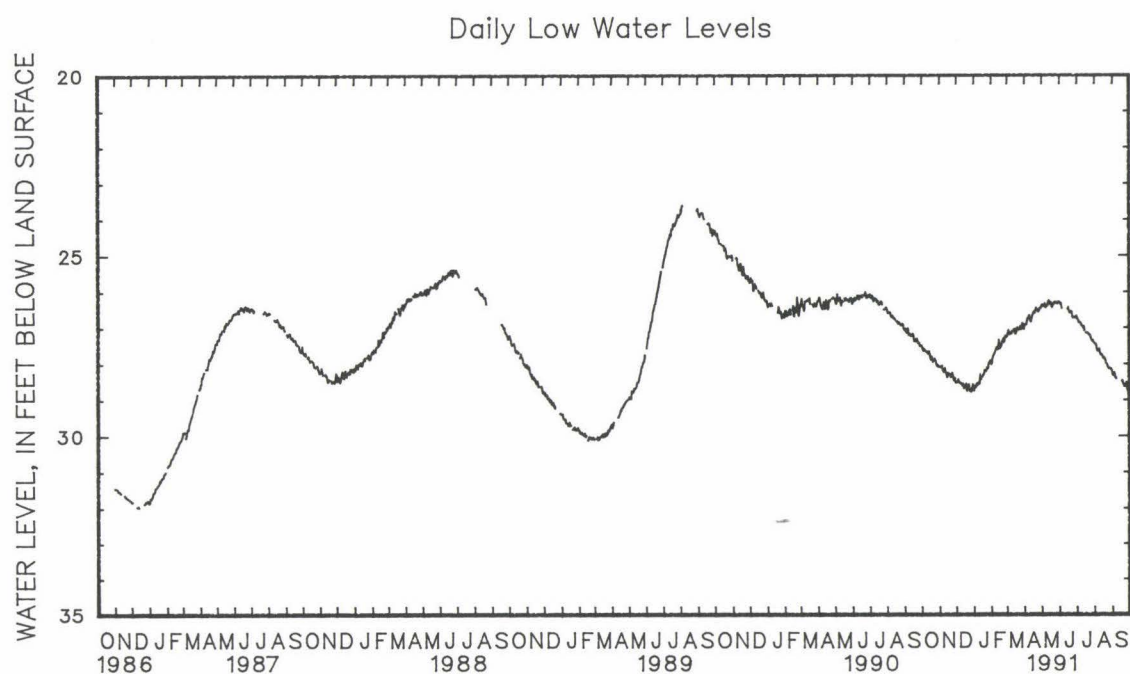
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.63 ft below land surface, Aug. 6, and 7, 1989, and Sept. 1, 1989; lowest measured, 32.03 ft below land surface, Dec. 13 and 14, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	27.57	27.53	28.13	28.11	28.56	28.51	28.80	28.71	28.04	28.00	27.24	27.16
2	27.63	27.53	28.13	28.11	28.57	28.51	28.70	28.63	28.00	27.87	27.16	27.05
3	27.68	27.62	28.14	28.12	28.57	28.38	28.66	28.63	27.87	27.81	27.09	26.98
4	27.62	27.50	28.12	28.10	28.49	28.32	28.70	28.66	27.81	27.78	27.13	26.93
5	27.64	27.58	28.10	28.02	28.56	28.49	28.68	28.59	27.78	27.73	27.20	27.13
6	27.67	27.64	28.22	28.02	28.56	28.51	28.60	28.57	27.73	27.70	27.19	27.00
7	27.70	27.67	28.22	28.17	28.59	28.55	28.63	28.60	27.70	27.63	27.16	26.99
8	27.70	27.69	28.28	28.18	28.58	28.55	28.64	28.59	27.65	27.60	27.18	27.16
9	27.70	27.68	28.28	28.17	28.61	28.57	28.58	28.51	27.60	27.57	27.18	27.11
10	27.73	27.70	28.17	27.95	28.61	28.53	28.59	28.53	27.57	27.55	27.11	27.09
11	27.76	27.71	28.26	28.11	28.66	28.61	28.60	28.36	27.58	27.55	27.11	27.09
12	27.76	27.70	28.30	28.22	28.61	28.56	28.34	28.31	27.62	27.53	27.11	27.06
13	27.70	27.66	28.35	28.29	28.64	28.53	28.47	28.34	27.53	27.36	27.06	26.99
14	27.77	27.70	28.42	28.35	28.74	28.65	28.47	28.42	27.36	27.26	27.05	26.97
15	27.87	27.78	28.37	28.30	28.72	28.51	---	---	27.50	27.35	27.16	27.05
16	27.92	27.87	28.30	28.19	28.67	28.51	28.40	28.22	27.60	27.50	27.19	27.14
17	27.91	27.86	28.31	28.18	28.69	28.61	28.35	28.23	27.57	27.52	27.14	27.03
18	27.85	27.67	28.35	28.31	28.61	28.45	28.35	28.30	27.55	27.48	27.03	26.89
19	27.95	27.75	28.34	28.32	28.79	28.52	28.31	28.21	27.48	27.36	27.01	26.90
20	27.99	27.95	28.41	28.34	28.82	28.77	28.21	28.14	27.40	27.32	27.07	27.01
21	27.97	27.93	28.42	28.39	28.77	28.65	28.23	28.11	27.40	27.33	27.07	27.00
22	27.93	27.90	28.39	28.30	28.65	28.63	28.25	28.23	27.32	27.23	27.05	27.01
23	27.90	27.79	28.30	28.22	28.63	28.56	28.23	28.11	27.42	27.33	27.06	26.88
24	27.96	27.84	28.37	28.22	28.76	28.49	28.13	28.10	27.40	27.26	26.98	26.87
25	27.96	27.93	28.44	28.36	28.82	28.77	28.17	28.13	27.26	27.23	27.05	26.98
26	28.05	27.94	28.51	28.44	28.82	28.76	28.14	28.00	27.23	27.20	27.06	26.99
27	28.10	28.05	28.51	28.45	28.84	28.75	28.03	27.95	27.25	27.20	26.98	26.82
28	28.08	28.00	28.45	28.41	28.74	28.68	27.99	27.92	27.28	27.23	26.90	26.79
29	28.12	28.08	28.54	28.42	28.70	28.62	28.01	27.93	---	---	26.90	26.82
30	28.12	28.06	28.58	28.54	28.62	28.50	27.93	27.81	---	---	27.02	26.82
31	28.11	28.06	---	---	28.79	28.51	28.03	27.81	---	---	27.05	26.94
MONTH	28.12	27.50	28.58	27.95	28.84	28.32	28.80	27.81	28.04	27.20	27.24	26.79

GROUND-WATER LEVELS
 MARYLAND--Continued
 HOWARD COUNTY--Continued
 HO Cd 28--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	26.94	26.88	26.37	26.30	26.31	26.29	26.77	26.69	27.48	27.45	28.34	28.24
2	---	---	26.38	26.33	26.34	26.31	26.77	26.75	27.49	27.45	28.37	28.34
3	---	---	26.39	26.35	26.33	26.30	26.82	26.75	27.50	27.48	28.35	28.30
4	26.93	26.84	26.42	26.38	26.40	26.30	26.87	26.82	27.54	27.49	28.30	28.27
5	26.84	26.76	26.41	26.35	26.47	26.40	26.86	26.84	27.63	27.54	28.37	28.28
6	26.77	26.74	26.34	26.27	---	---	26.89	26.86	27.68	27.63	28.42	28.37
7	26.74	26.71	26.43	26.35	---	---	26.90	26.88	27.69	27.67	28.45	28.42
8	26.72	26.67	26.45	26.39	---	---	26.90	26.88	27.67	27.63	28.47	28.44
9	26.67	26.63	26.42	26.39	---	---	26.96	26.90	27.63	27.58	---	---
10	26.76	26.63	26.38	26.34	---	---	26.97	26.95	27.72	27.60	---	---
11	26.82	26.76	26.39	26.30	---	---	26.99	26.95	27.78	27.72	---	---
12	26.85	26.79	26.30	26.23	---	---	27.03	26.99	27.80	27.78	---	---
13	26.79	26.64	26.26	26.23	---	---	27.00	26.95	27.79	27.77	---	---
14	26.69	26.64	26.26	26.23	---	---	27.10	26.97	27.81	27.78	---	---
15	26.65	26.51	26.34	26.26	26.49	26.43	---	---	27.85	27.81	---	---
16	26.60	26.55	26.35	26.32	26.45	26.43	---	---	27.89	27.85	---	---
17	26.57	26.50	26.32	26.25	26.53	26.45	27.17	27.17	27.89	27.86	---	---
18	26.60	26.55	26.42	26.27	26.60	26.53	27.18	27.17	27.88	27.86	28.53	28.50
19	26.60	26.54	26.45	26.40	26.60	26.59	27.18	27.18	27.91	27.86	28.59	28.52
20	26.54	26.46	26.40	26.36	26.59	26.56	27.18	27.18	27.96	27.91	28.62	28.59
21	26.46	26.34	26.36	26.30	26.57	26.55	27.20	27.18	28.03	27.96	28.66	28.63
22	26.49	26.35	26.31	26.28	26.58	26.56	27.23	27.19	28.05	28.03	28.68	28.65
23	26.52	26.49	26.33	26.30	26.71	26.58	27.22	27.19	28.10	28.05	28.66	28.64
24	26.52	26.44	26.32	26.27	26.74	26.71	27.25	27.19	28.14	28.10	28.68	28.59
25	26.57	26.52	26.29	26.27	26.74	26.72	27.31	27.25	28.17	28.14	28.58	28.52
26	26.54	26.47	26.32	26.29	26.74	26.72	27.36	27.31	28.17	28.15	28.69	28.58
27	26.47	26.40	26.32	26.29	26.75	26.72	27.40	27.36	28.17	28.14	28.78	28.70
28	26.47	26.40	26.34	26.29	26.74	26.69	27.41	27.39	28.18	28.15	28.83	28.79
29	26.47	26.42	26.32	26.29	26.71	26.69	27.40	27.40	28.19	28.17	28.84	28.81
30	26.42	26.35	26.29	26.24	26.70	26.68	27.43	27.40	28.19	28.17	28.87	28.83
31	---	---	26.29	26.25	---	---	27.46	27.42	28.24	28.17	---	---
MONTH	26.94	26.34	26.45	26.23	26.75	26.29	27.46	26.69	28.24	27.45	28.87	28.24



GROUND-WATER LEVELS

MARYLAND--Continued

HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 29. SITE ID.--391442076554702.

LOCATION.--Lat 39°14'42", long 76°55'45", Hydrologic Unit 02060006, south of Homewood Rd. at the University of Maryland Central Farm.

Owner: U.S. Geological Survey.

AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 68 ft; casing diameter 3.5 in., to 63 ft; screen diameter 3.5 in. from 63 to 68 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from Oct. 24, 1986 to current year.

DATUM.--Elevation of land surface is 470.34 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.44 ft above land surface.

REMARKS.--Best Management Practice Project observation well. Missing data due to recorder malfunction.

PERIOD OF RECORD.--October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.37 ft below land surface, Aug. 30, 1989; lowest measured, 49.71 ft below land surface, Jan. 16, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	44.79	44.73	45.28	45.25	45.75	45.70	46.17	46.07	45.92	45.86	45.09	44.99
2	44.86	44.73	45.28	45.26	45.78	45.71	46.07	45.99	45.86	45.72	44.99	44.86
3	44.89	44.82	45.30	45.27	45.78	45.54	46.08	46.00	45.72	45.67	44.92	44.76
4	44.81	44.68	45.27	45.24	45.69	45.48	46.12	46.08	45.67	45.64	44.94	44.71
5	44.83	44.78	45.24	45.14	45.76	45.69	46.11	46.02	45.64	45.59	45.01	44.94
6	44.86	44.83	45.38	45.14	45.76	45.70	46.06	46.00	45.61	45.56	45.00	44.78
7	44.89	44.86	45.39	45.31	45.80	45.76	46.13	46.06	45.56	45.49	44.96	44.78
8	44.89	44.87	45.44	45.35	45.79	45.75	46.14	46.07	45.53	45.47	44.98	44.94
9	44.89	44.86	45.44	45.30	45.83	45.78	46.07	46.00	45.47	45.43	44.98	44.89
10	44.92	44.89	45.29	45.05	45.84	45.74	46.13	46.03	45.45	45.42	44.89	44.87
11	44.95	44.89	45.41	45.26	45.89	45.83	46.13	45.83	45.48	45.43	44.88	44.85
12	44.95	44.87	45.45	45.35	45.83	45.77	45.85	45.80	45.52	45.41	44.88	44.81
13	44.86	44.83	45.52	45.44	45.90	45.73	46.01	45.85	45.41	45.22	44.81	44.74
14	44.95	44.87	45.56	45.52	45.99	45.90	46.01	45.96	45.22	45.11	44.80	44.71
15	45.05	44.94	45.53	45.46	45.96	45.71	46.02	45.97	45.40	45.22	44.91	44.80
16	45.10	45.06	45.46	45.32	45.91	45.71	45.97	45.77	45.49	45.40	44.93	44.86
17	45.09	45.01	45.48	45.31	45.93	45.81	45.97	45.80	45.45	45.40	44.87	44.73
18	45.00	44.80	45.53	45.48	45.81	45.65	45.97	45.93	45.45	45.36	44.73	44.58
19	45.12	44.93	45.52	45.48	46.06	45.77	45.97	45.84	45.36	45.24	44.71	44.61
20	45.16	45.12	45.60	45.52	46.10	46.03	45.84	45.77	45.29	45.20	44.78	44.71
21	45.13	45.07	45.60	45.56	46.03	45.90	45.93	45.74	45.29	45.20	44.77	44.68
22	45.08	45.03	45.56	45.45	45.90	45.88	45.98	45.93	45.21	45.09	44.75	44.70
23	45.03	44.91	45.45	45.37	45.88	45.78	45.97	45.85	45.30	45.22	44.76	44.56
24	45.09	44.97	45.55	45.37	46.07	45.73	45.92	45.85	45.27	45.12	44.66	44.54
25	45.09	45.06	45.63	45.52	46.12	46.06	45.97	45.92	45.12	45.08	44.73	44.66
26	45.21	45.07	45.71	45.63	46.14	46.06	45.94	45.76	45.09	45.05	44.74	44.64
27	45.26	45.19	45.70	45.63	46.17	46.04	45.81	45.71	45.11	45.07	44.64	44.46
28	45.24	45.13	45.63	45.58	46.04	45.99	45.79	45.68	45.15	45.07	44.56	44.43
29	45.28	45.23	45.74	45.61	46.02	45.94	45.83	45.73	---	---	44.55	44.46
30	45.28	45.20	45.79	45.74	45.94	45.83	45.73	45.59	---	---	44.72	44.46
31	45.26	45.20	---	---	46.17	45.83	45.89	45.59	---	---	44.74	44.62
MONTH	45.28	44.68	45.79	45.05	46.17	45.48	46.17	45.59	45.92	45.05	45.09	44.43

Daily Low Water Levels



GROUND-WATER LEVELS

MARYLAND--Continued

HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 78. SITE ID.--391440076555402. PERMIT NUMBER.--HO-81-2389.
 LOCATION.--Lat 39°14'41", long 76°55'52", Hydrologic Unit 02060006, south of Homewood Rd. at the
 University of Maryland Central Farm.
 Owner: U.S. Geological Survey.
 AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 3.5 in., to 9 ft;
 screen diameter 3.5 in. from 9 to 19 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-
 level recorder--30-minute recorder interval from Feb. 11, 1988 to current year.
 DATUM.--Elevation of land surface is 425.58 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 1.6 ft above land surface.
 REMARKS.--Best Management Practice Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--February 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.95 ft below land surface, May 17, 1989;
 lowest measured, 10.19 ft below land surface, Sept. 18, 21, and 22, 1991.

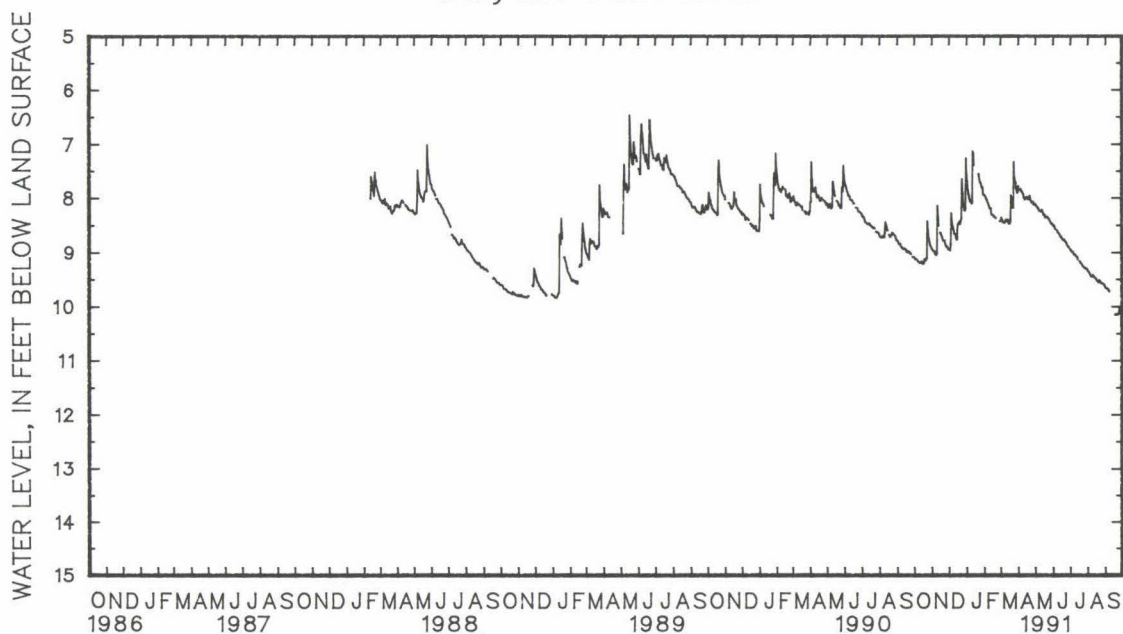
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.13	9.12	8.97	8.95	8.97	8.96	7.55	7.28	7.96	7.94	8.45	8.40
2	9.16	9.13	8.99	8.97	8.99	8.96	7.73	7.55	7.98	7.96	8.39	8.33
3	9.16	9.15	9.00	8.99	8.99	8.87	7.87	7.73	8.00	7.98	8.42	8.32
4	9.16	9.11	9.00	9.00	8.87	8.05	7.94	7.87	8.04	8.00	8.44	8.31
5	9.17	9.14	9.01	8.99	8.30	8.06	7.98	7.93	8.04	8.04	8.47	8.44
6	9.18	9.17	9.05	8.99	8.44	8.30	8.03	7.96	8.09	8.04	8.47	8.37
7	9.20	9.18	9.06	9.04	8.52	8.44	8.07	8.03	8.11	8.09	8.47	8.37
8	9.21	9.20	9.08	9.06	8.57	8.51	8.09	8.05	8.14	8.11	8.48	8.45
9	9.22	9.21	9.08	9.04	8.61	8.57	8.08	8.02	8.17	8.14	8.46	8.42
10	9.23	9.22	9.04	7.65	8.67	8.59	8.12	8.07	8.21	8.17	8.43	8.41
11	9.23	9.22	8.16	7.68	8.69	8.67	8.10	7.22	8.21	8.13	8.44	8.42
12	9.23	9.20	8.37	8.17	8.69	8.67	7.14	6.71	8.21	8.09	8.45	8.42
13	9.20	9.17	8.53	8.37	8.75	8.67	7.17	6.74	8.32	8.21	8.42	8.40
14	9.21	9.18	---	---	8.79	8.76	7.39	7.17	8.33	8.32	8.45	8.39
15	9.24	9.21	---	---	8.78	8.50	---	---	8.33	8.33	8.49	8.45
16	9.25	9.24	8.66	8.64	8.51	8.46	---	---	8.34	8.33	8.50	8.48
17	9.25	9.23	8.70	8.64	8.50	8.46	---	---	8.36	8.34	8.49	8.44
18	9.23	9.09	8.72	8.70	8.48	8.33	---	---	8.36	8.36	8.44	7.82
19	9.16	9.13	8.75	8.72	8.46	8.38	---	---	8.38	8.36	7.97	7.82
20	9.18	9.16	8.80	8.75	8.50	8.47	---	---	8.39	8.39	8.09	7.97
21	9.18	9.15	8.81	8.80	8.48	8.42	---	---	8.39	8.39	8.12	8.06
22	9.15	9.15	8.81	8.77	8.43	8.40	7.56	7.50	---	---	8.20	8.12
23	9.15	8.24	8.80	8.77	8.40	7.68	7.65	7.56	---	---	8.20	6.72
24	8.45	8.22	8.86	8.81	7.65	7.37	7.72	7.65	---	---	7.34	6.83
25	8.61	8.45	8.89	8.85	7.93	7.65	7.72	7.68	---	---	7.63	7.35
26	8.74	8.61	8.92	8.89	8.12	7.93	7.75	7.68	---	---	7.70	7.64
27	8.79	8.74	8.92	8.90	8.17	8.11	7.80	7.72	---	---	7.72	7.67
28	8.85	8.78	8.92	8.89	8.24	8.14	7.83	7.80	8.45	8.42	7.85	7.69
29	8.90	8.85	8.96	8.92	8.25	8.22	7.81	7.76	---	---	7.86	7.80
30	8.91	8.89	8.97	8.96	8.22	6.74	7.95	7.78	---	---	7.92	7.83
31	8.95	8.91	---	---	7.27	6.71	7.96	7.94	---	---	7.88	7.77
MONTH	9.25	8.22	9.08	7.65	8.99	6.71	8.12	6.71	8.45	7.94	8.50	6.72

GROUND-WATER LEVELS
MARYLAND--Continued
HOWARD COUNTY--Continued
HO Cd 78--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.80	7.74	8.14	8.09	8.54	8.51	8.99	8.97	9.38	9.36	9.69	9.67
2	---	---	8.15	8.13	8.53	8.53	8.99	8.98	9.40	9.38	9.70	9.69
3	---	---	8.18	8.13	8.54	8.53	9.02	8.99	9.41	9.40	9.70	9.70
4	7.87	7.82	8.19	8.18	8.58	8.54	9.02	9.02	9.43	9.41	9.71	9.70
5	7.85	7.83	8.21	8.19	8.60	8.58	9.02	9.01	9.45	9.43	9.71	9.71
6	7.88	7.85	8.21	8.15	---	---	9.04	9.01	9.48	9.45	9.73	9.71
7	7.90	7.87	8.25	8.21	---	---	9.07	9.04	9.48	9.48	9.73	9.73
8	7.91	7.88	8.26	8.23	8.63	8.61	9.06	9.04	9.49	9.48	9.75	9.73
9	7.95	7.89	8.26	8.24	8.66	8.63	9.08	9.06	9.49	9.43	---	---
10	8.01	7.90	8.27	8.24	8.67	8.66	9.08	9.08	9.46	9.43	---	---
11	8.03	7.99	8.27	8.24	8.68	8.67	9.11	9.08	9.49	9.46	---	---
12	8.05	8.01	8.24	8.23	8.70	8.67	9.12	9.11	9.50	9.49	---	---
13	8.02	7.96	8.26	8.24	8.73	8.70	9.12	9.09	9.51	9.50	---	---
14	8.03	7.97	8.29	8.26	8.74	8.73	9.16	9.12	9.51	9.51	---	---
15	8.00	7.92	8.33	8.29	8.74	8.73	---	---	9.53	9.51	---	---
16	8.00	7.97	8.33	8.33	8.77	8.74	---	---	9.55	9.53	---	---
17	8.01	7.96	8.33	8.30	8.79	8.77	9.20	9.19	9.56	9.55	---	---
18	8.04	8.01	8.38	8.32	8.80	8.79	9.21	9.20	9.57	9.56	10.19	10.18
19	8.04	8.01	8.38	8.37	8.79	8.77	9.23	9.21	9.59	9.57	10.18	10.17
20	8.02	7.99	8.38	8.37	8.79	8.77	9.24	9.23	9.59	9.48	10.18	10.17
21	7.98	7.94	8.37	8.36	8.82	8.79	9.26	9.24	9.55	9.54	10.19	10.17
22	8.05	7.96	8.38	8.37	8.83	8.82	9.28	9.25	9.56	9.55	10.19	10.18
23	8.07	8.05	8.40	8.38	8.84	8.83	9.30	9.28	9.58	9.56	10.18	10.17
24	8.10	8.04	8.40	8.40	8.86	8.84	9.30	9.30	9.60	9.58	10.18	10.14
25	8.11	8.09	8.42	8.40	8.89	8.86	9.32	9.30	9.61	9.60	10.13	10.05
26	8.11	8.08	8.45	8.42	8.91	8.89	9.32	9.32	9.61	9.61	10.05	10.03
27	8.09	8.08	8.46	8.45	8.93	8.91	9.33	9.32	9.61	9.61	10.09	10.05
28	8.14	8.09	8.48	8.46	8.93	8.92	9.34	9.33	9.62	9.61	10.10	10.08
29	8.14	8.12	8.50	8.47	8.95	8.93	9.34	9.34	9.63	9.62	10.10	10.09
30	8.13	8.09	8.49	8.47	8.97	8.95	9.34	9.34	9.64	9.63	10.10	10.09
31	---	---	8.51	8.49	---	---	9.36	9.34	9.67	9.64	---	---
MONTH	8.14	7.74	8.51	8.09	8.97	8.51	9.36	8.97	9.67	9.36	10.19	9.67

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HOWARD COUNTY--Continued

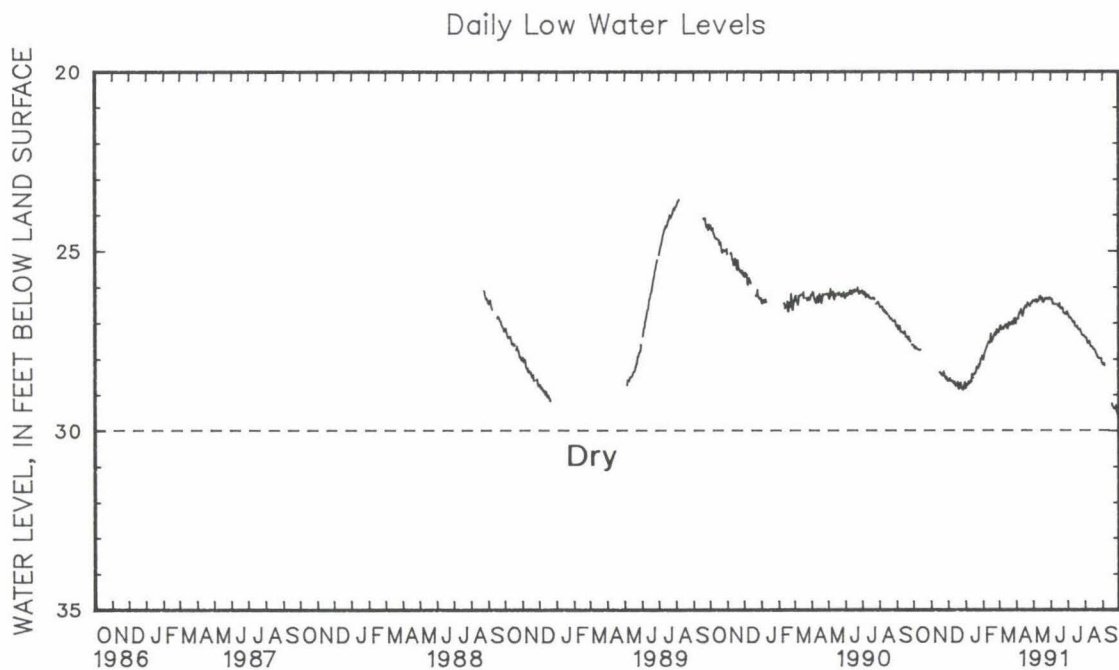
WELL NUMBER.--HO Cd 341. SITE ID.--391447076554707. PERMIT NUMBER.--HO-88-0061.
 LOCATION.--Lat 39°14'43", long 76°55'48", Hydrologic Unit 02060006, south of Homewood Rd. at the
 University of Maryland Central Farm.
 Owner: U.S. Geological Survey.
 AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 30 ft; casing diameter 3.5 in., to 25 ft;
 screen diameter 3.5 in. from 25 to 30 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-
 level recorder--60-minute recorder interval from Aug. 23, 1988 to current year.
 DATUM.--Elevation of land surface is 453.00 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.27 ft above land surface.
 REMARKS.--Best Management Practice Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--August 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.53 ft below land surface datum, Aug. 6, 1989;
 lowest measured, dry, from Dec. 22, 1988 to May 4, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	27.63	27.59	---	---	28.60	28.57	28.83	28.75	28.02	27.96	27.22	27.13
2	27.68	27.59	---	---	28.63	28.57	28.74	28.68	27.96	27.84	27.13	27.02
3	27.71	27.67	---	---	28.63	28.44	28.71	28.68	27.84	27.79	27.08	26.95
4	27.67	27.55	---	---	28.56	28.39	28.74	28.71	27.79	27.75	27.11	26.92
5	27.68	27.64	---	---	28.61	28.56	28.73	28.64	27.75	27.70	27.18	27.11
6	27.71	27.68	---	---	28.61	28.57	28.65	28.63	27.70	27.66	27.17	26.98
7	27.73	27.71	---	---	28.64	28.62	28.69	28.65	27.66	27.60	27.15	26.98
8	27.74	27.73	---	---	28.63	28.60	28.69	28.64	27.62	27.57	27.16	27.14
9	27.74	27.72	---	---	28.66	28.63	28.63	28.58	27.57	27.53	27.17	27.10
10	27.76	27.74	---	---	28.66	28.59	28.65	28.60	27.53	27.50	27.10	27.08
11	27.77	27.75	---	---	28.70	28.66	28.65	28.40	27.54	27.50	27.10	27.07
12	27.77	27.75	---	---	28.66	28.62	28.42	28.38	27.56	27.47	27.10	27.05
13	27.75	27.71	---	---	28.70	28.59	28.54	28.42	27.47	27.31	27.05	26.99
14	---	---	---	---	28.77	28.71	28.54	28.49	27.31	27.21	27.05	26.96
15	---	---	---	---	28.75	28.56	---	---	27.44	27.31	27.14	27.05
16	---	---	28.38	28.27	28.72	28.56	28.44	28.27	27.52	27.43	27.16	27.10
17	---	---	28.39	28.26	28.73	28.66	28.40	28.29	27.48	27.45	27.11	26.99
18	---	---	28.43	28.39	28.66	28.51	28.40	28.34	27.46	27.40	26.99	26.86
19	---	---	28.42	28.39	28.83	28.59	28.35	28.24	27.40	27.29	26.99	26.88
20	---	---	28.47	28.42	28.85	28.80	28.24	28.17	27.33	27.26	27.05	26.99
21	---	---	28.48	28.46	28.80	28.70	28.26	28.14	27.33	27.25	27.05	26.96
22	---	---	28.46	28.36	28.70	28.68	28.27	28.26	27.27	27.16	27.04	26.98
23	---	---	28.36	28.30	28.68	28.59	28.26	28.15	27.34	27.27	27.04	26.86
24	---	---	28.44	28.31	28.82	28.54	28.16	28.12	27.31	27.19	26.97	26.86
25	---	---	28.51	28.43	28.85	28.80	28.20	28.16	27.19	27.15	27.03	26.97
26	---	---	28.56	28.51	28.86	28.80	28.16	28.02	---	---	27.04	26.95
27	---	---	28.56	28.51	28.88	28.77	28.05	27.95	---	---	26.95	26.78
28	---	---	28.51	28.48	28.77	28.73	27.99	27.93	27.26	27.20	26.88	26.77
29	---	---	28.60	28.49	28.74	28.67	28.00	27.92	---	---	26.87	26.78
30	---	---	28.63	28.60	28.67	28.57	27.92	27.80	---	---	27.00	26.79
31	---	---	---	---	28.83	28.56	28.00	27.80	---	---	27.02	26.91
MONTH	27.77	27.55	28.63	28.26	28.88	28.39	28.83	27.80	28.02	27.15	27.22	26.77

GROUND-WATER LEVELS
MARYLAND--Continued
HOWARD COUNTY--Continued
HO Cd 341--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	26.91	26.85	26.37	26.29	26.33	26.31	26.77	26.69	27.40	27.38	28.16	28.12
2	---	---	26.37	26.34	26.35	26.32	26.76	26.74	27.41	27.38	28.16	28.14
3	---	---	26.39	26.34	26.34	26.31	26.82	26.76	27.41	27.39	28.14	28.08
4	26.89	26.79	26.41	26.37	26.42	26.31	26.86	26.83	27.46	27.40	28.13	28.06
5	26.79	26.71	26.39	26.34	26.47	26.42	26.85	26.83	27.53	27.47	28.19	28.13
6	26.72	26.69	26.35	26.27	---	---	26.87	26.85	27.57	27.53	---	---
7	26.70	26.67	26.41	26.36	---	---	26.88	26.85	27.56	27.54	---	---
8	26.68	26.63	26.43	26.37	26.48	26.48	26.89	26.85	27.54	27.51	---	---
9	26.63	26.59	26.41	26.37	26.48	26.48	26.94	26.88	27.51	27.47	---	---
10	26.73	26.59	26.37	26.34	26.48	26.48	26.96	26.94	27.60	27.50	---	---
11	26.77	26.72	26.38	26.30	26.48	26.48	26.99	26.94	27.65	27.60	---	---
12	26.81	26.74	26.29	26.23	26.49	26.48	27.00	26.98	27.66	27.65	---	---
13	26.74	26.60	26.26	26.23	26.50	26.49	26.98	26.93	27.66	27.64	---	---
14	26.65	26.59	26.26	26.23	26.54	26.50	27.08	26.97	27.67	27.65	---	---
15	26.59	26.48	26.34	26.26	26.51	26.46	---	---	27.71	27.66	---	---
16	26.56	26.53	26.35	26.31	26.46	26.46	---	---	27.74	27.71	---	---
17	26.53	26.47	26.31	26.24	26.55	26.46	27.12	27.06	27.74	27.71	---	---
18	26.56	26.52	26.42	26.27	26.60	26.55	27.09	27.07	27.74	27.70	29.27	29.24
19	26.57	26.51	26.43	26.39	26.60	26.59	27.14	27.09	27.77	27.70	29.33	29.26
20	26.51	26.44	26.39	26.35	26.60	26.56	27.18	27.14	27.81	27.76	29.35	29.33
21	26.44	26.34	26.36	26.31	26.58	26.57	27.19	27.15	27.86	27.81	29.39	29.35
22	26.47	26.35	26.32	26.30	26.61	26.58	27.20	27.17	27.89	27.87	29.41	29.38
23	26.50	26.46	26.34	26.31	26.71	26.61	27.18	27.13	27.93	27.89	29.40	29.36
24	26.51	26.42	26.33	26.28	26.73	26.70	27.23	27.18	27.96	27.93	29.41	29.31
25	26.54	26.50	26.31	26.28	26.74	26.71	27.28	27.23	27.98	27.96	29.32	29.26
26	26.51	26.45	26.33	26.31	26.74	26.71	27.32	27.28	27.98	27.95	29.43	29.32
27	26.45	26.38	26.34	26.30	26.76	26.73	27.34	27.32	27.98	27.95	29.50	29.43
28	26.45	26.39	26.35	26.31	26.73	26.68	27.35	27.34	27.99	27.97	29.54	29.50
29	26.45	26.41	26.34	26.30	26.70	26.68	27.35	27.33	28.00	27.98	29.54	29.51
30	26.40	26.34	26.30	26.25	26.69	26.67	27.35	27.34	27.99	27.96	29.57	29.54
31	---	---	26.31	26.27	---	---	27.38	27.35	28.11	27.99	---	---
MONTH	26.91	26.34	26.43	26.23	26.76	26.31	27.38	26.69	28.11	27.38	29.57	28.06



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 342. SITE ID.--391438076555001. PERMIT NUMBER.--HO-88-0062.
 LOCATION.--Lat 39°14'39", long 76°55'49", Hydrologic Unit 02060006, south of Homewood Rd. at the
 University of Maryland Central Farm.
 Owner: U.S. Geological Survey.
 AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 3.5 in., to 20 ft;
 screen diameter 3.5 in. from 20 to 25 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-
 level recorder--30-minute recorder interval from Aug. 23, 1988 to current year.
 DATUM.--Elevation of land surface is 436.46 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.79 ft above land surface.
 REMARKS.--Best Management Practice Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--August 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.46 ft below land surface, June 27 and 28, 1989;
 lowest measured, 23.86 ft below land surface, Feb. 16 and 17, 1989.

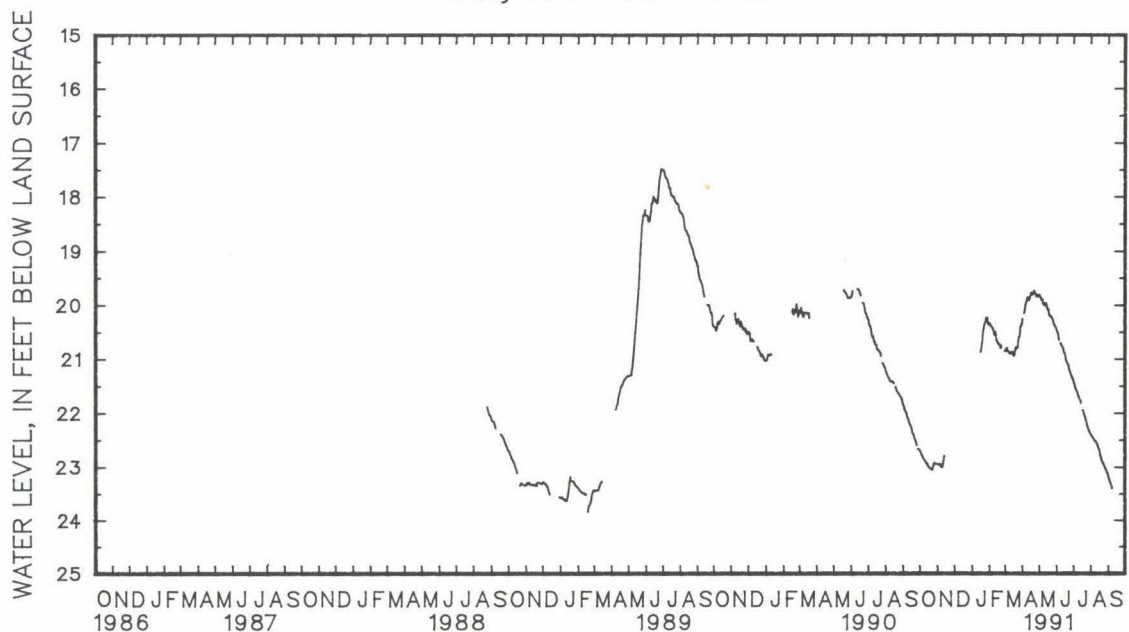
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.75	22.73	22.98	22.98	---	---	---	---	20.34	20.33	20.88	20.83
2	22.78	22.75	22.98	22.98	---	---	---	---	20.36	20.34	20.83	20.77
3	22.81	22.78	22.99	22.98	---	---	---	---	20.40	20.36	20.81	20.75
4	22.82	22.81	22.99	22.98	---	---	---	---	20.40	20.39	20.83	20.72
5	22.84	22.82	22.98	22.96	---	---	---	---	20.42	20.39	20.88	20.83
6	22.87	22.84	23.01	22.96	---	---	---	---	20.44	20.42	20.88	20.80
7	22.89	22.87	23.01	23.01	---	---	---	---	20.46	20.43	20.89	20.80
8	22.91	22.89	23.04	23.01	---	---	---	---	20.50	20.46	20.91	20.89
9	22.92	22.91	23.04	23.02	---	---	---	---	20.56	20.50	20.92	20.90
10	22.94	22.92	23.02	22.92	---	---	---	---	20.56	20.51	20.91	20.89
11	22.96	22.94	22.92	22.85	---	---	---	---	20.51	20.44	20.91	20.91
12	22.97	22.96	22.85	22.83	---	---	---	---	20.56	20.47	20.92	20.89
13	22.97	22.97	22.83	22.83	---	---	---	---	20.67	20.56	20.89	20.87
14	23.00	22.97	---	---	---	---	---	---	20.68	20.67	20.90	20.86
15	23.02	23.00	---	---	---	---	---	---	20.72	20.68	20.95	20.90
16	23.04	23.02	---	---	---	---	20.87	20.79	20.72	20.70	20.96	20.95
17	23.05	23.04	---	---	---	---	20.79	20.73	20.74	20.69	20.95	20.91
18	23.05	23.01	---	---	---	---	20.72	20.61	20.75	20.73	20.91	20.81
19	23.07	23.03	---	---	---	---	20.61	20.47	20.75	20.69	20.81	20.80
20	23.08	23.07	---	---	---	---	20.48	20.44	20.81	20.75	20.83	20.81
21	23.09	23.08	---	---	---	---	20.44	20.36	20.81	20.77	20.81	20.78
22	23.09	23.08	---	---	---	---	20.36	20.32	20.78	20.77	20.80	20.78
23	23.08	23.02	---	---	---	---	20.33	20.31	---	---	20.80	20.67
24	23.02	22.98	---	---	---	---	20.31	20.24	---	---	20.67	20.60
25	22.98	22.95	---	---	---	---	20.24	20.22	---	---	20.61	20.59
26	22.96	22.95	---	---	---	---	20.23	20.20	---	---	20.59	20.52
27	22.97	22.96	---	---	---	---	20.26	20.23	---	---	20.52	20.41
28	22.97	22.95	---	---	---	---	20.24	20.19	20.87	20.84	20.41	20.39
29	22.98	22.97	---	---	---	---	20.34	20.19	---	---	20.40	20.31
30	22.98	22.97	---	---	---	---	20.36	20.34	---	---	20.35	20.31
31	22.98	22.97	---	---	---	---	20.36	20.33	---	---	20.35	20.26
MONTH	23.09	22.73	23.04	22.83	---	---	20.87	20.19	20.87	20.33	20.96	20.26

GROUND-WATER LEVELS
MARYLAND--Continued
HOWARD COUNTY--Continued
HO Cd 342--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	20.26	20.19	19.82	19.79	20.51	20.47	21.47	21.42	22.44	22.43	23.23	23.18
2	---	---	19.84	19.81	20.53	20.51	21.49	21.47	22.45	22.44	23.26	23.23
3	---	---	19.87	19.84	20.55	20.54	21.54	21.49	22.48	22.46	23.30	23.26
4	20.14	20.07	19.90	19.87	20.62	20.55	21.57	21.54	22.49	22.48	23.32	23.30
5	20.07	20.00	19.92	19.90	20.67	20.62	21.59	21.57	22.51	22.49	23.36	23.32
6	20.00	19.95	19.91	19.86	---	---	21.62	21.59	22.53	22.51	23.38	23.36
7	19.95	19.92	19.97	19.91	---	---	21.65	21.62	22.54	22.54	23.40	23.39
8	19.92	19.86	19.99	19.97	20.74	20.74	21.67	21.65	22.56	22.54	23.43	23.40
9	19.86	19.82	20.00	19.97	20.78	20.74	21.71	21.67	22.56	22.56	---	---
10	19.88	19.81	20.01	19.98	20.79	20.78	21.73	21.71	22.58	22.56	---	---
11	19.89	19.88	20.02	19.98	20.81	20.79	21.76	21.73	22.59	22.58	---	---
12	19.91	19.88	19.98	19.95	20.84	20.81	21.79	21.76	22.62	22.59	---	---
13	19.88	19.81	19.98	19.96	20.90	20.84	21.80	21.79	22.65	22.62	---	---
14	19.83	19.81	20.02	19.98	20.92	20.90	21.85	21.80	22.68	22.65	---	---
15	19.81	19.74	20.07	20.02	20.93	20.92	---	---	22.71	22.68	---	---
16	19.77	19.76	20.09	20.07	20.97	20.93	---	---	22.75	22.71	---	---
17	19.77	19.73	20.09	20.07	21.03	20.97	21.98	21.97	22.81	22.75	---	---
18	19.80	19.76	20.19	20.09	21.07	21.03	21.99	21.98	22.84	22.81	---	---
19	19.80	19.78	20.21	20.19	21.09	21.07	22.04	21.99	22.88	22.84	---	---
20	19.78	19.74	20.22	20.21	21.11	21.09	22.08	22.04	22.91	22.88	---	---
21	19.74	19.68	20.22	20.20	21.13	21.11	22.11	22.08	22.94	22.91	---	---
22	19.77	19.69	20.22	20.20	21.16	21.13	22.15	22.11	22.96	22.94	---	---
23	19.79	19.77	20.26	20.22	21.22	21.16	22.18	22.15	22.97	22.96	---	---
24	19.81	19.76	20.27	20.26	21.26	21.22	22.23	22.18	23.00	22.97	---	---
25	19.84	19.81	20.31	20.27	21.29	21.26	22.28	22.23	23.03	23.00	---	---
26	19.84	19.82	20.35	20.31	21.32	21.29	22.30	22.28	23.05	23.03	---	---
27	19.82	19.79	20.37	20.35	21.35	21.32	22.34	22.30	23.08	23.05	---	---
28	19.85	19.80	20.40	20.37	21.37	21.35	22.36	22.34	23.09	23.08	---	---
29	19.85	19.84	20.42	20.40	21.40	21.37	22.38	22.36	23.13	23.09	---	---
30	19.84	19.81	20.43	20.42	21.42	21.40	22.40	22.39	23.14	23.13	---	---
31	---	---	20.47	20.43	---	---	22.43	22.40	23.18	23.14	---	---
MONTH	20.26	19.68	20.47	19.79	21.42	20.47	22.43	21.42	23.18	22.43	23.43	23.18

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

MARYLAND--Continued

HOWARD COUNTY--Continued

LOCATION.--Lat 39°10'01", long 76°54'00", Hydrologic Unit 02060006, at Johns Hopkins University Applied Physics Lab, Scaggsville.

Physics Lab, Scaggsville.

Owner: Johns Hopkins University.

AQUIFER.--Sykesville Formation of Paleozoic age. Aquifer code: 300SKVL.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 125 ft; casing diameter 6 in., to 51.4 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from Dec. 9, 1987 to current year.

DATUM.--Elevation of land surface is 430 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 1.80 ft above land surface.

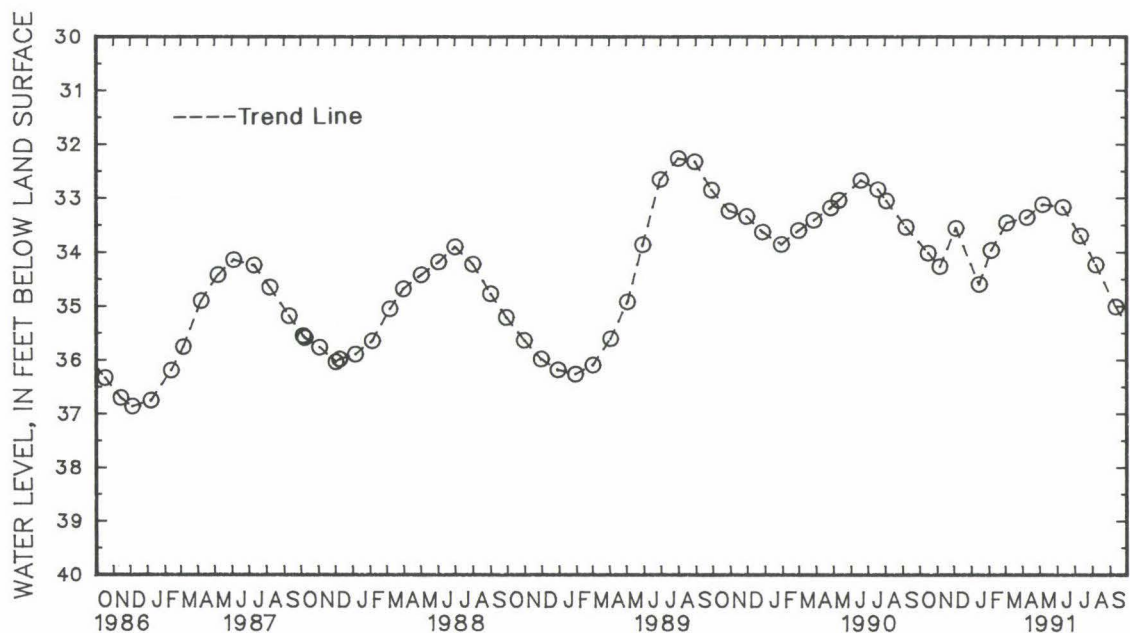
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.84 ft below land surface, May 5, 1972;
lowest measured, 36.87 ft below land surface, Dec. 5, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 16	34.02	DEC 5	33.56	FEB 5	33.97	APR 9	33.36	JUN 11	33.17	AUG 7	34.24	SEP 11	33.70	NOV 6	34.27
WATER YEAR 1991		HIGHEST 33.12		MAY 7, 1991		LOWEST 35.02		SEP 11, 1991							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
KENT COUNTY--Continued

WELL NUMBER.--KE Be 43. SITE ID.--391823075594701. PERMIT NUMBER.--KE-73-0659.

LOCATION.--Lat 39°18'23", long 75°59'47", Hydrologic Unit 02060002, at Kennedyville.

Owner: U.S. Geological Survey.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 297 ft; casing diameter 10 in., to 171 ft; casing diameter 4 in to 275 ft and 285 to 297 ft; screen diameter 4 in. from 275 to 285 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.50 ft above land surface.

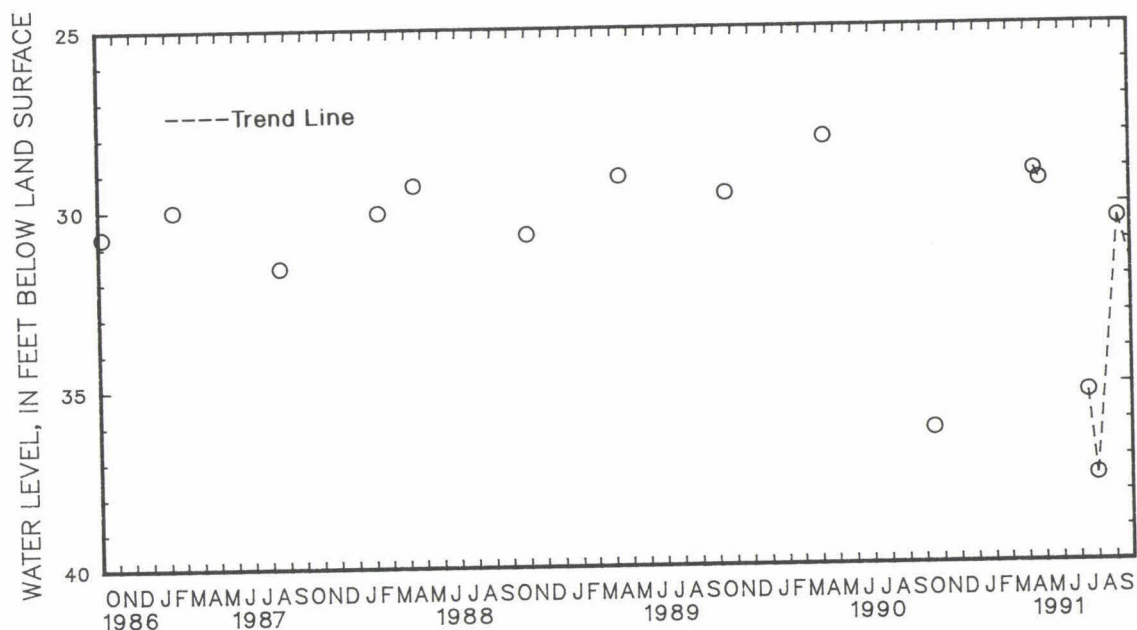
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly beginning October 1986.

PERIOD OF RECORD.--February 1979 to July 1979, December 1985, October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.31 ft below land surface, June 5, 1979; lowest measured, 37.59 ft below land surface, July 31, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	36.27	APR 16	29.07	APR 25	29.35	JUL 16	35.29	JUL 31	37.59	SEP 9	30.42
WATER YEAR 1991		HIGHEST	29.07	APR 16, 1991		LOWEST	37.59	JUL 31, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--Ke Be 55. SITE ID.-- 391846075561701. PERMIT NUMBER.--KE-81-1228.

LOCATION.--Lat 39°18'46", long 75°56'17", Hydrologic Unit 0206002, near Locust Grove.

Owner: U. S. Geological Survey.

AQUIFER.-- Pliestocene-Pliocene Formation. Aquifer code: 112PCPC.

WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 20.0 ft, casing diameter 2 in., to 17 ft; screen diameter 2 in. from 17 ft to 20 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder January 26, 1989 to current year.

DATUM.--Elevation of land surface is 66.45 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.89 ft above land surface.

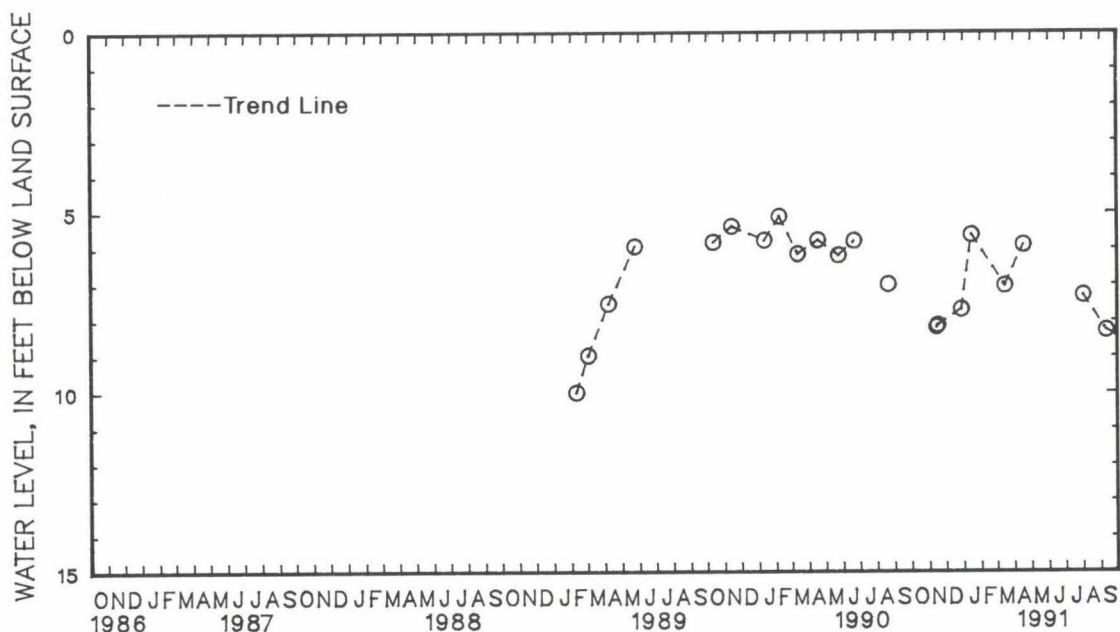
REMARKS.--National Water Quality Assessment Project observation well.

PERIOD OF RECORD.--January 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.52 ft below land surface, June 25, 1989; lowest measured, 10.26 ft below land surface, Feb. 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

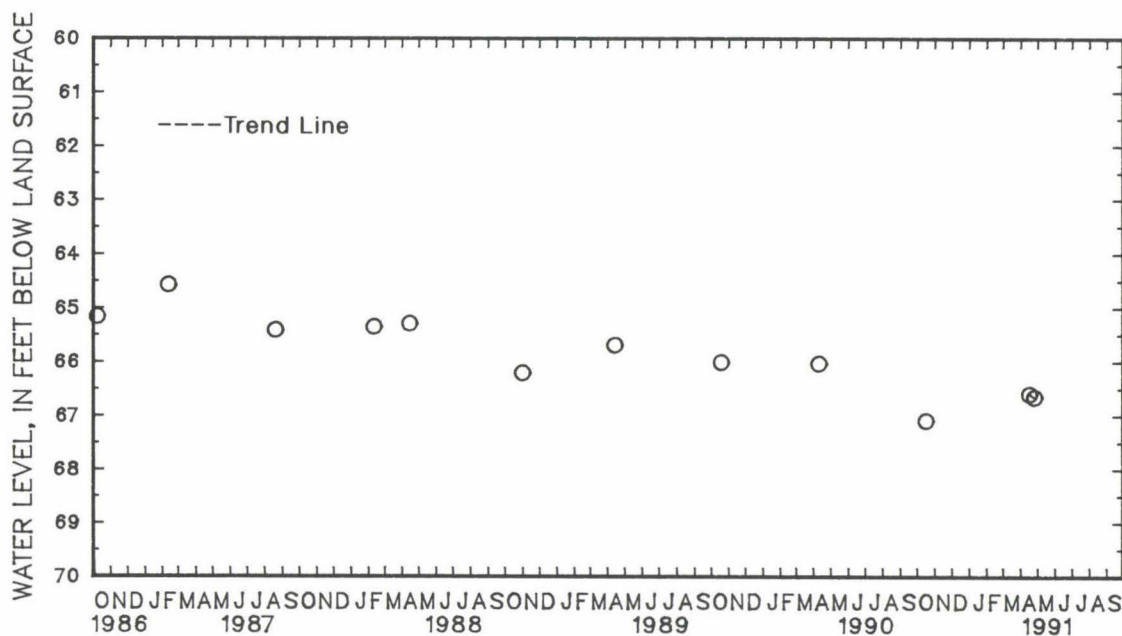
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14	8.19	DEC 28	7.70	MAR 15	7.04	AUG 1	7.31
16	8.14	JAN 15	5.63	APR 17	5.91	SEP 11	8.29
WATER YEAR 1991		HIGHEST	5.63	JAN 15	LOWEST	8.29	SEP 11, 1991



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

```
WELL NUMBER.--KE Bg 33. SITE ID.--391815075472101. PERMIT NUMBER.--KE-73-0670.
LOCATION.--Lat 39°18'15", long 75°47'21", Hydrologic Unit 02060002, 2 mi west of Massey at
Millington Wildlife Management Area.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 705 ft; casing diameter 4 in., to 695 ft;
screen diameter 4 in. from 695 to 705 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 3.50 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly beginning October 1986.
PERIOD OF RECORD.--March 1979 to July 1979, December 1985, October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.62 ft below land surface, June 5, 1979;
lowest measured, 67.10 ft below land surface, Oct. 16, 1990.
```

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL				
OCT 16	67.10	APR 16	66.60	APR 25	66.66				
WATER YEAR 1991		HIGHEST	66.60	APR 16, 1991		LOWEST	67.10	OCT 16, 1990	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

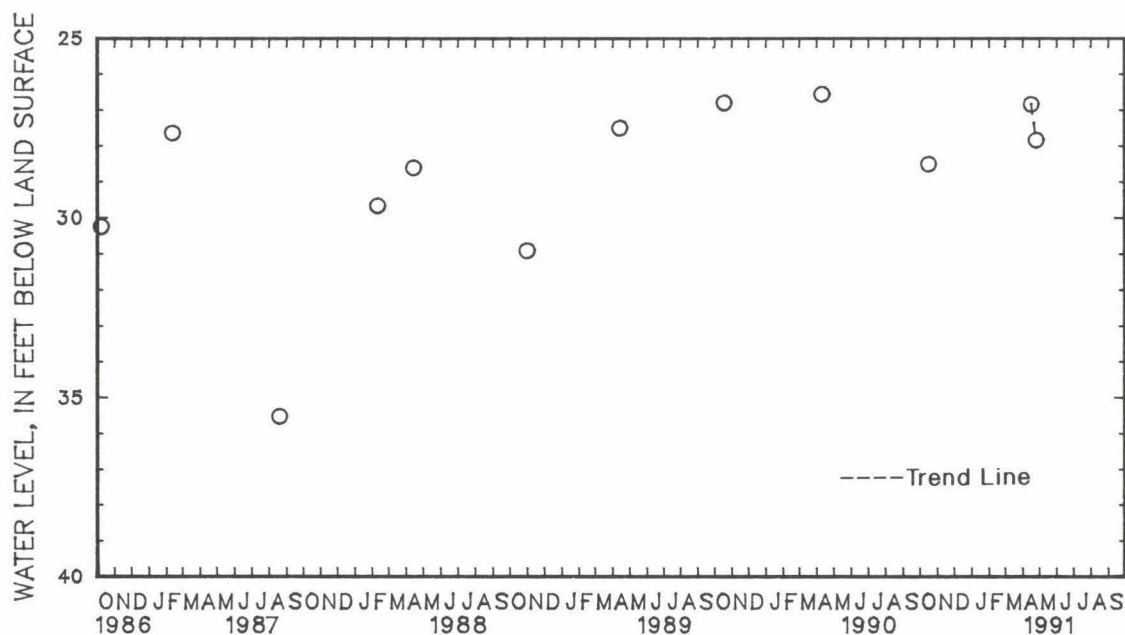
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Bg 34. SITE ID.--391815075472102. PERMIT NUMBER.--KE-73-0686.
 LOCATION.--Lat 39°18'15", long 75°47'22", Hydrologic Unit 02060002, 2 mi west of Massey at Millington Wildlife Management Area.
 Owner: U.S. Geological Survey.
 AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 186 ft; casing diameter 6 in., to 125 ft; screen diameter 6 in. from 125 to 186 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 3.20 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since October 1986.
 PERIOD OF RECORD.--April 1979 to July 1979, December 1985, October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.37 ft below land surface, April 11, 1979; lowest measured, 36.23 ft below land-surface datum, Sept. 2, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	28.51	APR 16	26.84	APR 25	27.84
WATER YEAR 1991		HIGHEST	26.84	APR 16, 1991	LOWEST
					28.51
					OCT 16, 1990



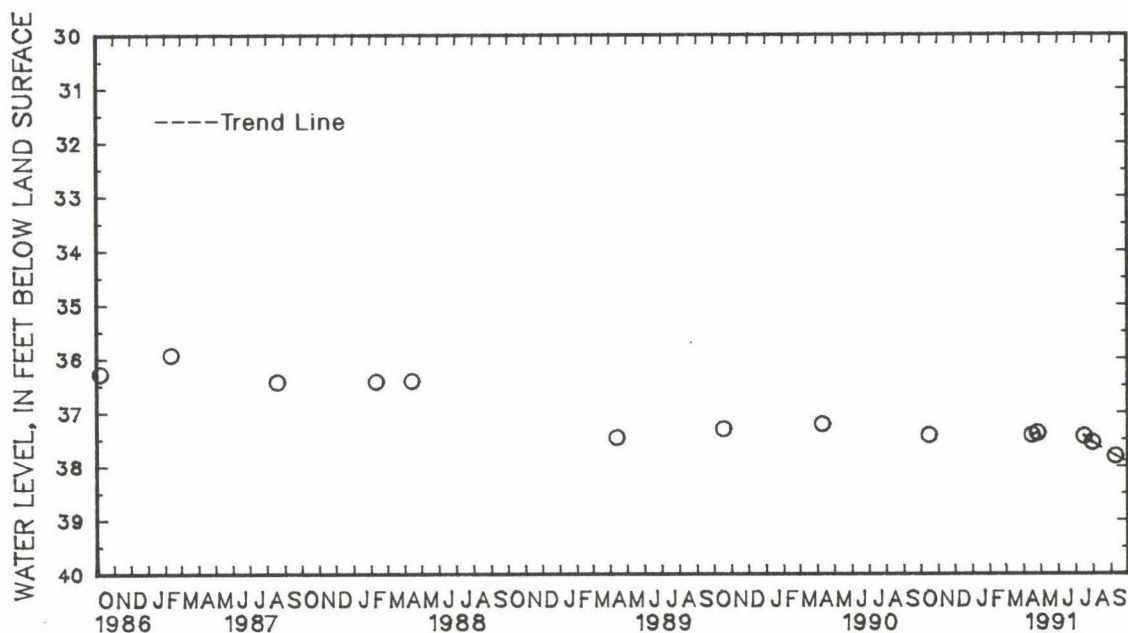
5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
KENT COUNTY--Continued

WELL NUMBER.--KE Cb 36. SITE ID.--391400076101401. PERMIT NUMBER.--KE-73-0660.
LOCATION.--Lat 39°14'00", long 76°10'14", Hydrologic Unit 02060002, north of Fairlee at sewage treatment facility.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 650 ft; casing diameter 10 in., to 114 ft; casing diameter 4 in., to 595 ft and 605 to 650 ft; screen diameter 4 in. from 595 to 605 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 4.15 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly beginning October 1986.
PERIOD OF RECORD.--June 1978 to July 1979, December 1985, October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.84 ft below land surface, Sept. 15, 1982; lowest measured, 37.82 ft below land surface, Sept. 9, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	37.43	APR 16	37.43	APR 26	37.39	JUL 16	37.45	JUL 31	37.57	SEP 9	37.82
WATER YEAR 1991		HIGHEST	37.39	APR 26, 1991		LOWEST	37.82	SEP 9, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cd 44. SITE ID.--391432076015501. PERMIT NUMBER.--KE-03-6139.

LOCATION.--Lat 39°14'32", long 76°01'55", Hydrologic Unit 02060002, MD Rt. 291, 2.6 mi northeast of Chestertown.

Owner: Campbell Soup Co.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 84 ft; casing diameter 4 in., to 79 ft; screen diameter 5 in. from 79 to 84 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.20 ft above land-surface datum.

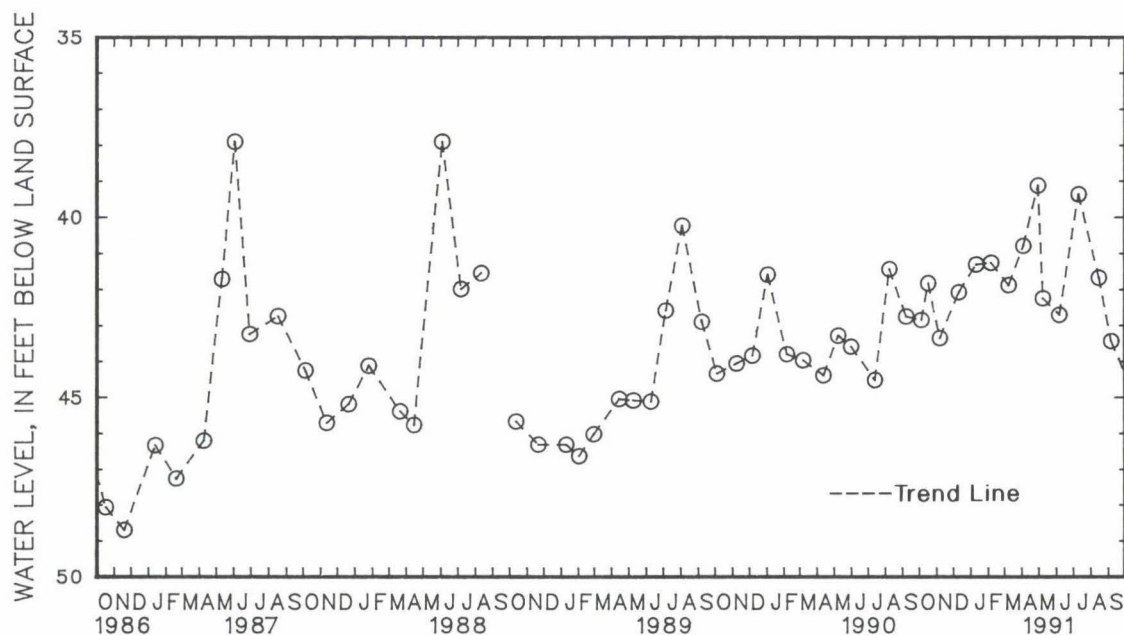
REMARKS.--Maryland Water-Level Network observation well. Water levels measured by plant personnel with an electric tape, Sept. 18, 1959 to April 18, 1963.

PERIOD OF RECORD.--September 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.00 ft below land surface, Sept. 18, 1959; lowest measured, 54.46 ft below land surface, Aug. 4, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	42.85	DEC 10	42.08	MAR 8	41.88	MAY 8	42.25	AUG 15	41.68
16	41.83	JAN 10	41.31	APR 3	40.79	JUN 6	42.71	SEP 6	43.45
NOV 6	43.36	FEB 5	41.26	29	39.12	JUL 10	39.36		
WATER YEAR 1991		HIGHEST	39.12	APR 29, 1991	LOWEST	43.45	SEP 6, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

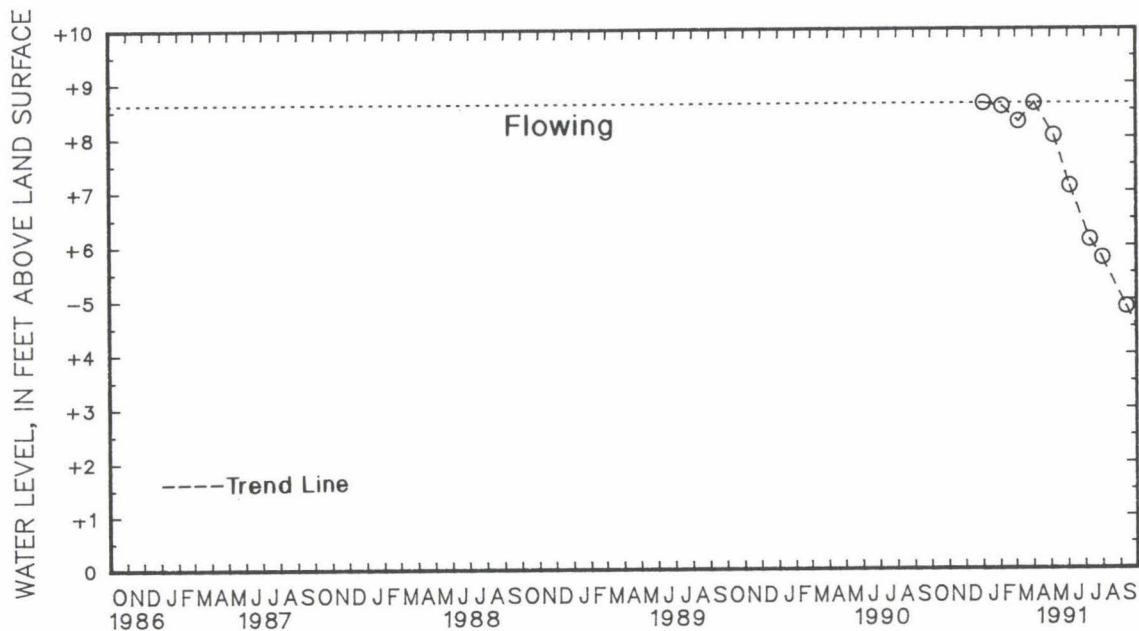
MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Cb 26. SITE ID.--391142077280601. PERMIT NUMBER.--MO-02-0191.
 LOCATION.--Lat 39°11'42", long 77°28'06", Hydrologic Unit 02070008, 2 mi southwest of Dickerson,
 at Dickerson Regional Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--New Oxford Formation of Triassic age. Aquifer code: 231NOXF.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 885 ft; casing diameter 6 in., to 40 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 220 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing 8.60 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--January 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, flowing on Jan. 1, 1991 and April 3, 1991;
 lowest measured, 4.32 ft above land surface, Oct. 7, 1991.

WATER LEVEL, IN FEET ABOVE LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 3	FLOWING	MAR 6	8.26	MAY 7	8.00	JUL 10	6.07	SEP 12	4.83
FEB 5	8.54	APR 3	FLOWING	JUN 4	7.06	AUG 1	5.73		
WATER YEAR 1991		HIGHEST	FLOWING	JAN 3, 1991, AND APR 3, 1991		LOWEST	4.83	SEP 12, 1991	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

MONTGOMERY COUNTY

WELL NUMBER.--MO Co 14. SITE ID.--391314077224201.

LOCATION.--Lat 39°13'14", long 77°22'42", Hydrologic Unit 02070008, at Barnesville.

Owner: Shirley Hayes.

AQUIFER.--Ijamsville Formation of Paleozoic age. Aquifer code: 300IJMV.

WELL CHARACTERISTICS.--Dug, stone-lined, unused, water-table well, depth 46 ft; casing diameter 60 to 24 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wooden well cover, 3.00 ft above land-surface.

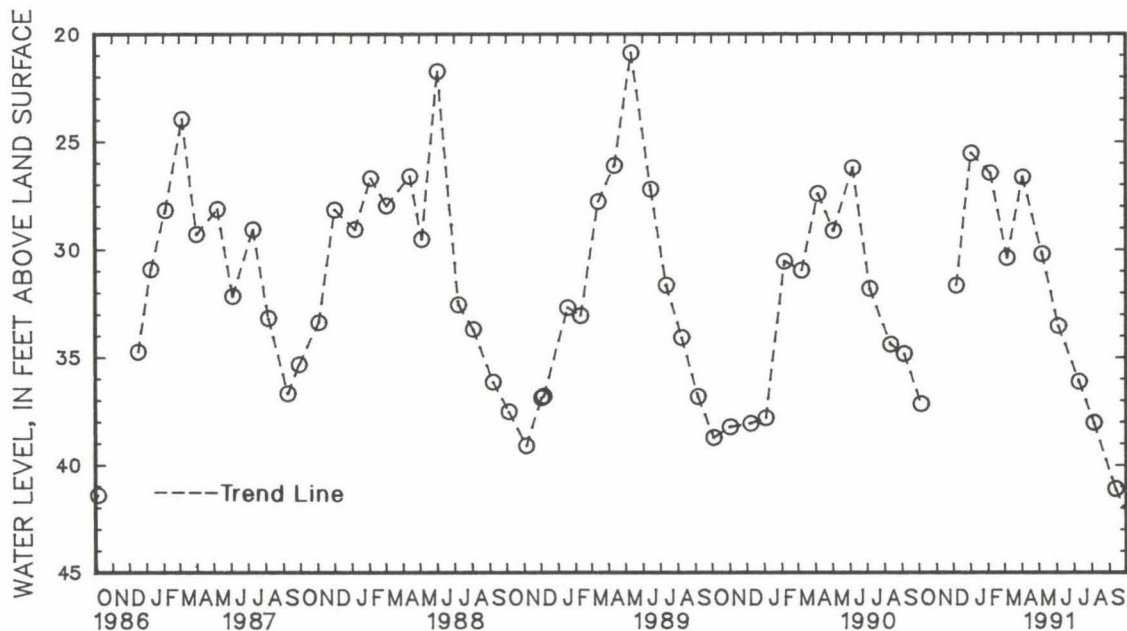
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--November 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.92 ft below land surface, April 2, 1984;
lowest measured, dry, on Dec. 2, 1957, Dec. 7, 1964, Dec. 6, 1965, Jan. 3, 1966, Feb. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 5	37.18	JAN 3	25.54	MAR 6	30.40	MAY 7	30.22	JUL 10	36.15	SEP 12	41.13	
DEC 7	31.66	FEB 5	26.46	APR 3	26.66	JUN 4	33.56	AUG 5	38.05			
WATER YEAR 1991		HIGHEST	25.54	JAN 3, 1991		LOWEST	41.13	SEP 12, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Db 68. SITE ID.--390802077283801. PERMIT NUMBER.--MO-73-1869.

LOCATION.--Lat 39°08'02", long 77°28'38", Hydrologic Unit 02070008, south of Club Hollow Rd, at the National Institutes of Health Animal Center.

Owner: U.S. Geological Survey.

AQUIFER.--New Oxford Formation of Upper Triassic age. Aquifer code: 231NOXF.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 250 ft; casing diameter 6 in., to 40 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.80 ft above land surface.

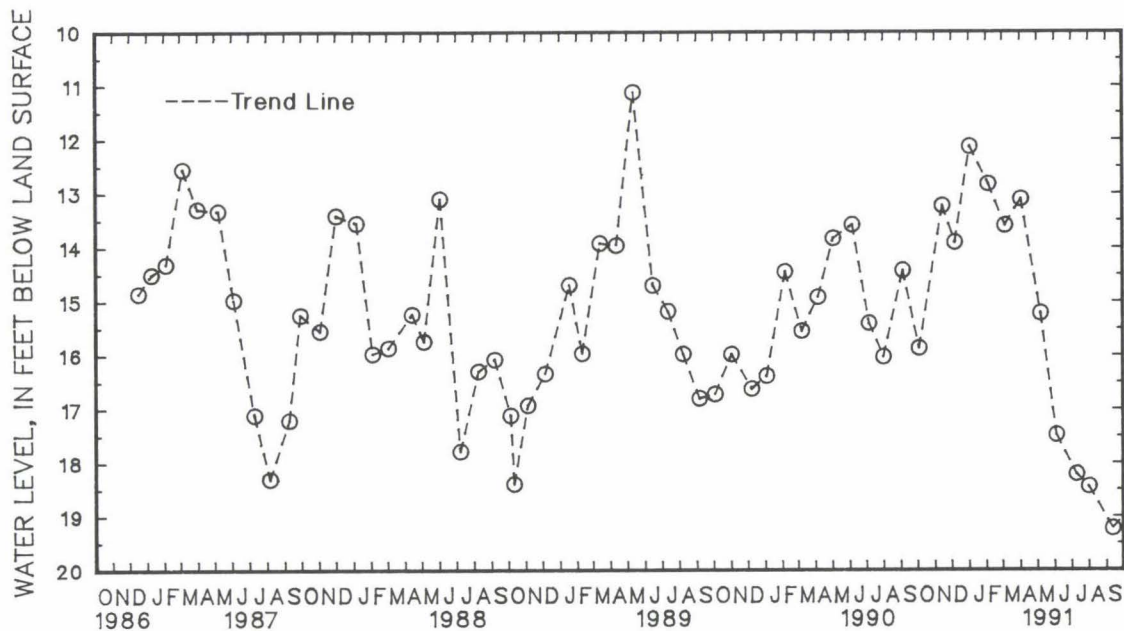
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1978 to August 1980, June 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.12 ft below land surface, May 12, 1989; lowest measured, 20.15 ft below land surface, Sept. 16, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	15.88	DEC 7	13.91	FEB 5	12.83	APR 3	13.11	JUN 4	17.49	AUG 1	18.45
NOV 15	13.23	JAN 3	12.13	MAR 6	13.6	MAY 7	15.23	JUL 1	18.22	SEP 12	19.23
WATER YEAR 1991		HIGHEST	12.13	JAN 3, 1991	LOWEST	19.23	SEP 12, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

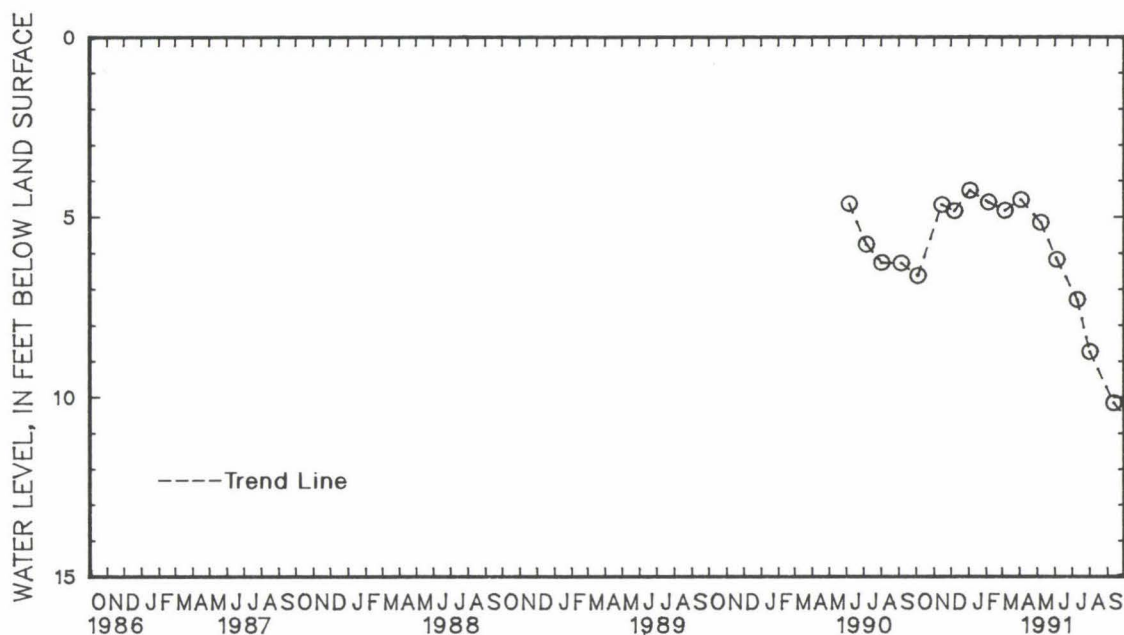
MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Dc 59. SITE ID.--390917077244401. PERMIT NUMBER.--MO-73-1896.
 LOCATION.--Lat 39°09'17", long 77°24'44", Hydrologic Unit 02070008, 1 mi north of Poolesville,
 nr Jerusalem Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Ijamsville Formation of Paleozoic age. Aquifer code: 300IJMV.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 260 ft; casing diameter 6 in., to 42 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 270 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 0.65 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--June 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.27 ft below land surface, Jan. 3, 1991;
 lowest measured, 10.65 ft below land surface, Oct. 7, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	6.64	DEC 7	4.84	FEB 5	4.60	APR 3	4.53	JUN 4	6.19	AUG 1	8.75
NOV 15	4.67	JAN 3	4.27	MAR 6	4.83	MAY 7	5.16	JUL 1	7.30	SEP 12	10.17
WATER YEAR 1991		HIGHEST	4.27	JAN 3, 1991	LOWEST	10.17	SEP 12, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Eh 20. SITE ID.--390434076573002.

LOCATION.--Lat 39°04'34", long 76°57'30", Hydrologic Unit 02070010, at MD Rt. 196 and Fairland Rd., Fairland.

Owner: Cities Service Oil Co.

AQUIFER.--Wissahickon Formation (lower pelitic schist) of Paleozoic age. Aquifer code: 300WSCK.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 102.9 ft; casing diameter 6 in., to 50 ft; open hole.

DATUM.--Elevation of land surface is 410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land-surface datum.

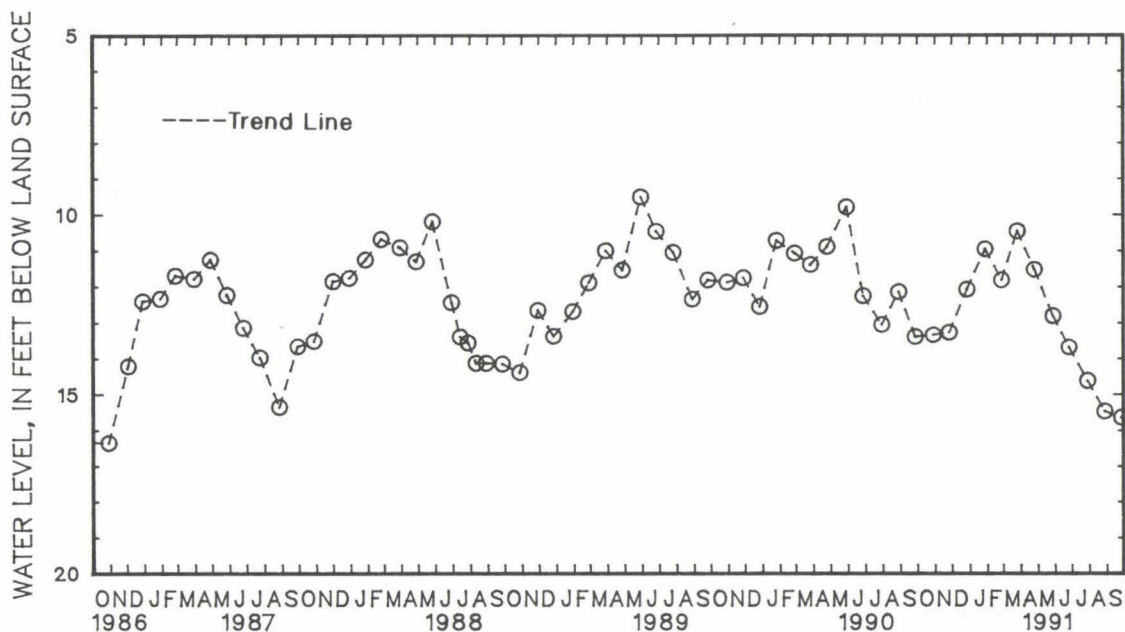
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--March 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.39 ft below land-surface datum, June 25, 1972;
lowest measured, 16.36 ft below land-surface datum, Oct. 29, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

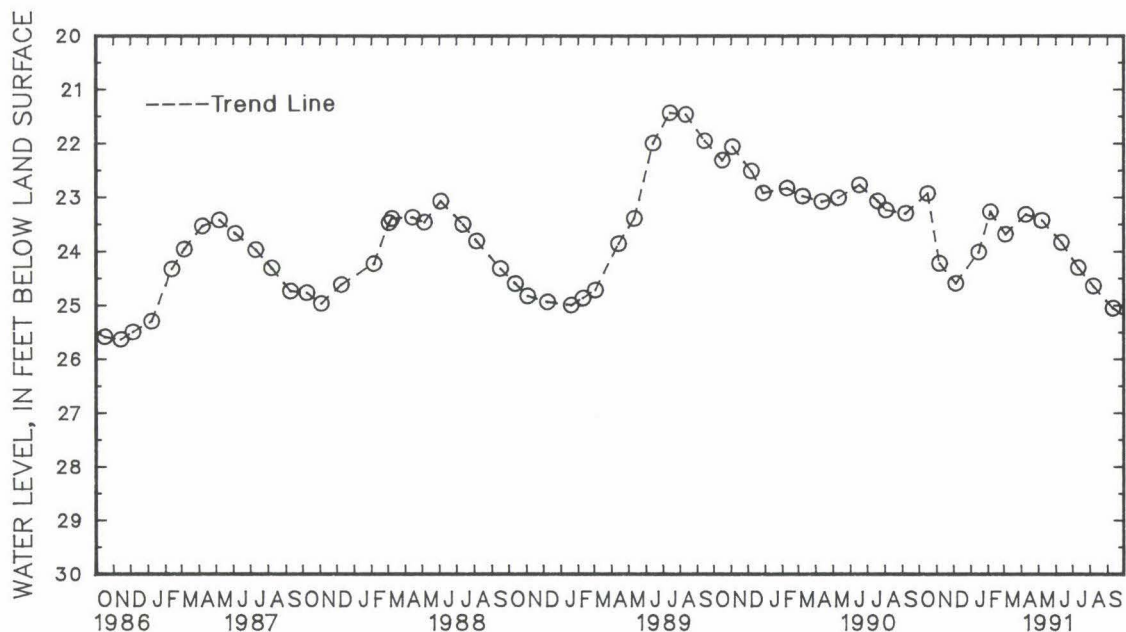
DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 29	13.35	DEC 27	12.08	FEB 26	11.82	APR 25	11.53	JUN 26	13.70	AUG 28	15.48				
NOV 26	13.28	JAN 28	10.96	MAR 26	10.46	MAY 28	12.82	JUL 29	14.63	SEP 27	15.65				
WATER YEAR 1991		HIGHEST	10.46	MAR 26, 1991		LOWEST	15.65	SEP 27, 1991							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 16	22.93	DEC 5	24.60	FEB 5	23.27	APR 9	23.32	JUN 11	23.84	AUG 7	24.65	NOV 6	22.93	SEP 11	25.06
NOV 6		JAN 15		MAR 4		MAY 7		JUL 11		SEP 11		NOV 6		JAN 15	
WATER YEAR 1991		HIGHEST		OCT 16, 199		LOWEST		25.06		SEP 11, 1991		HIGHEST		OCT 16, 199	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY

WELL NUMBER.--PG De 21. SITE ID.--385130076465501. PERMIT NUMBER.--PG-02-2875.

LOCATION.--Lat 38°51'30", long 76°46'55", Hydrologic Unit 02060006, Agricultural Experiment Station
Southern Maryland Research and Educational Facility, at Oak Grove.

Owner: University of Maryland.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 155 ft; casing diameter 6 in., to 150 ft; screen diameter 6 in. from 150 to 155 ft.

screen diameter 6 in. from 150 to 155 lb.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from May 26, 1958 to Jan. 27, 1965.

DATUM.--Elevation of land surface is 96 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.90 ft above land surface.

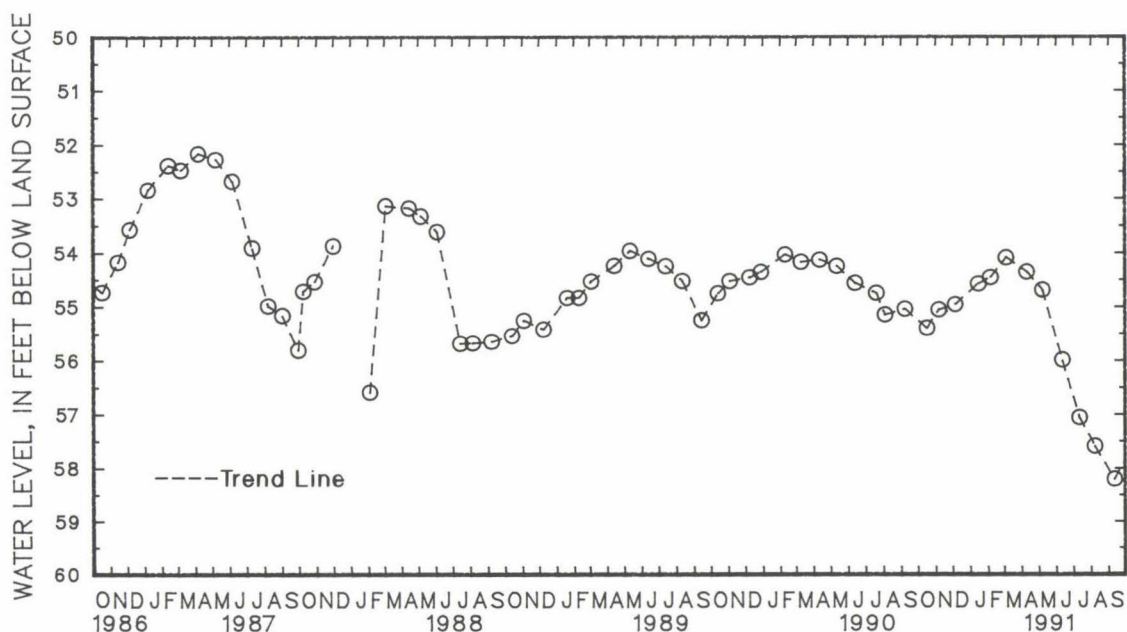
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.39 ft below land surface, May 26, 1958 and May 29, 1958; lowest measured, 58.24 ft below land surface, Sept. 11, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 16	55.43	DEC 5	54.98	FEB 5	54.47	APR 9	54.37	JUN 11	56.03	AUG 7	57.63	OCT 16	55.43	DEC 5	54.98
NOV 6	55.08	JAN 15	54.59	MAR 4	54.10	MAY 7	54.71	JUL 11	57.10	SEP 11	58.24	NOV 6	55.08	JAN 15	54.59
WATER YEAR 1991		HIGHEST	54.10	MAR 4, 1991		LOWEST		58.24	SEP 11, 1991						



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Df 2. SITE ID.--385152076431301.

LOCATION.--Lat 38°51'52", long 76°43'13", Hydrologic Unit 02060006, near Leeland.

Owner: A. R. Rogers.

AQUIFER.--Nanjemoy Formation of Eocene age. Aquifer code: 124NNJM.

WELL CHARACTERISTICS.--Dug, unused, artesian well, depth 81.5 ft; diameter of concrete-ring lining 48 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 145 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Edge of steel cover, 3.00 ft below land surface.

REMARKS.--Maryland Water-Level Network observation well.

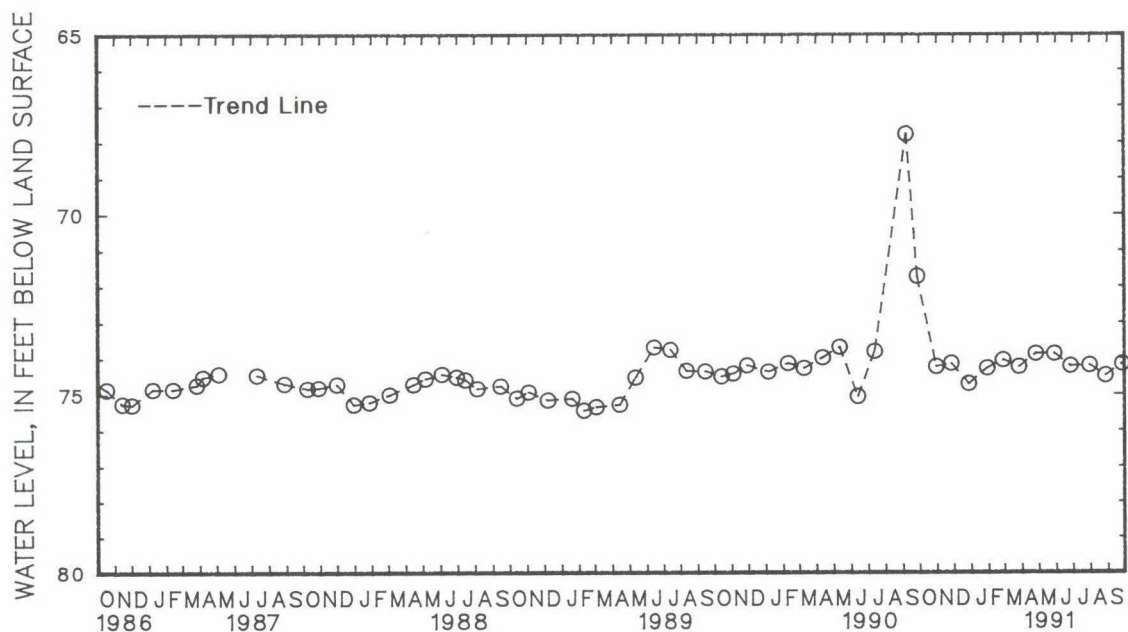
PERIOD OF RECORD.--November 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 67.78 ft below land surface, Sept. 7, 1990; lowest measured, 75.96 ft below land surface, Nov. 19, 1951.

lowest measured. 75.96 ft below land surface. Nov. 19, 1951.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 30	74.30	DEC 27	74.77	FEB 26	74.10	APR 25	73.92	JUN 26	74.27	AUG 27	74.54
NOV 26	74.21	JAN 29	74.33	MAR 26	74.29	MAY 28	73.92	JUL 30	74.25	SEP 26	74.21
WATER YEAR 1991		HIGHEST	73.92	APR 25, 1991		MAY 28, 1991		LOWEST	74.77	DEC 27, 1990	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fb 36. SITE ID.--384423077004501. PERMIT NUMBER.--PG-02-4834.

LOCATION.--Lat 38°44'23", long 77°00'45", Hydrologic Unit 02070010, at Broadwater Estates.

Owner: Broadwater Citizens Association.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 284 ft; casing diameter 8 in., to 271.5 ft; screen diameter 8 in. from 267.5 to 284 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 78 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.50 ft above land surface.

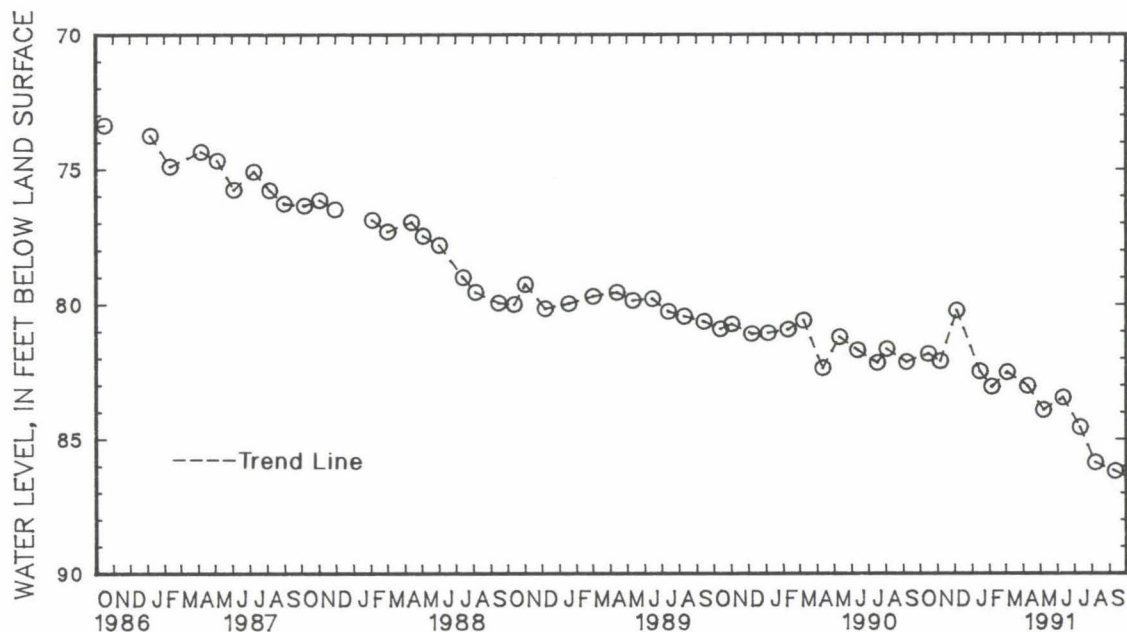
REMARKS.--Maryland Water-Level Network observation well. Water level reported 62 ft below land-surface datum, May 29, 1957; measured 84 ft below land surface, July 7, 1961. Water levels may be affected by nearby pumping.

PERIOD OF RECORD.--March 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level reported, 62 ft below land surface, May 29, 1957; highest measured, 68.99 ft below land surface, Oct. 3, 1979; lowest measured, 86.42 ft below land surface, Oct 2, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	81.85	DEC 5	80.23	FEB 5	83.07	APR 9	83.04	JUN 11	83.47	AUG 7	85.88
NOV 6	82.12	JAN 15	82.50	MAR 4	82.53	MAY 7	83.93	JUL 11	84.57	SEP 11	86.20
WATER YEAR 1991		HIGHEST	80.23	DEC 05, 1990	LOWEST	86.20	SEP 11, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fc 17. SITE ID.--384230076555601.

LOCATION.--Lat 38°42'30", long 76°55'56", Hydrologic Unit 02070010, south of Floral Park Rd. and west of MD Rt. 5, Piscataway.

Owner: Potomac Edison Power Company, formerly Washington Gas Light Co.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 750 ft; casing diameter 6 in.; casing perforated from 712 to 716 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from Oct. 27, 1955 to Sept. 4, 1956.

DATUM.--Elevation of land surface is 58.6 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.50 ft above land surface.

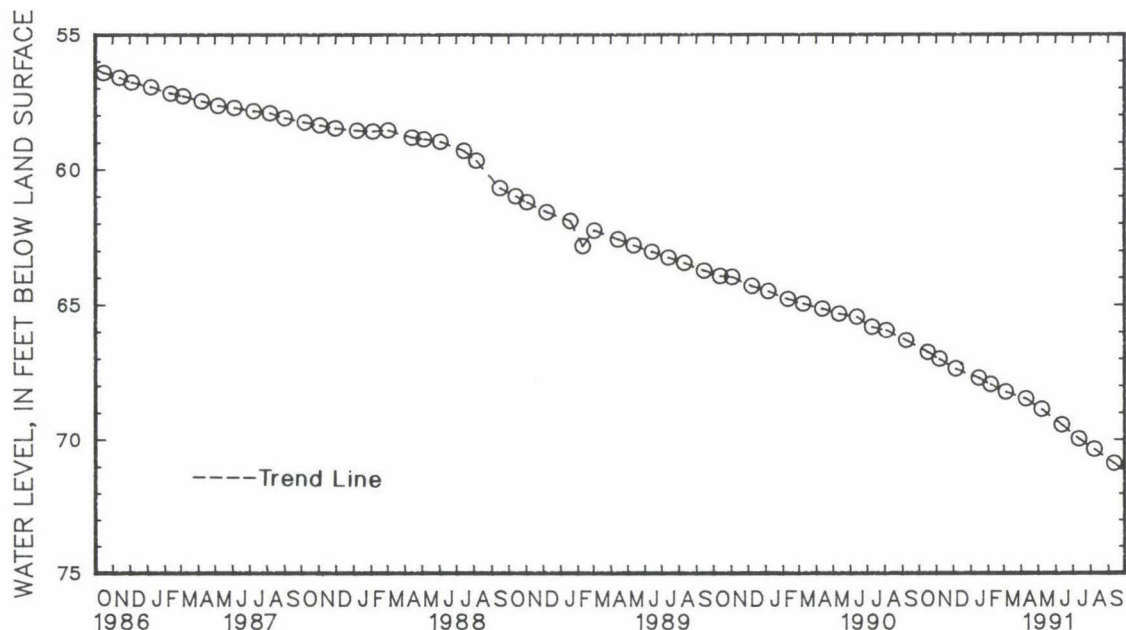
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.62 ft below land surface, Oct. 27, 1955; lowest measured, 70.95 ft below land surface, Sept 11, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	66.85	DEC 5	67.46	FEB 5	68.03	APR 9	68.56	JUN 11	69.53	AUG 7	70.43
NOV 6	67.10	JAN 15	67.80	MAR 4	68.31	MAY 7	68.95	JUL 11	70.05	SEP 11	70.95
WATER YEAR 1991		HIGHEST	66.85	OCT 16, 1990	LOWEST	70.95	SEP 11, 1991				



GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fd 41. SITE ID.--384131076533301. PERMIT NUMBER.--PG-01-8058.

LOCATION.--Lat 38°41'31", long. 76°53'33", Hydrologic Unit 02070010, south side of MD Rt. 373, 1.14 mi west of intersection with MD Rt. 5, near T.B.

Owner: Colonial Investment Corp.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 362 ft; casing diameter 4 in., to 352 ft; screen diameter 2.5 in. from 352 to 362 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 198 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.80 ft above land surface.

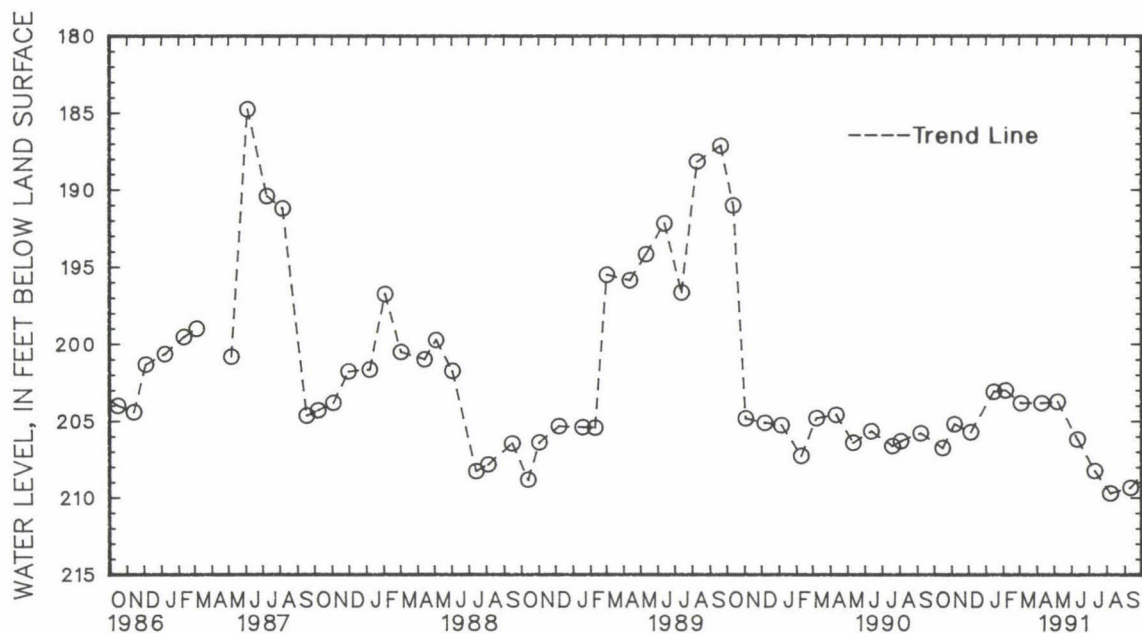
REMARKS.--Maryland Water-Level Network observation well. Water level reported 146 ft below land surface, March 11, 1955.

PERIOD OF RECORD.--May 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 157.24 ft below land surface, March 4, 1968; lowest measured, 209.72 ft below land surface, August 7, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	206.76	DEC 5	205.73	FEB 5	203.00	APR 9	203.84	JUN 11	206.20	AUG 7	209.72
NOV 6	205.21	JAN 15	203.09	MAR 4	203.84	MAY 7	203.75	JUL 11	208.26	SEP 11	209.35
WATER YEAR 1991		HIGHEST	203.00	FEB 5, 1991	LOWEST	209.72	AUG 7, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 35. SITE ID.--383228076410601. PERMIT NUMBER.--PG-72-0086.
 LOCATION.--Lat 38°32'28", long 76°41'06", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 1.8 mi. south of Eagle Harbor.
 Owner: Potomac Electric Power Co.
 AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 430 ft; casing diameter 6 in., to 401 ft;
 casing diameter 4 in. from 389 to 399 ft; screen diameter 4 in. from 399 to 430 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
 water-level recorder from May 1, 1974 to July 8, 1976. Equipped with digital water-level recorder--60-minute
 recorder interval from July 8, 1976 to current year.
 DATUM.--Elevation of land surface is 11.22 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.22 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network.
 PERIOD OF RECORD.--May 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.70 ft below sea level, July 1, 1975;
 lowest measured, 28.84 ft below sea level, Sept. 20, 1991.

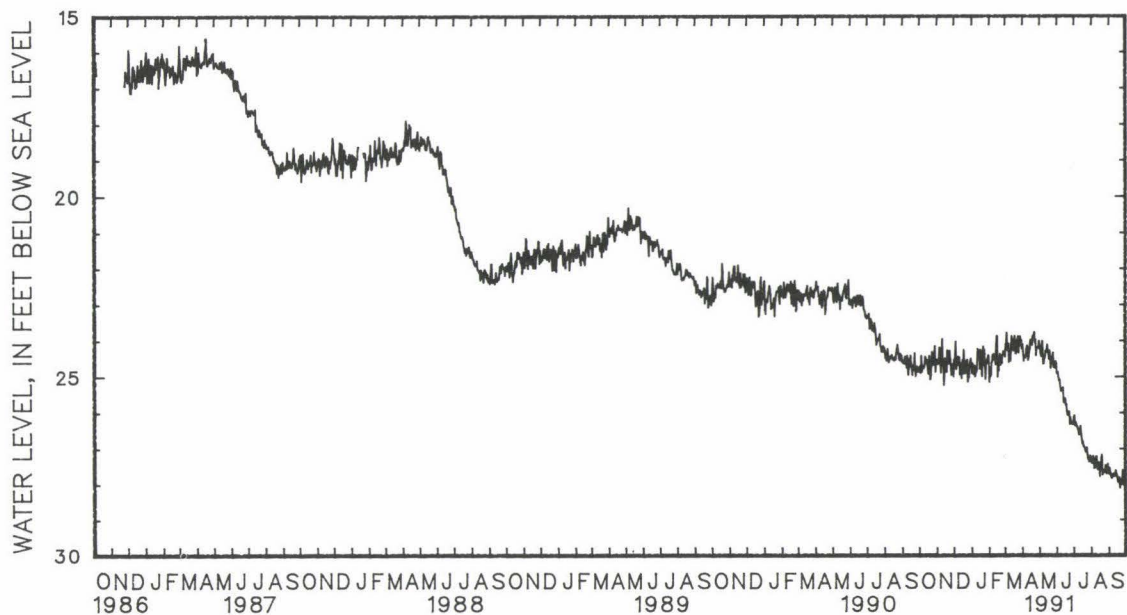
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24.84	25.41	24.62	25.24	24.58	25.17	24.95	25.63	25.21	25.81	24.48	25.20
2	24.77	25.32	24.70	25.33	24.81	25.41	24.68	25.35	24.99	25.63	24.13	24.74
3	24.95	25.43	24.68	25.36	24.44	25.37	24.78	25.35	25.04	25.57	24.10	24.73
4	24.47	25.24	24.62	25.38	24.06	25.07	24.99	25.59	24.99	25.59	23.81	24.86
5	24.92	25.56	24.23	25.06	24.84	25.52	24.84	25.59	24.66	25.53	24.30	24.86
6	24.81	25.42	24.34	25.19	24.63	25.32	24.75	25.35	24.62	25.06	24.13	24.78
7	24.77	25.38	24.69	25.26	24.72	25.22	25.05	25.59	24.44	25.18	24.12	24.93
8	24.82	25.37	24.94	25.48	24.50	25.06	24.95	25.36	24.57	24.95	24.64	25.08
9	24.78	25.37	24.45	25.31	24.64	25.10	24.90	25.25	24.42	24.88	24.50	25.10
10	24.70	25.17	23.99	24.70	24.52	25.09	24.88	25.36	24.45	24.88	24.29	24.70
11	24.50	24.95	24.70	25.26	25.00	25.49	24.27	25.25	24.47	24.99	24.61	25.09
12	24.58	25.08	24.65	25.57	24.68	25.16	24.28	24.87	24.71	25.35	24.25	24.90
13	24.58	25.06	25.29	25.59	24.68	25.26	24.44	25.17	24.16	24.78	23.90	24.39
14	24.62	25.29	25.10	25.80	25.10	25.66	24.50	25.19	23.90	24.42	24.10	24.72
15	24.77	25.35	24.54	25.24	24.69	25.32	24.83	25.38	23.90	25.13	24.26	24.77
16	24.98	25.55	24.64	25.31	24.59	25.42	24.30	25.05	25.06	25.68	24.31	24.92
17	24.84	25.42	24.74	25.31	24.97	25.48	24.37	25.31	24.75	25.38	24.24	24.98
18	24.47	25.13	24.92	25.43	24.29	25.06	24.84	25.35	24.88	25.40	23.90	24.59
19	24.88	25.58	24.31	24.95	24.65	25.48	25.04	25.53	24.59	25.26	24.03	24.98
20	25.13	25.67	24.40	25.03	24.96	25.51	24.44	25.35	24.42	25.23	24.40	24.96
21	25.03	25.59	24.69	25.20	24.62	25.23	24.21	25.37	24.72	25.35	24.34	24.96
22	24.67	25.36	24.51	25.10	24.78	25.15	24.73	25.50	24.50	25.06	24.32	24.81
23	24.36	25.05	24.32	24.72	24.66	25.20	24.29	25.09	24.66	25.29	23.98	24.90
24	24.74	25.19	24.54	24.98	24.58	25.69	24.68	25.30	24.44	24.98	23.91	24.51
25	24.54	24.99	24.73	25.16	25.20	25.83	25.12	25.66	24.42	25.05	24.37	24.90
26	24.71	25.40	25.01	25.35	24.98	25.51	24.69	25.45	24.34	24.98	24.14	24.94
27	24.39	25.30	24.82	25.36	25.08	25.49	24.69	25.30	24.36	24.95	23.97	24.46
28	24.19	24.92	24.71	25.30	24.74	25.39	24.56	25.24	24.36	25.09	23.91	24.67
29	24.92	25.40	24.75	25.60	24.65	25.31	24.64	25.32	---	---	24.08	24.68
30	24.63	25.26	25.05	25.84	24.55	25.21	24.45	25.21	---	---	24.02	24.95
31	24.58	25.15	---	---	24.68	25.77	24.47	25.65	---	---	24.25	24.81
MONTH	24.19	25.67	23.99	25.84	24.06	25.83	24.21	25.66	23.90	25.81	23.81	25.20

GROUND-WATER LEVELS
MARYLAND--Continued
PRINCE GEORGES COUNTY--Continued
PG Hf 35-Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	24.14	24.89	24.15	24.78	24.96	25.32	26.18	26.72	27.44	27.99	27.74	28.38
2	24.35	25.06	24.19	24.79	24.93	25.41	26.14	26.72	27.46	27.97	27.60	28.04
3	24.61	25.06	24.37	24.90	24.93	25.37	26.41	26.87	27.42	28.16	27.70	28.39
4	24.47	25.08	24.47	24.97	25.06	25.71	26.33	26.89	27.27	27.88	27.80	28.30
5	24.49	24.94	24.34	24.95	25.17	25.77	26.39	26.95	27.32	28.05	27.77	28.48
6	24.51	24.98	24.04	24.58	25.15	25.63	26.45	26.99	27.60	28.22	27.87	28.45
7	24.42	24.78	24.46	25.17	25.31	25.86	26.45	27.01	27.58	28.17	27.77	28.40
8	24.26	24.75	24.68	25.09	25.45	25.93	26.49	27.14	27.59	28.26	27.76	28.43
9	24.18	24.56	24.68	25.14	25.40	26.11	26.54	27.32	27.27	27.88	27.82	28.43
10	24.21	24.76	24.54	24.99	25.44	25.94	26.66	27.17	27.27	28.21	27.75	28.37
11	24.58	25.15	24.48	24.97	25.39	26.00	26.59	27.40	27.53	28.21	27.79	28.43
12	24.48	25.22	24.33	24.94	25.37	26.13	26.66	27.23	27.63	28.25	27.81	28.48
13	24.34	24.93	24.34	24.93	25.78	26.27	26.44	27.22	27.56	28.25	27.66	28.32
14	24.25	24.79	24.27	24.87	25.68	26.36	26.64	27.38	27.44	28.16	27.74	28.28
15	24.01	24.59	24.16	24.94	25.67	26.26	26.80	27.39	27.62	28.09	27.78	28.39
16	24.02	24.73	24.36	24.94	25.68	26.24	26.92	27.46	27.82	28.33	27.86	28.30
17	24.14	24.73	24.32	24.97	25.84	26.30	26.86	27.43	27.65	28.16	27.98	28.54
18	24.15	24.70	24.55	25.13	25.83	26.27	26.99	27.53	27.51	27.96	27.97	28.34
19	23.90	24.47	24.32	24.97	26.02	26.42	26.99	27.49	27.28	27.92	27.86	28.55
20	23.91	24.36	24.49	24.98	26.12	26.62	27.04	27.65	27.22	28.01	28.14	28.84
21	23.86	24.40	24.81	25.31	26.07	26.55	27.11	27.61	27.78	28.34	28.01	28.55
22	23.79	24.36	24.70	25.25	26.05	26.44	27.15	27.75	27.72	28.18	27.94	28.51
23	24.07	24.66	24.70	25.22	26.03	26.59	27.09	27.58	27.65	28.24	27.90	28.57
24	24.01	24.78	24.48	25.06	26.38	26.63	27.03	27.74	27.70	28.31	27.99	28.58
25	24.45	24.97	24.38	25.24	26.20	26.88	27.22	27.72	27.71	28.28	27.64	28.19
26	24.23	24.77	24.78	25.33	26.32	26.89	27.35	27.85	27.51	28.08	27.81	28.41
27	24.23	24.78	24.71	25.21	26.33	26.81	27.35	28.15	27.62	28.27	27.88	28.51
28	24.22	24.89	24.72	25.40	26.37	26.87	27.42	28.13	27.74	28.31	27.98	28.61
29	24.24	24.75	24.81	25.33	26.38	26.87	27.37	27.98	27.73	28.35	28.00	28.52
30	24.04	24.79	24.63	25.21	26.35	26.86	27.26	27.98	27.47	28.20	28.10	28.80
31	---	---	24.68	25.29	---	---	27.36	27.86	27.58	28.10	---	---
MONTH	23.79	25.22	24.04	25.40	24.93	26.89	26.14	28.15	27.22	28.35	27.60	28.84

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 40. SITE ID.--383348076411301. PERMIT NUMBER.--PG-73-0298.
 LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 0.4 mi. south of Eagle Harbor.
 Owner: Potomac Electric Power Co.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 870 ft; casing diameter 6 in., to 150 ft;
 casing diameter 4 in. from 150 to 860 ft; screen diameter 4 in. from 860 to 870 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic
 water-level recorder from Dec. 16, 1974 to July 8, 1976. Equipped with digital water-level
 recorder--30-minute recorder interval from July 8, 1976 to current year.
 DATUM.--Elevation of land surface is 27.98 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.46 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--December 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.64 ft above sea level, Jan. 11, 1975;
 lowest measured, 25.72 ft below sea level, Oct. 20, 1990.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	23.24	23.63	24.02	24.40	23.55	23.97	23.05	23.49	22.70	23.08	21.83	22.27
2	23.19	23.51	23.99	24.39	23.63	24.02	22.82	23.23	22.54	22.99	21.56	22.00
3	23.26	23.59	23.88	24.28	23.32	23.92	22.85	23.20	22.45	22.80	21.52	21.92
4	23.06	23.50	23.70	24.14	23.05	23.63	22.98	23.27	22.41	22.70	21.30	21.91
5	23.35	23.79	23.40	23.95	23.46	23.86	22.82	23.24	22.19	22.62	21.66	21.99
6	23.39	23.78	23.42	23.89	23.30	23.78	22.72	23.04	22.09	22.35	21.56	21.98
7	23.53	24.02	23.52	23.92	23.31	23.64	22.83	23.10	21.95	22.32	21.50	22.01
8	23.85	24.21	23.76	24.08	23.23	23.52	22.75	23.03	21.94	22.14	21.90	22.09
9	24.06	24.40	23.47	23.92	23.27	23.54	22.69	22.90	21.82	22.05	22.08	22.27
10	24.06	24.31	23.14	23.54	23.22	23.52	22.69	22.95	21.84	22.07	22.07	22.34
11	24.05	24.33	23.56	23.85	23.46	23.81	22.16	22.89	21.84	22.10	22.33	22.66
12	24.12	24.50	23.60	24.14	23.30	23.57	22.06	22.37	22.00	22.33	22.56	22.75
13	24.02	24.37	24.07	24.30	23.29	23.69	22.18	22.63	21.58	21.96	22.46	22.70
14	24.01	24.24	24.01	24.40	23.58	23.94	22.23	22.59	21.36	21.65	22.51	22.95
15	23.94	24.24	23.81	24.12	23.27	23.71	22.32	22.65	21.40	22.15	22.75	23.17
16	24.07	24.42	23.92	24.33	23.21	23.74	21.97	22.47	22.06	22.45	22.91	23.25
17	24.10	24.45	24.11	24.75	23.41	23.76	22.02	22.58	22.02	22.35	22.78	23.17
18	24.18	24.82	24.47	24.83	22.96	23.50	22.34	22.77	22.06	22.35	22.36	22.92
19	24.82	25.63	24.02	24.50	23.19	23.77	22.55	22.89	21.87	22.29	22.36	22.86
20	25.40	25.72	23.98	24.24	23.47	23.82	22.25	22.71	21.76	22.27	22.55	22.88
21	25.07	25.60	24.00	24.32	23.24	23.70	22.08	22.76	21.99	22.32	22.51	22.89
22	24.67	25.26	23.81	24.17	23.26	23.50	22.63	22.93	21.83	22.16	22.45	22.74
23	24.36	24.87	23.52	23.90	23.15	23.48	22.77	23.04	22.03	22.30	22.27	22.80
24	24.60	24.90	23.63	23.89	23.06	23.70	23.08	23.58	21.89	22.18	22.14	22.50
25	24.56	24.82	23.74	23.97	23.42	23.77	23.47	23.85	21.82	22.12	22.41	22.74
26	24.68	25.00	23.89	24.10	23.30	23.58	23.07	23.59	21.81	22.12	22.34	22.79
27	24.25	24.84	23.75	24.09	23.29	23.62	22.86	23.28	21.82	22.14	22.16	22.52
28	24.10	24.44	23.61	23.99	23.11	23.43	22.69	23.04	21.80	22.19	22.09	22.55
29	24.43	24.67	23.61	24.15	22.95	23.35	22.64	23.07	---	---	22.16	22.55
30	24.08	24.53	23.83	24.24	22.80	23.20	22.33	22.77	---	---	22.04	22.69
31	24.06	24.40	---	---	22.85	23.54	22.33	23.01	---	---	22.34	22.65
MONTH	23.06	25.72	23.14	24.83	22.80	24.02	21.97	23.85	21.36	23.08	21.30	23.25

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	22.28	22.65	22.76	23.16	22.56	22.81	22.92	23.24	23.94	24.27	24.10	24.48
2	22.34	22.76	22.73	23.06	22.41	22.78	22.88	23.15	23.99	24.25	23.98	24.20
3	22.55	22.82	22.75	23.08	22.30	22.60	22.97	23.24	23.97	24.27	23.91	24.16
4	22.57	22.82	22.68	23.03	22.29	22.62	22.91	23.26	23.94	24.16	23.80	24.08
5	22.49	22.76	22.59	22.90	22.27	22.66	22.92	23.20	23.96	24.35	23.77	24.12
6	22.58	22.75	22.35	22.66	22.27	22.56	22.95	23.24	24.05	24.48	23.76	24.05
7	22.49	22.67	22.47	22.85	22.33	22.82	22.95	23.26	24.12	24.45	23.67	23.99
8	22.40	22.64	22.52	22.78	22.60	22.87	23.01	23.35	24.13	24.53	23.55	23.94
9	22.36	22.55	22.44	22.68	22.57	22.87	23.01	23.44	23.96	24.38	23.51	23.90
10	22.36	22.74	22.31	22.59	22.42	22.74	23.10	23.58	23.90	24.42	23.44	23.87
11	22.73	22.99	22.17	22.50	22.31	22.63	23.30	23.82	24.07	24.73	23.46	23.85
12	22.76	23.14	22.04	22.31	22.27	22.60	23.43	23.79	24.43	24.83	23.52	23.88
13	22.68	23.05	21.96	22.40	22.27	22.64	23.23	23.63	24.33	24.78	23.39	23.77
14	22.58	22.97	22.17	22.84	22.30	22.64	23.26	23.68	24.13	24.62	23.41	23.71
15	22.42	22.76	22.54	23.13	22.18	22.58	23.39	23.77	24.14	24.48	23.45	23.76
16	22.47	22.89	22.81	23.16	22.17	22.51	23.57	23.93	24.13	24.47	23.46	23.70
17	22.54	22.89	22.66	23.14	22.28	22.57	23.59	23.94	24.02	24.38	23.48	23.83
18	22.58	22.90	22.63	22.98	22.27	22.60	23.62	23.92	23.91	24.14	23.67	24.03
19	22.51	22.81	22.40	22.89	22.35	22.64	23.65	23.94	23.86	24.09	23.93	24.66
20	22.46	22.76	22.37	22.65	22.38	22.67	23.65	24.04	23.82	24.17	24.51	24.90
21	22.41	22.72	22.42	22.68	22.38	23.00	23.75	23.99	24.10	24.41	24.39	24.65
22	22.34	22.66	22.42	22.71	22.83	23.18	23.74	23.98	24.08	24.34	24.28	24.60
23	22.59	22.97	22.41	22.70	22.89	23.26	23.68	24.01	24.03	24.35	24.12	24.48
24	22.68	23.15	22.29	22.59	22.96	23.29	23.78	24.18	24.05	24.38	24.06	24.46
25	23.00	23.38	22.21	22.63	23.09	23.47	23.89	24.27	23.99	24.33	23.69	24.08
26	23.11	23.42	22.35	22.66	23.17	23.43	24.10	24.62	23.83	24.13	23.71	24.04
27	23.10	23.40	22.21	22.50	23.12	23.40	24.38	24.74	23.79	24.10	23.75	24.08
28	23.06	23.43	22.13	22.52	23.08	23.38	24.26	24.74	23.81	24.11	23.75	24.06
29	23.01	23.35	22.21	22.49	23.05	23.33	24.14	24.52	23.86	24.16	23.71	24.02
30	22.86	23.23	22.25	22.70	23.02	23.33	24.02	24.44	24.00	24.33	23.74	24.06
31	---	---	22.46	22.80	---	---	24.01	24.25	24.01	24.29	---	---
MONTH	22.28	23.43	21.96	23.16	22.17	23.47	22.88	24.74	23.79	24.83	23.39	24.90

A line graph titled "WATER LEVEL, IN FEET BELOW SEA LEVEL". The vertical axis (y-axis) is inverted, with values 10, 15, 20, 25, and 30 increasing downwards. The horizontal axis (x-axis) represents time from October 1986 to August 1991, with labels for each month (O, N, D, J, F, M, A, M, J, J, A, S, O, N, D) and year (1986, 1987, 1988, 1989, 1990, 1991). The graph shows a fluctuating water level. It begins at approximately 17 feet in late 1986, rises to a peak of about 15 feet in mid-1988, then generally declines with seasonal oscillations. A significant drop occurs in early 1990, reaching a minimum of about 25 feet, followed by a recovery to around 22 feet by mid-1990, and another decline towards the end of the period.

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 41. SITE ID.--383348076411302. PERMIT NUMBER.--PG-73-0297.
 LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 0.4 mi. south of Eagle Harbor.
 Owner: Potomac Electric Power Co.
 AQUIFER.--Magothy Formation of Lower Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 665 ft; casing diameter 6 in., to 150 ft;
 casing diameter 4 in. from 150 to 644 ft, and 654 to 665 ft; screen diameter 4 in. from 644 to 654 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-
 level recorder from Dec. 16, 1974 to July 8, 1976. Equipped with digital water-level recorder--60-minute
 recorder interval from July 8, 1976 to current year.
 DATUM.--Elevation of land surface is 28.30 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.60 ft above land surface.
 REMARKS.--Southern Maryland Observation Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--December 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.27 ft below sea level, Dec. 24, 1974;
 lowest measured, 38.10 ft below sea level, Jan. 11, and 14, 1984.

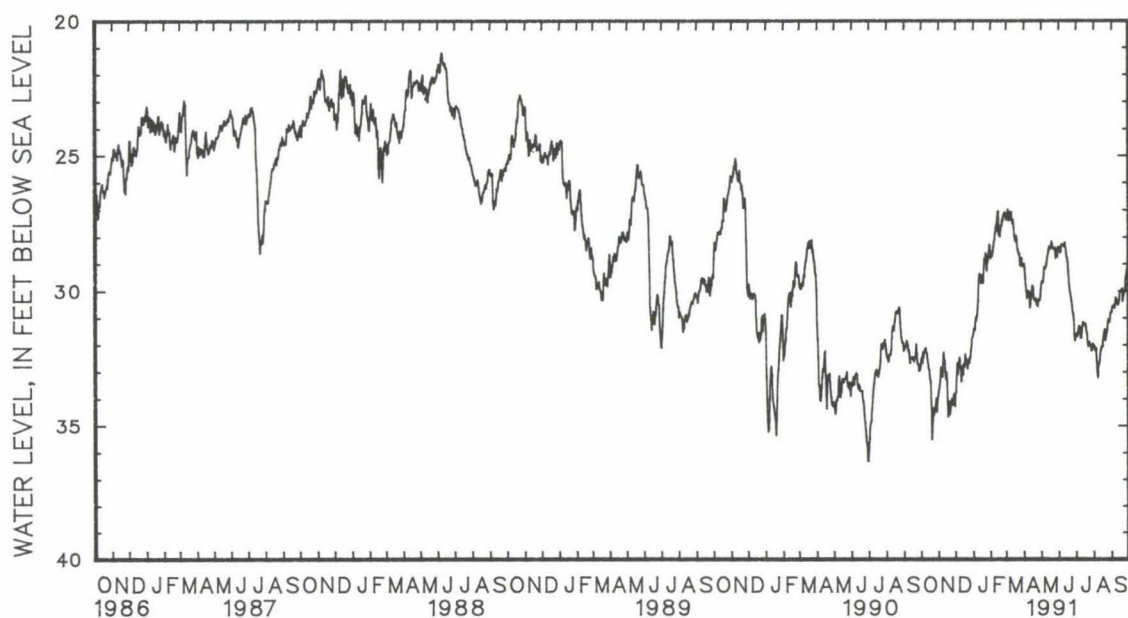
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	32.60	33.16	33.78	34.27	33.85	34.40	31.58	32.28	28.82	29.28	27.36	27.84
2	32.52	33.05	33.66	34.17	33.82	34.33	31.40	31.85	28.65	29.16	27.19	27.65
3	32.73	33.15	33.50	34.00	33.20	34.10	31.46	31.91	28.65	29.03	27.26	27.70
4	32.33	32.83	33.32	33.89	32.71	33.28	31.45	31.87	28.74	29.09	26.98	27.64
5	32.51	33.01	32.86	33.62	33.11	33.58	31.10	31.74	28.56	29.09	27.40	27.77
6	32.32	32.79	32.85	33.44	32.82	33.46	30.99	31.40	28.41	28.78	27.24	27.76
7	32.25	32.72	33.01	33.49	32.65	33.14	31.08	31.44	28.21	28.72	27.10	27.55
8	32.19	32.67	33.20	33.62	32.50	32.88	30.92	31.34	28.10	28.47	27.36	27.69
9	32.16	32.57	32.73	33.44	32.84	33.15	30.71	31.07	27.88	28.24	27.15	27.60
10	32.32	32.70	32.29	32.81	32.86	33.39	30.38	30.90	27.69	28.06	27.08	27.44
11	32.36	32.76	32.62	33.05	33.40	33.82	29.61	30.55	27.55	27.89	27.40	27.88
12	32.57	33.04	32.61	33.21	32.97	33.56	29.37	29.72	27.78	28.18	27.50	27.82
13	32.75	33.27	33.05	33.45	32.81	33.25	29.44	29.87	27.28	27.74	27.37	27.76
14	32.95	33.44	33.31	33.65	33.14	33.57	29.49	29.91	27.07	27.47	27.58	28.19
15	33.00	33.49	33.06	33.51	32.77	33.28	29.71	30.16	27.04	27.98	27.91	28.41
16	33.23	33.67	33.37	34.41	32.72	33.31	29.43	30.04	27.93	28.39	28.10	28.55
17	33.36	33.78	34.19	34.99	32.83	33.29	29.44	30.07	27.90	28.32	28.16	28.60
18	33.42	34.19	34.73	35.15	32.37	32.98	29.73	30.08	27.99	28.35	27.97	28.46
19	34.22	35.68	34.15	34.77	32.64	33.22	29.69	30.12	27.77	28.29	28.09	28.82
20	35.58	36.01	34.24	34.76	32.71	33.22	29.13	29.91	27.58	28.04	28.46	28.88
21	35.38	35.98	34.63	34.99	32.57	33.00	28.80	29.35	27.59	28.17	28.51	28.93
22	34.81	35.58	34.40	34.94	32.91	33.31	28.93	29.46	27.35	27.80	28.60	29.06
23	34.41	35.02	34.18	34.56	32.72	33.27	28.60	29.14	27.43	27.85	28.68	29.24
24	34.65	35.03	34.06	34.46	32.57	33.16	28.77	29.31	27.21	27.62	28.66	29.17
25	34.40	34.80	34.07	34.38	32.69	33.33	29.28	29.67	27.16	27.57	29.10	29.55
26	34.52	35.03	34.28	34.59	32.49	32.91	28.99	29.51	27.10	27.50	29.00	29.58
27	34.19	34.91	34.14	34.63	32.50	32.81	28.95	29.32	27.11	27.57	28.82	29.22
28	34.03	34.49	33.88	34.45	32.24	32.68	28.69	29.15	27.23	27.74	28.82	29.52
29	34.54	34.88	33.86	34.51	32.07	32.62	28.57	29.15	---	---	29.12	29.57
30	34.13	34.70	34.34	34.75	31.73	32.29	28.29	28.84	---	---	29.06	29.66
31	33.94	34.37	---	---	31.70	32.43	28.30	29.21	---	---	29.07	29.50
MONTH	32.16	36.01	32.29	35.15	31.70	34.40	28.29	32.28	27.04	29.28	26.98	29.66

GROUND-WATER LEVELS
MARYLAND--Continued
PRINCE GEORGES COUNTY--Continued
PG Hf 41-Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	29.04	29.60	29.75	30.33	28.50	28.83	31.69	32.10	32.09	32.46	30.81	31.28
2	29.21	29.81	29.68	30.07	28.50	28.87	31.67	32.06	32.16	32.52	30.60	30.93
3	29.56	30.05	29.69	30.08	28.60	28.93	31.75	32.10	32.27	32.66	30.61	30.97
4	29.85	30.25	29.72	30.09	28.58	29.02	31.60	32.06	32.20	32.53	30.58	30.89
5	30.07	30.40	29.50	29.98	28.32	29.01	31.53	31.87	32.22	32.94	30.53	31.07
6	30.32	30.59	29.14	29.59	28.28	28.61	31.38	31.81	32.69	33.44	30.66	31.02
7	30.21	30.53	29.22	29.63	28.29	28.70	31.36	31.80	33.09	33.62	30.45	30.87
8	30.05	30.39	29.17	29.47	28.34	28.71	31.51	32.20	33.28	33.72	30.26	30.71
9	30.06	30.34	29.14	29.45	28.32	28.79	31.82	32.44	32.84	33.43	30.34	30.78
10	30.15	30.76	29.05	29.36	28.36	28.67	31.83	32.24	32.78	33.30	30.38	30.78
11	30.69	31.00	28.90	29.27	28.23	28.84	31.62	32.03	32.66	33.24	30.48	30.86
12	30.59	31.04	28.72	29.10	28.40	28.98	31.38	31.84	32.44	33.00	30.54	30.94
13	30.30	30.77	28.62	29.01	28.58	29.20	31.22	31.70	32.26	32.79	30.45	30.77
14	30.16	30.58	28.49	28.88	28.77	29.23	31.30	31.75	32.13	32.60	30.33	30.63
15	29.86	30.31	28.37	28.95	28.81	29.25	31.33	31.77	32.11	32.48	30.04	30.53
16	29.85	30.36	28.48	28.96	28.99	29.41	31.28	31.73	32.12	32.49	30.00	30.21
17	29.96	30.59	28.38	28.87	29.27	29.74	31.28	31.66	31.86	32.33	30.03	30.33
18	30.34	30.79	28.39	28.83	29.55	30.04	31.37	31.83	31.75	32.05	29.99	30.24
19	30.38	30.77	28.18	28.66	29.87	30.35	31.58	31.95	31.57	31.98	29.92	30.40
20	30.37	30.84	28.26	28.68	30.08	30.55	31.65	32.30	31.47	32.01	30.40	30.67
21	30.43	30.76	28.44	28.83	30.20	30.68	32.00	32.49	31.88	32.27	30.23	30.49
22	30.34	30.78	28.44	28.82	30.33	30.79	32.13	32.50	31.75	32.02	30.12	30.46
23	30.56	31.10	28.45	28.94	30.46	30.98	32.04	32.36	31.59	31.90	30.02	30.37
24	30.38	30.88	28.49	28.81	30.63	31.12	31.97	32.47	31.48	31.81	30.02	30.39
25	30.64	31.00	28.42	29.17	30.84	31.33	32.07	32.49	31.23	31.69	29.49	30.14
26	30.46	30.84	28.81	29.19	30.93	31.41	32.15	32.54	31.08	31.44	29.46	29.85
27	30.41	30.81	28.66	29.00	31.10	31.92	32.23	32.77	31.13	31.51	29.33	29.75
28	30.40	30.86	28.60	29.18	31.73	32.29	32.30	32.77	31.19	31.56	29.14	29.59
29	30.27	30.80	28.76	29.14	31.92	32.31	32.20	32.62	31.09	31.54	28.91	29.37
30	30.00	30.51	28.44	28.98	31.82	32.25	32.04	32.57	30.83	31.37	28.90	29.34
31	---	---	28.38	28.79	---	---	32.05	32.42	30.78	31.12	---	---
MONTH	29.04	31.10	28.18	30.33	28.23	32.31	31.22	32.77	30.78	33.72	28.90	31.28

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 42. SITE ID.--383348076411303. PERMIT NUMBER.--PG-73-0294.
 LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 0.4 mi. south of Eagle Harbor.
 Owner: Potomac Electric Power Co.
 AQUIFER.--Aquia Formation of Lower Cretaceous age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 386 ft; casing diameter 6 in., to 150 ft;
 casing diameter 4 in. from 150 to 366 ft and 376 to 386 ft; screen diameter 4 in. from 366 to 376 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level
 recorder from Jan. 2, 1975 to July 8, 1976. Equipped with digital water-level recorder--60-minute recorder
 interval from July 8, 1976 to current year.
 DATUM.--Elevation of land surface is 27.76 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.65 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network.
 PERIOD OF RECORD.--January 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.84 ft above sea level, April 22, 1975;
 lowest measured, 27.02 ft below sea level, Sept. 20, 1991.

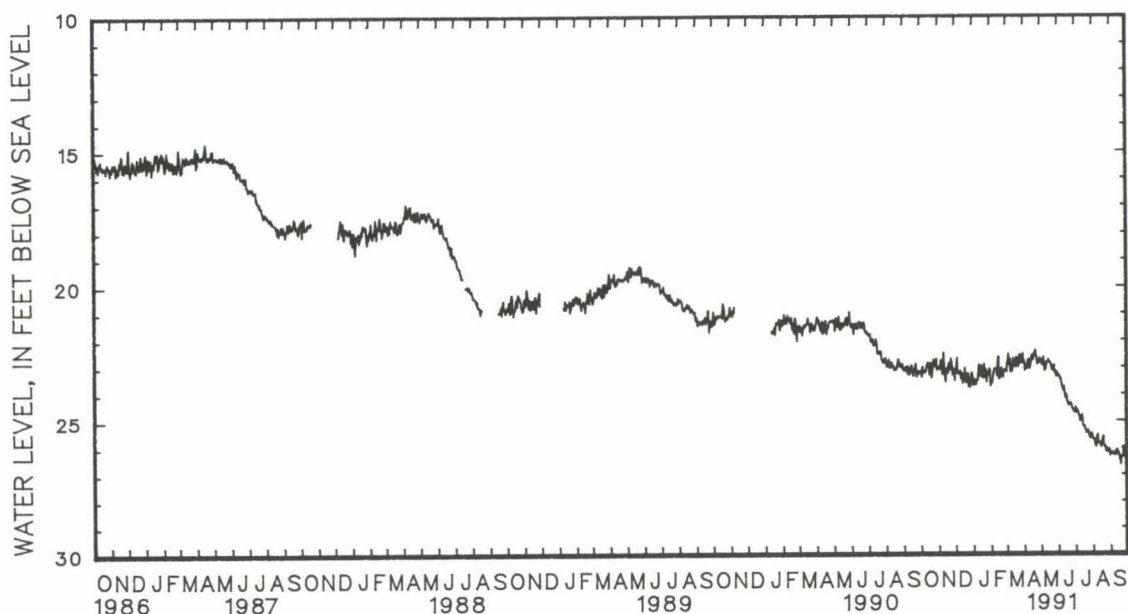
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	23.32	23.68	23.09	23.47	23.21	23.60	23.77	24.28	23.81	24.18	23.26	23.65
2	23.23	23.68	23.15	23.50	23.34	23.75	23.57	23.97	23.69	24.11	22.91	23.44
3	23.45	23.81	23.18	23.56	23.05	23.66	23.55	23.92	23.65	23.97	22.87	23.25
4	23.09	23.57	23.08	23.50	22.76	23.37	23.75	24.07	23.68	23.96	22.59	23.16
5	23.31	23.74	22.85	23.36	23.32	23.79	23.64	24.05	23.42	23.88	23.00	23.28
6	23.31	23.66	22.86	23.35	23.30	23.71	23.59	23.88	23.31	23.57	22.86	23.27
7	23.30	23.66	23.13	23.45	23.35	23.66	23.74	23.99	23.17	23.55	22.80	23.28
8	23.31	23.67	23.37	23.71	23.27	23.55	23.60	23.92	23.17	23.42	23.26	23.44
9	23.24	23.57	22.96	23.56	23.31	23.59	23.56	23.77	23.14	23.34	23.26	23.56
10	23.19	23.48	22.56	22.98	23.25	23.56	23.58	23.83	23.16	23.38	23.11	23.33
11	23.02	23.29	23.03	23.43	23.53	23.88	23.14	23.81	23.15	23.47	23.24	23.52
12	23.02	23.34	23.18	23.67	23.33	23.59	23.01	23.33	23.42	23.77	23.08	23.44
13	22.93	23.24	23.56	23.87	23.35	23.75	23.17	23.76	22.94	23.44	22.77	23.07
14	22.97	23.40	23.65	24.01	23.70	24.12	23.32	23.71	22.71	23.07	22.82	23.26
15	23.11	23.57	23.22	23.59	23.37	23.79	23.44	23.80	22.71	23.54	22.99	23.34
16	23.38	23.70	23.17	23.52	23.33	23.89	23.04	23.67	23.54	23.93	23.08	23.43
17	23.29	23.64	23.12	23.53	23.59	23.96	23.07	23.64	23.47	23.84	23.07	23.43
18	22.94	23.46	23.31	23.66	23.13	23.75	23.42	23.83	23.49	23.82	22.73	23.28
19	23.21	23.70	22.96	23.39	23.34	23.94	23.50	23.88	23.27	23.70	22.76	23.34
20	23.49	23.79	22.99	23.33	23.68	24.02	23.18	23.65	23.13	23.60	23.05	23.38
21	23.31	23.71	23.18	23.48	23.39	23.85	22.99	23.67	23.41	23.75	23.08	23.42
22	23.13	23.52	23.02	23.39	23.43	23.67	23.48	23.80	23.24	23.56	23.03	23.31
23	22.82	23.32	22.79	23.11	23.35	23.64	23.17	23.58	23.46	23.72	22.76	23.37
24	23.00	23.39	22.94	23.22	23.35	23.99	23.25	23.68	23.23	23.56	22.63	23.01
25	22.98	23.24	23.12	23.40	23.82	24.17	23.65	23.99	23.19	23.50	22.96	23.34
26	23.05	23.57	23.38	23.60	23.70	23.99	23.41	23.81	23.20	23.52	22.94	23.35
27	22.92	23.47	23.23	23.58	23.85	24.11	23.37	23.64	23.22	23.56	22.72	23.05
28	22.78	23.19	23.17	23.48	23.61	23.93	23.29	23.67	23.25	23.61	22.63	23.13
29	23.19	23.60	23.16	23.84	23.47	23.87	23.37	23.79	---	---	22.75	23.14
30	23.17	23.54	23.59	24.01	23.32	23.67	23.16	23.58	---	---	22.59	23.30
31	23.10	23.47	---	---	23.41	24.29	23.20	24.03	---	---	22.93	23.25
MONTH	22.78	23.81	22.56	24.01	22.76	24.29	22.99	24.28	22.71	24.18	22.59	23.65

GROUND-WATER LEVELS
MARYLAND--Continued
PRINCE GEORGES COUNTY--Continued
PG Hf 42--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	22.84	23.29	22.82	23.17	23.44	23.72	24.68	25.02	25.72	26.03	26.39	26.77
2	22.97	23.42	22.81	23.16	23.45	23.73	24.61	24.96	25.77	26.03	26.28	26.51
3	23.21	23.50	22.93	23.31	23.43	23.68	24.81	25.12	25.79	26.09	26.27	26.60
4	23.19	23.48	23.01	23.31	23.50	23.93	24.72	25.11	25.79	26.10	26.31	26.59
5	23.03	23.34	22.93	23.23	23.56	24.02	24.72	25.05	25.83	26.30	26.29	26.77
6	23.14	23.32	22.73	23.03	23.55	23.93	24.78	25.14	26.00	26.42	26.35	26.66
7	22.97	23.23	22.93	23.44	23.72	24.13	24.83	25.18	26.05	26.33	26.29	26.64
8	22.88	23.13	23.21	23.43	23.84	24.16	24.92	25.30	25.97	26.32	26.31	26.67
9	22.81	23.00	23.20	23.48	23.86	24.30	24.95	25.44	25.67	26.09	26.36	26.72
10	22.80	23.18	23.16	23.40	23.97	24.23	25.10	25.37	25.62	26.22	26.27	26.68
11	23.15	23.45	23.03	23.31	23.84	24.35	25.00	25.43	25.88	26.30	26.31	26.64
12	23.10	23.48	22.90	23.27	23.97	24.42	25.09	25.40	25.93	26.33	26.36	26.71
13	22.95	23.32	22.90	23.32	24.13	24.59	24.89	25.33	25.92	26.30	26.16	26.55
14	22.82	23.20	22.88	23.21	24.26	24.59	25.01	25.45	25.91	26.24	26.16	26.45
15	22.64	23.05	22.81	23.29	24.14	24.49	25.27	25.64	25.94	26.28	26.28	26.55
16	22.66	23.08	22.91	23.30	24.20	24.51	25.32	25.64	26.06	26.35	26.28	26.53
17	22.72	23.07	22.90	23.28	24.38	24.67	25.29	25.61	25.95	26.28	26.33	26.70
18	22.80	23.12	22.93	23.39	24.42	24.78	25.32	25.65	25.93	26.14	26.52	26.70
19	22.60	22.98	22.96	23.36	24.52	24.80	25.41	25.71	25.78	26.09	26.42	26.85
20	22.55	22.84	23.02	23.34	24.53	24.86	25.44	25.82	25.68	26.14	26.70	27.02
21	22.57	22.87	23.19	23.47	24.53	24.86	25.55	25.81	26.02	26.38	26.45	26.71
22	22.45	22.81	23.18	23.50	24.52	24.76	25.53	25.86	26.07	26.36	26.44	26.76
23	22.68	23.06	23.21	23.53	24.45	24.82	25.51	25.77	26.05	26.40	26.39	26.73
24	22.70	23.13	23.11	23.37	24.50	24.83	25.47	25.91	26.11	26.52	26.40	26.79
25	22.97	23.32	23.03	23.58	24.54	25.00	25.55	25.93	26.24	26.55	26.03	26.55
26	22.94	23.24	23.30	23.63	24.64	25.06	25.68	25.98	26.11	26.45	26.13	26.54
27	22.84	23.18	23.28	23.56	24.69	25.08	25.71	26.13	26.14	26.47	26.35	26.71
28	22.83	23.28	23.26	23.77	24.72	25.08	25.75	26.14	26.24	26.59	26.44	26.73
29	22.91	23.25	23.44	23.77	24.78	25.08	25.66	25.98	26.28	26.61	26.44	26.74
30	22.77	23.16	23.30	23.65	24.76	25.12	25.57	25.97	26.15	26.52	26.59	26.93
31	---	---	23.32	23.65	---	---	25.60	25.91	26.16	26.47	---	---
MONTH	22.45	23.50	22.73	23.77	23.43	25.12	24.61	26.14	25.62	26.61	26.03	27.02

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

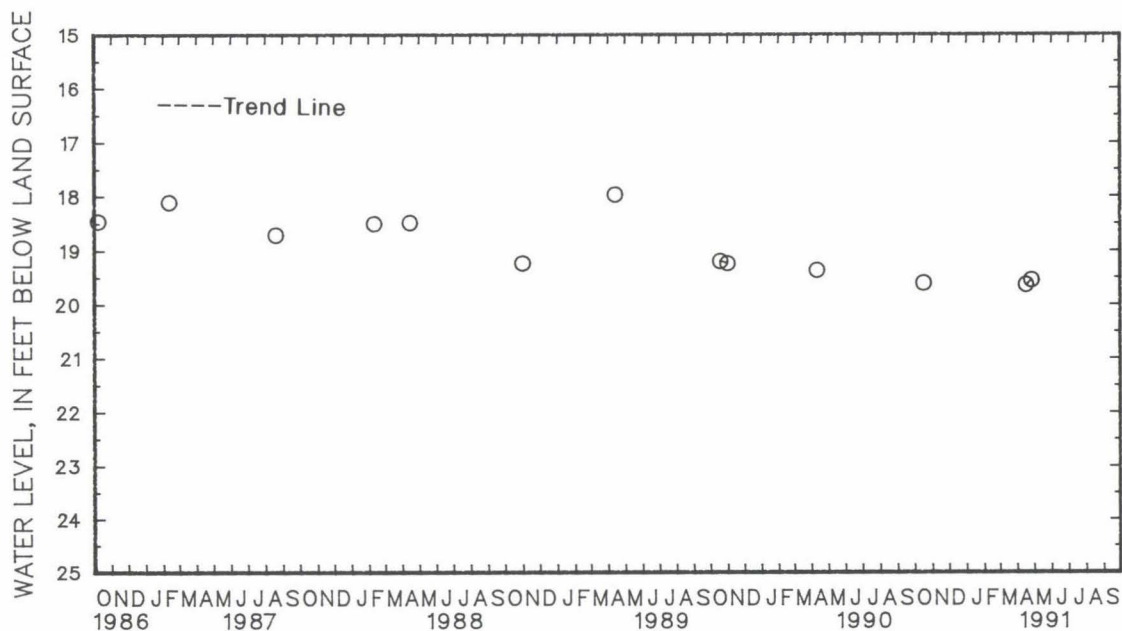
MARYLAND--Continued

QUEEN ANNES COUNTY

WELL NUMBER.--QA Be 15. SITE ID.--391203076024301. PERMIT NUMBER.--QA-70-0130.
 LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,171 ft; casing diameter 4 in., to 1,161 ft;
 screen diameter 4 in. from 1,161 to 1,171 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 2.75 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since February 1988.
 PERIOD OF RECORD.--March 1971 to October 1972, July 1977 to December 1978, October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.52 ft below land surface, Oct. 10, 1971;
 lowest measured, 20.56 ft below land surface, Dec. 17, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	19.65	APR 16	19.68	APR 26	19.59
WATER YEAR 1991 HIGHEST 19.59 APR 26, 1991 LOWEST 19.68 APR 16, 1991					



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

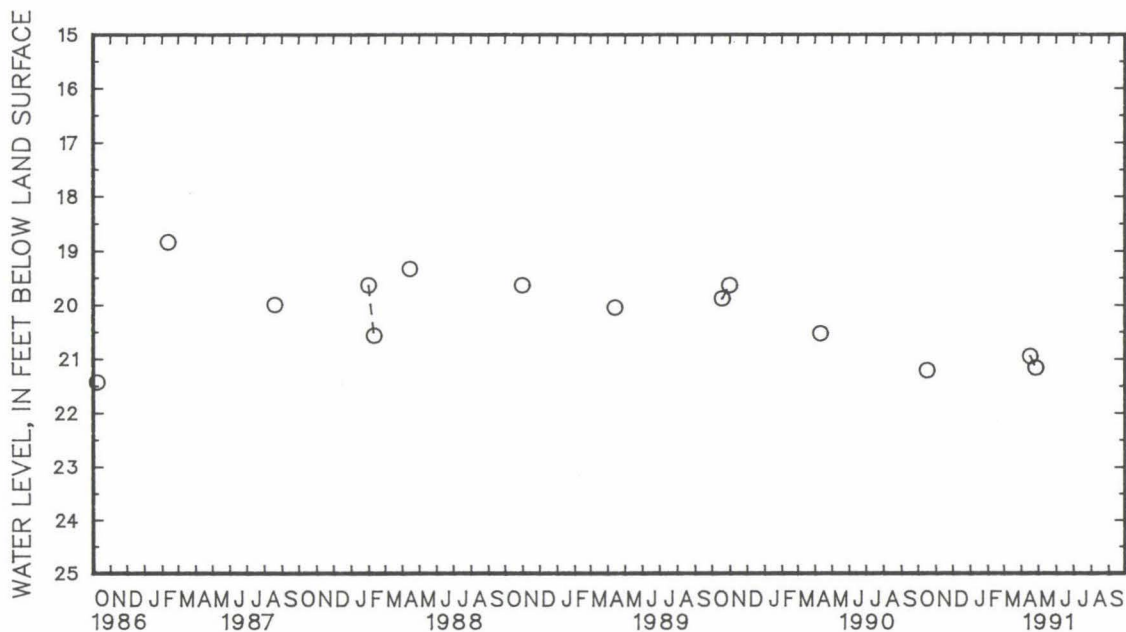
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Be 16. SITE ID.--391203076024302. PERMIT NUMBER.--QA-70-0130.
LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 498 ft; casing diameter 6 in., to 475 ft;
screen diameter 6 in. from 475 to 495 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of casing, 2.70 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since February 1988.
PERIOD OF RECORD.--March 1971 to September 1972, July 1977 to May 1979, October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.41 ft below land surface, Sept. 11, 1971;
lowest measured, 21.47 ft below land surface, Oct. 6, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 16	21.25	APR 16	20.98	APR 26	21.20	
WATER YEAR 1991	HIGHEST	20.98	APR 16, 1991	LOWEST	21.25	OCT 16, 1990



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Be 17. SITE ID.--391203076024303.

LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 120 ft; casing diameter 6 in., to 100 ft; screen diameter 6 in. from 100 to 120 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.50 ft above land surface.

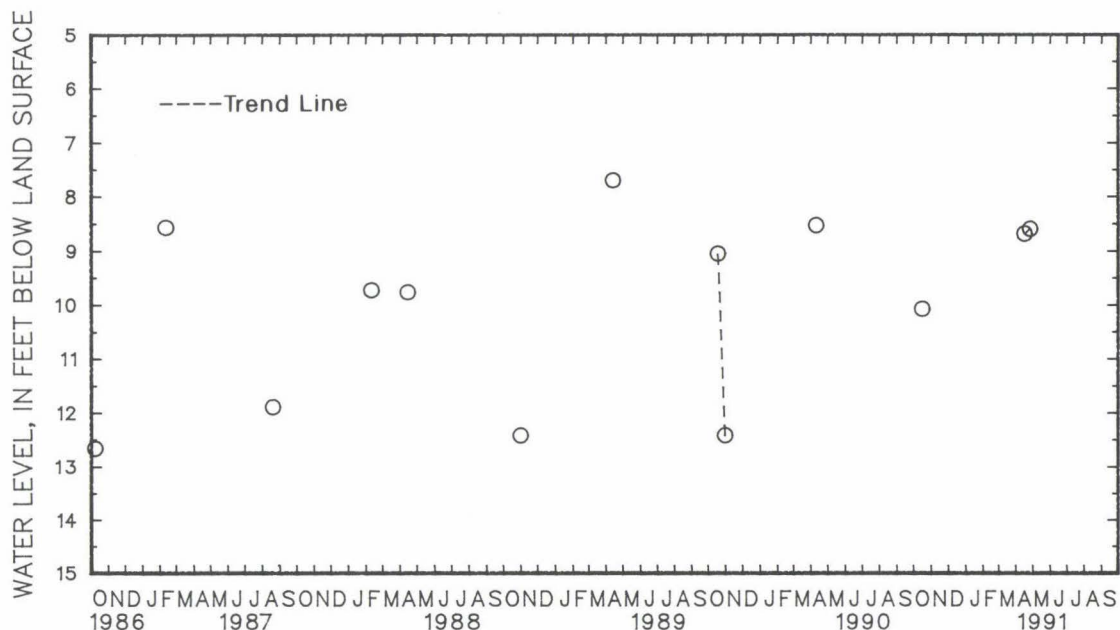
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since February 1988.

PERIOD OF RECORD.--July 1977 to July 1979, October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.94 ft below land surface, March 6, 1979; lowest measured, 13.00 ft below land surface, Sept. 30, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	10.10	APR 16	8.69	APR 26	8.60
WATER YEAR 1991 HIGHEST 8.60 APR 26, 1991 LOWEST 10.10 OCT 16, 1990					



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Cg 1. SITE ID.--390841075515201. PERMIT NUMBER.--QA-00-3949.
 LOCATION.--Lat 39°08'41", long 75°51'52", Hydrologic Unit 02060002, at Barclay.

Owner: Town of Barclay.

AQUIFER.--Pensauken Formation of Miocene age. Aquifer code: 122PNSK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, reported depth 60 ft, measured depth 44 ft;
 casing diameter 4 in., to 50 ft; screened from 50 to 60 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 69 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Lip of hose connector, 1.90 ft above land surface.

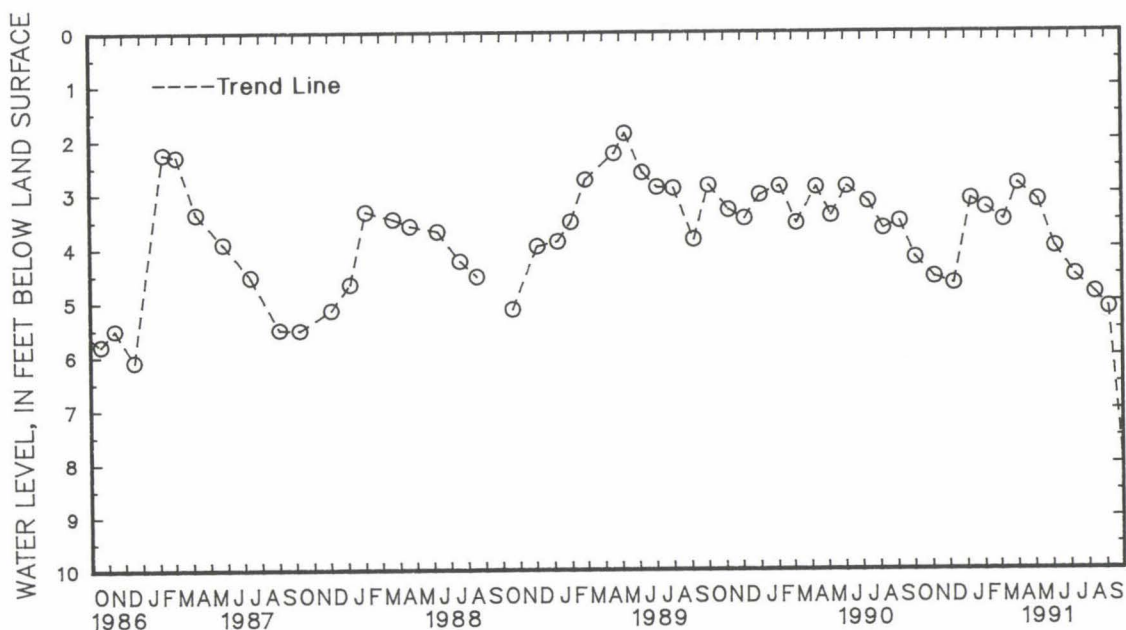
REMARKS.--Maryland Water-Level Network observation well. Reported water level 4.0 ft below land surface,
 June 10, 1949.

PERIOD OF RECORD.--July 1953, May 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.67 ft below land surface, Feb. 8, 1973;
 lowest measured, 6.47 ft below land surface, Jan. 3, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	4.22	DEC 10	4.70	FEB 5	3.28	APR 3	2.84	JUN 6	4.02	AUG 13	4.88
NOV 6	4.58	JAN 10	3.12	MAR 8	3.51	MAY 8	3.15	JUL 10	4.55	SEP 6	5.16
WATER YEAR 1991		HIGHEST	2.84	APR 3, 1991		LOWEST	5.16	SEP 6, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

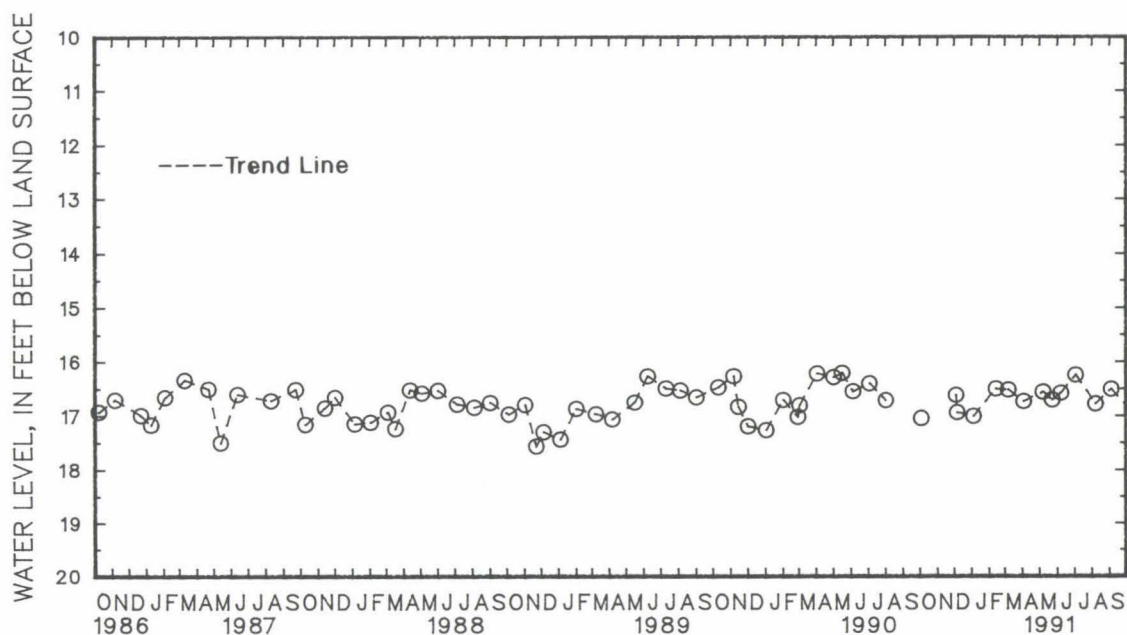
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 32. SITE ID.--390201076182703. PERMIT NUMBER.--QA-81-0473.
LOCATION.--Lat 39°02'01", long 76°18'27", Hydrologic Unit 02060002, north side of Pier Avenue,
0.5 mi south of Love Point.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 116 ft; casing diameter 4 in., to 106 ft;
screen diameter 4 in. from 106 to 116 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 21.2 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.10 ft above land surface.
REMARKS.--Kent Island ground-water monitoring network well.
PERIOD OF RECORD.--May 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.80 ft below land surface, Dec. 2, 1985;
lowest measured, 17.60 ft below land surface, Nov. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	17.08	JAN 4	17.04	APR 3	16.76	JUN 7	16.60	SEP 4	16.53
DEC 4	16.64	FEB 13	16.52	MAY 7	16.58	JUL 3	16.26		
6	16.97	MAR 7	16.54	23	16.73	AUG 7	16.81		
WATER YEAR 1991 HIGHEST 16.26 JUL 3, 1991 LOWEST 17.08 OCT 3, 1990									



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

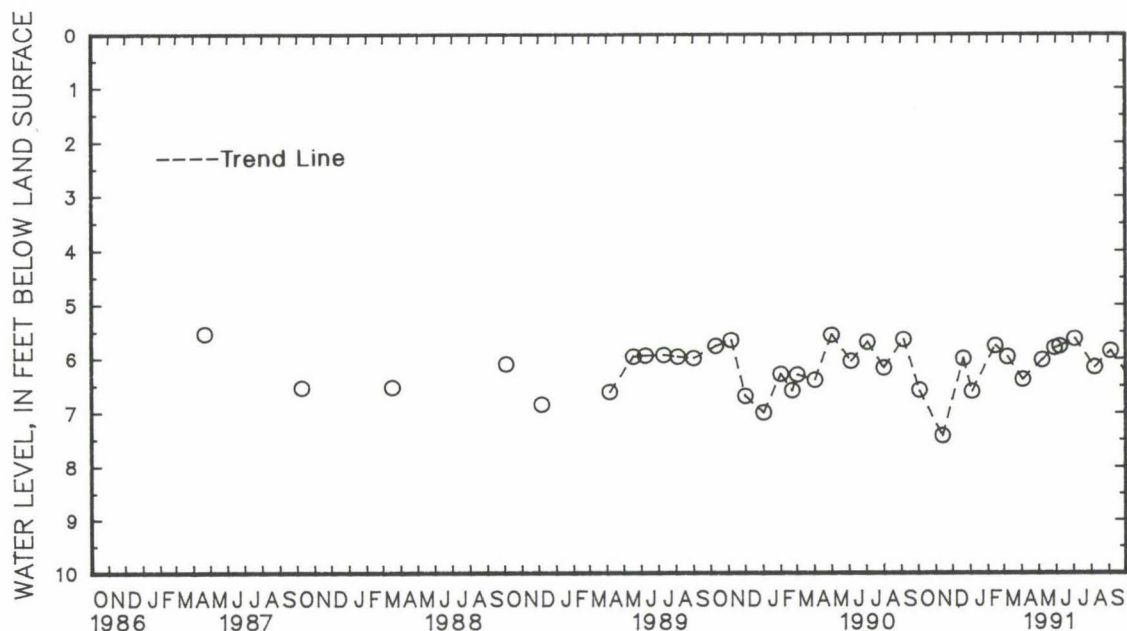
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 35. SITE ID.--390119076191001. PERMIT NUMBER.--QA-81-0472.
LOCATION.--Lat 39°01'19", Long 76°19'10", Hydrologic Unit 02060002, 0.5 mi west of MD Rt. 18 at Mylander Farms, Kent Island.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 200 ft; casing diameter 4 in., to 190 ft; screen diameter 4 in. from 190 to 200 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 7.5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.20 ft above land surface.
REMARKS.--Kent Island ground-water monitoring network well. Measured twice yearly from April 1987 to April 1989.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land surface, Dec. 2, 1985; lowest measured, 7.47 ft below land surface, Nov. 13, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL	
OCT 3	6.62	JAN 4	6.63	APR 3	6.41	JUN 7	5.78	SEP 4	5.87
NOV 13	7.47	FEB 14	5.77	MAY 7	6.04	JUL 3	5.64		
DEC 20	6.01	MAR 7	5.98	29	5.81	AUG 7	6.18		
WATER YEAR 1991		HIGHEST	5.64	JUL 3, 1991	LOWEST	7.47	NOV 13, 1990		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 36. SITE ID.--390201076182704. PERMIT NUMBER.--QA-81-0473.

LOCATION.--Lat 39°02'01", long 76°18'27", Hydrologic Unit 02060002, north side of Pier Avenue, 0.5 mi south of Love Point.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 4 in., to 170 ft; screen diameter 4 in. from 170 to 180 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 21.3 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.60 ft above land surface.

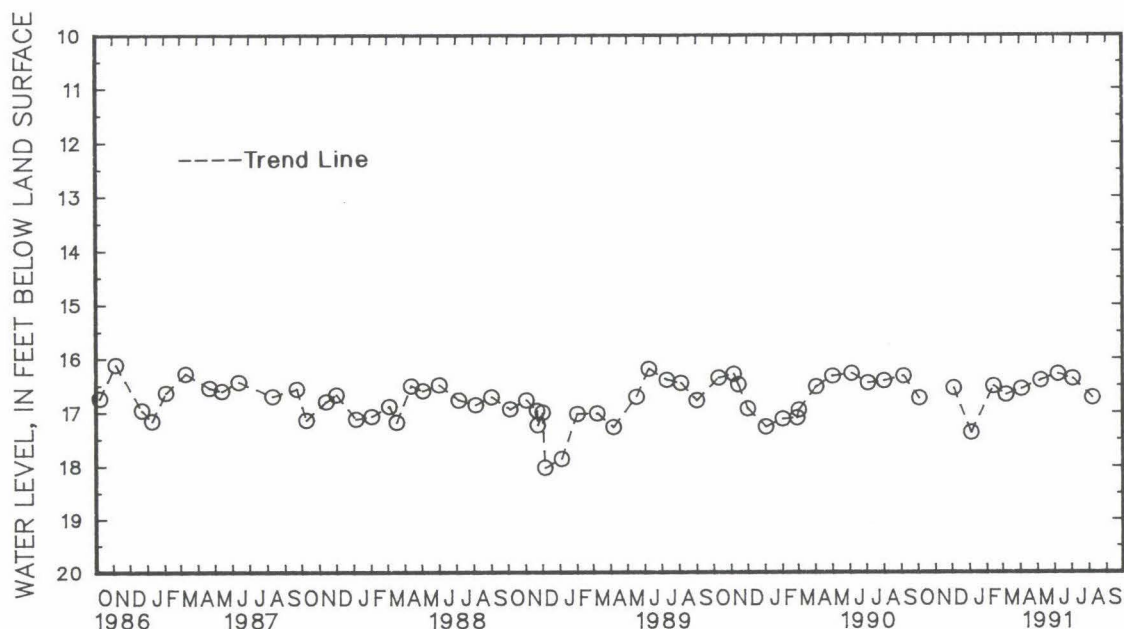
REMARKS.--Kent Island ground-water monitoring network well. Water level measurements discontinued after August 1991, due to damaged casing.

PERIOD OF RECORD.--April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.78 ft below land surface, Dec. 2, 1985; lowest measured, 18.06 ft below land surface, Dec. 5, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	16.76	JAN 4	17.41	MAR 7	16.69	MAY 7	16.42	JUL 3	16.39
DEC 4	16.57	FEB 13	16.53	APR 3	16.58	JUN 7	16.30	AUG 7	16.75
WATER YEAR 1991		HIGHEST	16.30	JUN 7, 1991	LOWEST	17.41	JAN 4, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

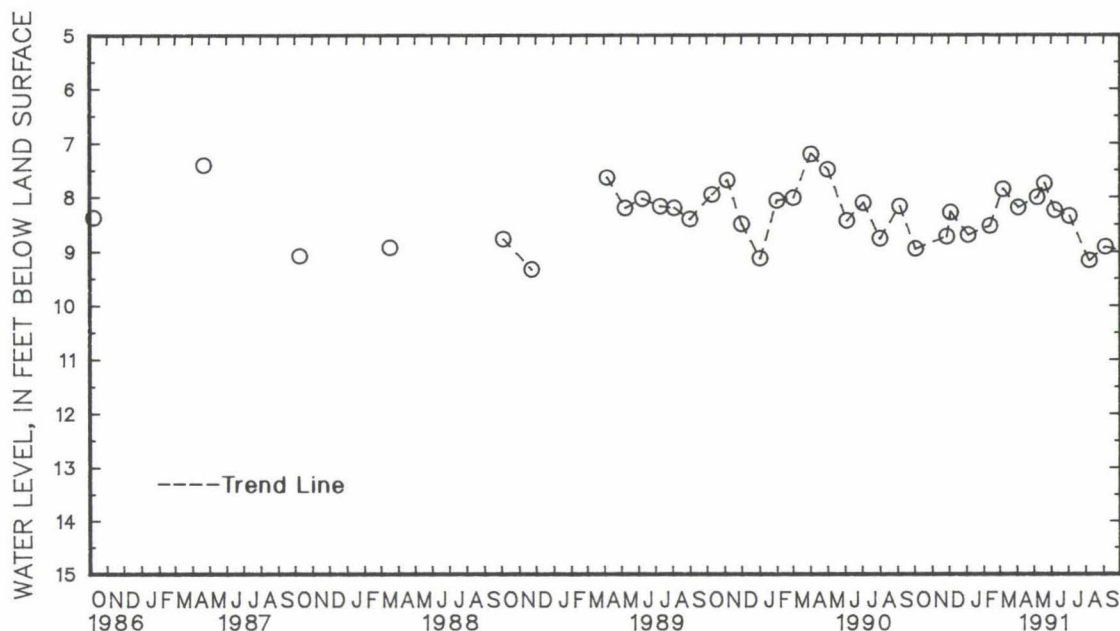
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 37. SITE ID.--390023076174302. PERMIT NUMBER.--QA-81-0471.
 LOCATION.--Lat 39°00'23", long 76°17'43", Hydrologic Unit 02060002, nr Cloverfield community park,
 Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 4 in., to 240 ft;
 screen diameter 4 in. from 240 to 250 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 7.1 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.50 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.90 ft below land surface, Dec. 2, 1985;
 lowest measured, 9.37 ft below land surface, Nov. 23, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	8.98	JAN 4	8.72	APR 3	8.21	JUN 7	8.26	SEP 4	8.94
NOV 27	8.75	FEB 12	8.55	MAY 7	8.02	JUL 3	8.37		
DEC 4	8.30	MAR 7	7.87	20	7.76	AUG 7	9.20		
WATER YEAR 1991		HIGHEST	7.76	MAY 20, 1991		LOWEST	9.20	AUG 7, 1991	



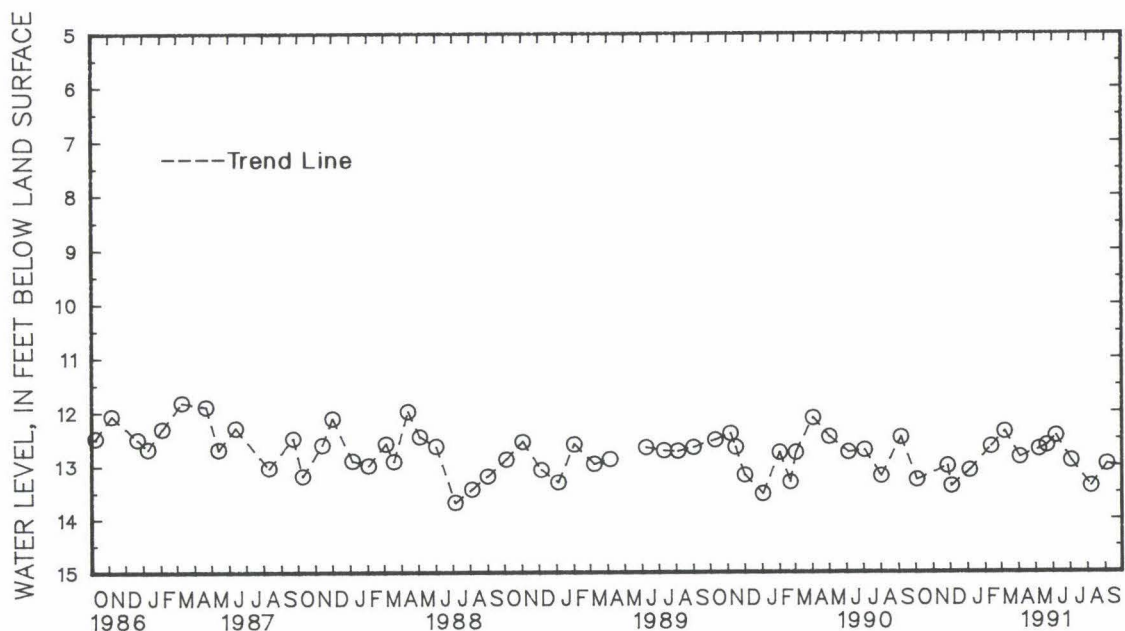
5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 77. SITE ID.--385718076211501. PERMIT NUMBER.--QA-81-0474.
LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 205 ft; casing diameter 4 in., to 195 ft; screen diameter 4 in. from 195 to 205 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 10.8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.24 ft above land surface.
REMARKS.--Kent Island ground-water monitoring network well.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.07 ft below land surface, Dec. 2, 1985; lowest measured, 13.71 ft below land surface, July 5, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	13.29	JAN 4	13.11	APR 3	12.86	JUN 6	12.46	SEP 4	12.99
NOV 26	13.03	FEB 11	12.66	MAY 7	12.71	JUL 3	12.93		
DEC 3	13.41	MAR 7	12.38	21	12.64	AUG 7	13.41		
WATER YEAR 1991		HIGHEST	12.38	MAR 7, 1991	LOWEST	13.41	DEC 3, 1990 AUG 7, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 78. SITE ID.--385718076211502 . PERMIT NUMBER.--QA-81-0474.

LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 135 ft; casing diameter 4 in., to 125 ft; screen diameter 4 in. from 125 to 135 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 11.8 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.91 ft above land surface.

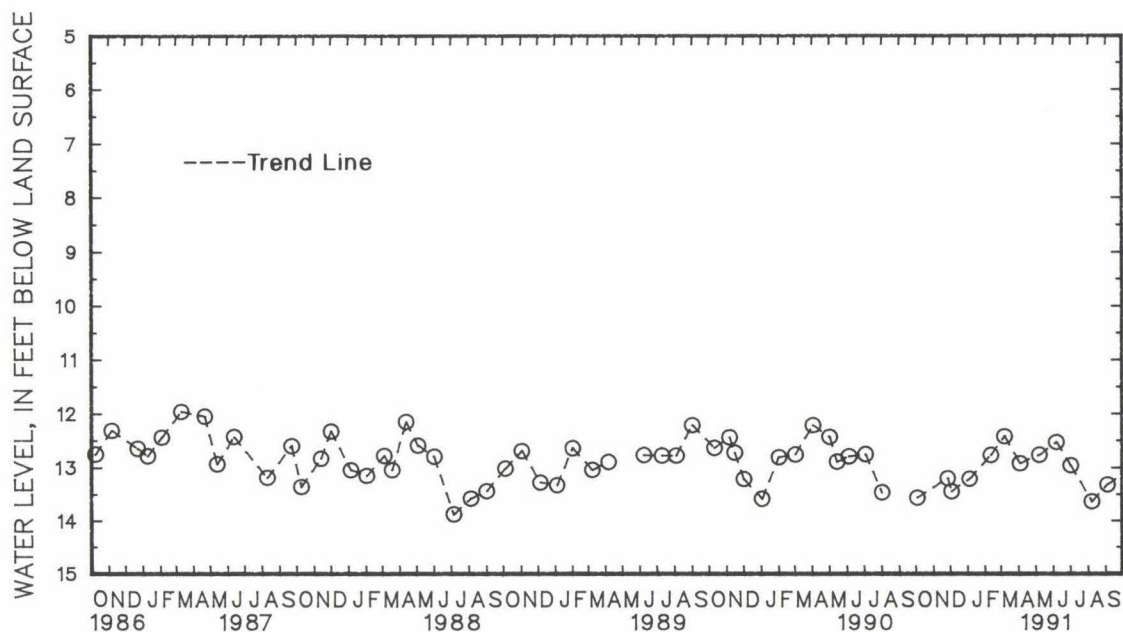
REMARKS.--Kent Island ground-water monitoring network well.

PERIOD OF RECORD.--April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.74 ft below land surface, Dec. 2, 1985; lowest measured, 13.90 ft below land surface, July 5, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 3	13.59	DEC 3	13.47	FEB 11	12.78	APR 3	12.94	JUN 6	12.54	AUG 7	13.66	NOV 26	13.22	JAN 4	13.23
				MAR 7		MAY 7		JUL 1		SEP 4					
WATER YEAR 1991		HIGHEST 12.43		MAR 7, 1991		LOWEST 13.66		AUG 7, 1991							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 80. SITE ID.--385757076200102. PERMIT NUMBER.--QA-81-0469.

LOCATION.--Lat 38°57'57", long 76°20'01", Hydrologic Unit 02060002, at Mowbray Park, Kent Island.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 130 ft; casing diameter 4 in., to 120 ft; screen diameter 4 in. from 120 to 130 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 8.5 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.51 ft above land surface.

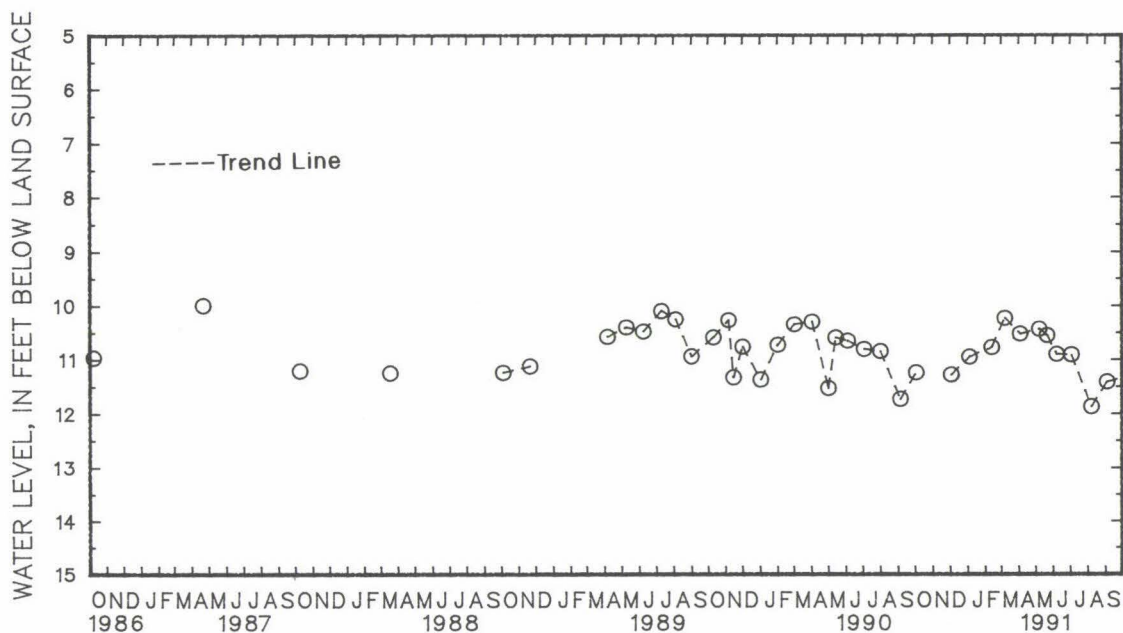
REMARKS.--Kent Island ground-water monitoring network well. Measured twice yearly from October 1986 to April 1989.

PERIOD OF RECORD.--April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.45 ft below land surface, Dec. 2, 1985; lowest measured, 11.91 ft below land surface, Aug. 7, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	11.27	JAN 4	10.97	MAR 7	10.24	MAY 7	10.45	JUN 7	10.93	AUG 7	11.91
DEC 3	11.31	FEB 12	10.79	APR 3	10.54	MAY 21	10.57	JUL 3	10.94	SEP 4	11.44
WATER YEAR 1991		HIGHEST	10.24	MAR 7, 1991	LOWEST	11.91	AUG 7, 1991				



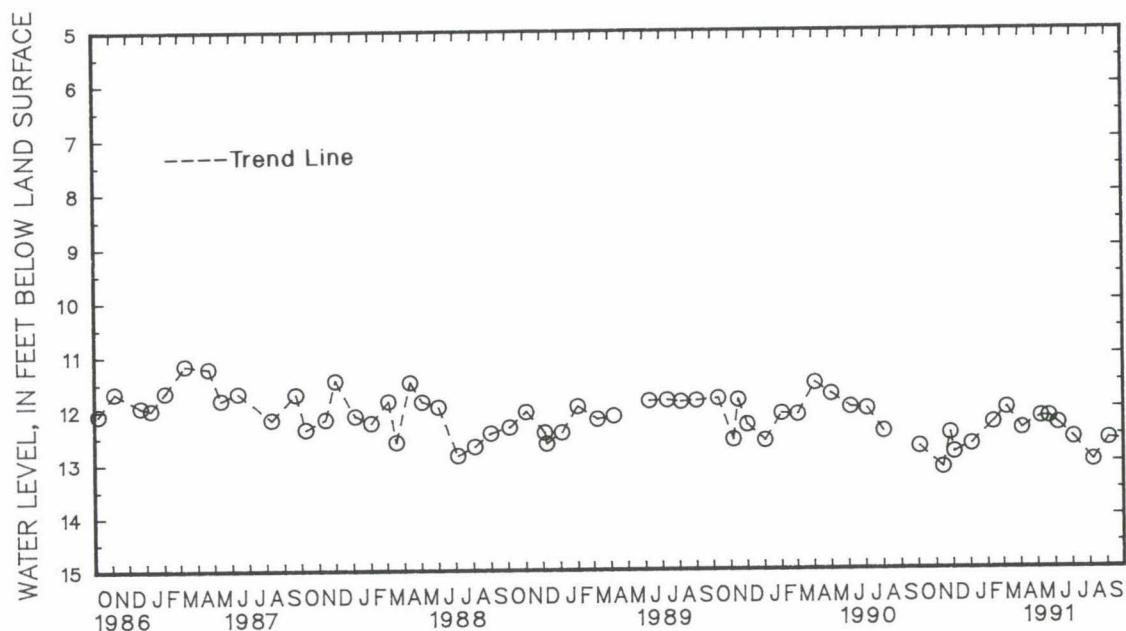
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 81. SITE ID.--385718076211503. PERMIT NUMBER.--QA-81-0474.
LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 310 ft; casing diameter 4 in., to 300 ft; screen diameter 4 in. from 300 to 310 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 2.63 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.54 ft below land surface, Dec. 2, 1985; lowest measured, 13.14 ft below land surface, Nov. 13, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER LEVEL YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	12.75	DEC 3	12.85	MAR 7	12.02	MAY 21	12.19	AUG 7	13.02
NOV 13	13.14	JAN 3	12.70	APR 3	12.41	JUN 6	12.32	SEP 4	12.61
26	12.49	FEB 11	12.29	MAY 7	12.19	JUL 3	12.59		
WATER YEAR 1991		HIGHEST	12.02	MAR 7, 1991		LOWEST	13.14	NOV 13, 1990	



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 110. SITE ID.--385751076171603. PERMIT NUMBER.--QA-73-2979.
 LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.
 Owner: U.S. Geological Survey.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 2,485 ft; casing diameter 6 in., to 2,413 ft, 2,423 to 2,465 ft and 2,475 to 2,485 ft; screen diameter 4 in., from 2,413 to 2,423 ft, and 2,465 to 2,475 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 14 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.36 ft above land surface.

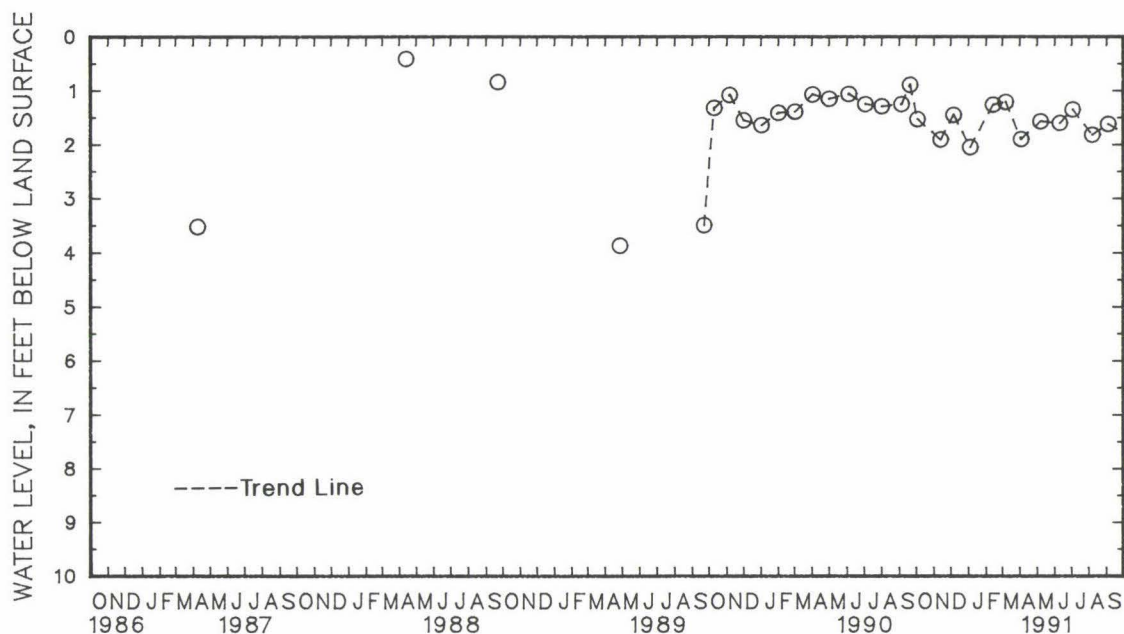
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January, April, May, and October to December 1980; March, September, and November 1981; January to May, August 1982; October 1982 to April 1983, August 1983; April 1984, September 1985, April 1987, April and September 1988; October 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.99 ft above land surface, Jan. 21, 1980; lowest measured, 3.88 ft below land surface, April 27, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	1.53	DEC 6	1.45	FEB 13	1.26	APR 3	1.90	JUN 10	1.60	AUG 7	1.82
NOV 13	1.91	JAN 4	2.05	MAR 7	1.21	MAY 7	1.57	JUL 3	1.35	SEP 4	1.62
WATER YEAR 1991		HIGHEST	1.21	MAR 7, 1991	LOWEST	2.05	JAN 4, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 111. SITE ID.--385751076171601. PERMIT NUMBER.--QA-73-3122.

LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.

Owner: U.S. Geological Survey.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 985 ft; casing diameter 4 in., to 955 ft, and 965 to 975 ft; screen diameter 4 in., from 955 to 965 ft, and 975 to 985 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 14 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.41 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

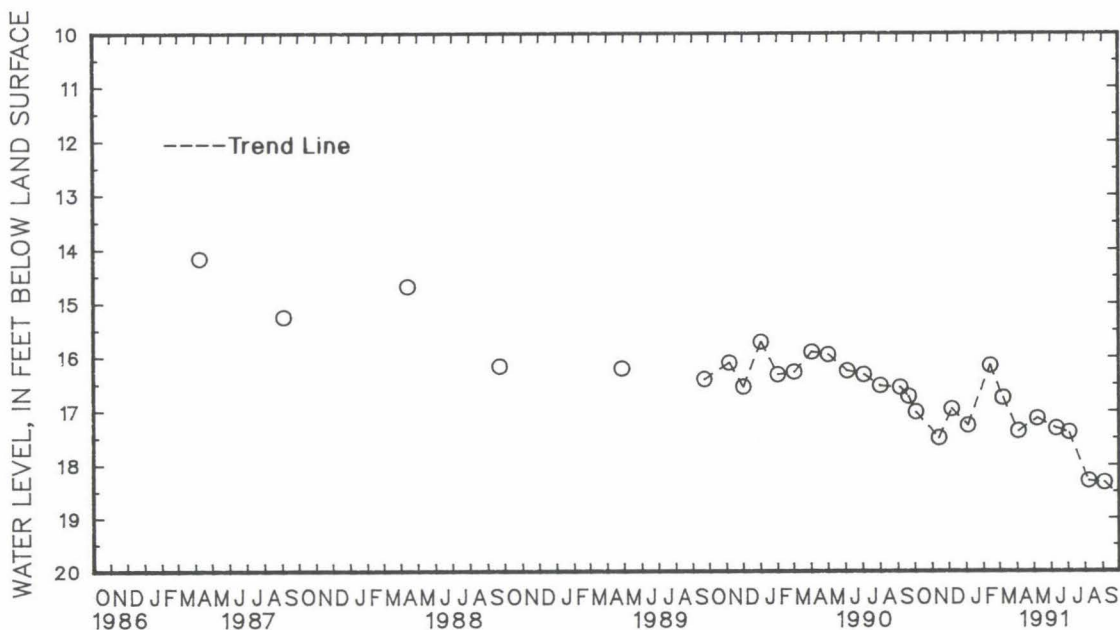
PERIOD OF RECORD.--April 1984, March and September 1985, September 1986, April and September 1987,

April and September 1988, November 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.02 ft below land surface, Jan. 21, 1980; lowest measured, 18.36 ft below land surface, Sept. 4, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	17.06	DEC 6	16.99	FEB 13	16.17	APR 3	17.41	JUN 10	17.36	AUG 7	18.33
NOV 13	17.54	JAN 4	17.30	MAR 7	16.78	MAY 7	17.17	JUL 3	17.43	SEP 4	18.36
WATER YEAR 1991		HIGHEST	16.17	FEB 13, 1991	LOWEST	18.36	SEP 4, 1991				



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 112. SITE ID.--385751076171602. PERMIT NUMBER.--QA-73-3123.

LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.

Owner: U.S. Geological Survey.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,679 ft; casing diameter 4 in., to 1,652 ft, and 1,662 to 1,669 ft; screen diameter 4 in., from 1,652 to 1,662 ft, and 1,669 to 1,679 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 14 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.36 ft above land surface.

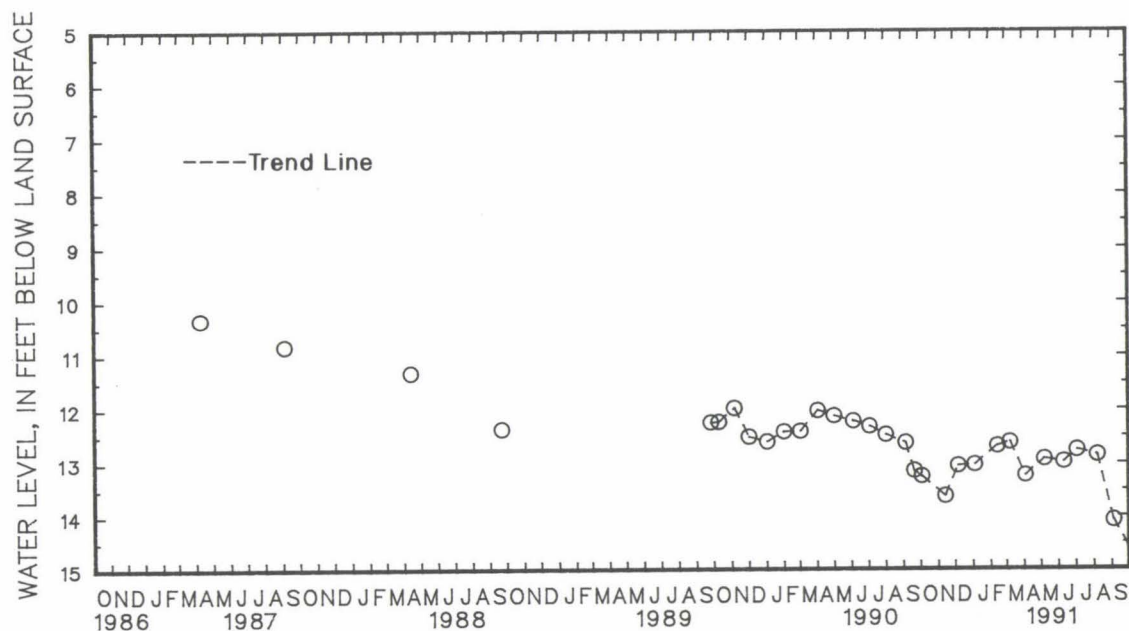
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1980 to September 1986, April 1987, September 1987, April 1988, and September 1988, September 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.69 ft below land surface, Jan. 21, 1980; lowest measured, 14.10 ft below land surface, Sept. 4, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	13.28	DEC 6	13.07	FEB 13	12.70	APR 3	13.26	JUN 10	13.00	AUG 7	12.87
NOV 13	13.65	JAN 4	13.05	MAR 7	12.63	MAY 7	12.95	JUL 3	12.78	SEP 4	14.10
WATER YEAR 1991		HIGHEST	12.63	MAR 7, 1991		LOWEST	14.10	SEP 4, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 113. SITE ID.--385748076172001. PERMIT NUMBER.--QA-73-3172.

LOCATION.--Lat 38°57'48", long 76°17'20", Hydrologic Unit 02060002, nr Chester, Kent Island.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 216 ft; casing diameter 6 in., to 176 ft; screen diameter 6 in. from 176 to 216 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from June 30, 1986 to current year.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.6 ft above land surface.

REMARKS.--Kent Island ground-water monitoring network well. Missing data due to recorder malfunction.

PERIOD OF RECORD.--April 1985 to current year.

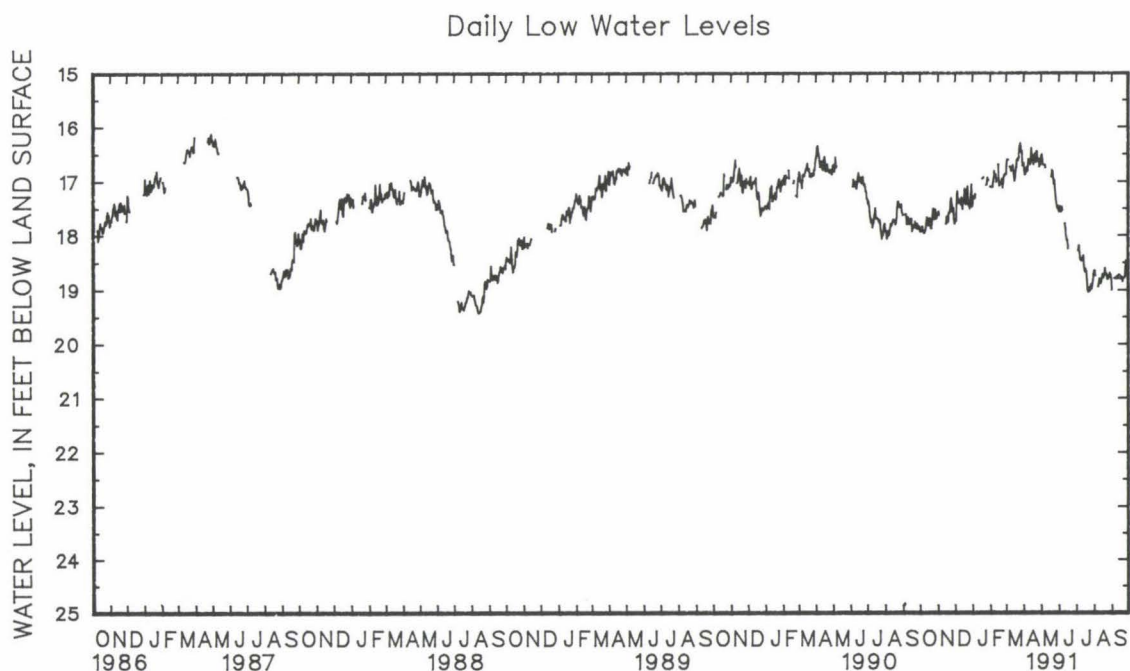
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.05 ft below land surface, April 18, 1989; lowest measured, 19.47 ft below land surface, Aug. 13 and 16, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.94	17.84	17.61	17.49	17.74	17.60	17.46	17.35	17.11	17.07	16.88	16.70
2	17.96	17.75	17.58	17.51	17.76	17.63	17.34	17.24	17.11	17.06	16.69	16.53
3	---	---	17.64	17.52	17.75	17.32	17.30	17.20	17.12	17.05	16.61	16.41
4	17.92	17.65	---	---	17.31	17.12	17.33	17.26	17.12	17.10	16.61	16.59
5	17.87	17.77	---	---	17.21	17.20	17.33	17.21	17.12	17.03	16.61	16.38
6	17.95	17.81	---	---	17.40	17.21	17.26	17.15	17.04	16.96	---	---
7	17.97	17.88	---	---	17.42	17.35	---	---	16.95	16.81	---	---
8	17.99	17.94	---	---	17.36	17.29	---	---	16.83	16.79	16.74	16.63
9	17.98	17.95	---	---	17.39	17.27	---	---	---	---	16.74	16.72
10	17.95	17.90	---	---	17.38	17.19	---	---	16.88	16.79	16.82	16.73
11	17.90	17.76	---	---	17.45	17.31	---	---	16.95	16.82	16.81	16.76
12	17.76	17.68	---	---	17.32	17.17	---	---	17.02	16.86	16.79	16.73
13	17.69	17.62	---	---	17.41	17.14	---	---	---	---	16.72	16.64
14	17.72	17.58	---	---	17.53	17.37	---	---	---	---	16.82	16.62
15	17.79	17.61	17.81	17.68	17.36	17.13	17.00	16.94	16.70	16.37	16.93	16.80
16	17.84	17.77	17.68	17.56	17.38	17.13	---	---	16.97	16.70	17.00	16.87
17	17.82	17.71	17.78	17.54	17.39	17.17	---	---	17.09	16.90	16.93	16.77
18	17.71	17.37	17.78	17.76	17.16	16.96	16.96	16.81	17.09	17.03	16.82	16.71
19	17.79	17.54	17.76	17.56	17.40	17.12	16.96	16.93	17.05	16.91	16.75	16.52
20	17.89	17.78	17.60	17.55	17.44	17.29	16.94	16.81	17.03	16.81	16.62	16.53
21	17.90	17.80	17.61	17.57	17.28	17.13	---	---	17.03	16.95	16.60	16.54
22	17.81	17.66	17.58	17.41	17.17	17.10	---	---	16.97	16.84	16.62	16.54
23	17.66	17.39	17.41	17.22	17.11	17.02	---	---	17.13	16.97	16.58	16.43
24	17.53	17.43	17.33	17.24	17.45	17.03	---	---	17.05	16.92	16.43	16.31
25	17.53	17.47	17.44	17.28	17.46	17.39	17.08	16.99	16.92	16.82	16.35	16.22
26	17.72	17.49	17.58	17.44	17.46	17.36	17.05	16.93	16.89	16.81	16.31	16.16
27	17.72	17.52	17.57	17.51	17.52	17.38	16.95	16.85	16.89	16.78	16.42	16.31
28	17.55	17.34	17.52	17.42	17.36	17.27	16.98	16.83	16.88	16.77	16.47	16.31
29	17.71	17.55	17.72	17.43	17.28	17.09	16.99	16.88	---	---	16.45	16.31
30	17.70	17.55	17.81	17.72	17.08	16.98	---	---	---	---	16.72	16.31
31	17.62	17.52	---	---	17.49	17.07	---	---	---	---	16.71	16.63
MONTH	17.99	17.34	17.81	17.22	17.76	16.96	17.46	16.81	17.13	16.37	17.00	16.16

GROUND-WATER LEVELS
MARYLAND--Continued
QUEEN ANNES COUNTY--Continued
QA Eb 113--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16.68	16.51	16.55	16.41	17.58	17.47	18.32	18.28	18.69	18.63	19.04	18.85
2	16.82	16.63	16.52	16.41	17.52	17.44	---	---	18.68	18.61	---	---
3	16.89	16.82	16.60	16.47	17.49	17.39	---	---	18.77	18.67	---	---
4	16.88	16.82	16.70	16.60	17.58	17.37	18.31	18.22	---	---	---	---
5	16.83	16.69	---	---	17.58	17.45	18.22	18.15	---	---	---	---
6	16.76	16.68	---	---	17.50	17.44	18.35	18.20	---	---	18.83	18.75
7	16.83	16.76	---	---	17.55	17.45	18.47	18.31	---	---	18.82	18.70
8	16.81	16.58	16.71	16.66	---	---	18.45	18.35	18.98	18.87	18.82	18.70
9	16.61	16.44	16.76	16.67	---	---	18.50	18.34	18.92	18.60	18.83	18.72
10	16.61	16.44	---	---	---	---	18.50	18.37	18.84	18.60	18.79	18.64
11	16.65	16.52	---	---	17.81	17.67	18.49	18.30	18.90	18.74	18.81	18.65
12	16.70	16.59	---	---	17.90	17.69	18.45	18.34	18.92	18.81	18.83	18.76
13	16.65	16.41	---	---	18.05	17.81	18.41	18.19	18.90	18.79	18.77	18.68
14	16.40	16.27	---	---	18.12	17.95	18.60	18.32	18.83	18.74	18.76	18.60
15	16.52	16.27	---	---	18.11	17.92	18.68	18.53	18.75	18.70	18.77	18.73
16	16.62	16.48	16.82	16.76	18.19	18.03	18.71	18.62	18.81	18.74	---	---
17	16.62	16.50	---	---	18.27	18.15	18.66	18.60	18.82	18.74	18.83	18.72
18	16.70	16.55	---	---	---	---	18.71	18.63	18.77	18.68	18.80	18.73
19	16.59	16.41	16.93	16.79	---	---	18.85	18.70	18.71	18.63	18.82	18.66
20	16.51	16.30	16.81	16.78	---	---	19.04	18.82	18.64	18.56	18.88	18.80
21	16.65	16.51	16.84	16.80	---	---	19.08	18.94	18.75	18.59	18.83	18.77
22	16.66	16.44	16.96	16.81	---	---	19.07	18.97	18.74	18.66	18.83	18.74
23	16.46	16.23	17.06	16.92	---	---	19.00	18.89	18.75	18.63	18.81	18.68
24	16.46	16.22	17.00	16.91	---	---	19.06	18.90	18.84	18.66	18.80	18.64
25	16.63	16.44	17.16	16.91	---	---	19.00	18.89	18.84	18.75	18.62	18.35
26	16.63	16.53	17.30	17.08	---	---	18.95	18.86	18.82	18.69	18.50	18.36
27	16.60	16.45	17.40	17.18	---	---	19.02	18.86	18.78	18.66	18.61	18.50
28	16.74	16.52	17.46	17.26	---	---	18.99	18.90	18.73	18.65	18.68	18.58
29	16.72	16.59	17.51	17.34	---	---	18.95	18.84	18.77	18.69	18.69	18.60
30	16.68	16.46	17.48	17.37	---	---	18.87	18.71	18.76	18.67	18.77	18.69
31	---	---	17.55	17.40	---	---	18.74	18.65	18.85	18.66	---	---
MONTH	16.89	16.22	17.55	16.41	18.27	17.37	19.08	18.15	18.98	18.56	19.04	18.35



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

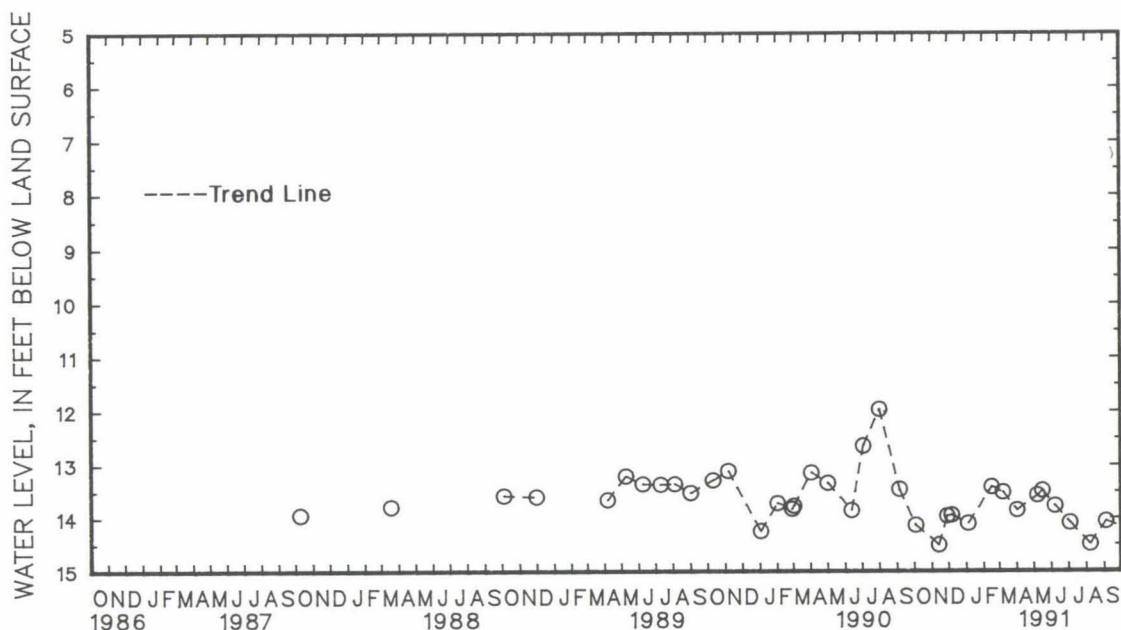
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 156. SITE ID.--385852076195201. PERMIT NUMBER.--QA-81-0475.
LOCATION.--Lat 38°58'52", long 76°19'52", Hydrologic Unit 02060002, north of US Rt. 50, 0.7 mi west of
intersection MD Rt. 8, Kent Island.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 220 ft; casing diameter 4 in., to 210 ft;
screen diameter 4 in. from 210 to 220 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 7.5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.30 ft above land surface.
REMARKS.--Kent Island ground-water monitoring network well. Measured twice yearly from September 1987 to
April 1989.
PERIOD OF RECORD.--April 1985 to June 1986, September 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.97 ft below land surface, Aug. 1, 1990;
lowest measured, 14.52 ft below land surface, Nov 13, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 3	14.15	DEC 6	13.95	MAR 7	13.52	MAY 16	13.49	AUG 7	14.50		
NOV 13	14.52	JAN 4	14.11	APR 1	13.86	JUN 7	13.78	SEP 4	14.07		
28	13.97	FEB 15	13.42	MAY 7	13.58	JUL 3	14.10				
WATER YEAR 1991		HIGHEST	13.42	FEB 15, 1991		LOWEST	14.52	NOV 13, 1990			



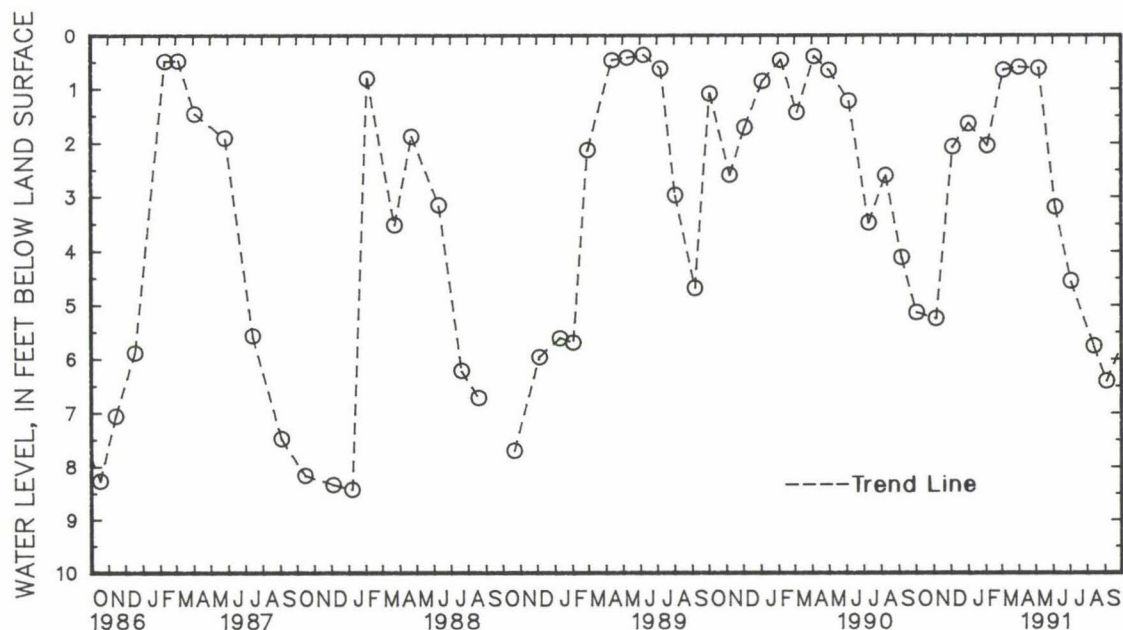
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

QUEEN ANNES COUNTY--Continued

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.04 ft below land surface, May 8, 1958 and April 5, 1990; lowest measured, 8.46 ft below land surface, Jan. 7, 1988.

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL			
OCT	2	5.17	DEC	5	2.07	FEB	4	2.05	APR	2	.60	JUN	5	3.22	AUG	13	5.80
NOV	5	5.28	JAN	2	1.64	MAR	5	.65	MAY	7	.62	JUL	3	4.59	SEP	4	6.45
WATER YEAR 1991		HIGHEST		.60		APR 2, 1991		LOWEST		6.45		SEP 4, 1991					



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Fc 7. SITE ID.--385429076120201. PERMIT NUMBER.--QA-73-2191.

LOCATION.--Lat 38°54'29", long 76°12'02", Hydrologic Unit 02060002, at Prospect Plantation.

Owner: Maryland Community Developers Incorporated.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 356 ft; casing diameter 4 in., to 336 ft; screen diameter 2 in. from 336 to 356 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land-surface datum.

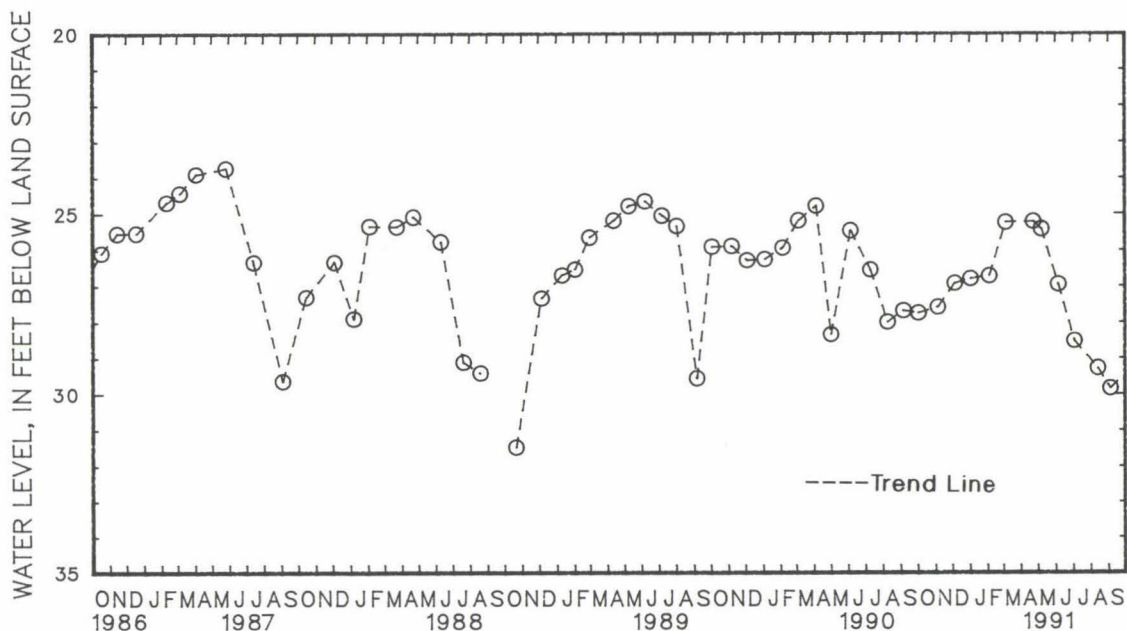
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.77 ft below land surface, March 3, 1983;
lowest measured, 31.53 ft below land surface, Oct. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 2	27.79	DEC 5	26.95	FEB 4	26.74	APR 23	25.23	JUN 5	26.99	AUG 13	29.34	NOV 5	27.62	SEP 4	29.90
WATER YEAR 1991		HIGHEST 25.23		APR 23, 1991		LOWEST 29.90		SEP 4, 1991							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY

WELL NUMBER.--SM Bb 15. SITE ID.--382838076470101. PERMIT NUMBER.--SM-72-3430.

LOCATION.--Lat 38°28'38", long 76°47'01", Hydrologic Unit 02070011, at Charlotte Hall.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 460 ft; casing diameter 4 in., to 441 ft; casing diameter 2 in. from 441 to 450 ft; screen diameter 2 in. from 450 to 460 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.10 ft above land surface.

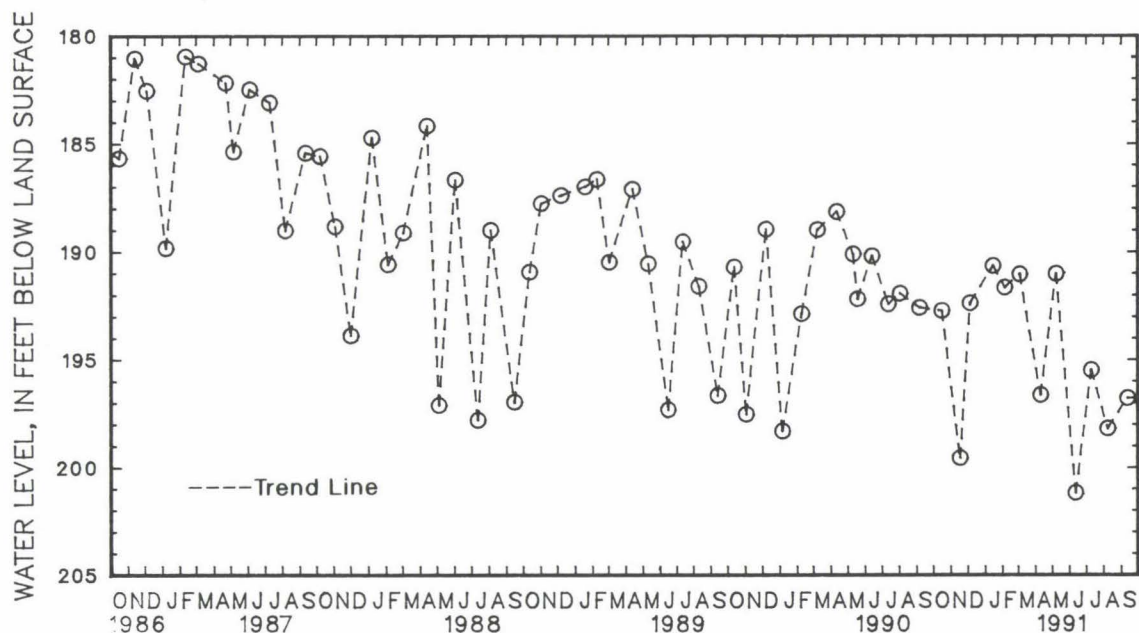
REMARKS.--Maryland Water-Level Network observation well. Water levels may be affected by nearby pumping.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 159.76 ft below land surface, Aug. 10, 1979, and Aug. 31, 1979; lowest measured, 207.55 ft below land surface, Dec. 12, 1984.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	192.73	DEC 5	192.36	FEB 5	191.64	APR 10	196.64	JUN 12	201.19	AUG 8	198.19
NOV 17	199.57	JAN 15	190.64	MAR 4	191.03	MAY 8	191.01	JUL 10	195.48	SEP 12	196.78
WATER YEAR 1991		HIGHEST	190.64	JAN 15, 1991		LOWEST	201.19	JUN 12, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Bb 22. SITE ID.--382838076470102. PERMIT NUMBER.--SM-73-3787.

LOCATION.--Lat 38°28'38", long 76°47'01", Hydrologic Unit 02070011, at Charlotte Hall Veterans Home.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 218 ft; casing diameter 4 in., to 210 ft; screen diameter 2 in. from 210 to 218 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.55 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Water levels may be affected by nearby pumping.

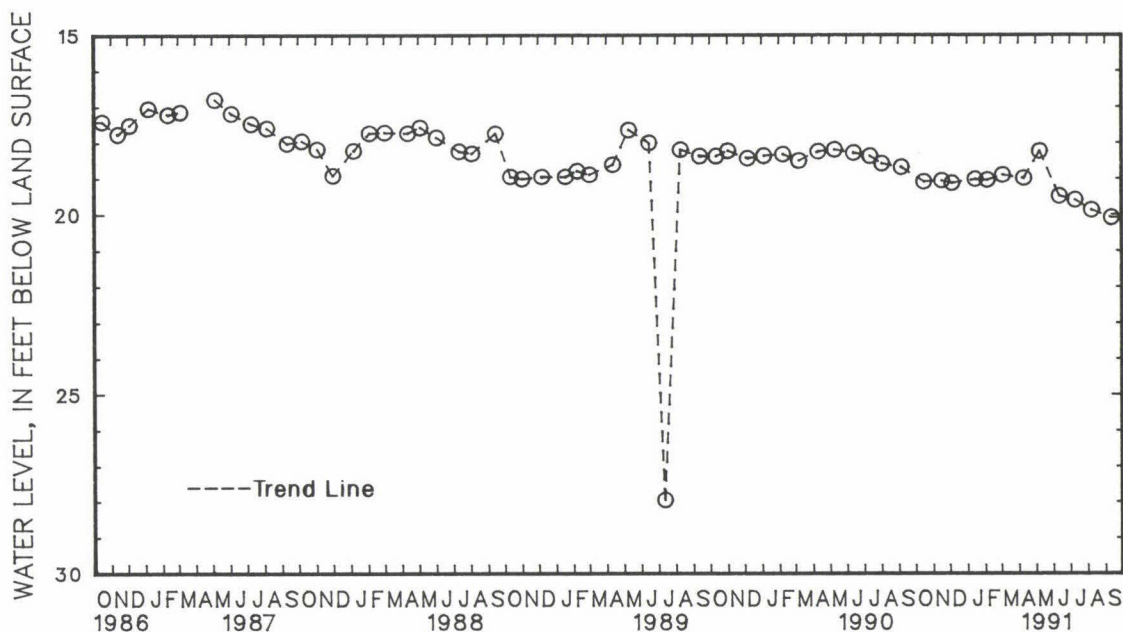
The July 12, 1989 water-level declined due to nearby pump test.

PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.27 ft below land surface, July 9, 1980; lowest measured, 27.95 ft below land surface, July 12, 1989--See Remarks.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	19.09	DEC 5	19.13	FEB 5	19.04	APR 10	18.99	JUN 12	19.49	AUG 8	19.88
NOV 17	19.06	JAN 15	19.02	MAR 4	18.90	MAY 8	18.23	JUL 10	19.60	SEP 12	20.09
WATER YEAR 1991		HIGHEST	18.23	MAY 8, 1991	LOWEST	20.09	SEP 12, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

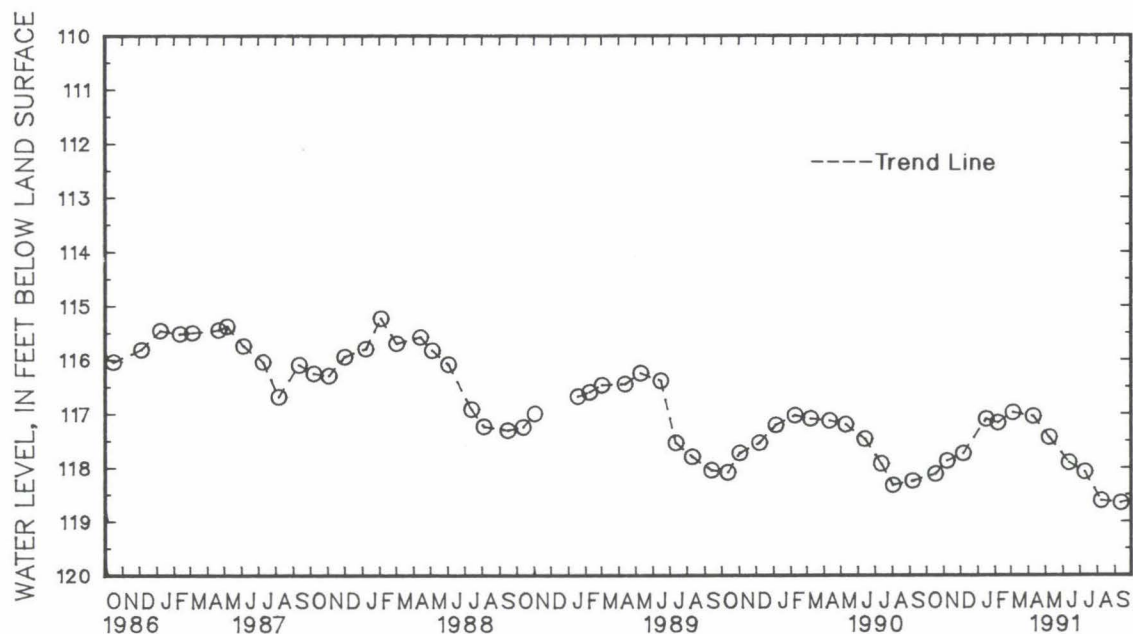
MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 46. SITE ID.--381616076364701. PERMIT NUMBER.--SM-73-1990.
 LOCATION.--Lat 38°16'16", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.
 Owner: U.S. Geological Survey.
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 296 ft; casing diameter 6 in., to 150 ft; casing diameter 2 in. from 150 to 286 ft; screen diameter 2 in. from 286 to 296 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 2.90 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1976 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 110.01 ft below land surface, Jan. 4, 1977; lowest measured, 118.66 ft below land surface, Sept. 12, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	118.12	DEC 6	117.74	FEB 6	117.17	APR 10	117.05	JUN 12	117.91	AUG 8	118.62
NOV 7	117.88	JAN 16	117.10	MAR 5	116.98	MAY 8	117.44	JUL 10	118.08	SEP 12	118.66
WATER YEAR 1991		HIGHEST	116.98	MAR 5, 1991		LOWEST	118.66	SEP 12, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 49. SITE ID.--381616076364702. PERMIT NUMBER.--SM-73-3081.

LOCATION.--Lat 38°16'16", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 619 ft; casing diameter 4 in., to 279 ft; casing diameter 1.5 in. from 279 to 534 ft and 544 to 619 ft; screen diameter 3 in. from 534 to 544 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.40 ft above land-surface datum.

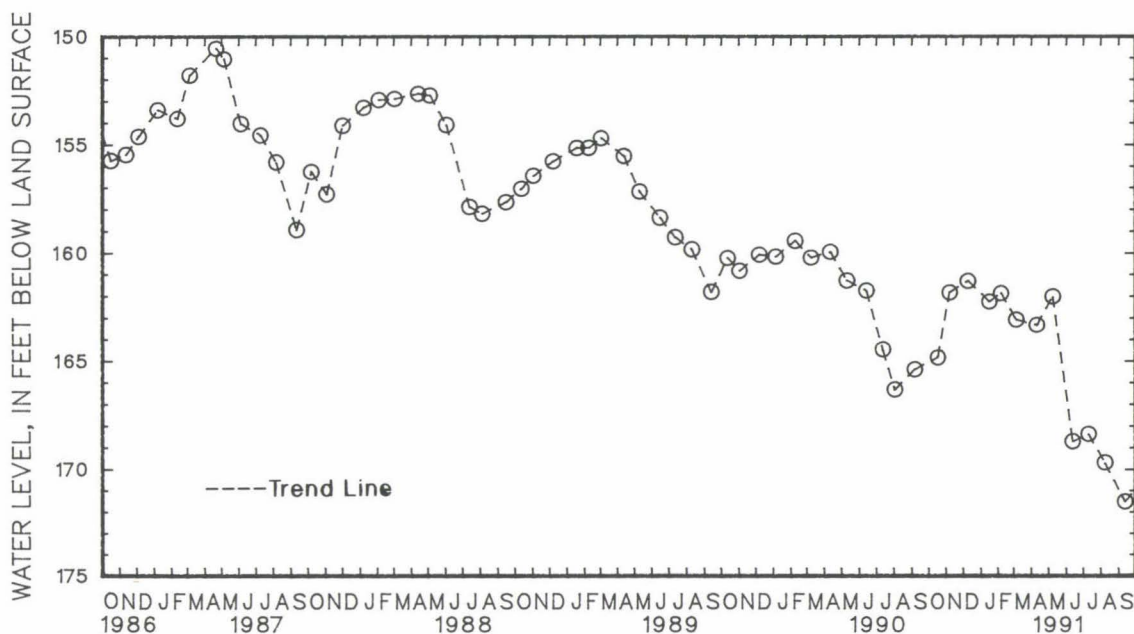
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 138.95 ft below land surface, April 5, 1979; lowest measured, 171.58 ft below land surface, Sept 12, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	164.90	DEC 9	161.32	FEB 6	161.90	APR 10	163.40	JUN 12	168.81	AUG 8	169.78
NOV 7	161.85	JAN 16	162.30	MAR 5	163.15	MAY 8	162.05	JUL 10	168.46	SEP 12	171.58
WATER YEAR 1991		HIGHEST	161.32	DEC 9, 1990	LOWEST	171.58	SEP 12, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 50. SITE ID.--381807076380001. PERMIT NUMBER.--SM-73-3082.

LOCATION.--Lat 38°18'07", long 76°38'00", Hydrologic Unit 02070011, at Leonard Hall Junior Naval Academy, Leonardtown.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 579 ft; casing diameter 4 in., to 270 ft; casing diameter 2 in. from 270 to 505 ft; screen diameter 3 in. from 505 to 515 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.86 ft above land surface.

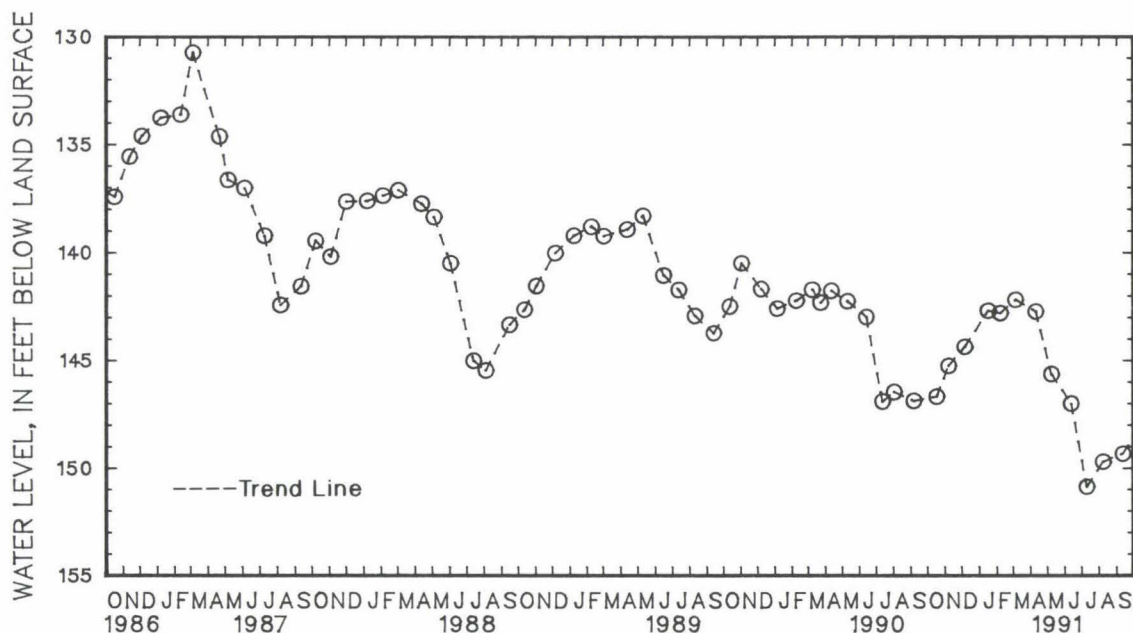
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 119.05 ft below land surface, Feb. 2, 1979; lowest measured, 150.88 ft below land-surface, July 10, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	146.69	DEC 6	144.38	FEB 6	142.80	APR 10	142.73	JUN 12	147.02	AUG 8	149.71
NOV 7	145.27	JAN 16	142.69	MAR 5	142.18	MAY 8	145.65	JUL 10	150.88	SEP 12	149.34
WATER YEAR 1991		HIGHEST	142.18	MAR 5, 1991		LOWEST	150.88	JUL 10, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 62. SITE ID.--381616076364703. PERMIT NUMBER.--SM-73-3786.

LOCATION.--Lat 38°16'16", 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 358 ft; casing diameter 4 in., to 210 ft; casing diameter 2 in. from 210 to 348 ft; screen diameter 2 in. from 348 to 358 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.70 ft above land surface.

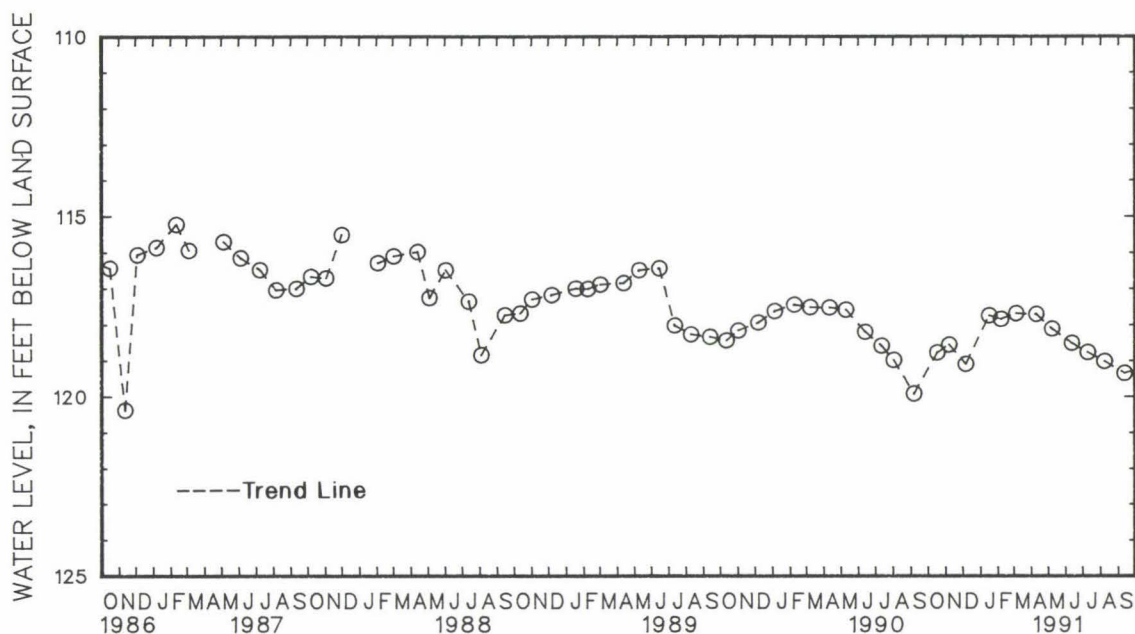
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.06 ft below land surface, Oct. 30, 1980; lowest measured, 120.39 ft below land surface, Nov. 12, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	118.79	DEC 6	119.11	FEB 6	117.85	APR 10	117.71	JUN 12	118.52	AUG 8	119.03
NOV 7	118.57	JAN 16	117.75	MAR 5	117.69	MAY 8	118.12	JUL 10	118.78	SEP 12	119.36
WATER YEAR 1991		HIGHEST	117.69	MAR 5, 1991		LOWEST	119.36	SEP 12, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 63. SITE ID.--381615076364701. PERMIT NUMBER.--SM-73-3785.

LOCATION.--Lat 38°16'15", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 356 ft; casing diameter 4 in., to 327 ft;

casing diameter 2 in. from 327 to 346 ft; screen diameter 2 in. from 346 to 356 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 115 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Measured monthly from October 1977 to October 1986.

Measured twice yearly from April 1987 to current year.

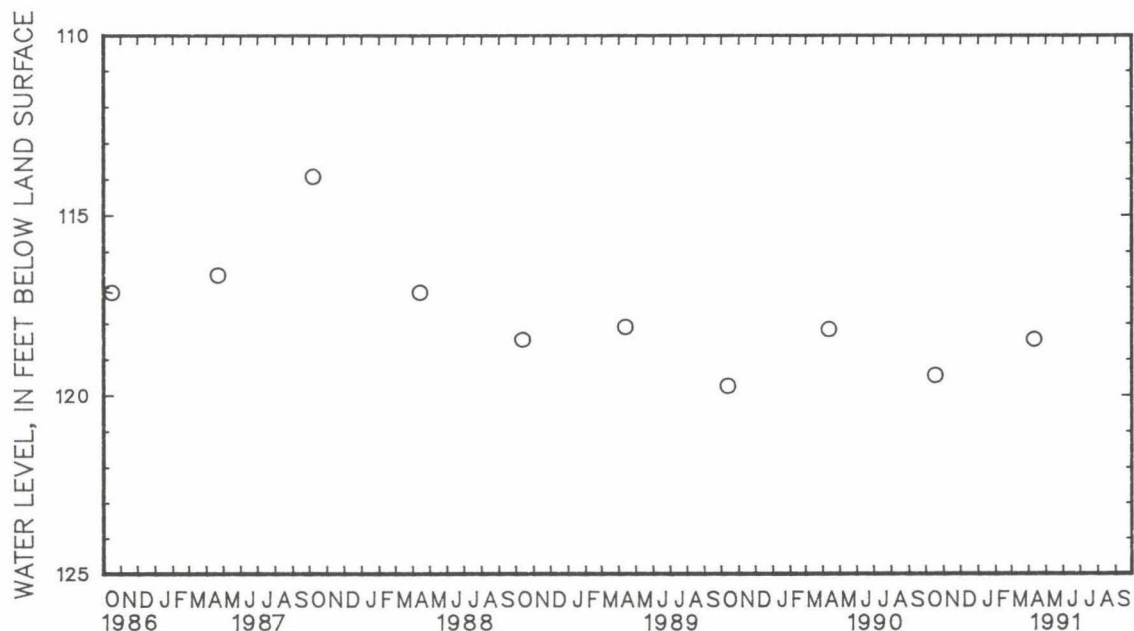
PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 113.15 ft below land surface, March 2, 1981;

lowest measured, 119.50 ft below land surface, Oct. 17, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	119.50	APR 10	118.47
WATER YEAR 1991 HIGHEST 118.47 APR 10, 1991 LOWEST 119.50 OCT 17, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 71. SITE ID.--381527076283101. PERMIT NUMBER.--SM-73-3431.

LOCATION.--Lat 38°15'27", long 76°28'31", Hydrologic Unit 02070011, at Great Mills Rd., Lexington Park.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 560 ft; casing diameter 4 in., to 420 ft; casing diameter 2 in. from 420 to 550 ft; screen diameter 2 in. from 550 to 560 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.80 ft above land surface.

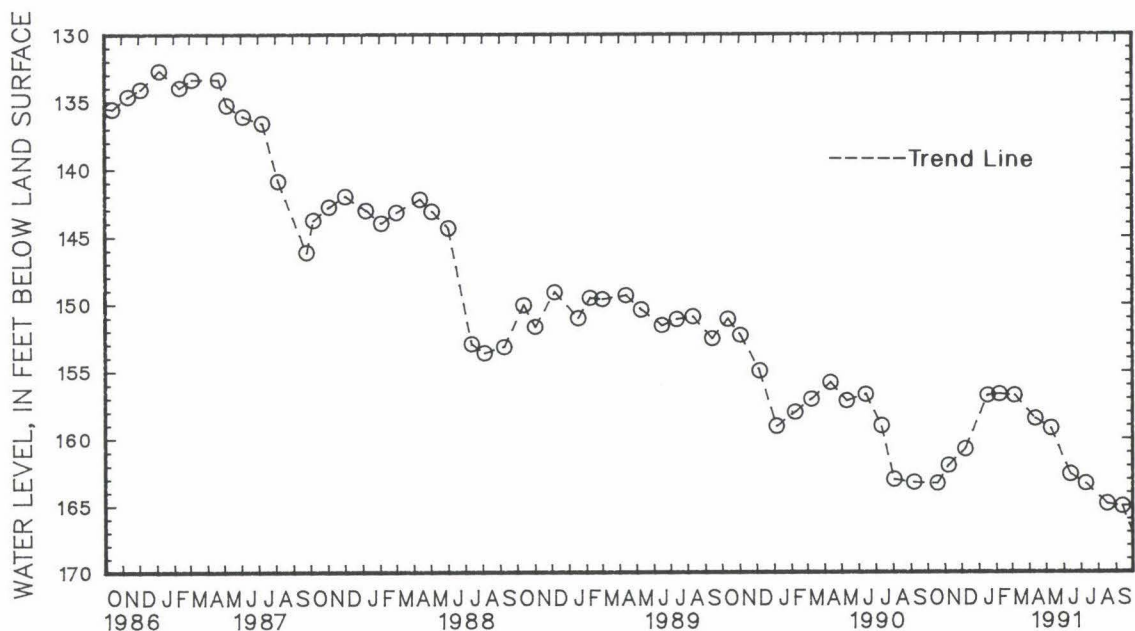
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 119.19 ft below land surface, May 1, 1980; lowest measured, 165.14 ft below land surface, Sept. 12, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	163.44	DEC 7	160.84	FEB 6	156.74	APR 11	158.60	JUN 12	162.76	AUG 16	164.96
NOV 7	162.08	JAN 16	156.82	MAR 5	156.83	MAY 9	159.32	JUL 9	163.45	SEP 12	165.14
WATER YEAR 1991		HIGHEST	156.74	FEB 6, 1991	LOWEST	165.14	SEP 12, 1991				



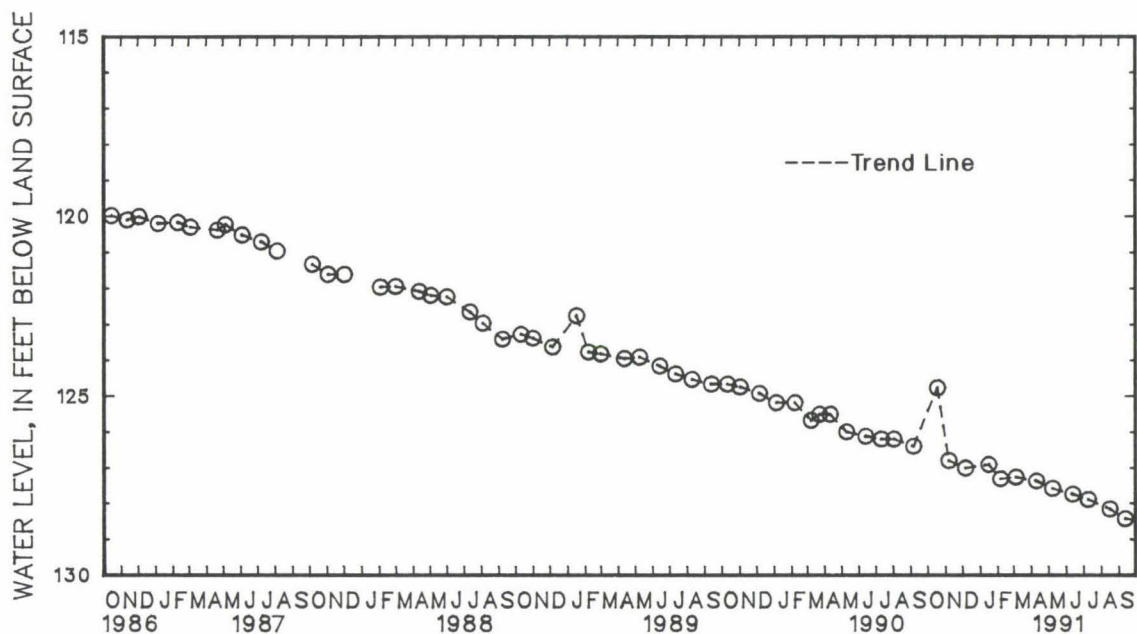
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 84. SITE ID.--381548076272102. PERMIT NUMBER.--SM-81-0119.
LOCATION.--Lat 38°15'48", long 76°27'21", Hydrologic Unit 0206001, at Lexington Park.
Owner: Maryland Geological Survey.
AQUIFER.--Brightseat Formation of Paleocene age. Aquifer code: 125BRGS.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 920 ft; casing diameter 6 in., to 246 ft; casing diameter 4 in. from 246 ft to 831 ft, 856 to 862 ft, and 867 to 897; screen diameter 4 in. from 831 to 856 ft, 862 to 867 ft, and 897 to 912 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 105 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 2.80 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--June 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 117.27 ft below land surface, June 11, 1984; lowest measured, 128.43 ft below land surface, Sept. 12, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	124.78	DEC 6	127.02	FEB 6	127.32	APR 10	127.38	JUN 12	127.75	AUG 16	128.16
NOV 7	126.81	JAN 16	126.92	MAR 5	127.27	MAY 8	127.59	JUL 9	127.90	SEP 12	128.43
WATER YEAR 1991		HIGHEST	124.78	OCT 18, 1990		LOWEST	128.43	SEP 12, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Ef 80. SITE ID.--381052076253001.

LOCATION.--Lat 38°10'52", long 76°25'30", Hydrologic Unit 02070011, 0.1 mi south of intersection of MD Rt 5 and Rosecroft Rd.

Owner: St. Mary's College of Maryland.

AQUIFER.--Omar Formation of Pleistocene age. Aquifer code: 112OMAR.

WELL CHARACTERISTICS.--Dug, unused, water-table well, depth 20.7 ft; casing diameter 42 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.50 ft above land surface.

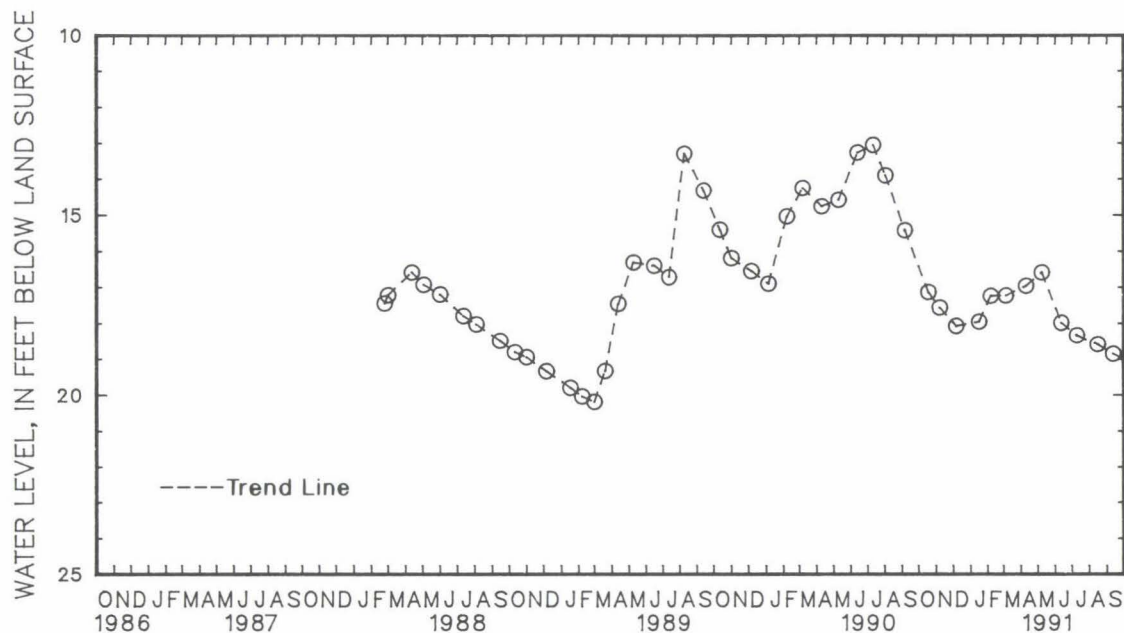
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.05 ft below land surface, July 11, 1990;
lowest measured, 20.20 ft below land surface, March 1, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	17.15	DEC 6	18.09	FEB 6	17.25	APR 10	16.97	JUN 12	18.00	AUG 16	18.60
NOV 7	17.58	JAN 16	17.97	MAR 5	17.24	MAY 8	16.60	JUL 10	18.35	SEP 12	18.87
WATER YEAR 1991		HIGHEST	16.60	MAY 8, 1991	LOWEST	18.87	SEP 12, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Eg 27. SITE ID.--381213076222801. PERMIT NUMBER.--SM-73-1993.

LOCATION.--Lat 38°12'13", long 76°22'28", Hydrologic Unit 02060001, 1.6 miles east of St. James at the St. Marys Co. Environmental Studies Area.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 320 ft; casing diameter 6 in., to 70 ft; casing diameter 2 in. from 70 to 310 ft; screen diameter 2 in. from 310 to 320 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.50 ft above land surface.

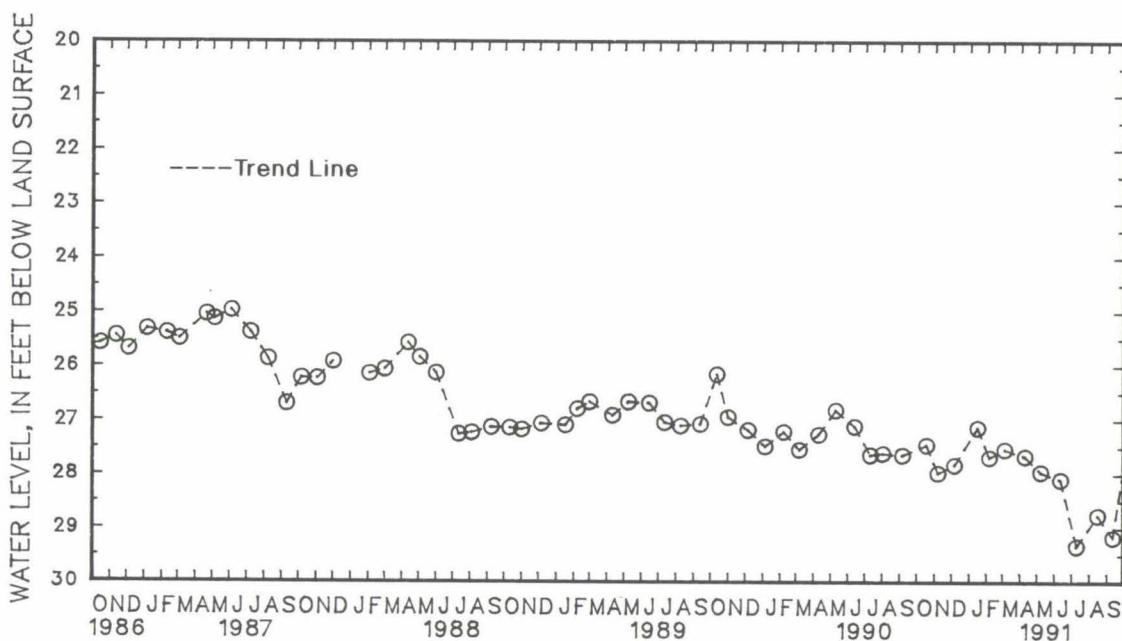
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.84 ft below land surface, May 12, 1978;
lowest measured, 29.33 ft below land surface, July 10, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 18	27.46	DEC 6	27.83	FEB 6	27.69	APR 10	27.67	JUN 12	28.10	AUG 16	28.76
NOV 7	27.98	JAN 16	27.14	MAR 5	27.54	MAY 8	27.96	JUL 10	29.33	SEP 12	29.17
WATER YEAR 1991		HIGHEST	27.14	JAN 16, 1991		LOWEST	29.33	JUL 10, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

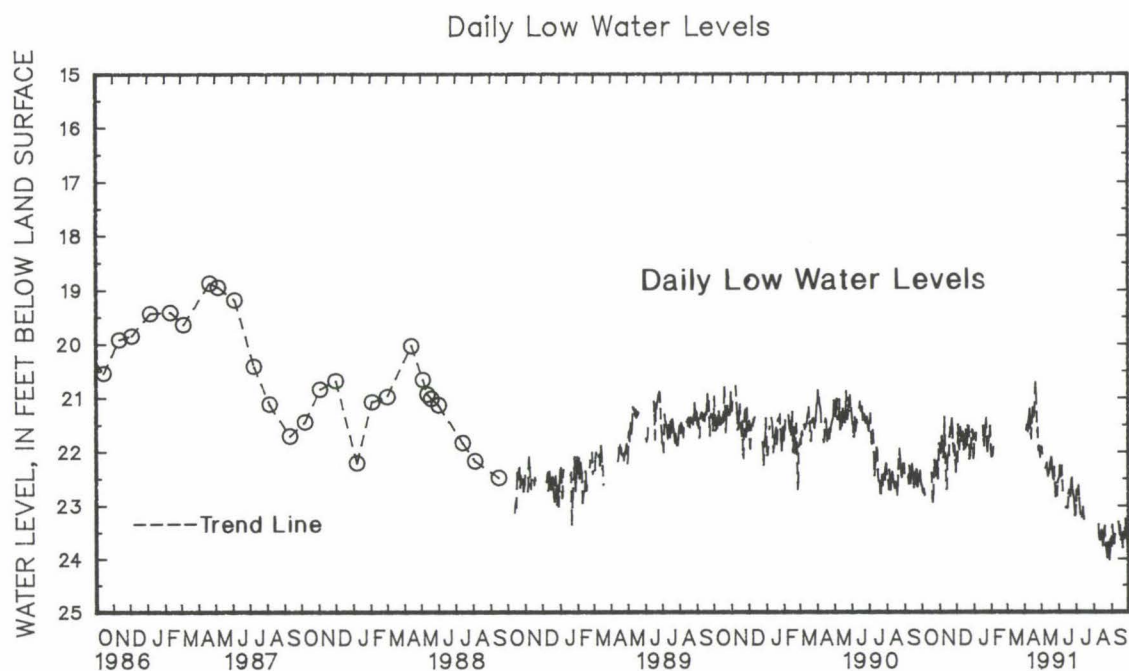
WELL NUMBER.--SM Fe 30. SITE ID.--380834076303401. PERMIT NUMBER.--SM-73-1917.
 LOCATION.--Lat 38°08'34", long 76°30'34", Hydrologic Unit 02070011, at water tower, Piney Point.
 Owner: U.S. Geological Survey.
 AQUIFER.--Piney Point Formation of Eocene age. Aquifer code: 124PNFN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 270 ft; casing diameter 6 in., to 67 ft; casing diameter 2 in. from 67 to 260 ft; screen diameter 2 in. from 260 to 270 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from Oct. 12, 1988 to current year.
 DATUM.--Elevation of land surface is 9 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.8 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Missing data due to malfunctioning recorder.
 PERIOD OF RECORD.--August 1976 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.24 ft below land surface, Oct. 6, 1976; lowest measured, 24.03 ft below land surface, Aug. 28, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.66	22.08	21.85	21.27	22.14	21.32	22.06	21.23	22.11	21.57	---	---
2	22.76	22.19	21.93	21.35	22.04	21.52	21.68	21.11	22.03	21.53	---	---
3	22.79	21.93	22.04	21.39	22.20	21.07	21.69	21.14	22.10	21.41	---	---
4	22.72	21.94	21.93	21.37	21.50	20.54	21.80	21.20	22.05	21.55	---	---
5	22.78	22.18	21.72	21.07	21.89	20.61	21.67	21.26	21.94	21.35	---	---
6	22.83	22.22	21.79	21.01	21.97	21.35	---	---	---	---	---	---
7	---	---	21.82	21.32	21.71	21.26	---	---	---	---	---	---
8	---	---	22.12	21.59	21.55	21.04	---	---	---	---	---	---
9	---	---	22.03	21.16	21.67	21.19	---	---	---	---	---	---
10	---	---	21.36	20.57	21.80	21.08	---	---	---	---	---	---
11	---	---	22.05	21.32	21.82	21.47	---	---	---	---	---	---
12	---	---	22.38	21.82	21.65	21.12	---	---	---	---	---	---
13	---	---	22.72	22.27	21.71	21.18	---	---	---	---	---	---
14	---	---	22.71	22.16	21.97	21.52	---	---	---	---	---	---
15	---	---	22.14	21.58	21.70	21.17	---	---	---	---	---	---
16	---	---	22.08	21.57	21.91	21.19	---	---	---	---	---	---
17	---	---	22.04	21.55	21.94	21.45	21.53	20.64	---	---	---	---
18	22.41	21.89	22.08	21.63	21.60	21.06	21.79	21.14	---	---	---	---
19	22.90	22.15	21.73	21.06	21.89	21.09	21.90	21.46	---	---	---	---
20	22.96	22.51	21.55	20.97	21.80	21.21	21.53	21.05	---	---	---	---
21	22.83	22.37	21.67	21.23	21.52	21.03	21.68	20.67	---	---	---	---
22	22.50	22.00	21.61	21.10	21.59	21.06	21.54	21.14	---	---	---	---
23	22.17	21.56	21.39	20.90	21.54	21.03	21.38	20.77	---	---	---	---
24	22.39	22.04	21.57	21.13	22.15	21.06	21.91	21.04	---	---	---	---
25	22.20	21.81	21.87	21.35	22.10	21.77	22.01	21.63	---	---	---	---
26	22.46	21.93	22.02	21.66	21.91	21.40	21.84	21.26	---	---	---	---
27	22.46	21.72	22.03	21.58	21.95	21.53	21.82	21.18	---	---	---	---
28	22.18	21.42	21.91	21.51	21.64	21.10	21.72	21.11	---	---	---	---
29	22.52	21.97	22.18	21.47	21.60	21.03	21.74	21.04	---	---	---	---
30	22.15	21.38	22.40	21.90	21.61	21.02	21.53	20.77	---	---	---	---
31	21.86	21.38	---	---	22.14	21.27	21.96	20.84	---	---	---	---
MONTH	22.83	21.38	22.72	20.57	22.20	20.54	22.06	20.64	22.11	21.35	---	---

GROUND-WATER LEVELS
MARYLAND--Continued
ST. MARYS COUNTY--Continued
SM Fe 30--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	21.99	21.28	22.52	22.02	22.94	22.40	---	---	23.78	23.18
2	---	---	21.95	21.37	22.48	21.87	22.73	22.19	---	---	23.38	22.86
3	---	---	22.06	21.25	22.28	21.76	22.80	22.34	---	---	23.52	23.07
4	21.60	20.95	---	---	22.38	21.77	22.71	22.22	---	---	23.55	23.08
5	21.51	21.04	---	---	22.48	21.79	22.65	22.12	---	---	23.73	23.17
6	21.51	21.00	---	---	22.28	21.67	22.89	22.38	---	---	23.60	22.99
7	21.63	21.14	---	---	22.57	22.11	23.02	22.47	---	---	23.56	22.90
8	21.44	21.02	---	---	22.75	22.22	23.16	22.59	---	---	---	---
9	21.35	21.06	22.33	21.90	---	---	23.19	22.58	23.39	22.72	---	---
10	21.21	20.91	22.29	21.89	---	---	---	---	23.61	22.58	---	---
11	21.40	20.90	22.24	21.67	---	---	23.24	22.45	23.67	22.99	---	---
12	21.68	21.17	22.40	21.66	---	---	23.19	22.49	23.63	23.00	---	---
13	21.77	21.15	22.48	21.85	23.07	22.31	23.05	22.39	23.58	22.98	23.32	22.83
14	21.48	20.75	22.43	21.76	23.05	22.31	23.22	22.47	23.49	22.98	23.42	22.81
15	21.37	20.65	22.42	21.63	23.08	22.31	23.28	22.61	23.64	22.95	23.55	23.03
16	21.18	20.58	22.33	21.62	23.08	22.42	---	---	23.78	23.27	23.40	22.99
17	21.36	20.59	22.21	21.60	23.06	22.47	---	---	23.74	23.29	23.66	23.26
18	21.35	20.70	22.36	21.62	22.80	22.28	---	---	23.64	23.20	23.58	23.23
19	21.27	20.59	22.13	21.47	22.74	22.23	---	---	23.46	22.90	23.55	23.10
20	20.83	20.30	22.19	21.54	22.79	22.33	---	---	23.41	22.84	23.80	23.35
21	20.72	20.23	22.40	21.91	22.85	22.41	---	---	23.78	23.36	23.52	23.04
22	20.94	20.40	22.52	21.94	22.69	22.09	---	---	23.73	23.29	23.63	23.04
23	21.28	20.27	22.55	21.95	22.54	22.11	---	---	23.86	23.25	23.59	22.99
24	21.66	21.06	22.31	21.75	22.51	22.14	---	---	24.00	23.33	23.62	23.09
25	21.58	21.00	22.61	21.73	22.74	22.20	---	---	23.90	23.39	23.26	22.67
26	22.00	21.50	22.86	22.20	22.83	22.23	---	---	23.71	23.15	23.46	22.66
27	21.92	21.42	22.69	22.12	22.88	22.37	---	---	23.90	23.20	23.57	22.96
28	21.98	21.42	22.82	22.00	23.03	22.29	---	---	24.03	23.37	23.62	23.10
29	22.13	21.45	22.85	22.17	23.21	22.47	---	---	23.88	23.31	23.77	23.17
30	21.93	21.39	22.60	22.03	23.20	22.64	---	---	23.65	23.09	23.80	23.29
31	---	---	22.55	21.90	---	---	---	---	23.65	23.03	---	---
MONTH	22.13	20.23	22.86	21.25	23.21	21.67	23.28	22.12	24.03	22.58	23.80	22.66



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Fg 45. SITE ID.--380711076222201. PERMIT NUMBER.--SM-04-5190.

LOCATION.--Lat 38°07'11", long 76°22'22", Hydrologic Unit 02070011, in fire pumphouse at Ridge.

Owner: Ridge Volunteer Fire Department.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 436 ft; casing diameter 6 in., to 386 ft; casing diameter 4 in. from 415 to 436 ft; screen diameter 5 in. from 386 to 415 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Hole in sanitary seal, 0.55 ft above land surface.

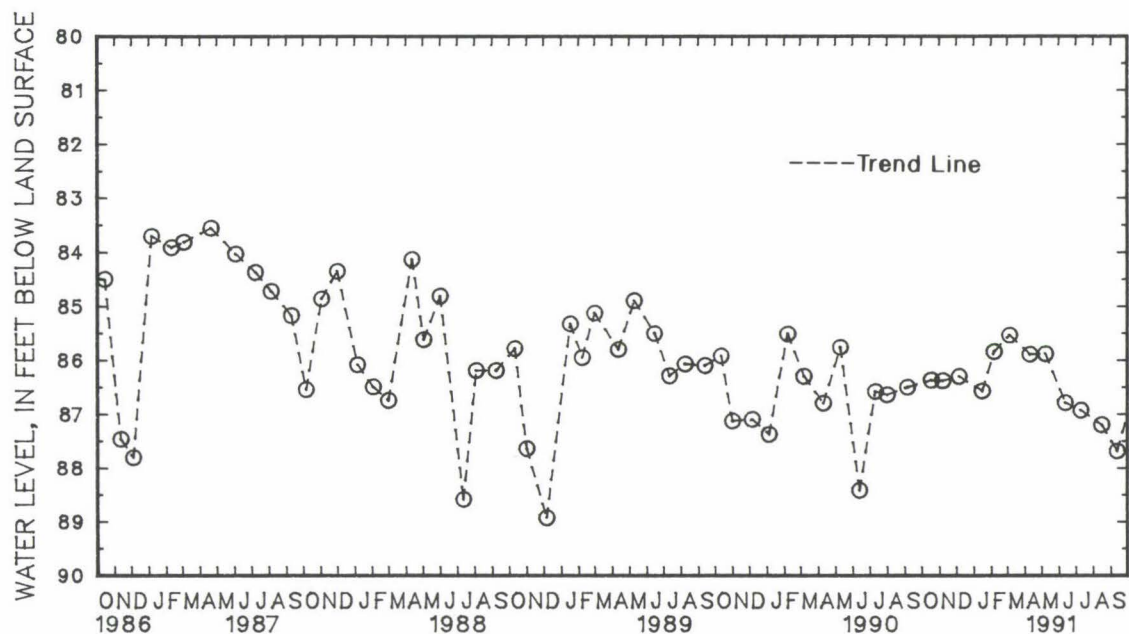
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.83 ft below land surface, May 16, 1967;
lowest measured, 88.93 ft below land surface, Dec. 6, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 18	86.37	DEC 6	86.30	FEB 6	85.84	APR 10	85.89	JUN 12	86.79	AUG 16	87.20
NOV 7	86.38	JAN 16	86.57	MAR 5	85.53	MAY 8	85.88	JUL 10	86.93	SEP 12	87.69
WATER YEAR 1991		HIGHEST	85.53	MAR 5, 1991		LOWEST	87.69	SEP 12, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

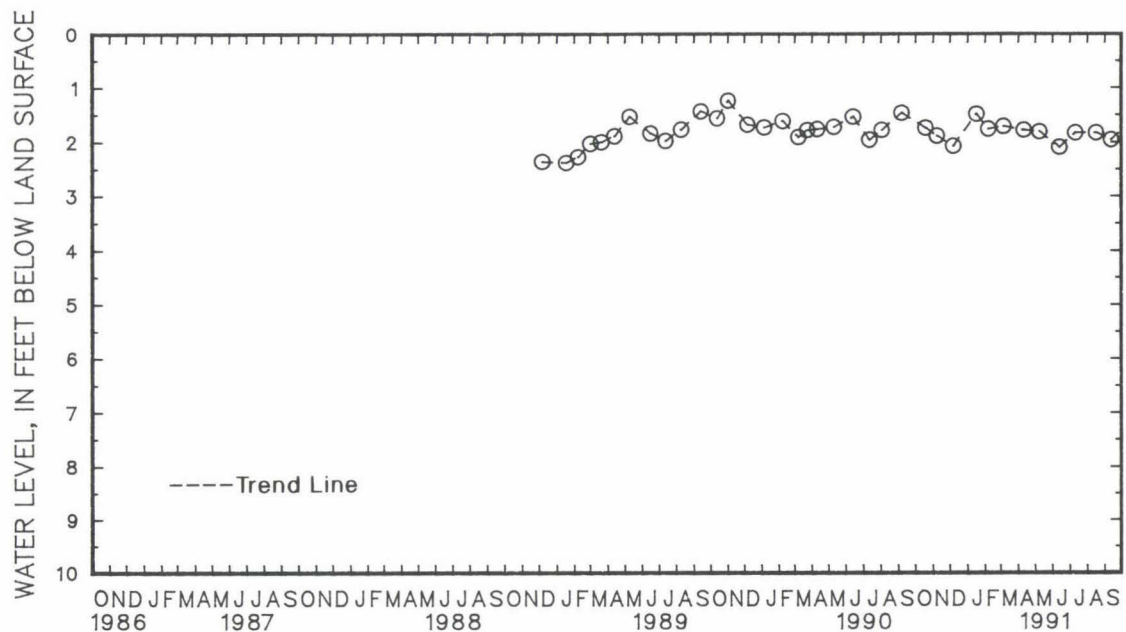
MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Gh 11. SITE ID.--380347076200101.
 LOCATION.--Lat 38°03'47", long 76°20'01", Hydrologic Unit 02006001, at Point Lookout State Park.
 Owner: Maryland Forest, Park and Wildlife Service.
 AQUIFER.--Holocene Series of Recent age. Aquifer code: 111HLCN.
 WELL CHARACTERISTICS.--Drilled, unused domestic, water-table well, measured depth 22.4 ft;
 casing diameter, 2.0 in., screen length unknown.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 1.30 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--December 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.25 ft below land surface, Nov. 1, 1989;
 lowest measured, 2.41 ft below land surface, Jan. 9, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 18	1.76	DEC 6	2.10	FEB 6	1.78	APR 10	1.80	JUN 12	2.12	AUG 16	1.85
NOV 7	1.91	JAN 16	1.50	MAR 5	1.73	MAY 8	1.83	JUL 10	1.85	SEP 12	1.98
WATER YEAR 1991		HIGHEST	1.50	JAN 16, 1991		LOWEST	2.12	JUN 12, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

SOMERSET COUNTY

WELL NUMBER.--SO Be 42. SITE ID.--381156075412501.

LOCATION.--Lat 38°11'56", long 75°41'25", Hydrologic Unit 02060009, 0.1 mi northeast of US Rt. 13 and Hampden Ave., Princess Anne.

Owner: E. Mace Smith.

AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, measured depth 184 ft; casing diameter 2 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.28ft above land surface.

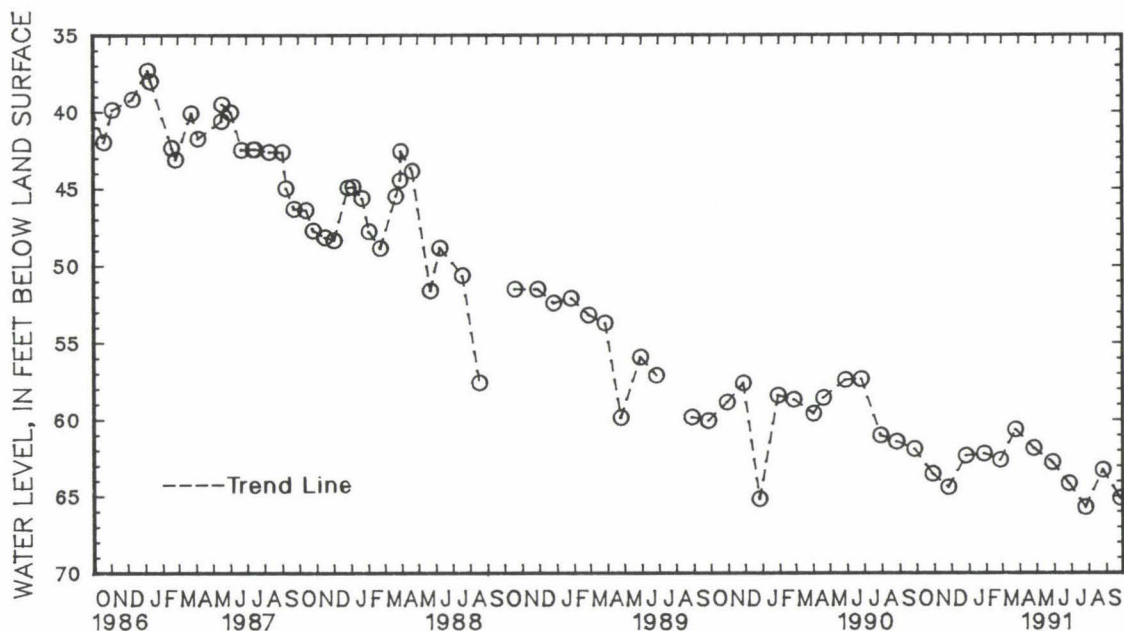
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.15 ft below land surface May 1, 1953; lowest measured 65.72 ft below land surface, July 26, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	63.52	DEC 27	62.34	FEB 26	62.62	APR 26	61.85	JUN 27	64.15	AUG 26	63.27
NOV 26	64.40	JAN 28	62.20	MAR 25	60.64	MAY 29	62.77	JUL 26	65.72	SEP 26	65.12
WATER YEAR 1991		HIGHEST	60.64	MAR 25, 1991		LOWEST	65.72	JUL 26, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
SOMERSET COUNTY--Continued

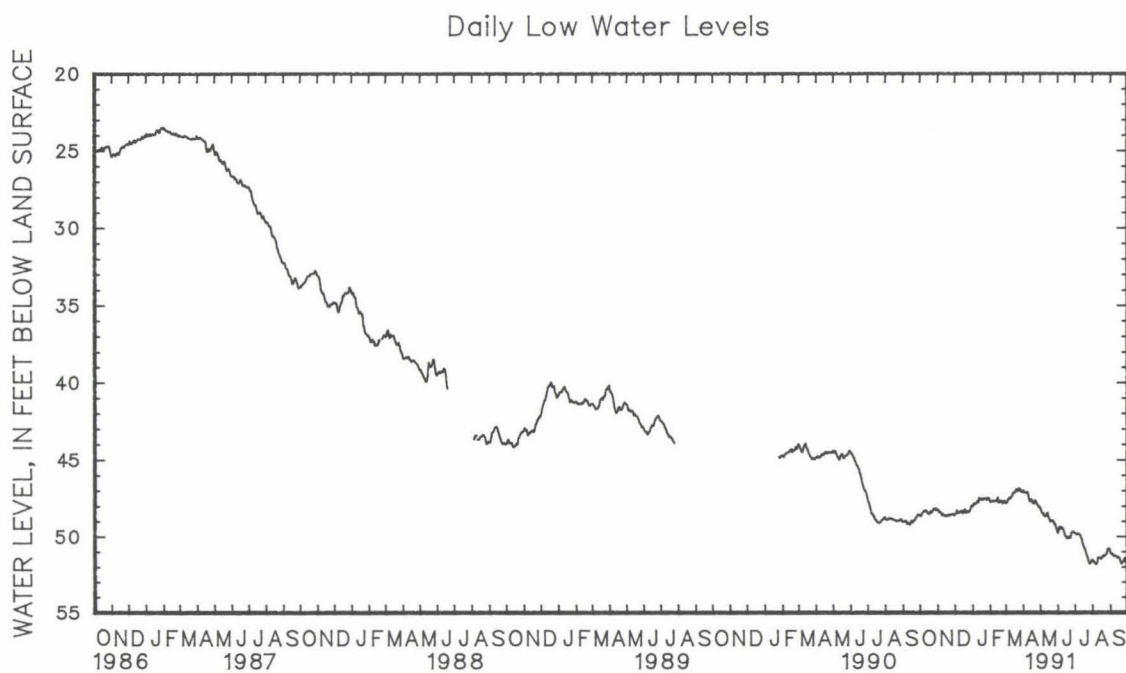
WELL NUMBER.--SO Ce 42. SITE ID.--380927075423701. PERMIT NUMBER.--SO-81-0394.
LOCATION.--Lat 38°09'30", long 75°41'56", Hydrologic Unit 02060009, at Eastern Shore Correctional Institution.
Owner: Maryland Department of Correction.
AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 215 ft; casing diameter 4 in., to 185 ft; screen diameter 4 in. from 185 to 215 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recording interval, from Jan. 2, 1986 to current year.
DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of recorder shelf, 1.6 ft above land surface.
REMARKS.--Water levels affected by nearby pumping. No record from Oct. 1, 1989 to Jan. 24, 1990, due to the drilling of a nearby well.
PERIOD OF RECORD.--January 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.97 ft below land surface, Feb. 21, 1986; lowest measured, 51.90 ft below land surface, Aug. 7, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	48.74	48.62	48.34	48.19	48.67	48.51	48.09	47.99	47.81	47.73	47.90	47.80
2	48.73	48.60	48.39	48.24	48.62	48.53	48.00	47.83	47.81	47.74	47.85	47.70
3	48.74	48.64	48.48	48.31	48.58	48.35	47.91	47.80	47.78	47.73	47.83	47.65
4	48.61	48.37	48.51	48.37	48.38	48.15	47.94	47.86	47.77	47.72	47.68	47.47
5	48.53	48.41	48.49	48.29	48.52	48.37	47.94	47.86	47.74	47.69	47.64	47.51
6	48.49	48.38	48.53	48.28	48.54	48.45	47.91	47.82	47.76	47.66	47.62	47.49
7	48.44	48.36	48.60	48.49	48.57	48.48	47.90	47.83	47.77	47.66	47.54	47.36
8	48.42	48.32	48.69	48.60	48.54	48.42	47.86	47.73	47.76	47.68	47.56	47.53
9	48.37	48.27	48.72	48.58	48.51	48.39	47.77	47.64	47.76	47.67	47.57	47.51
10	48.38	48.29	48.62	48.34	48.43	48.30	47.82	47.75	47.76	47.70	47.51	47.43
11	48.38	48.27	48.68	48.48	48.43	48.39	47.82	47.43	47.73	47.60	47.48	47.41
12	48.45	48.30	48.69	48.52	48.40	48.30	47.56	47.37	47.76	47.69	47.42	47.27
13	48.47	48.35	48.72	48.66	48.42	48.31	47.66	47.48	47.67	47.51	47.29	47.16
14	48.58	48.38	48.77	48.71	48.57	48.42	47.65	47.45	47.54	47.31	47.20	47.06
15	48.59	48.47	48.74	48.63	48.54	48.37	47.65	47.55	47.66	47.36	47.18	47.07
16	48.62	48.54	48.72	48.64	48.43	48.31	47.60	47.33	47.84	47.63	47.19	47.07
17	48.62	48.49	48.75	48.62	48.41	48.32	47.60	47.35	47.83	47.77	47.17	47.04
18	48.52	48.27	48.77	48.69	48.31	48.08	47.64	47.55	47.82	47.75	47.08	46.79
19	48.45	48.28	48.71	48.49	48.47	48.22	47.67	47.60	47.76	47.64	46.99	46.73
20	48.52	48.44	48.67	48.54	48.55	48.48	47.62	47.47	47.74	47.55	47.07	46.90
21	48.52	48.41	48.71	48.62	48.53	48.33	47.58	47.36	47.78	47.73	47.08	46.98
22	48.46	48.26	48.72	48.61	48.43	48.38	47.60	47.52	47.78	47.71	47.05	46.95
23	48.34	48.09	48.66	48.49	48.42	48.33	47.60	47.42	47.91	47.80	47.07	46.83
24	48.28	48.20	48.63	48.54	48.44	48.23	47.59	47.48	47.89	47.78	46.92	46.76
25	48.27	48.17	48.65	48.59	48.49	48.45	47.67	47.59	47.80	47.68	46.99	46.87
26	48.26	48.21	48.66	48.61	48.45	48.37	47.66	47.53	47.76	47.68	47.01	46.90
27	48.31	48.12	48.63	48.55	48.39	48.26	47.59	47.51	47.82	47.66	46.99	46.84
28	48.23	48.03	48.61	48.51	48.25	48.06	47.55	47.42	47.88	47.73	47.11	46.83
29	48.33	48.22	48.67	48.51	48.14	47.99	47.58	47.47	---	---	47.14	47.01
30	48.34	48.17	48.72	48.66	48.05	47.87	47.56	47.40	---	---	47.16	46.92
31	48.31	48.16	---	---	48.09	47.90	47.74	47.43	---	---	47.17	47.05
MONTH	48.74	48.03	48.77	48.19	48.67	47.87	48.09	47.33	47.91	47.31	47.90	46.73

GROUND-WATER LEVELS
MARYLAND--Continued
SOMERSET COUNTY--Continued
SO Ce 42--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	47.07	46.96	48.26	48.09	49.87	49.73	49.90	49.78	51.64	51.52	51.16	51.02
2	47.14	46.98	48.39	48.17	49.75	49.37	49.90	49.74	51.65	51.53	51.17	51.05
3	47.19	47.10	48.48	48.31	49.49	49.33	49.91	49.79	51.73	51.63	51.20	51.09
4	47.21	47.14	48.56	48.44	49.57	49.38	49.96	49.84	51.76	51.62	51.21	51.10
5	47.21	47.14	48.62	48.52	49.59	49.38	49.93	49.81	51.84	51.68	51.26	51.10
6	47.21	47.17	48.59	48.45	49.48	49.36	49.94	49.78	51.89	51.75	51.30	51.18
7	47.18	47.14	48.74	48.61	49.50	49.40	49.94	49.80	51.90	51.72	51.34	51.17
8	47.17	47.13	48.76	48.70	49.52	49.42	49.92	49.76	51.80	51.69	51.34	51.21
9	47.24	47.13	48.78	48.70	49.59	49.42	49.95	49.75	51.73	51.32	51.34	51.21
10	47.44	47.22	48.78	48.70	49.59	49.47	49.97	49.82	51.44	51.24	51.33	51.17
11	47.64	47.43	48.76	48.58	49.70	49.43	50.07	49.83	51.45	51.29	51.39	51.22
12	47.76	47.60	48.62	48.51	49.84	49.58	50.19	49.94	51.45	51.32	51.44	51.33
13	47.78	47.66	48.55	48.44	50.00	49.74	50.29	50.05	51.45	51.32	51.44	51.31
14	47.76	47.58	48.60	48.38	50.09	49.91	50.50	50.19	51.50	51.34	51.43	51.31
15	47.66	47.52	48.82	48.48	50.13	49.98	50.64	50.42	51.47	51.36	51.46	51.35
16	47.72	47.49	48.92	48.69	50.17	50.02	50.73	50.58	51.50	51.42	51.47	51.38
17	47.78	47.61	48.97	48.81	50.23	50.11	50.82	50.71	51.49	51.39	51.59	51.44
18	47.90	47.71	49.12	48.89	50.23	50.01	50.91	50.80	51.43	51.33	51.69	51.58
19	47.91	47.77	49.13	48.98	50.14	50.02	50.99	50.88	51.33	51.12	51.80	51.63
20	47.92	47.79	49.08	48.97	50.12	50.03	51.15	50.96	51.30	51.12	51.84	51.76
21	47.85	47.60	49.07	48.99	50.17	50.05	51.25	51.12	51.34	51.25	51.81	51.71
22	47.72	47.51	49.06	48.99	50.19	50.08	51.35	51.21	51.31	51.21	51.80	51.69
23	47.81	47.69	49.10	49.00	50.20	50.03	51.47	51.27	51.26	51.18	51.72	51.55
24	47.85	47.69	49.14	49.02	50.04	49.82	51.65	51.39	51.23	51.15	51.68	51.56
25	47.97	47.78	49.24	49.03	49.85	49.75	51.77	51.56	51.17	51.05	51.53	51.32
26	48.03	47.89	49.31	49.18	49.80	49.70	51.84	51.70	51.03	50.89	51.48	51.31
27	48.08	47.91	49.30	49.19	49.81	49.69	51.86	51.75	50.89	50.76	51.52	51.39
28	48.17	47.97	49.41	49.17	49.78	49.67	51.84	51.74	50.85	50.76	51.55	51.42
29	48.17	48.06	49.56	49.33	49.82	49.67	51.76	51.64	50.84	50.75	51.52	51.36
30	48.17	47.99	49.66	49.46	49.85	49.75	51.66	51.50	50.87	50.76	51.46	51.36
31	---	---	49.83	49.58	---	---	51.60	51.48	51.00	50.84	---	---
MONTH	48.17	46.96	49.83	48.09	50.23	49.33	51.86	49.74	51.90	50.75	51.84	51.02



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
SOMERSET COUNTY--Continued

WELL NUMBER.--SO Cf 2. SITE ID.--380616075380701.

LOCATION.--Lat 38°06'16", long 75°38'07", Hydrologic Unit 02060009, on U.S. Rt. 13, 4.5 mi west of intersection of U.S. Rt. 13 and MD Rt. 364, near Costen.

Owner: Maryland State Highway Administration.

AQUIFER.--Kent Island Formation of Pleistocene age. Aquifer code: 112KILD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 15 ft; casing diameter 1.25 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.00 ft above land surface.

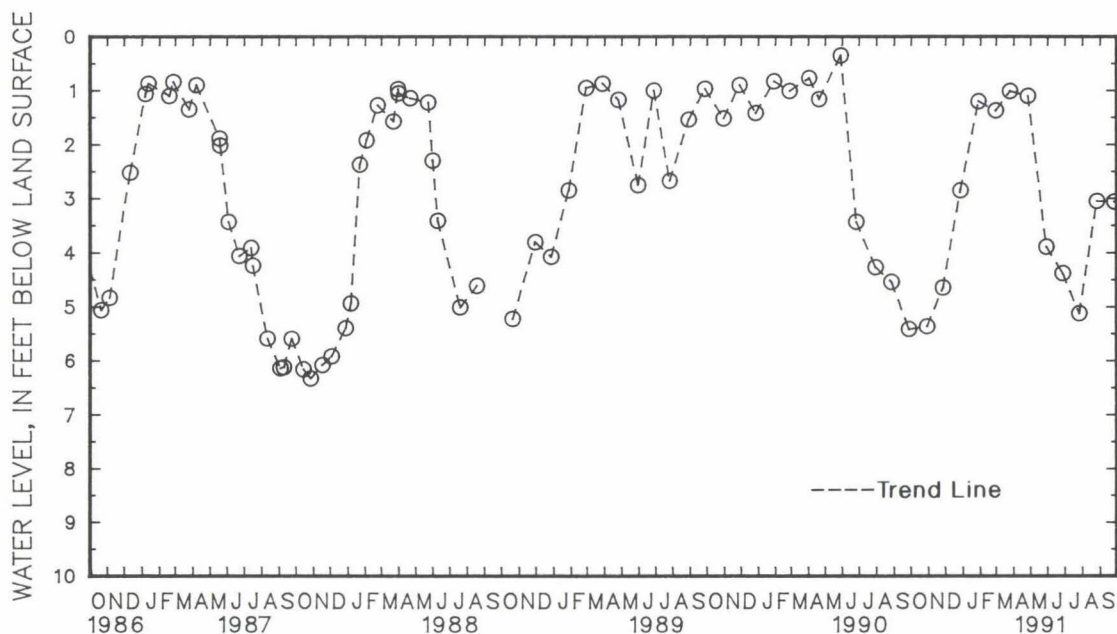
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.28 ft below land surface, May 9, 1958; lowest measured, 6.34 ft below land surface, Oct. 27, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	5.37	DEC 27	2.85	FEB 28	1.37	APR 26	1.10	JUN 27	4.39	AUG 26	3.05
NOV 26	4.65	JAN 28	1.20	MAR 25	1.01	MAY 29	3.90	JUL 26	5.13	SEP 26	3.06
WATER YEAR 1991		HIGHEST	1.01	MAR 25, 1991		LOWEST	5.37	OCT 29, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

TALBOT COUNTY

WELL NUMBER.--TA Bf 73. SITE ID.--385242075593101. PERMIT NUMBER.--TA-02-1641.

LOCATION.--Lat 38°52'42", long 75°59'31", Hydrologic Unit 02060005, at Cordova.

Owner: William Schluderberg-T. J. Kurdle Co.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 288 ft; casing diameter 4 in., to 276 ft; casing diameter 2 in. from 276 to 283 ft; screen diameter 3 in. from 283 to 288 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.50 ft above land surface.

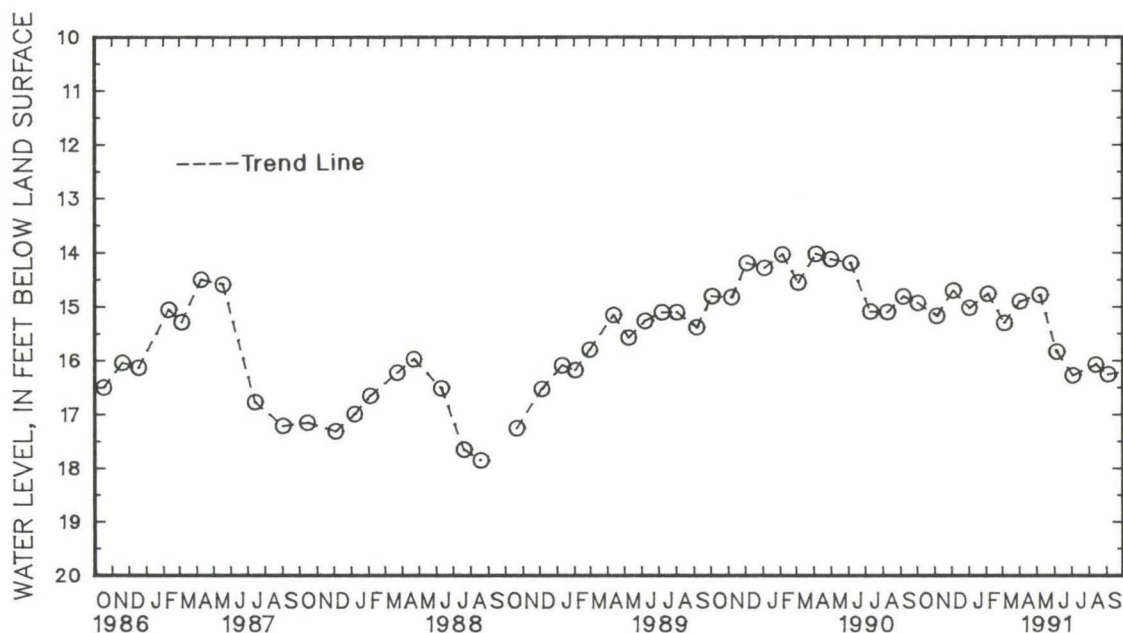
REMARKS.--Maryland Water-Level Network observation well. Water level reported by driller, 26 ft below land-surface Dec. 16, 1955; water level measured 26.64 ft below land surface March 10, 1956. Measurements may be affected by nearby pumping.

PERIOD OF RECORD.--December 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.29 ft below land surface, May 4, 1961; lowest measured, 76.57 ft below land surface, Dec. 6, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	14.93	DEC 4	14.70	FEB 4	14.76	APR 2	14.90	JUN 5	15.84	AUG 13	16.08
NOV 5	15.17	JAN 2	15.02	MAR 5	15.30	MAY 7	14.78	JUL 3	16.28	SEP 4	16.26
WATER YEAR 1991		HIGHEST	14.70	DEC 4, 1990	LOWEST	16.28	JUL 3, 1991				

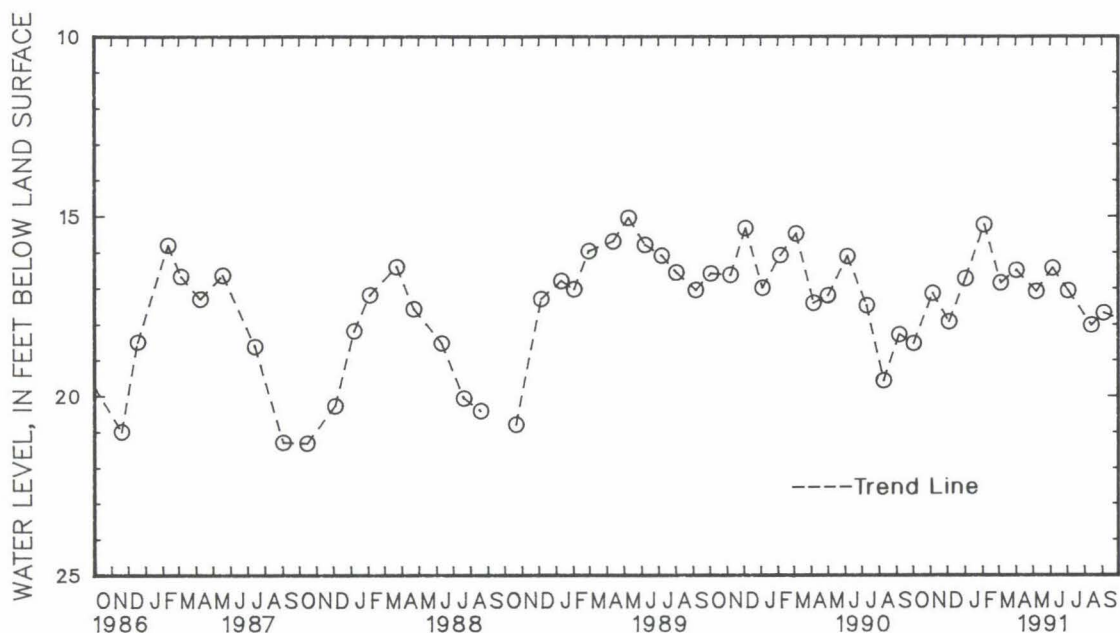


5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--TA Bf 74. SITE ID.--385242075593102. PERMIT NUMBER.--TA-02-1805.
LOCATION.--Lat 38°52'42", long 75°59'31", Hydrologic Unit 02060005, at Cordova.
Owner: William Schluderberg-T. J. Kurdle Co.
AQUIFER.--Wicomico Formation of Pleistocene age. Aquifer code: 112WCML.
WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 48.4 ft; casing diameter 4 in., to 42.5 ft;
screen diameter 3 in. from 43.2 to 48.4 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 0.70 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--April 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.48 ft below land surface, Dec. 14, 1971;
lowest measured, 21.32 ft below land surface, Oct. 15, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 2	18.54	DEC 4	17.93	FEB 4	15.23	APR 2	16.50	JUN 5	16.44	AUG 13	18.03	NOV 5	17.14	JAN 2	16.73
				MAR 5		MAY 7		JUL 3		SEP 4					
WATER YEAR 1991		HIGHEST		15.23		FEB 4, 1991		LOWEST		18.54		OCT 2, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
TALBOT COUNTY--Continued

WELL NUMBER.--TA Cc 35. SITE ID.--384923076100601. PERMIT NUMBER.--TA-73-0767.

LOCATION.--Lat 38°49'23", long 76°10'06", Hydrologic Unit 02060002, at Tunis Mills.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 220 ft; casing diameter 6 to 2 in.; screened from 170 to 180 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.80 ft above land surface.

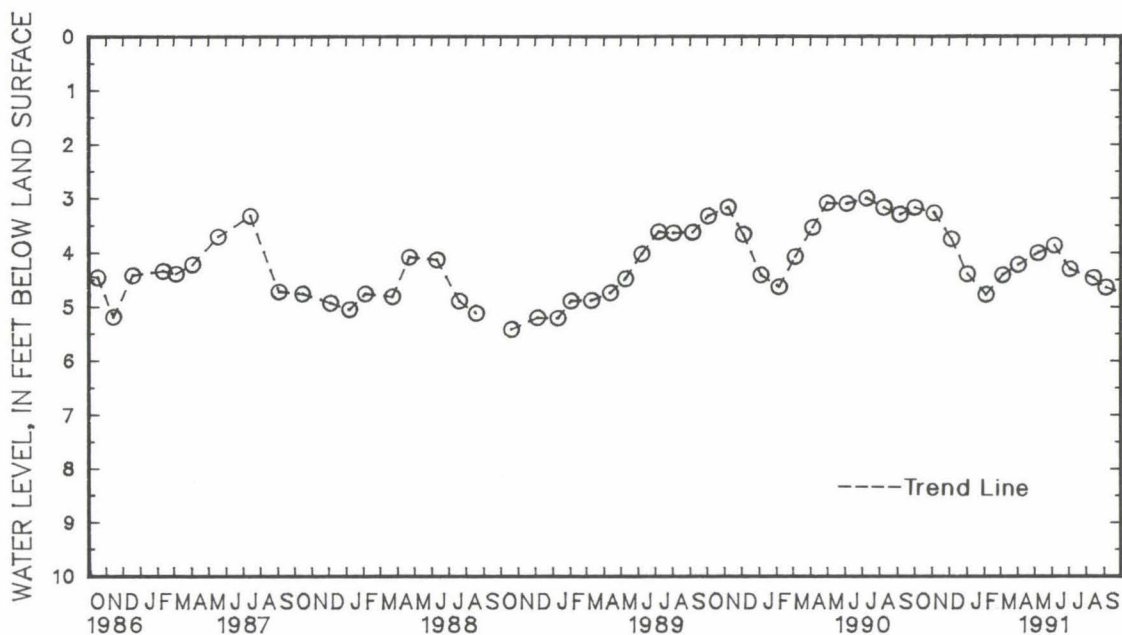
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft below land surface, April 2, 1980;
lowest measured, 5.43 ft below land surface, Oct. 20, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	3.17	DEC 5	3.75	FEB 4	4.78	APR 2	4.23	JUN 5	3.87	AUG 13	4.47
NOV 5	3.27	JAN 2	4.40	MAR 5	4.42	MAY 7	4.01	JUL 3	4.31	SEP 4	4.65
WATER YEAR 1991		HIGHEST	3.17	OCT 2, 1990	LOWEST	4.78	FEB 4, 1991				



GROUND-WATER LEVELS

MARYLAND--Continued

TALBOT COUNTY--Continued

WELL NUMBER.--TA Cc 36. SITE ID.--384514076103701. PERMIT NUMBER.--TA-73-0750.

LOCATION.--Lat 38°45'14", long 76°10'37", Hydrologic Unit 02060002, at Newcomb.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 241 ft; casing diameter 6 in., to 57 ft; casing diameter 2 in. from 51 to 231 ft; screen diameter 2 in. from 231 to 241 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical of 1929, from topographic map.

Measuring point: Top of casing, 1.40 ft above land surface.

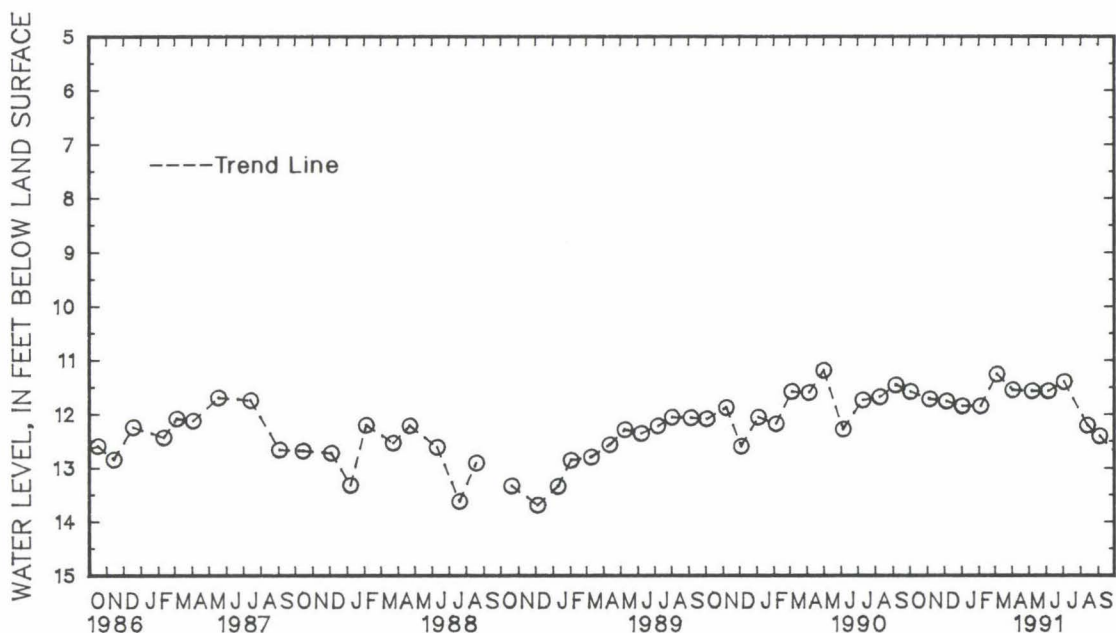
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.89 ft below land surface, April 2, 1980; lowest measured, 13.70 ft below land surface, Dec. 5, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	11.58	DEC 5	11.76	FEB 4	11.85	APR 2	11.55	JUN 5	11.57	AUG 13	12.21
NOV 5	11.72	JAN 2	11.85	MAR 5	11.26	MAY 7	11.57	JUL 3	11.40	SEP 4	12.41
WATER YEAR 1991		HIGHEST	11.26	MAR 5, 1991		LOWEST	12.41	SEP 4, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
TALBOT COUNTY--Continued

WELL NUMBER.--TA Ce 7. SITE ID.--384643076043801.

LOCATION.--Lat 38°46'43", long 76°04'38", Hydrologic Unit 02060005, in Easton.

Owner: Easton Utilities Commission.

AQUIFER.--Calvert Formation of Miocene age. Aquifer code: 122CLVR.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, measured depth 104 ft; casing diameter 4 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.40 ft above land surface.

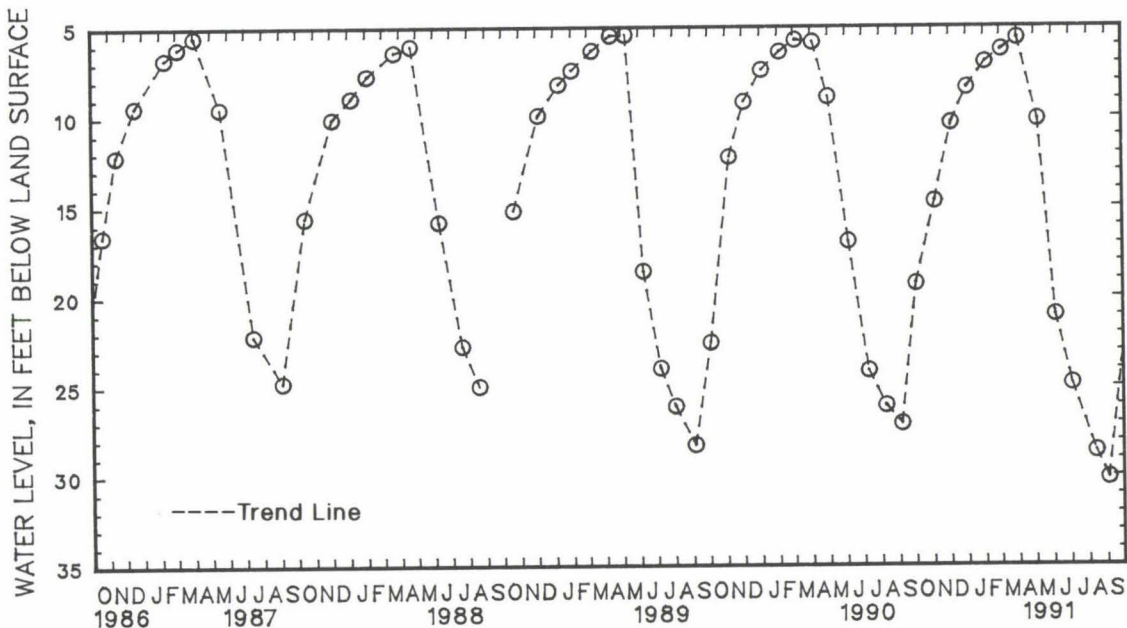
REMARKS.--Maryland Water-Level Network observation well. Water level measured 43.43 ft below land-surface datum, Oct. 7, 1948; water levels may be affected by nearby pumping.

PERIOD OF RECORDS.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft below land surface, April 16, 1984; lowest measured 75.36 ft below land surface, Aug. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	19.28	DEC 5	10.36	FEB 4	6.99	APR 2	5.65	JUN 5	21.06	AUG 13	28.66
NOV 5	14.72	JAN 2	8.40	MAR 5	6.29	MAY 7	10.18	JUL 3	24.88	SEP 4	30.16
WATER YEAR 1991		HIGHEST	5.65	APR 2, 1991	LOWEST	30.16	SEP 4, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY

WELL NUMBER.--WA Ac 1. SITE ID.--394154078103501.

LOCATION.--Lat 39°41'54", long 78°10'35", Hydrologic Unit 02070004, at Hancock.

Owner: Susan Creager.

AQUIFER.--Romney Formation of Middle Devonian age. Aquifer code: 344RMNY.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 86.2 ft; casing diameter 4 in., to unknown depth; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land-surface is 440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of tile pipe, 0.20 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

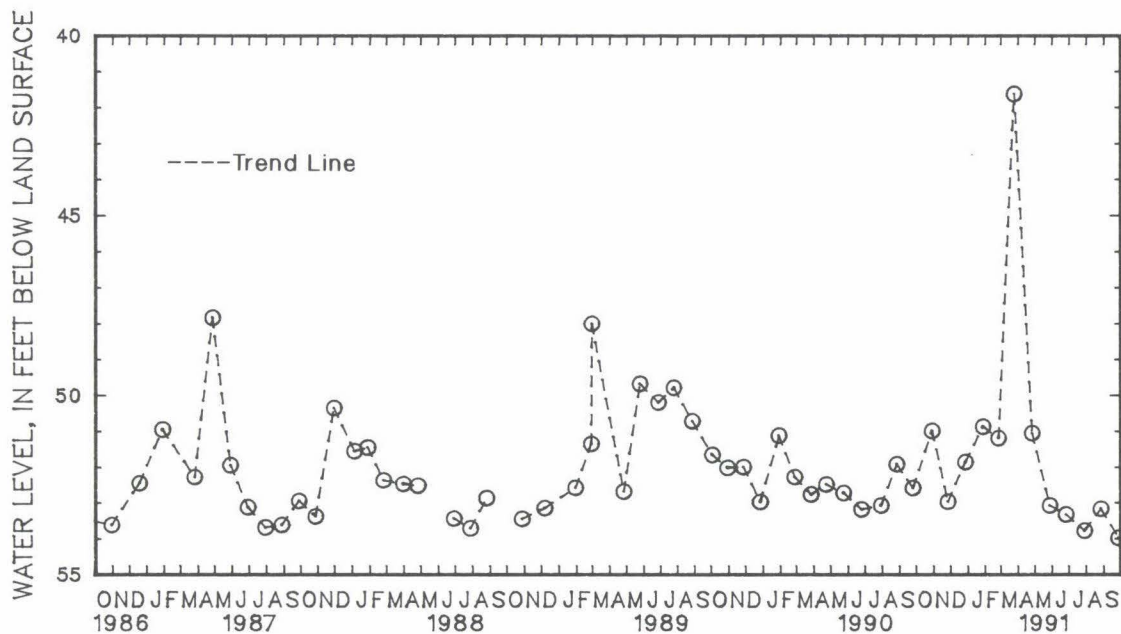
PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.65 ft below land surface, Jan. 2, 1976;
lowest measured, 55.83 ft below land surface, Nov. 19, 1953.

lowest measured, 55.83 ft below land surface, Nov. 19, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 29	50.99	DEC 27	51.86	FEB 25	51.19	APR 26	51.06	JUN 26	53.33	AUG 27	53.17
NOV 26	52.97	JAN 28	50.87	MAR 25	41.62	MAY 28	53.08	JUL 29	53.78	SEP 27	53.98
WATER YEAR 1991		HIGHEST	41.62	MAR 25, 1991		LOWEST	53.98	SEP 27, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

MARYLAND--Continued

WASHINGTON COUNTY--Continued

LOCATION.--Lat 39°36'38", long 78°00'13", Hydrologic Unit 02070004, about 1.2 mi southeast of Big Pool.

Owner: Fort Frederick State Park.

AQUIFER.--Romney Formation of Middle Devonian age. Aquifer code: 344RMNY.

WELL CHARACTERISTICS.--Dug, stone-lined, unused, water-table well, depth 42.7 ft; casing diameter 42 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of stone sill, 0.80 ft above land surface.

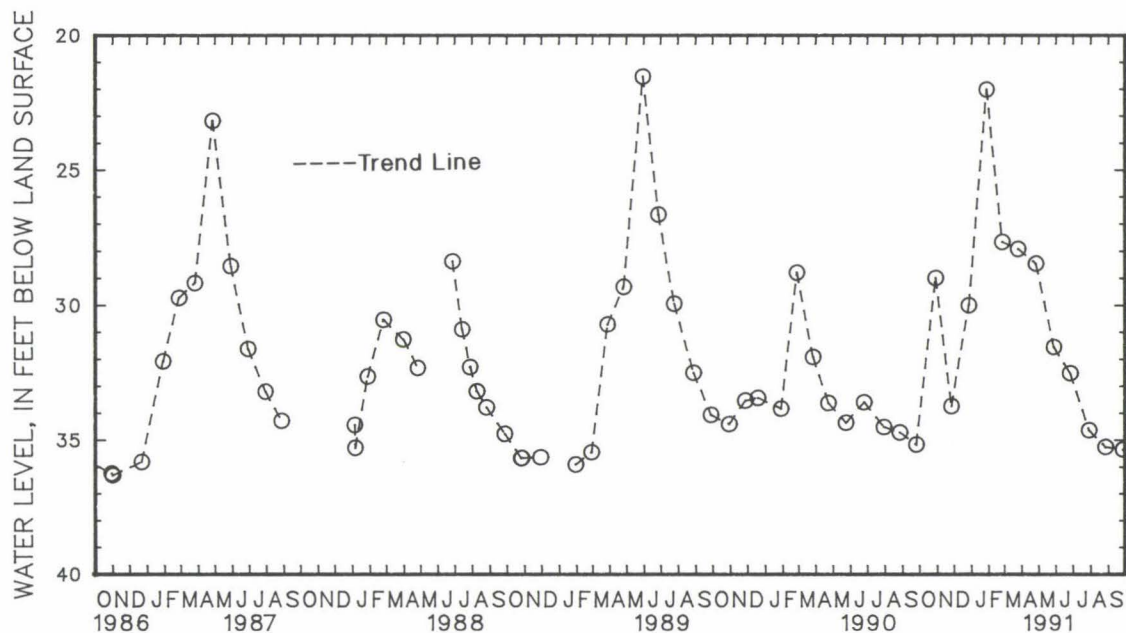
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.75 ft below land surface, April 26, 1984;

lowest measured, 36.92 ft below land surface, Jan. 11, 1965.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	28.99	DEC 27	30.00	FEB 25	27.68	APR 26	28.48	JUN 26	32.54	AUG 27	35.27
NOV 26	33.75	JAN 28	22.01	MAR 25	27.94	MAY 28	31.57	JUL 29	34.65	SEP 27	35.36
WATER YEAR 1991		HIGHEST	22.01	JAN 28, 1991		LOWEST	35.36	SEP 27, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Bk 25. SITE ID.--393851077343001. PERMIT NUMBER.--WA-70-0235.

LOCATION.--Lat 39°38'51", long 77°34'30", Hydrologic Unit 02070004, 0.5 mi south of Smithsburg at Hagerstown Water Supply Plant.

Owner: U.S. Geological Survey.

AQUIFER.--Tomstown Dolomite of Lower Cambrian age. Aquifer code: 377TMSN.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 200 ft; casing diameter 6 in., to 128 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from April 27, 1970 to current year.

DATUM.--Elevation of land surface is 790 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of shelter shelf, 3.5 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Missing data due to recorder malfunction.

PERIOD OF RECORD.--April 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.68 ft below land surface, April 6, 1984; lowest measured, 51.37 ft below land surface Jan. 31, 1981.

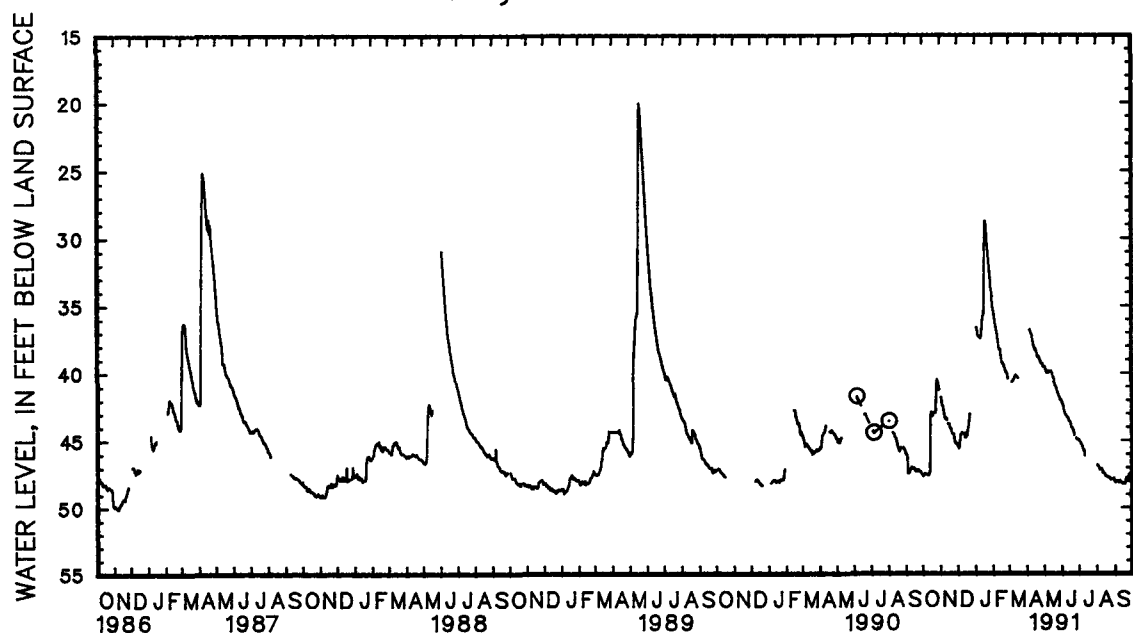
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	47.68	47.56	41.88	41.64	45.52	45.42	---	---	35.34	35.00	---	---
2	47.79	47.57	42.12	41.85	45.71	45.50	---	---	35.58	35.35	---	---
3	---	---	42.41	42.13	45.70	45.28	36.61	36.35	35.86	35.58	---	---
4	47.61	47.38	42.53	42.41	45.27	44.90	36.85	36.62	36.17	35.87	---	---
5	47.62	47.51	42.57	42.36	44.89	44.53	36.93	36.85	36.53	36.17	---	---
6	47.65	47.54	43.01	42.49	44.66	44.33	37.25	36.94	36.75	36.53	40.81	40.80
7	47.66	47.61	43.17	43.01	44.66	44.55	37.35	37.23	37.00	36.72	40.81	40.74
8	47.67	47.63	43.47	43.18	44.55	44.47	37.34	37.27	37.24	37.01	40.74	40.67
9	47.66	47.56	43.53	43.43	44.58	44.44	37.33	37.20	37.51	37.22	40.67	40.58
10	47.72	47.61	43.43	43.24	44.59	44.40	37.46	37.33	37.80	37.51	40.60	40.44
11	47.67	47.61	43.59	43.38	44.63	44.53	37.40	36.85	38.27	37.81	40.45	40.36
12	47.62	47.44	43.55	43.43	44.57	44.46	36.83	36.23	38.42	38.26	40.36	40.32
13	47.42	43.41	---	---	44.85	44.45	36.21	35.90	38.40	38.26	40.32	40.31
14	43.38	42.72	43.89	43.79	44.92	44.85	35.88	35.66	38.43	38.16	40.37	40.31
15	42.96	42.70	43.92	43.84	44.85	44.57	35.70	35.48	38.91	38.42	40.44	40.37
16	43.16	42.96	43.92	43.79	44.77	44.60	35.46	30.85	39.11	38.91	40.50	40.44
17	43.24	43.14	44.18	43.83	44.74	44.44	30.77	28.81	39.40	39.08	40.52	40.47
18	43.21	42.98	44.23	44.18	44.43	43.98	28.79	28.53	39.46	39.40	---	---
19	43.05	42.90	44.34	44.22	44.12	43.90	28.78	28.69	39.50	39.39	---	---
20	42.99	42.90	44.59	44.35	43.89	43.53	29.08	28.77	39.67	39.38	---	---
21	42.97	42.88	44.63	44.59	43.51	43.15	29.87	29.08	39.68	39.62	---	---
22	43.00	42.93	44.65	44.54	43.14	42.81	30.50	29.88	39.86	39.53	---	---
23	42.99	41.37	44.65	44.54	---	---	30.99	30.51	40.08	39.87	---	---
24	41.32	40.52	44.89	44.66	---	---	31.70	30.99	40.05	39.95	---	---
25	40.53	40.31	45.12	44.85	---	---	32.25	31.72	40.16	40.02	---	---
26	40.64	40.36	45.30	45.12	---	---	32.60	32.25	40.24	40.13	---	---
27	40.78	40.65	45.35	45.29	---	---	32.92	32.61	40.48	40.21	---	---
28	41.03	40.64	45.34	45.10	---	---	33.66	32.91	40.58	40.42	---	---
29	41.30	41.03	45.42	45.20	---	---	33.96	33.67	---	---	---	---
30	---	---	45.50	45.37	---	---	34.22	33.92	---	---	---	---
31	---	---	---	---	---	---	34.99	34.25	---	---	---	---
MONTH	47.79	40.31	45.50	41.64	45.71	42.81	37.46	28.53	40.58	35.00	40.81	40.31

GROUND-WATER LEVELS
MARYLAND--Continued
WASHINGTON COUNTY--Continued
WA Bk 25--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	39.68	39.54	42.38	42.26	45.18	45.10	---	---	48.24	48.11
2	---	---	39.77	39.68	42.49	42.37	45.24	45.18	46.99	46.93	48.26	48.17
3	---	---	39.96	39.77	42.61	42.46	45.28	45.23	47.00	46.96	48.18	48.07
4	---	---	40.11	39.97	42.87	42.62	45.37	45.28	47.11	46.99	48.13	48.09
5	36.84	36.73	40.14	40.11	43.03	42.87	45.44	45.36	47.22	47.10	48.20	48.12
6	36.95	36.84	40.16	40.09	43.19	43.03	45.53	45.44	47.33	47.22	48.24	48.15
7	37.13	36.94	40.08	39.93	43.26	43.17	45.67	45.52	47.30	47.20	48.25	48.18
8	37.18	37.13	39.99	39.90	43.29	43.18	45.75	45.67	47.24	47.14	48.25	48.20
9	37.33	37.17	40.02	39.90	43.41	43.29	45.91	45.74	47.26	47.11	48.26	47.67
10	37.67	37.23	40.03	39.92	43.45	43.35	45.88	45.79	47.42	47.25	48.13	47.94
11	38.00	37.68	40.08	39.94	43.48	43.35	46.27	45.75	47.55	47.42	---	---
12	38.18	38.00	40.01	39.88	43.57	43.42	---	---	47.54	47.50	48.26	48.20
13	38.22	38.09	40.09	39.96	43.70	43.57	---	---	47.58	47.51	48.26	48.22
14	38.41	38.22	40.14	39.98	43.78	43.70	---	---	47.62	47.57	48.37	48.24
15	38.35	38.19	40.32	40.12	43.79	43.71	---	---	---	---	48.39	48.33
16	38.49	38.35	40.48	40.32	43.97	43.80	---	---	47.79	47.72	48.35	48.26
17	38.64	38.48	40.54	40.44	44.12	43.98	---	---	47.78	47.69	48.32	48.24
18	38.83	38.64	40.86	40.55	44.21	44.12	---	---	47.80	47.72	48.38	48.28
19	38.94	38.83	41.03	40.86	44.24	44.21	---	---	47.86	47.73	48.29	47.93
20	38.94	38.90	41.15	41.04	44.32	44.24	---	---	47.87	47.79	47.92	47.80
21	38.89	38.82	41.17	41.12	44.43	44.32	---	---	47.91	47.84	47.91	47.82
22	39.08	38.81	41.36	41.18	44.58	44.42	---	---	47.88	47.78	47.91	47.79
23	39.17	39.06	41.51	41.38	44.77	44.57	---	---	47.92	47.82	47.88	47.77
24	39.33	39.06	41.63	41.48	---	---	---	---	48.01	47.92	47.88	47.65
25	39.42	39.31	41.73	41.59	---	---	---	---	48.06	47.99	47.64	47.58
26	39.47	39.32	41.86	41.70	45.01	44.92	---	---	48.03	47.97	47.81	47.61
27	39.44	39.32	41.98	41.85	45.09	44.98	---	---	48.02	47.95	47.95	47.82
28	39.63	39.40	42.13	41.92	45.09	45.01	---	---	48.02	47.96	48.00	47.96
29	39.71	39.60	42.16	42.03	45.09	45.04	---	---	47.98	47.89	48.04	47.91
30	39.68	39.54	42.13	42.08	45.10	45.02	---	---	47.94	47.89	48.09	47.97
31	---	---	42.27	42.08	---	---	---	---	48.11	47.93	---	---
MONTH	39.71	36.73	42.27	39.54	45.10	42.26	46.27	45.10	48.11	46.93	48.39	47.58

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Ch 106. SITE ID.--393414077461801. PERMIT NUMBER.--WA-73-2095.

LOCATION.--Lat 39°34'14", long 77°46'18", Hydrologic Unit 02070004, at Fountain Rock School.

Owner: U.S. Geological Survey.

AQUIFER.--Conococheague Limestone of Upper Cambrian age. Aquifer code: 371CCCCG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 69 ft; casing diameter 6 in., to 41 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with graphic water-level recorder from March 29, 1978 to June 19, 1981, Nov. 6, 1985 to May 3, 1987, and July 1, 1987 to current year.

DATUM.--Elevation of land surface is 520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.45 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Missing data due to recorder malfunction.

PERIOD OF RECORD.--February 1978 to June 1981, April 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.41 ft below land surface, April 23, 1984 and April 23, 1987; lowest measured, 36.59 ft below land surface, Jan. 11, 1989.

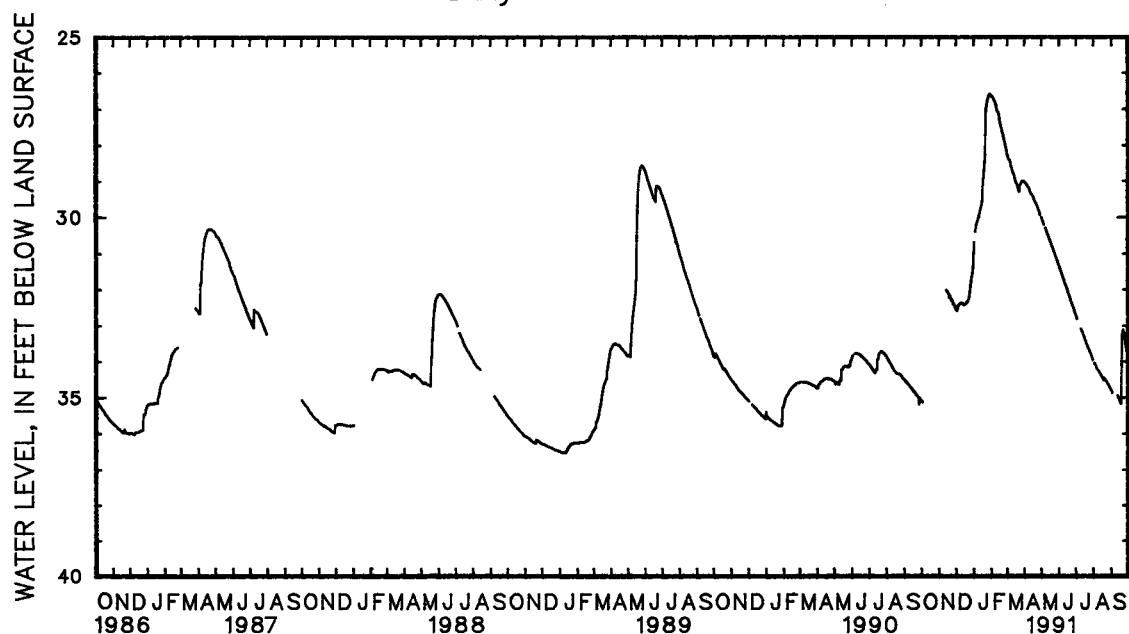
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	35.14	35.12	---	---	32.57	32.54	30.99	30.70	26.65	26.61	28.28	28.17
2	35.16	35.14	---	---	32.61	32.57	30.70	30.49	26.65	26.65	28.33	28.28
3	35.18	35.16	---	---	32.62	32.60	---	---	26.68	26.66	28.39	28.33
4	---	---	---	---	32.54	32.43	30.39	30.29	26.69	26.68	28.43	28.39
5	---	---	---	---	32.46	32.44	30.28	30.20	26.73	26.69	28.43	28.41
6	---	---	---	---	32.43	32.41	30.20	30.14	26.75	26.73	28.47	28.43
7	---	---	---	---	32.43	32.41	30.14	30.09	26.79	26.75	28.54	28.47
8	---	---	---	---	32.41	32.40	30.09	30.02	26.84	26.79	28.60	28.54
9	---	---	---	---	32.40	32.39	30.02	29.97	26.89	26.84	28.65	28.60
10	---	---	---	---	32.39	32.39	29.97	29.92	26.95	26.89	28.71	28.65
11	---	---	---	---	32.39	32.39	29.92	29.85	27.03	26.95	28.76	28.71
12	---	---	---	---	32.40	32.39	29.85	29.79	27.08	27.04	28.81	28.76
13	---	---	---	---	32.41	32.40	29.79	29.73	27.10	27.08	28.85	28.81
14	---	---	32.02	31.99	32.44	32.41	29.73	29.66	27.14	27.10	28.91	28.85
15	---	---	32.05	32.02	32.44	32.42	29.66	29.59	27.25	27.14	28.97	28.92
16	---	---	32.07	32.05	32.43	32.42	29.59	29.16	27.34	27.25	29.03	28.97
17	---	---	32.11	32.07	32.43	32.43	29.16	28.94	27.42	27.34	29.07	29.03
18	---	---	32.14	32.11	32.43	32.39	28.93	28.72	27.49	27.42	29.10	29.07
19	---	---	32.17	32.14	32.39	32.38	28.71	28.50	27.54	27.49	29.16	29.10
20	---	---	32.21	32.17	32.38	32.37	28.49	28.27	27.61	27.54	29.22	29.16
21	---	---	32.23	32.21	32.37	32.33	28.27	27.12	27.68	27.61	29.28	29.22
22	---	---	32.27	32.23	32.33	32.29	27.11	26.97	27.74	27.68	29.33	29.28
23	---	---	32.29	32.27	32.29	32.24	26.97	26.84	27.82	27.75	29.33	29.15
24	---	---	32.32	32.29	32.24	32.10	26.84	26.77	27.87	27.82	29.15	29.11
25	---	---	32.35	32.32	32.10	31.95	26.77	26.71	27.94	27.88	29.11	29.09
26	---	---	32.39	32.35	31.95	31.82	26.71	26.65	28.02	27.95	29.09	29.06
27	---	---	32.43	32.39	31.82	31.71	26.65	26.61	28.09	28.02	29.06	29.03
28	---	---	32.46	32.43	31.71	31.61	26.61	26.59	28.17	28.09	29.03	29.02
29	---	---	32.50	32.47	31.61	31.54	26.60	26.59	---	---	29.02	29.02
30	---	---	32.53	32.50	31.53	31.40	26.59	26.56	---	---	29.03	29.02
31	---	---	---	---	31.39	30.99	26.61	26.56	---	---	29.04	29.03
MONTH	35.18	35.12	32.53	31.99	32.62	30.99	30.99	26.56	28.17	26.61	29.33	28.17

GROUND-WATER LEVELS
MARYLAND--Continued
WASHINGTON COUNTY--Continued
WA Ch 106--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	29.05	29.04	30.06	30.02	31.42	31.37	32.78	32.73	---	---	34.87	34.85
2	29.08	29.05	30.10	30.06	31.47	31.43	32.82	32.78	---	---	34.90	34.87
3	29.10	29.08	30.14	30.10	31.51	31.47	32.87	32.82	34.12	34.09	34.94	34.90
4	29.12	29.10	30.20	30.14	31.56	31.51	---	---	34.14	34.12	---	---
5	29.12	29.12	30.25	30.21	31.60	31.56	---	---	34.18	34.14	---	---
6	29.16	29.12	---	---	31.65	31.60	---	---	34.22	34.18	---	---
7	29.19	29.16	---	---	31.69	31.65	---	---	34.26	34.22	---	---
8	29.21	29.19	30.35	30.31	31.74	31.69	---	---	34.29	34.26	---	---
9	29.24	29.21	30.38	30.35	31.78	31.74	---	---	34.31	34.29	---	---
10	29.28	29.24	30.43	30.38	31.83	31.78	33.15	33.12	34.33	34.32	---	---
11	29.34	29.29	30.48	30.43	31.87	31.83	33.19	33.15	34.35	34.33	---	---
12	29.37	29.34	30.52	30.48	31.92	31.87	33.22	33.19	34.38	34.35	35.01	34.98
13	29.40	29.38	30.56	30.52	31.96	31.92	33.25	33.22	34.41	34.38	35.05	35.01
14	29.43	29.40	30.60	30.56	32.01	31.96	33.31	33.26	34.44	34.41	35.09	35.05
15	29.44	29.43	30.65	30.60	32.05	32.01	33.35	33.31	34.47	34.44	35.13	35.09
16	29.47	29.44	30.70	30.66	32.10	32.05	33.39	33.35	34.50	34.47	35.17	35.13
17	29.51	29.48	30.74	30.70	32.14	32.10	33.44	33.39	34.53	34.50	35.21	35.17
18	29.55	29.51	30.79	30.74	32.19	32.15	33.49	33.44	34.56	34.53	35.24	34.24
19	29.58	29.55	30.84	30.79	32.23	32.19	33.53	33.49	34.59	34.52	34.16	33.16
20	29.62	29.58	30.87	30.84	32.28	32.24	33.58	33.53	34.53	34.49	33.34	33.22
21	29.64	29.62	30.92	30.87	32.32	32.28	33.62	33.58	34.55	34.53	33.22	33.12
22	29.68	29.64	30.97	30.92	32.37	32.33	33.66	33.62	34.58	34.55	33.13	33.11
23	29.72	29.68	31.01	30.97	32.41	32.37	33.70	33.66	34.61	34.58	33.22	33.13
24	29.76	29.72	31.05	31.01	32.46	32.42	33.74	33.70	34.63	34.61	33.30	33.22
25	29.80	29.76	31.10	31.05	32.50	32.46	33.78	33.75	34.66	34.64	33.40	33.31
26	29.85	29.81	31.15	31.10	32.55	32.51	33.82	33.79	34.69	34.66	33.52	33.41
27	29.88	29.85	31.19	31.15	32.59	32.55	33.85	33.82	34.72	34.69	33.63	33.52
28	29.93	29.88	31.24	31.19	32.64	32.60	33.89	33.85	34.75	34.72	33.74	33.63
29	29.98	29.93	31.27	31.24	32.69	32.64	33.93	33.89	34.78	34.75	33.85	33.74
30	---	---	31.32	31.27	32.73	32.69	33.97	33.93	34.82	34.78	33.94	33.86
31	---	---	31.37	31.32	---	---	34.02	33.97	34.85	34.82	---	---
MONTH	29.98	29.04	31.37	30.02	32.73	31.37	34.02	32.73	34.85	34.09	35.24	33.11

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA C1 82. SITE ID.--393402077434201. PERMIT NUMBER.--WA-73-2101.

LOCATION.--Lat 39°34'02", long 77°43'42", Hydrologic Unit 02070004, at Maryland Correction Institution, Hagerstown.

Owner: U.S. Geological Survey.

AQUIFER.--Conococheague Limestone of Upper Cambrian age. Aquifer code: 371CCCG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 84 ft; casing diameter 6 in., to 32 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from April 25, 1978 to June 19, 1981.

DATUM.--Elevation of land surface is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing 2.30 ft above land surface.

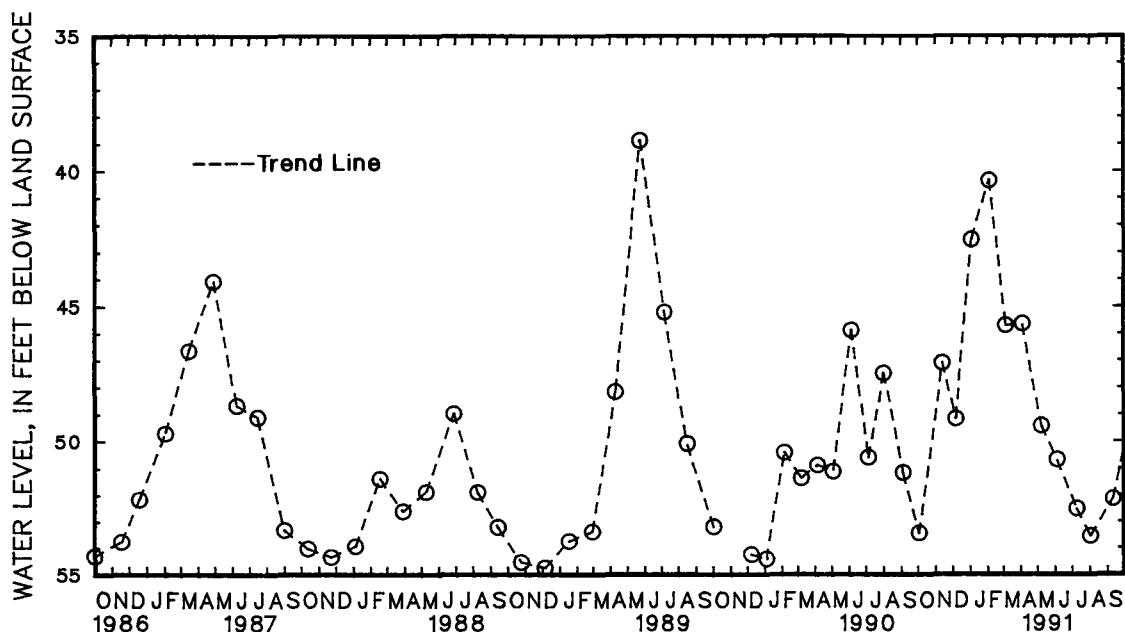
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.56 ft below land surface, Feb. 28, 1979; lowest measured, 59.28 ft below land surface, Feb. 1, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	53.47	DEC 6	49.22	FEB 4	40.36	APR 4	45.71	JUN 4	50.76	AUG 2	53.58
NOV 13	47.11	JAN 3	42.54	MAR 5	45.77	MAY 7	49.51	JUL 9	52.57	SEP 11	52.17
WATER YEAR 1991		HIGHEST	40.36	FEB 4, 1991		LOWEST	53.58	AUG 2, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Dj 2. SITE ID.--392904077371501.

LOCATION.--Lat 39°29'04", long 77°37'15", Hydrologic Unit 02070004, at Turner's Gap on Alt. U.S. 40.

Owner: Russell Schwartz.

AQUIFER.--Weverton Formation of Lower Cambrian age. Aquifer code: 377WVRN.

WELL CHARACTERISTICS.--Dug, stone-lined, observation, water-table well, depth 61.3 ft; casing diameter 48 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 1,070 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of concrete cover, 0.25 ft above land surface.

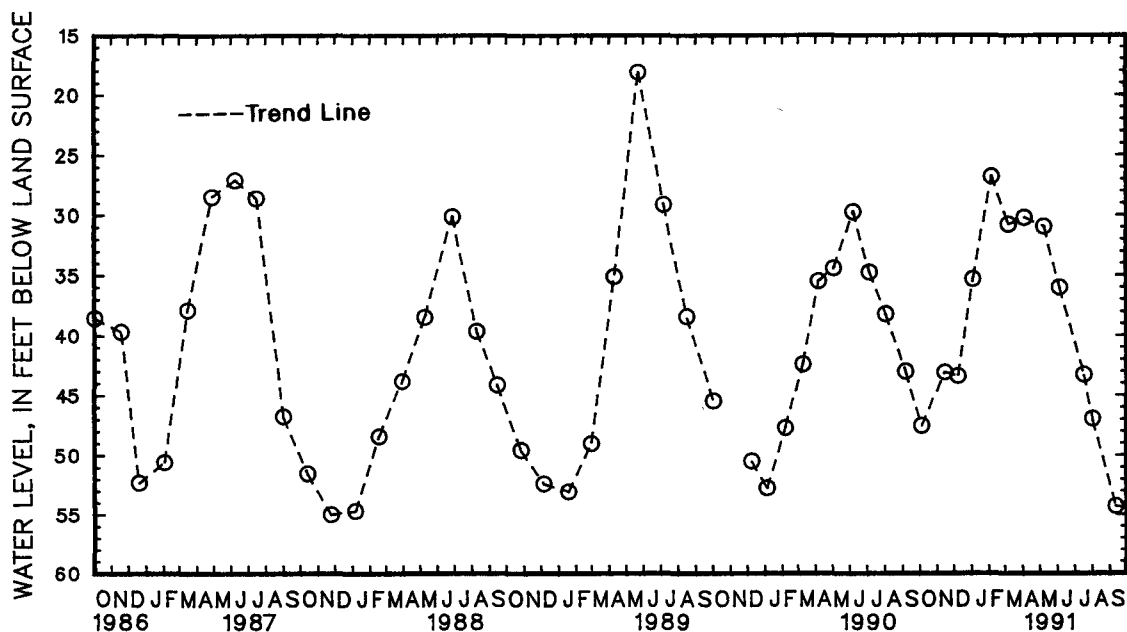
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1956 to current year.

EXTREMES FOR PERIOD FOR RECORD.--Highest water level measured, 16.35 ft below land surface, April 23, 1984;
lowest measured, 58.68 ft below land surface, Oct. 5, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	47.74	DEC 7	43.49	FEB 5	26.82	APR 3	30.30	JUN 4	36.16	AUG 1	47.16
NOV 14	43.19	JAN 3	35.35	MAR 6	30.86	MAY 7	31.05	JUL 16	43.49	SEP 11	54.42
WATER YEAR 1991		HIGHEST	26.82	FEB 5, 1991		LOWEST	54.42	SEP 11, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WICOMICO COUNTY

WELL NUMBER.--WI Ce 13. SITE ID.--382150075352101.

LOCATION.--Lat 38°21'50", long 75°35'21", Hydrologic Unit 02060007, at Municipal Zoo Park, Salisbury.

Owner: City of Salisbury.

AQUIFER.--Beaverdam Sand of Pleistocene age. Aquifer code: 112BVDM.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, reported depth 65 ft, measured depth 51.7 ft; casing diameter 16 to 10 in., to unknown depth; screen diameter and interval unknown; screen length 20 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from July 16, 1947 to Jan. 3, 1955; Aug. 23, 1962 to Aug. 20, 1968.

DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.04 ft above land surface.

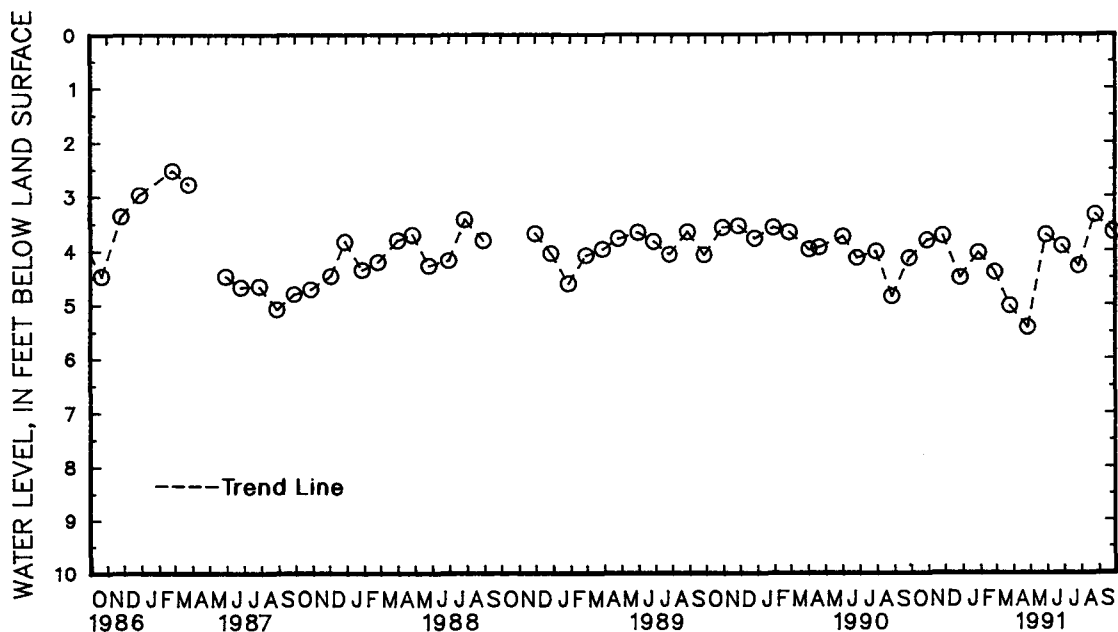
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft below land surface, Aug. 30, 1979; lowest measured, 10.72 ft below land surface, Aug. 30, 1947.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	3.84	DEC 27	4.53	FEB 26	4.43	APR 26	5.46	JUN 27	3.92	AUG 26	3.34
NOV 26	3.74	JAN 28	4.06	MAR 25	5.06	MAY 29	3.72	JUL 26	4.30	SEP 26	3.67
WATER YEAR 1991		HIGHEST	3.34	AUG 26, 1991	LOWEST	5.46	APR 26, 1991				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WICOMICO COUNTY--Continued

WELL NUMBER.--WI Co 204. SITE ID.--382404075355401 PERMIT NUMBER.--WI-67-0191.

LOCATION.--Lat 38°24'04", long 75°35'54", Hydrologic Unit 02060007, north side of Naylor Mill Rd., near Salisbury
Owner: City of Salisbury.

AQUIFER.--Beaverdam Sand of Pleistocene age. Aquifer code: 112BVDM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 113 ft; casing diameter 8 in., to 109 ft;
screen diameter 3 in. from 109 to 113 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.14 ft above land surface.

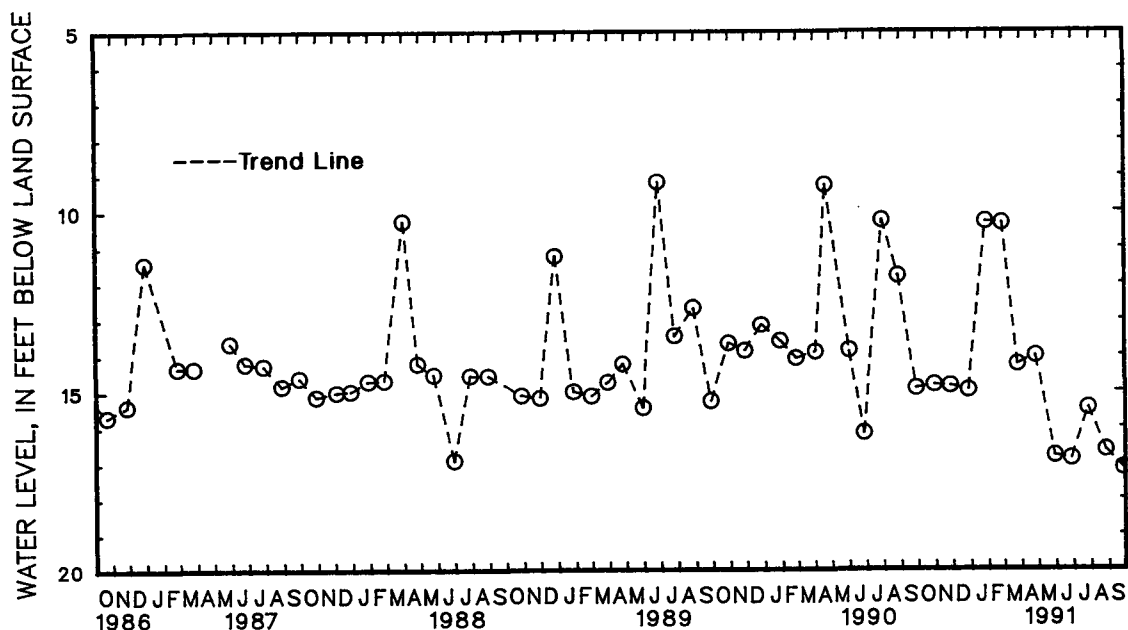
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.35 ft below land surface, April 27, 1967;
lowest measured, 17.19 ft below land surface, Sept. 26, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

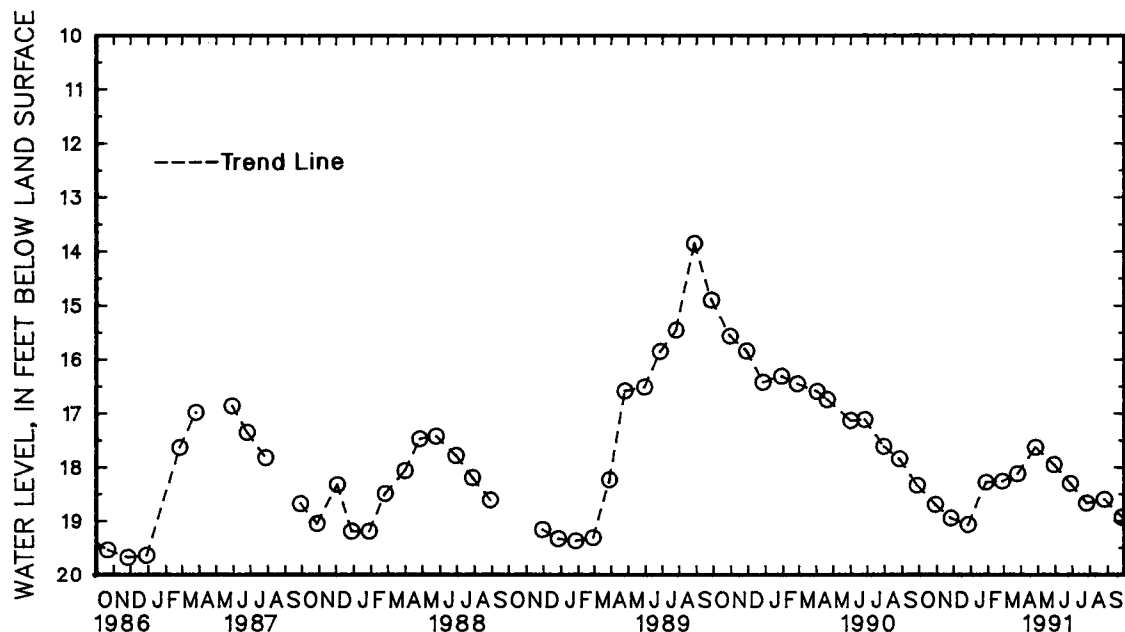
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	14.88	DEC 27	15.03	FEB 26	10.34	APR 26	14.08	JUN 27	16.94	AUG 26	16.69
NOV 26	14.91	JAN 28	10.30	MAR 25	14.32	MAY 29	16.86	JUL 26	15.50	SEP 26	17.19
WATER YEAR 1991		HIGHEST	10.30	JAN 28, 1991		LOWEST	17.19	SEP 26, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--WI Cf 147. SITE ID.--382429075344501.
LOCATION.--Lat 38°24'29", long 75°34'45", Hydrologic Unit 02060007, south side of Naylor Mill Rd., near Salisbury.
Owner: A. S. Abell Co.
AQUIFER.--Beaverdam Sand of Pleistocene age. Aquifer code: 112BVDM.
WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 80 ft; casing diameter 2 in., to 80 ft;
casing slotted from 60 to 80 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 41.83 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--November 1964; March 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.78 ft below land surface, June 18, 1979;
lowest measured, 19.68 ft below land surface, Nov. 26, 1986.

WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 29	18.70	DEC 27	19.07	FEB 26	18.26	APR 26	17.63	JUN 27	18.30	AUG 26	18.60
NOV 26	18.95	JAN 28	18.28	MAR 25	18.12	MAY 29	17.95	JUL 26	18.67	SEP 26	18.93
WATER YEAR 1991		HIGHEST	17.63	APR 26, 1991		LOWEST	19.07	DEC 27, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
WICOMICO COUNTY--Continued

WELL NUMBER.--WI Cf 3. SITE ID.--382037075310801.

LOCATION.--Lat 38°20'37", long 75°31'08", Hydrologic Unit 02060007, on Airport Rd., about 5 mi southeast of Salisbury.

Owner: Salisbury-Wicomico Airport.

AQUIFER.--Beaverdam Sand of Pleistocene age. Aquifer code: 112BVDM.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 109 ft; casing diameter 16 in., to 90 ft; screened from 90 to 110 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder from Mar. 24, 1948 to July 9, 1948, Aug. 2, 1949 to April 11, 1960, and Aug. 29, 1963 to Aug. 20, 1968.

DATUM.--Elevation of land surface is 44.79 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.00 ft above land surface.

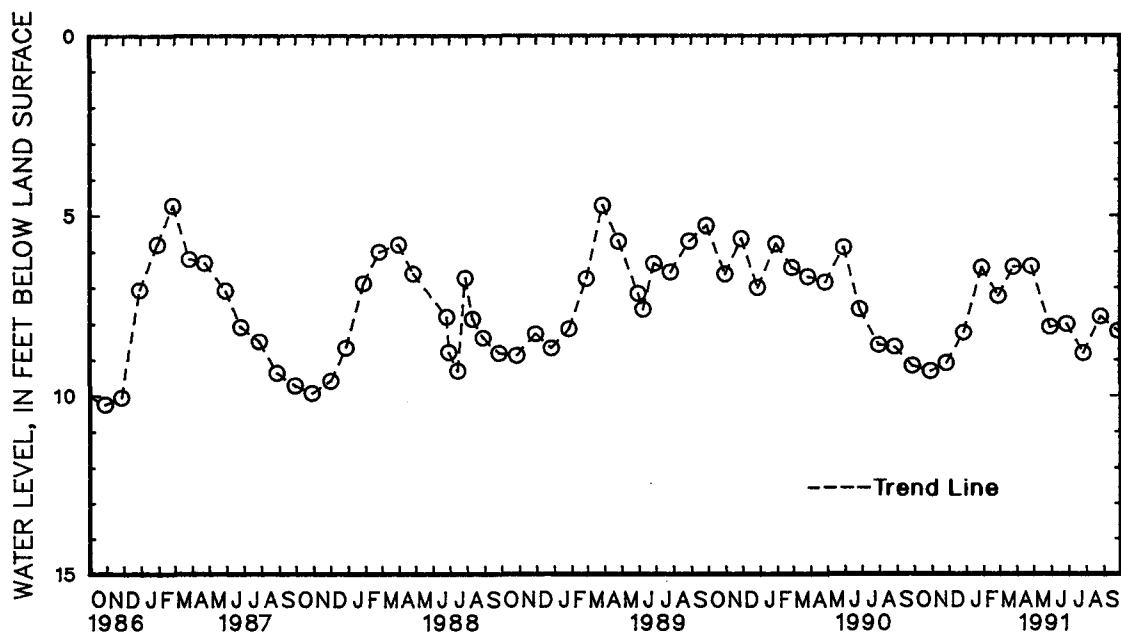
REMARKS.--Maryland Water-Level Network observation well. Water level reported 7.2 ft below land surface, Oct. 26, 1942.

PERIOD OF RECORD.--September 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.18 ft below land surface, May 8, 1958; lowest measured, 13.44 ft below land surface, Sept. 18, 1947.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	9.38	DEC 27	8.28	FEB 26	7.26	APR 26	6.42	JUN 27	8.05	AUG 26	7.83
NOV 26	9.15	JAN 28	6.46	MAR 25	6.44	MAY 29	8.13	JUL 26	8.88	SEP 26	8.24
WATER YEAR 1991		HIGHEST	6.42	APR 26, 1991	LOWEST	9.38	OCT 29, 1990				



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WICOMICO COUNTY--Continued

WELL NUMBER.--WI Cg, 20. SITE ID.--382329075263701.

LOCATION.--Lat 38°23'29", long 75°26'37", Hydrologic Unit 02060009, 1.45 mi east of Parsonsburg on south side of MD Rt. 346.

Owner: Maryland State Highway Administration.

AQUIFER.--Parsonsburg Sand of Pleistocene age. Aquifer code: 112PRBG.

WELL CHARACTERISTICS.--Driven, unused, water-table well, depth 25 ft, casing diameter 1.25 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 68 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. sleeve, 0.17 ft above land surface.

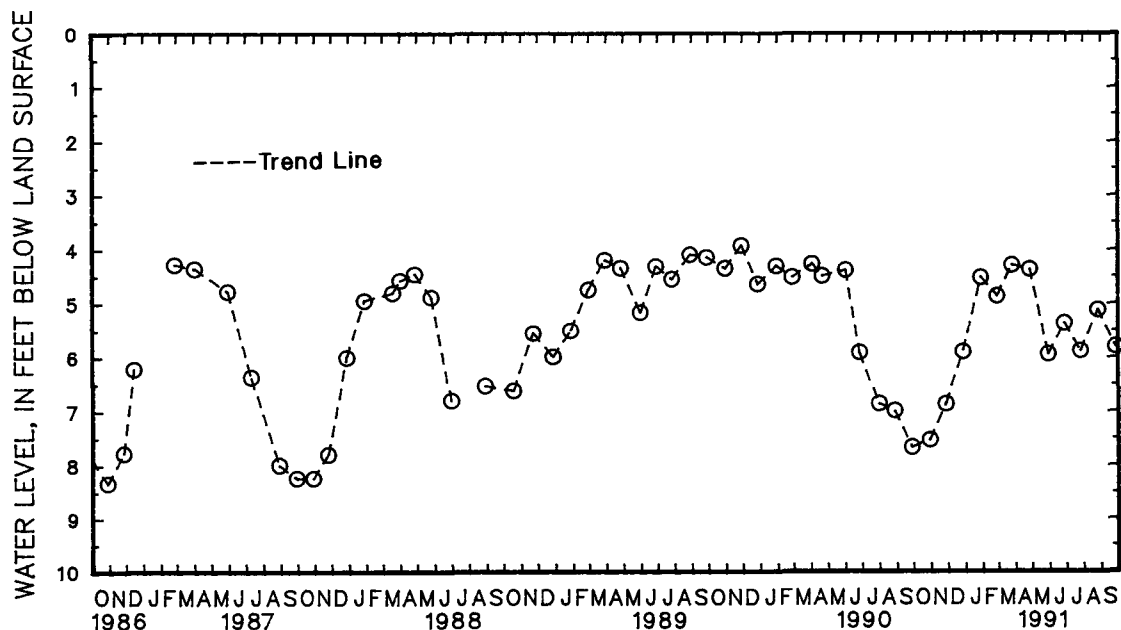
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.84 ft below land surface, Jan. 31, 1950;
lowest measured, 8.68 ft below land surface, Oct. 10, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	7.57	DEC 27	5.91	FEB 26	4.88	APR 26	4.38	JUN 27	5.39	AUG 26	5.14
NOV 26	6.89	JAN 28	4.53	MAR 25	4.30	MAY 29	5.98	JUL 26	5.92	SEP 26	5.84
WATER YEAR 1991		HIGHEST	4.30	MAR 25, 1991		LOWEST	7.57	OCT 29, 1990			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.85 ft below land surface, Dec. 16, 1975;
lowest measured, 17.40 ft below land surface, Oct. 29, 1987.

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 25	15.69	DEC 31	14.72	MAR 1	13.83	APR 24	13.25	AUG 27	15.46		
NOV 27	15.19	JAN 29	13.58		26 13.47	JUN 25	14.68	SEP 19	16.05		
WATER YEAR 1991		HIGHEST	13.25	APR 24, 1991		LOWEST 16.05		SEP 19, 1991			



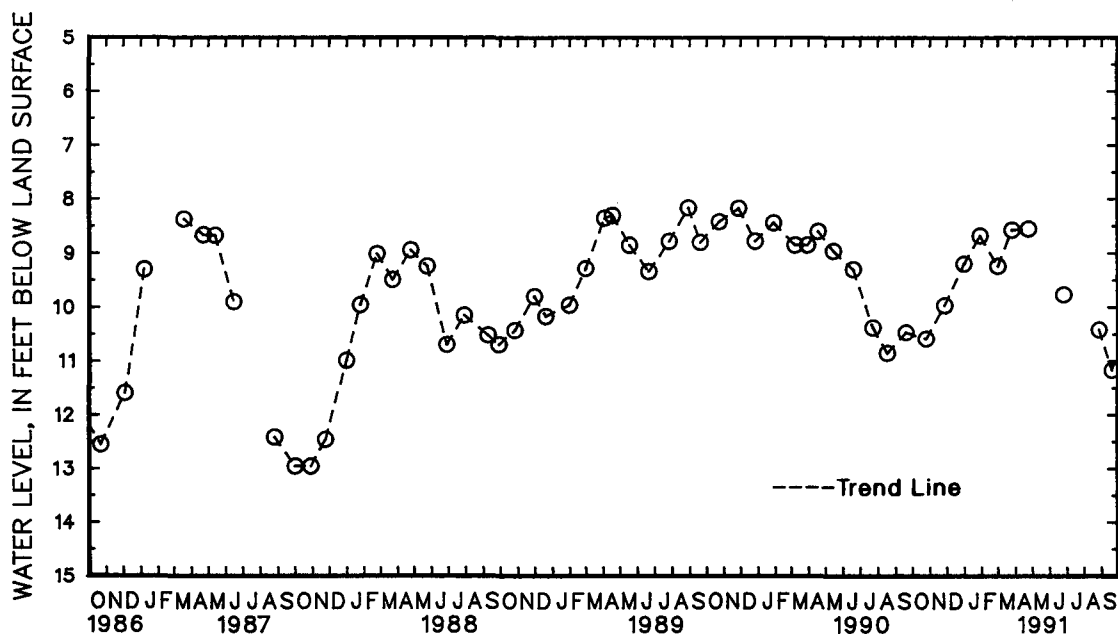
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued

WELL NUMBER.--WO A₂ 25. SITE ID.--382621075174203. PERMIT NUMBER.--WO-73-0514.
LOCATION.--Lat 38°26'21", long 75°17'42", Hydrologic Unit 02060010, 2.75 mi north of Whaleyville.
Owner: U.S. Geological Survey.
AQUIFER.--Pocomoke aquifer of Miocene age. Aquifer code: 122PCMK.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 118 ft; casing diameter 4 in., to 108 ft; screened diameter 4 in. from 108 to 118 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of 4 in. coupling, 3.6 ft above land surface.
REMARKS.--Ocean City ground-water monitoring network well.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.79 ft below land surface, Nov. 20, 1975; lowest measured, 12.96 ft below land surface, Oct. 1 and 29, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	10.59	DEC 31	9.20	MAR 1	9.24	APR 24	8.55	AUG 27	10.42
NOV 27	9.97	JAN 29	8.68	26	8.57	JUN 25	9.77	SEP 19	11.18
WATER YEAR 1991		HIGHEST	8.55	APR 24, 1991		LOWEST	11.18	SEP 19, 1991	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 6. SITE ID.--382632075031801. PERMIT NUMBER.--WO-70-0009.
 LOCATION.--Lat 38°26'32", long 75°03'18", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.
 Owner: U.S. Geological Survey
 AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 357 ft; casing diameter 4 in., to 347 ft; screen diameter 4 in. from 347 to 357 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape from June 1972 to March 1985. Equipped with digital water-level recorder--15-minute recording interval, March 1985 to current year.
 DATUM.--Elevation of land surface is 6.35 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of shelter floor, 3.27 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--June 1972 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.32 ft below land surface, April 8, 1988; lowest recorded, 52.46 ft below land surface, July 24, 1989.

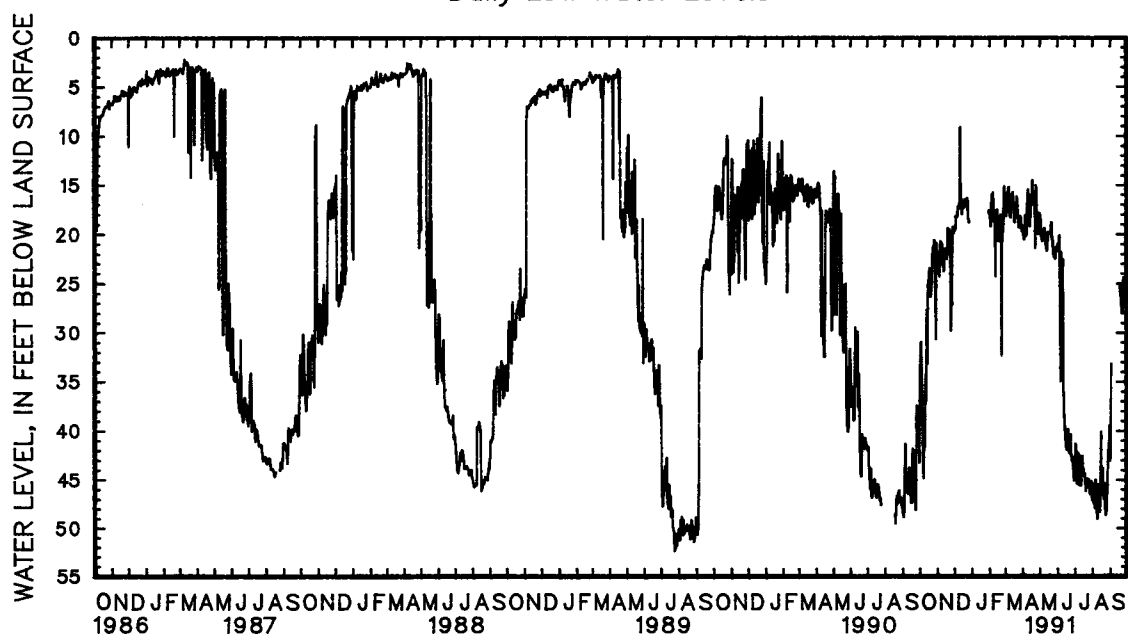
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	35.00	22.76	21.88	18.10	19.40	15.68	11.50	6.96	18.12	9.70	15.90	9.08
2	31.68	22.64	22.86	18.47	19.60	15.70	---	---	18.51	10.00	18.19	12.79
3	31.02	20.91	23.88	19.00	19.31	12.44	---	---	19.30	15.58	17.52	14.31
4	35.43	22.14	24.37	20.28	18.16	11.49	---	---	17.45	10.58	16.83	13.12
5	38.00	21.18	22.50	18.03	18.26	11.69	---	---	16.08	9.67	16.37	9.38
6	42.45	25.58	20.71	17.73	18.12	12.10	---	---	17.02	9.17	15.28	9.23
7	45.01	31.58	21.32	17.50	17.24	11.42	---	---	15.85	8.88	15.23	12.68
8	41.93	28.54	20.93	17.23	17.45	14.59	---	---	17.45	8.26	16.93	9.21
9	41.82	25.23	21.02	16.39	17.07	12.86	---	---	18.86	8.52	18.18	13.78
10	38.83	23.17	23.20	17.86	16.91	9.00	---	---	18.90	8.62	18.33	14.72
11	34.34	20.41	23.35	19.95	9.14	7.51	---	---	24.48	10.76	16.74	13.67
12	37.03	24.54	23.81	20.13	15.79	7.42	---	---	18.60	10.93	16.01	12.87
13	27.68	24.40	22.67	18.86	17.09	7.31	---	---	17.74	8.20	15.96	8.24
14	33.31	24.82	21.55	17.24	18.06	11.11	---	---	17.60	8.14	15.81	11.74
15	25.06	23.11	21.86	17.09	17.43	9.77	---	---	18.49	8.30	16.59	7.77
16	25.07	19.84	21.91	17.09	17.29	10.31	---	---	19.20	16.70	17.52	12.50
17	24.32	17.97	22.51	16.93	17.43	10.09	---	---	20.78	17.62	18.84	14.35
18	23.47	17.62	21.75	16.38	17.05	9.36	---	---	20.72	18.31	17.73	14.30
19	24.08	20.10	19.39	15.63	16.61	10.54	---	---	19.03	10.80	17.34	13.98
20	26.40	20.92	19.67	15.18	16.81	10.14	---	---	18.55	11.68	17.95	10.54
21	25.67	23.01	20.59	16.35	16.61	9.29	---	---	18.14	9.74	16.23	10.47
22	25.03	20.21	19.58	15.74	17.29	11.39	---	---	32.60	9.54	16.81	13.79
23	22.48	18.49	21.13	15.61	16.46	10.24	---	---	19.99	19.06	18.26	12.96
24	21.38	14.36	29.97	16.16	16.72	9.06	---	---	19.82	11.24	19.33	15.50
25	22.67	18.46	22.89	18.29	18.47	9.61	---	---	19.12	9.60	19.39	16.07
26	20.61	12.71	27.33	16.23	18.92	8.81	---	---	17.46	11.58	18.70	10.48
27	22.47	16.74	23.27	14.96	18.76	10.15	---	---	15.16	8.11	18.26	11.73
28	26.02	19.02	19.29	16.67	---	---	---	---	16.30	9.93	18.36	10.58
29	30.87	17.80	19.91	13.35	---	---	---	---	---	---	18.94	13.57
30	20.90	16.78	19.74	12.12	---	---	17.89	9.62	---	---	19.70	15.62
31	22.50	17.13	---	---	---	---	17.67	8.64	---	---	19.42	16.73
MONTH	45.01	12.71	29.97	12.12	19.60	7.31	17.89	6.96	32.60	8.11	19.70	7.77

GROUND-WATER LEVELS
 MARYLAND--Continued
 WORCESTER COUNTY--Continued
 WO Ah 6--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	19.95	16.36	18.10	12.27	21.16	17.69	43.15	29.18	46.51	34.61	43.14	27.10
2	20.23	16.49	18.57	13.68	21.09	16.68	41.45	29.49	45.55	31.13	40.52	24.92
3	20.62	17.06	19.78	15.75	21.41	16.42	42.33	31.01	47.66	31.33	33.21	20.60
4	19.46	15.79	20.44	18.34	20.25	16.48	45.61	27.70	47.03	35.70	---	---
5	18.16	14.75	20.80	19.55	26.61	17.05	45.29	32.83	48.07	30.65	---	---
6	20.24	16.43	19.75	18.33	35.20	17.00	42.37	28.27	45.11	28.84	---	---
7	20.14	17.11	20.18	17.63	21.84	17.19	43.56	32.17	46.73	31.00	---	---
8	18.46	13.09	19.87	12.54	22.91	17.52	45.72	30.35	47.71	30.01	---	---
9	17.00	9.57	19.52	17.76	22.89	18.37	42.66	26.33	49.21	34.51	---	---
10	15.52	9.48	20.13	18.38	22.64	18.88	45.79	27.24	45.60	31.59	---	---
11	16.14	8.52	20.95	18.98	36.52	17.72	44.52	30.31	46.07	33.60	---	---
12	18.13	8.90	21.31	19.85	38.63	17.86	45.76	36.94	46.91	32.27	---	---
13	19.27	14.45	21.80	19.71	39.80	25.45	42.78	37.00	48.44	32.41	---	---
14	18.37	12.97	21.13	15.42	40.66	23.39	42.72	37.01	47.43	33.61	---	---
15	17.14	10.22	19.89	15.03	41.56	23.15	44.11	37.01	45.29	32.20	---	---
16	16.02	9.17	20.04	14.92	42.14	27.76	44.07	37.01	40.13	31.63	---	---
17	16.73	9.29	20.04	16.72	40.55	26.69	44.83	37.02	45.77	34.27	---	---
18	14.50	9.06	20.04	16.09	40.10	23.38	44.59	37.01	46.24	31.55	25.10	22.47
19	16.25	8.72	19.94	14.61	40.02	23.79	45.63	37.02	43.92	35.08	26.33	20.87
20	16.99	13.49	19.85	14.63	42.25	24.86	46.34	37.02	46.56	29.81	25.99	20.39
21	16.76	12.96	18.89	14.53	42.48	25.88	45.05	37.02	47.12	29.83	27.78	21.95
22	15.89	11.34	20.45	15.46	42.18	25.28	45.97	37.02	45.48	33.04	28.09	23.16
23	21.51	8.69	20.71	15.83	40.59	26.00	45.53	37.02	48.02	32.33	27.41	20.61
24	15.09	8.39	21.71	16.08	42.61	26.02	45.07	34.25	48.78	35.92	24.70	20.02
25	15.42	8.61	22.37	18.15	42.86	26.33	45.82	28.88	48.34	35.47	24.40	18.25
26	18.80	10.10	22.48	19.33	43.33	27.39	45.24	30.95	46.56	34.67	25.11	18.32
27	19.36	15.11	22.63	19.46	43.13	26.45	46.66	34.31	45.74	34.39	25.08	19.39
28	20.09	16.14	22.47	17.25	44.17	25.65	46.18	31.72	43.19	32.84	26.33	22.36
29	19.18	14.74	21.45	17.64	45.24	26.23	45.33	33.80	41.96	32.46	27.14	21.59
30	17.95	15.02	21.73	17.99	45.26	26.57	46.14	31.26	41.57	30.67	24.28	19.84
31	---	---	21.81	17.47	---	---	47.29	34.38	39.45	26.25	---	---
MONTH	21.51	8.39	22.63	12.27	45.26	16.42	47.29	26.33	49.21	26.25	43.14	18.25

Daily Low Water Levels



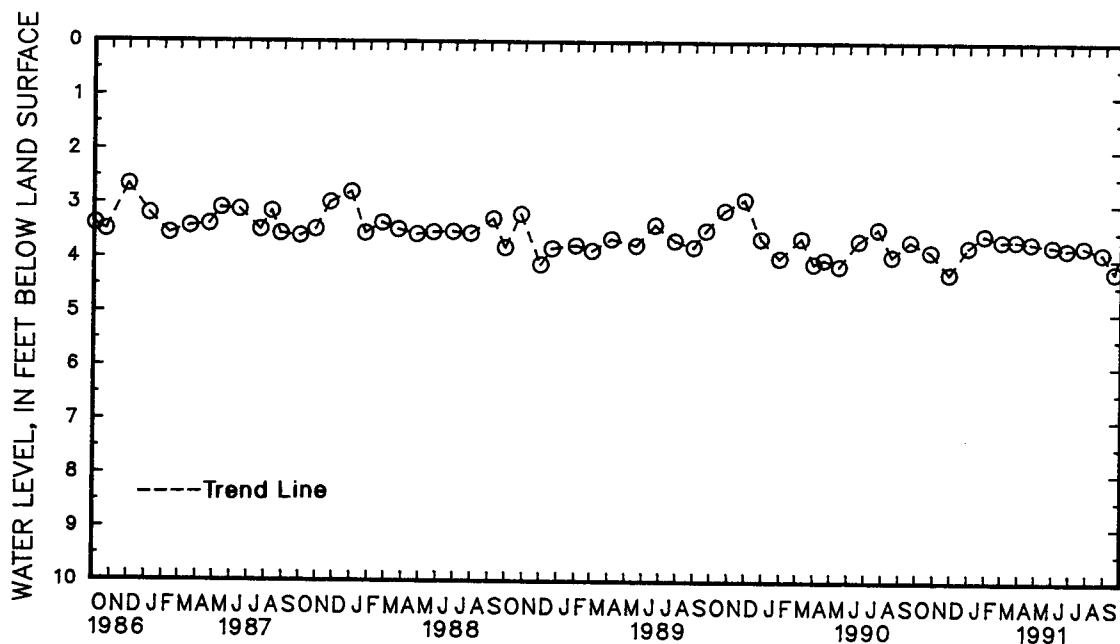
5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 35. SITE ID.--382635075030601. PERMIT NUMBER.--WO-73-0516.
LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.
Owner: U.S. Geological Survey.
AQUIFER.--Choptank Formation of Miocene age. Aquifer code: 122CPNK.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 726 ft; casing diameter 4 in., to 726 ft; screen diameter 2 in. from 716 to 726 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 13.99 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. coupling, 3.7 ft above land surface.
REMARKS.--Ocean City ground-water monitoring network well. Water levels may be affected by nearby pumping.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.90 ft below land surface, March 10, 1976; lowest measured, 10.26 ft below land surface, Oct. 28, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.87	DEC 31	3.78	MAR 1	3.67	APR 22	3.70	JUN 25	3.82	AUG 27	3.89
NOV 27	4.28	JAN 29	3.56	26	3.66	MAY 30	3.76	JUL 25	3.77	SEP 18	4.24
WATER YEAR 1991		HIGHEST	3.56	JAN 29, 1991		LOWEST	4.28	NOV 27, 1990			



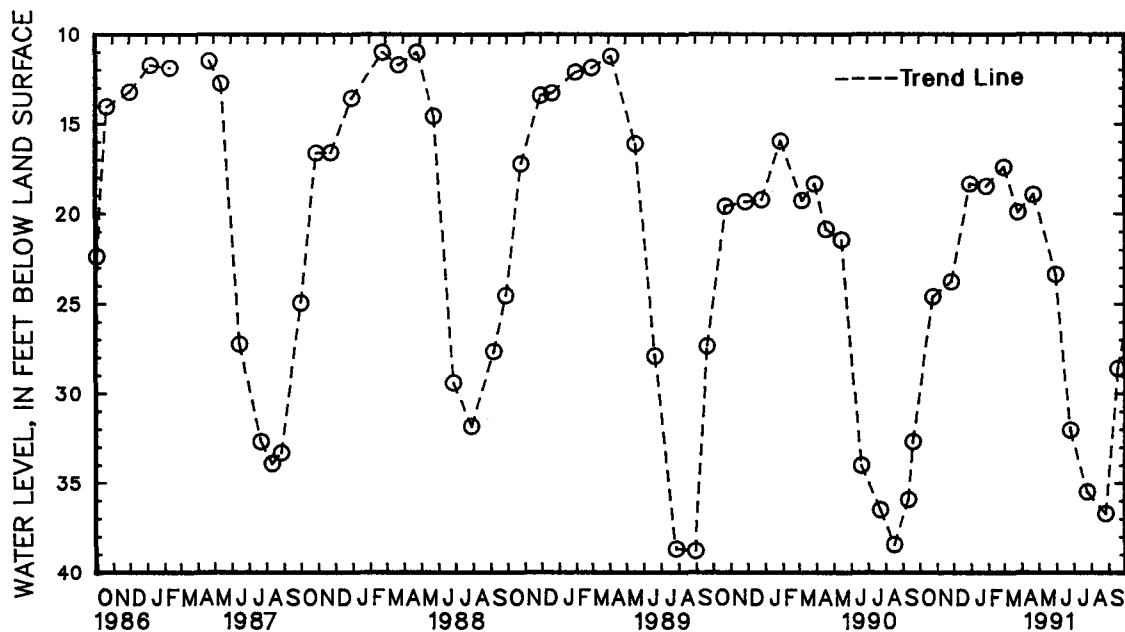
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 36. SITE ID.--382635075030602. PERMIT NUMBER.--WO-73-0518.
LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.
Owner: U.S. Geological Survey.
AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 430 ft; casing diameter 4 in., to 420 ft; screen diameter 2 in. from 420 to 430 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 14.32 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. coupling, 1.08 ft above land surface.
REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.61 ft below land surface, April 18, 1984; lowest measured, 38.75 ft below land surface, Aug. 30, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	24.59	DEC 31	18.34	MAR 1	17.40	APR 22	18.94	JUN 25	32.06	AUG 27	36.71
NOV 27	23.76	JAN 29	18.47	MAR 26	19.91	MAY 30	23.38	JUL 25	35.50	SEP 18	28.58
WATER YEAR 1991		HIGHEST	17.40	MAR 1, 1991	LOWEST	36.71	AUG 27, 1991				

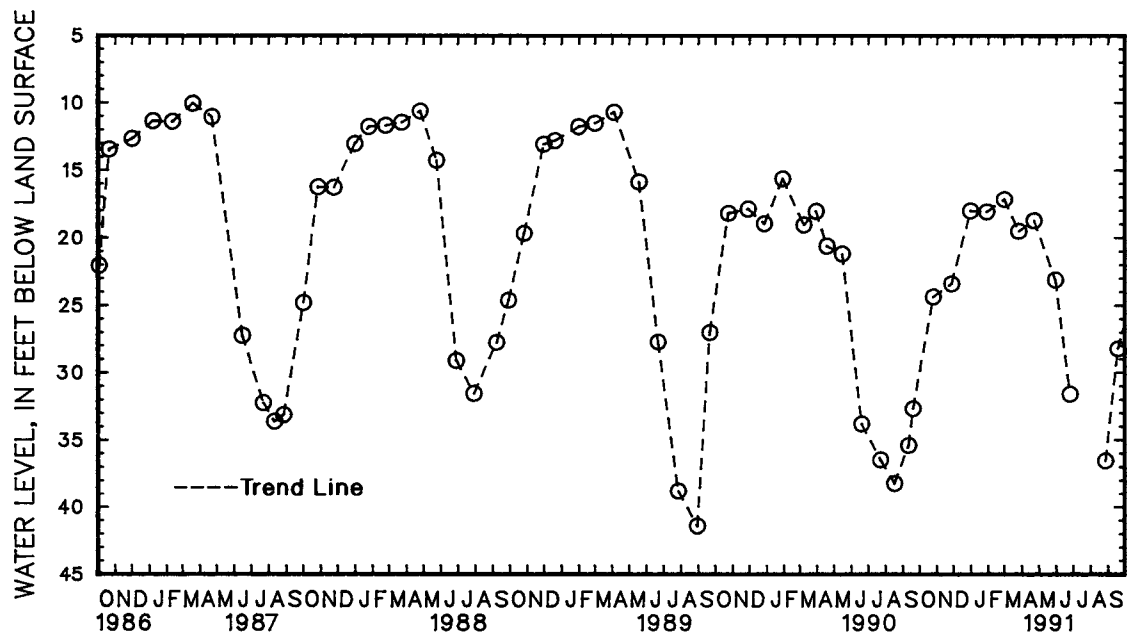


5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

WELL NUMBER.--WO Ah 37. SITE ID.--382635075030603. PERMIT NUMBER.--WO-73-0517.
LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.
Owner: U.S. Geological Survey.
AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 478 ft; casing diameter 4 in., to 468 ft;
screen diameter 2 in. from 468 to 478 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 13.89 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. casing, 2.75 ft above land surface.
REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.58 ft below land surface, Feb. 10, 1977;
lowest measured, 41.42 ft below land surface, Aug. 30, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 25	24.35	DEC 31	18.00	MAR 1	17.15	APR 22	18.73	JUN 25	31.63	SEP 18	28.22				
NOV 27	23.39	JAN 29	18.07	26	19.51	MAY 30	23.13	AUG 27	36.57						
WATER YEAR 1991		HIGHEST	17.15	MAR 1, 1991		LOWEST	36.57	AUG 27, 1991							



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 1. SITE ID.--382022075072401.

LOCATION.--Lat 38°20'22", long 75°07'24", Hydrologic Unit 02060010, 0.4 mi east of Herring Creek on U.S. Rt. 50.
Owner: MD State Highway Administration.

AQUIFER.--Sinepuxent Formation of Pleistocene age. Aquifer code: 112SNPX.

WELL CHARACTERISTICS.--Driven, water-table well, depth 14 ft; casing diameter 1.25 in., to 14 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.25 ft above land surface.

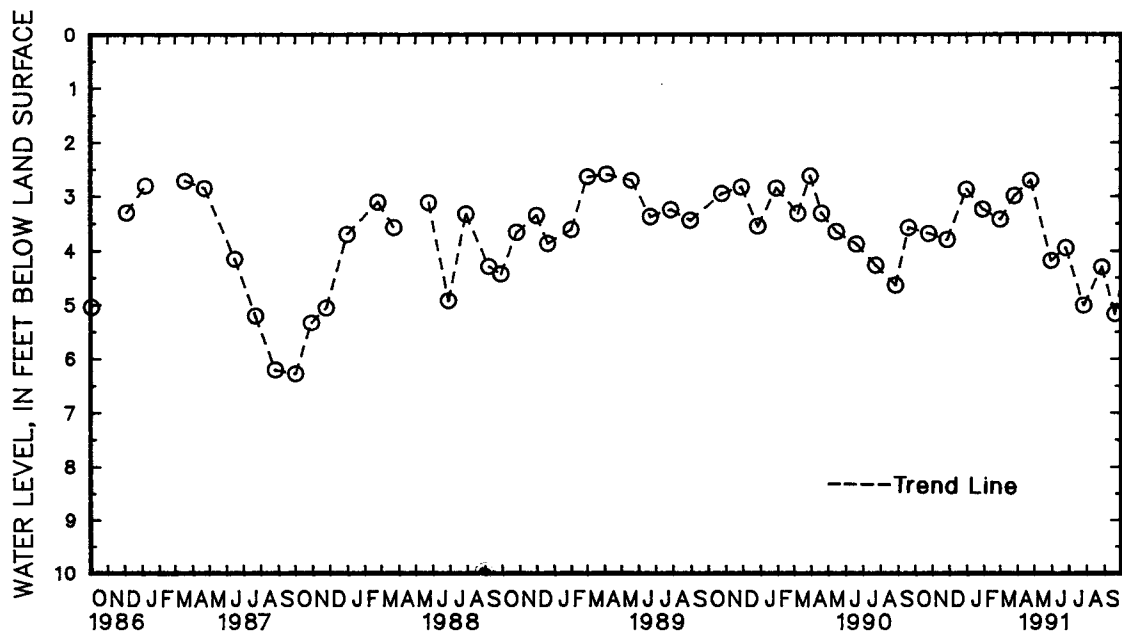
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.41 ft below land surface, March 8, 1962;
lowest measured, 8.61 ft below land surface, May 14, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.70	DEC 31	2.88	MAR 1	3.44	APR 24	2.71	JUN 25	3.97	AUG 27	4.32
NOV 27	3.81	JAN 29	3.25	26	3.00	MAY 30	4.21	JUL 26	5.04	SEP 19	5.20
WATER YEAR 1991		HIGHEST		2.71		APR 24, 1991		LOWEST		5.20	
										SEP 19, 1991	



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

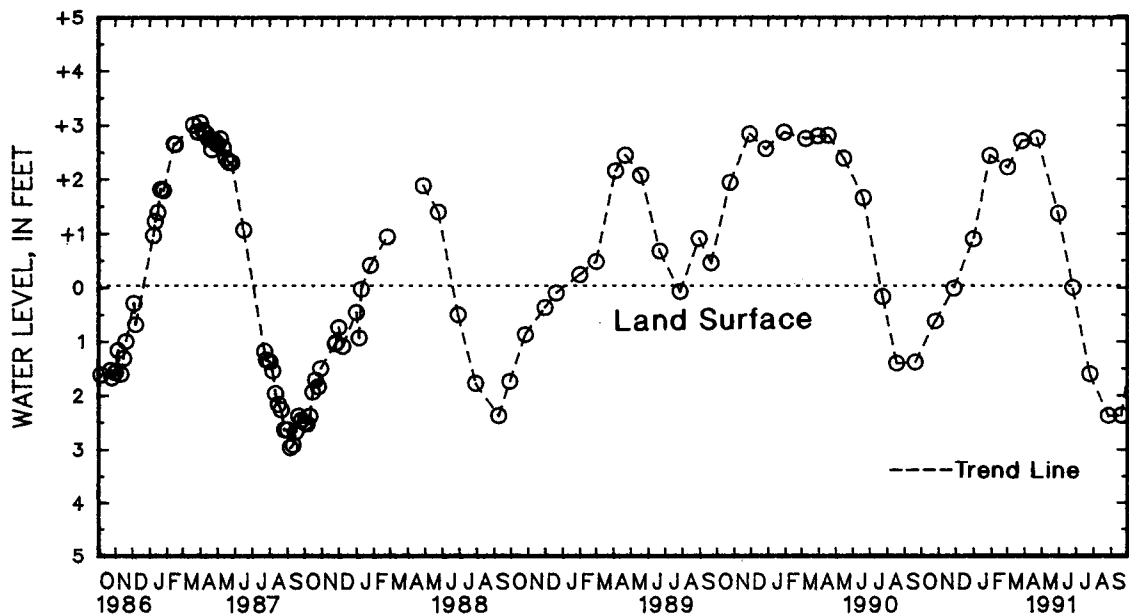
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 15. SITE ID.--382359075094501. PERMIT NUMBER.--WO-78-0066.
 LOCATION.--Lat 38°23'59", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.
 Owner: Ocean Pines.
 AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 318 ft; casing diameter 6 in., to 288 ft; screen diameter 6 in. from 288 to 318 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of 6 in. casing, 5.94 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels may be affected by nearby pumping.
 PERIOD OF RECORD.--September 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.13 ft above land surface, Feb. 29, 1972; lowest measured, 3.00 ft below land surface, Sept. 5, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	.64	DEC 31	+ .90	MAR 1	+2.22	APR 22	+2.76	JUN 25	.03	AUG 27	2.41
NOV 27	.02	JAN 29	+2.44	MAR 26	+2.71	MAY 30	+1.35	JUL 25	1.64	SEP 19	2.40
WATER YEAR 1991		HIGHEST	+2.76	APR 22, 1991	LOWEST	2.41	AUG 27, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

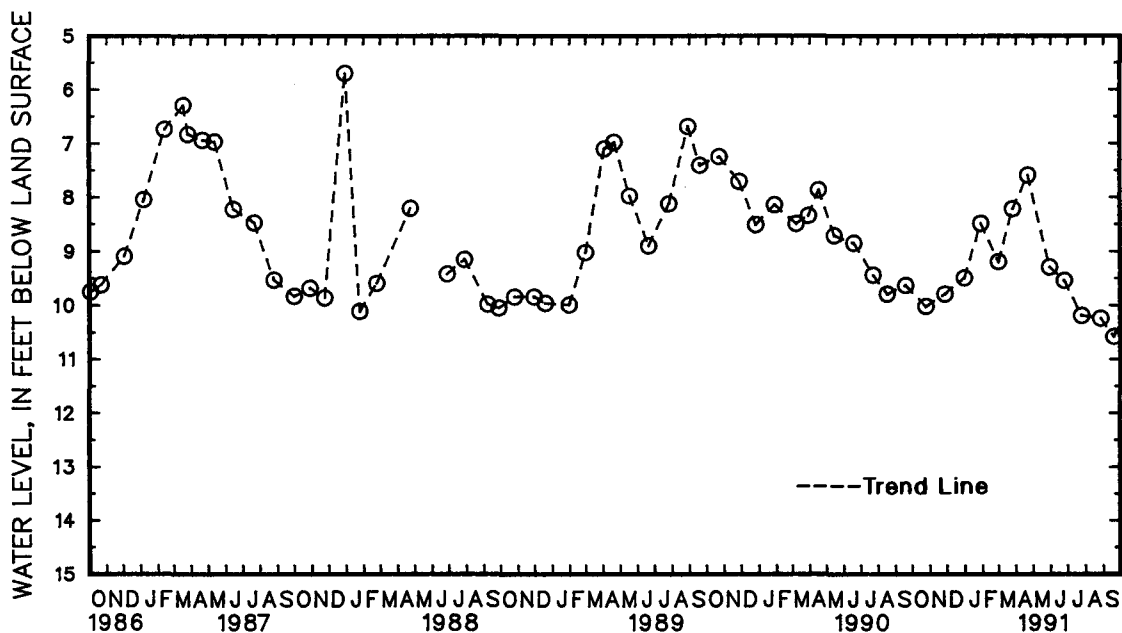
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 45. SITE ID.--382358075094501. PERMIT NUMBER.--WO-78-0066.
 LOCATION.--Lat 38°23'58", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.
 Owner: Ocean Pines.
 AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation well, depth 77 ft; casing diameter 2 in., to 56 ft;
 screen diameter 2 in. from 56 to 77 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of 2 in. casing, 1.7 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well.
 PERIOD OF RECORD.--May 1971 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.22 ft below land surface, Jan. 8, 1971;
 lowest measured, 10.59 ft below land surface, Sept 19, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	10.03	DEC 31	9.50	MAR 1	9.20	APR 22	7.59	JUN 25	9.55	AUG 27	10.25
NOV 27	9.80	JAN 29	8.49	26	8.22	MAY 30	9.30	JUL 25	10.20	SEP 19	10.59
WATER YEAR 1991		HIGHEST	7.59	APR 22, 1991		LOWEST	10.59	SEP 19, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

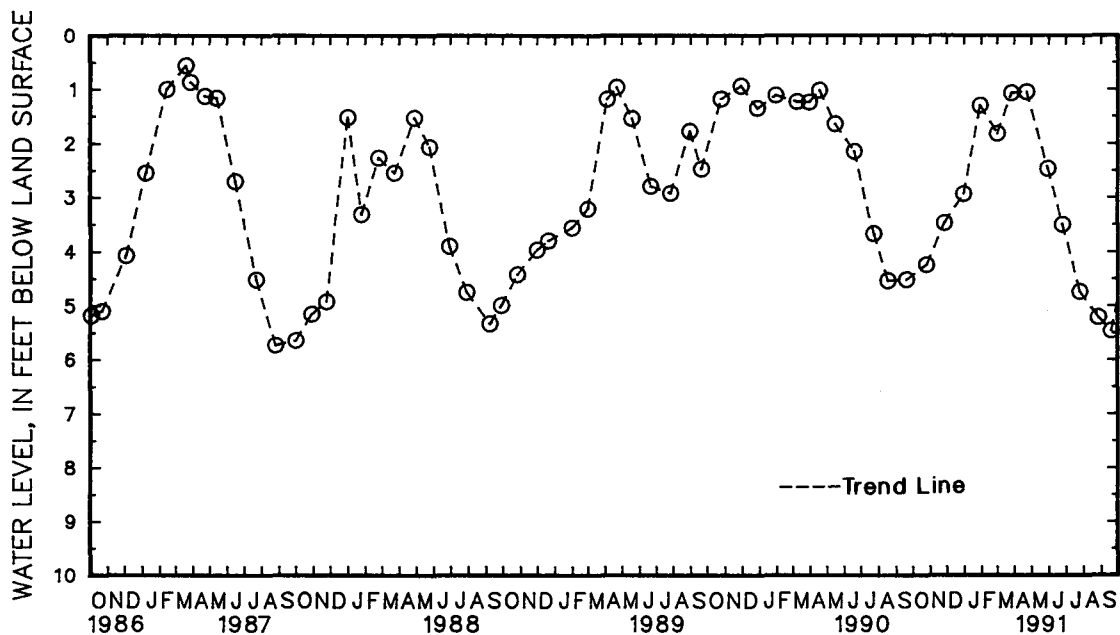
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg. 46. SITE ID.--382358075094502 PERMIT NUMBER.--WO-78-0066
 LOCATION.--Lat 38°23'58", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.
 Owner: Ocean Pines
 AQUIFER.--Pocomoke aquifer of Miocene age. Aquifer code: 122PCMK.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 194 ft; casing diameter 6 in., to 164 ft; screen diameter 6 in. from 164 to 194 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of 2 in. coupling, 2.5 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels maybe affected by nearby pumping.
 PERIOD OF RECORD.--October 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.22 ft above land surface, April 27, 1983; lowest measured, 5.74 ft below land surface, Aug. 26, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	4.25	DEC 31	2.94	MAR 1	1.82	APR 22	1.05	JUN 25	3.51	AUG 27	5.22
NOV 27	3.48	JAN 29	1.30	26	1.07	MAY 30	2.47	JUL 25	4.75	SEP 19	5.47
WATER YEAR 1991		HIGHEST	1.05	APR 22, 1991		LOWEST	5.47	SEP 19, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 47. SITE ID.--382325075063301. PERMIT NUMBER.--WO-73-0521.

LOCATION.--Lat 38°23'25", long 75°06'33", Hydrologic Unit 02060010, at intersection of MD Rt. 90 and Isle of Wight Rd., Isle of Wight.

Owner: U.S. Geological Survey.

AQUIFER.--Ocean City aquifer of Miocene age. Aquifer code: 1220CNC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 268 ft; casing diameter 4 in., to 258 ft;

screen diameter 4 in. from 258 to 268 ft.

INSTRUMENTATION.--Periodic measurements with chalked steel tape September 1975 to July 1985. Equipped with digital water-level recorder--60-minute recording interval from July 1985 to current year.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder shelf, 4.07 ft above land surface.

REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--September 1975 to current year.

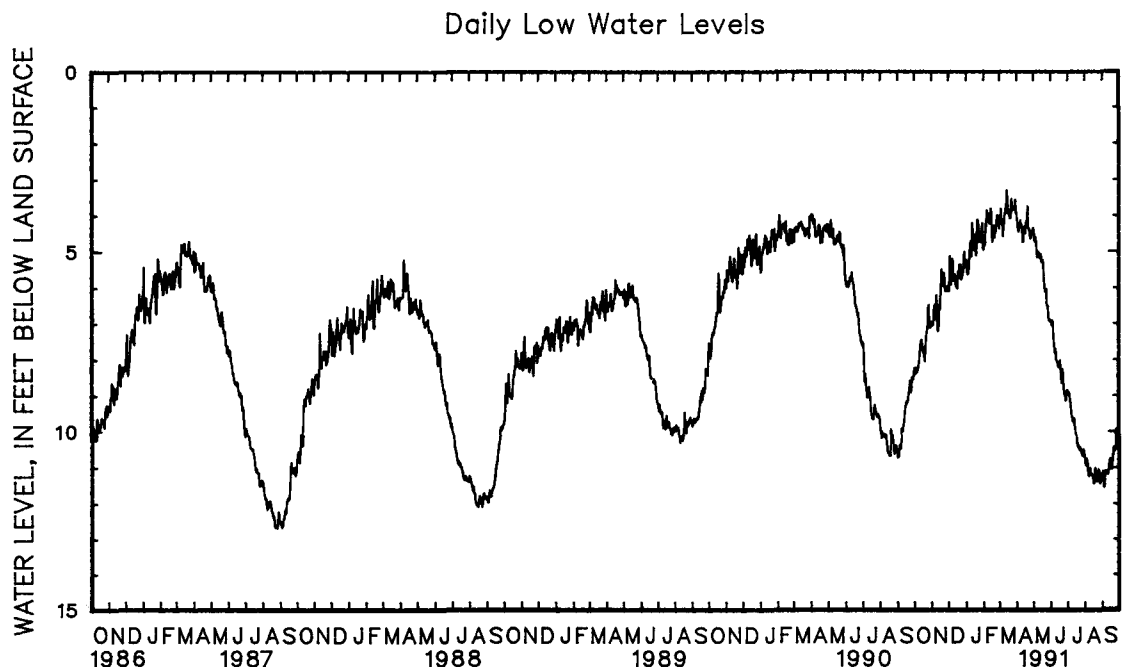
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.65 ft below land surface, March 15, 1991; lowest recorded, 12.72 ft below land surface, Aug. 26, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.24	7.51	6.96	6.25	5.96	5.12	5.42	4.50	4.96	4.44	4.35	3.71
2	8.38	7.75	7.05	6.29	6.08	5.24	5.26	4.44	4.84	4.18	4.16	3.44
3	8.40	7.76	7.05	6.24	5.90	4.62	5.54	4.79	4.82	4.34	4.11	3.23
4	8.23	7.58	6.96	5.99	5.12	4.13	5.62	4.95	4.76	3.93	3.80	3.15
5	8.25	7.51	6.72	5.77	5.90	5.02	5.56	4.94	4.24	3.69	4.12	3.22
6	8.35	7.57	6.50	5.70	5.90	5.10	5.46	4.94	4.28	3.65	4.15	3.65
7	8.28	7.49	6.89	6.05	5.61	4.85	5.19	4.64	3.86	3.45	4.25	3.35
8	8.22	7.43	6.85	6.02	5.20	4.57	4.87	4.35	3.97	3.28	4.58	3.83
9	8.12	7.29	6.47	5.75	5.29	4.64	4.73	3.76	3.96	3.39	4.39	3.94
10	7.96	7.16	6.21	5.17	5.80	4.89	5.10	4.26	3.95	3.33	4.21	3.53
11	7.75	6.93	6.65	5.68	5.80	5.21	5.12	4.01	4.20	3.32	3.97	3.30
12	7.59	6.84	7.16	6.70	5.64	4.97	4.20	3.46	4.22	3.57	3.93	3.19
13	7.50	6.82	7.22	6.70	5.74	5.13	4.42	3.86	4.20	3.49	3.76	3.16
14	7.45	6.87	7.06	6.14	5.92	5.30	4.65	3.98	3.80	2.79	3.70	2.66
15	7.58	6.97	6.49	5.79	5.98	5.09	4.96	4.25	3.95	2.94	3.30	2.65
16	7.67	7.07	6.60	5.94	5.72	5.08	4.77	3.71	4.55	3.94	3.67	3.01
17	7.79	7.13	6.22	5.47	6.01	5.34	4.53	3.75	4.73	4.18	3.94	3.26
18	7.76	7.02	5.93	4.98	5.68	4.86	4.87	4.28	4.61	3.85	3.84	2.85
19	7.88	7.19	5.49	4.69	5.56	4.95	5.10	4.41	4.28	3.74	3.84	2.86
20	8.05	7.34	5.69	4.97	5.71	4.97	4.64	3.74	4.61	3.82	4.08	3.18
21	7.82	7.03	5.94	5.26	5.36	4.68	4.11	3.57	4.62	3.98	4.08	3.38
22	7.47	6.78	5.89	5.12	5.36	4.81	4.16	3.35	4.43	3.93	3.98	3.31
23	7.27	6.44	5.59	4.88	5.43	4.91	4.35	3.58	4.45	3.83	3.54	3.08
24	7.17	6.47	5.74	5.01	5.77	4.86	4.71	3.98	4.26	3.72	3.86	2.80
25	7.11	6.30	6.01	5.47	5.73	5.26	4.62	4.13	4.08	3.45	3.83	3.27
26	6.56	5.80	6.09	5.66	5.61	4.94	4.59	3.88	3.99	3.21	3.79	3.11
27	6.48	5.88	6.02	5.46	5.55	4.99	4.52	3.91	4.11	3.33	3.76	3.03
28	6.91	6.16	5.98	5.37	5.14	4.19	4.50	3.67	4.26	3.62	3.78	3.11
29	7.10	6.60	6.00	5.40	5.01	4.11	4.37	3.57	---	---	3.83	2.89
30	7.12	6.40	6.09	5.30	5.21	4.52	4.22	3.36	---	---	3.56	2.87
31	6.99	6.44	---	---	5.41	4.73	4.62	3.58	---	---	3.93	3.10
MONTH	8.40	5.80	7.22	4.69	6.08	4.11	5.62	3.35	4.96	2.79	4.58	2.65

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bg 47--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.93	3.28	4.37	3.67	6.97	6.28	8.90	8.15	10.79	10.20	11.21	10.36
2	4.12	3.34	4.51	3.65	7.01	6.31	9.02	8.40	10.95	10.39	11.15	10.43
3	4.32	3.54	4.72	3.87	7.09	6.39	9.00	8.44	11.00	10.26	11.39	10.70
4	4.35	3.77	4.76	4.02	6.98	6.49	8.98	8.43	10.81	10.05	11.60	10.83
5	4.45	3.79	4.62	4.16	7.00	6.35	9.05	8.48	10.90	10.15	11.53	10.68
6	4.31	3.88	4.73	3.99	7.42	6.65	9.16	8.54	11.11	10.32	11.21	10.39
7	4.24	3.73	5.04	4.23	7.65	7.09	9.41	8.73	11.27	10.47	11.14	10.36
8	4.15	3.71	5.17	4.62	7.76	7.09	9.47	8.71	11.29	10.42	11.13	10.42
9	4.27	3.65	5.16	4.60	7.86	7.06	9.62	8.74	11.10	10.15	11.14	10.50
10	4.28	3.74	5.04	4.44	7.75	6.99	9.68	8.81	11.07	10.27	11.15	10.53
11	4.43	3.91	5.10	4.47	8.04	7.18	9.77	8.88	11.22	10.42	11.22	10.60
12	4.75	4.22	5.17	4.48	8.08	7.17	9.77	8.89	11.26	10.59	11.12	10.25
13	4.74	3.82	5.20	4.33	8.14	7.33	9.69	8.93	11.24	10.64	10.93	10.26
14	4.33	3.64	5.10	4.25	8.22	7.41	9.72	8.93	11.25	10.67	10.85	10.16
15	4.37	3.57	5.17	4.28	8.26	7.47	9.94	9.06	11.34	10.76	10.81	10.15
16	4.51	3.70	5.30	4.32	8.23	7.50	10.09	9.35	11.49	10.89	10.95	10.38
17	4.48	3.55	5.32	4.45	8.17	7.54	10.21	9.62	11.50	10.83	11.10	10.45
18	4.22	3.49	5.27	4.58	8.07	7.44	10.43	9.85	11.39	10.72	10.96	10.21
19	4.24	3.36	5.40	4.41	8.33	7.53	10.40	9.78	11.06	10.15	10.84	10.23
20	4.07	3.43	5.84	4.88	8.55	7.97	10.48	9.83	11.42	10.76	10.67	9.93
21	3.75	3.15	6.00	5.36	8.69	8.04	10.52	9.89	11.23	10.68	10.48	9.92
22	4.36	3.23	6.14	5.60	8.66	7.86	10.56	9.84	11.34	10.69	10.58	9.99
23	4.39	3.73	6.13	5.37	8.31	7.59	10.49	9.81	11.42	10.74	10.53	9.98
24	4.42	3.84	6.08	5.50	8.73	8.05	10.52	9.83	11.39	10.68	10.53	9.74
25	4.57	3.99	6.53	5.93	8.94	8.25	10.62	9.93	11.09	10.38	10.10	9.40
26	4.65	4.00	6.55	5.77	9.03	8.30	10.67	9.99	11.13	10.52	9.98	9.28
27	4.63	3.91	6.57	5.91	9.08	8.43	10.70	9.96	11.35	10.71	10.08	9.39
28	4.56	3.71	6.82	6.12	9.19	8.49	10.73	10.03	11.48	10.94	10.17	9.41
29	4.44	3.76	6.94	6.18	9.16	8.48	10.56	9.86	11.43	10.80	10.22	9.58
30	4.49	3.77	6.95	6.19	8.94	8.23	10.55	9.85	11.22	10.54	10.16	9.25
31	---	---	6.96	6.21	---	---	10.68	9.96	11.24	10.59	---	---
MONTH	4.75	3.15	6.96	3.65	9.19	6.28	10.73	8.15	11.50	10.05	11.60	9.25



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 48. SITE ID.--382325075063302. PERMIT NUMBER.--WO-73-0522.

LOCATION.--Lat 38°23'25", long 75°06'33", Hydrologic Unit 02060010, at intersection of MD Rt. 90 and Isle of Wight Rd., Isle of Wight.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 420 ft; casing diameter 4 in., to 410 ft; screen diameter 4 in. from 410 to 420 ft.

INSTRUMENTATION.--Periodic measurements with chalked steel tape September 1975 to April 1985. Equipped with digital water-level recorder--60 minute recording interval from July 1985 to current year.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of recorder shelf, 3.87 ft above land surface.

REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1975 to current year.

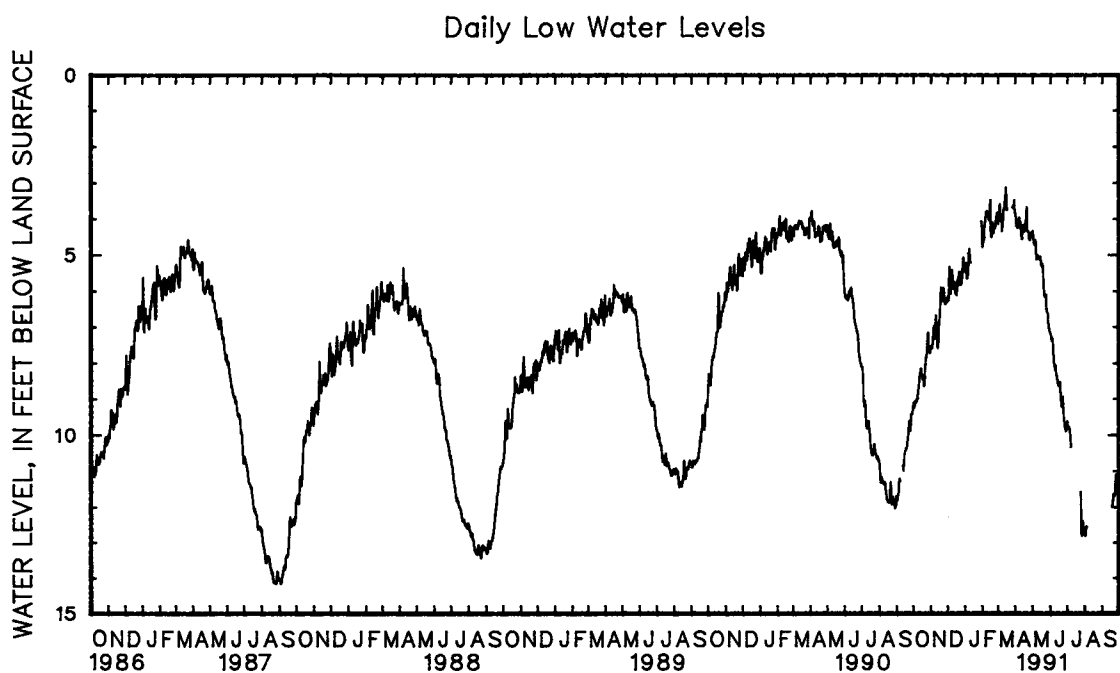
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.59 ft below land surface, March 15, 1991; lowest recorded, 14.29 ft below land surface, Aug. 26, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.12	8.49	7.55	6.97	6.18	5.48	5.46	4.68	4.79	4.28	4.14	3.60
2	9.20	8.69	7.61	6.98	6.26	5.58	5.23	4.55	4.67	4.14	3.94	3.33
3	9.24	8.70	7.58	6.92	6.11	4.96	5.47	4.89	4.61	4.10	3.87	3.11
4	9.07	8.50	7.46	6.66	5.34	4.50	5.66	5.12	4.55	4.13	3.59	3.05
5	9.05	8.43	7.20	6.39	6.06	5.29	5.65	5.12	4.08	3.72	3.92	3.13
6	9.11	8.47	6.98	6.29	6.07	5.42	5.54	5.11	4.09	3.56	3.95	3.54
7	9.05	8.38	7.33	6.65	5.82	5.16	5.32	4.84	3.86	3.35	4.05	3.27
8	9.97	8.29	7.30	6.63	5.42	4.88	5.00	4.56	3.80	3.22	4.35	3.71
9	8.86	8.16	6.96	6.32	5.48	4.93	4.84	4.00	3.78	3.31	4.20	3.83
10	8.70	8.03	6.69	5.73	5.94	5.13	5.20	4.46	3.81	3.27	4.01	3.40
11	8.50	7.81	7.06	6.19	5.93	5.46	5.21	4.20	3.85	3.27	3.75	3.20
12	8.33	7.70	7.54	7.10	5.75	5.21	---	---	4.02	3.51	3.72	3.09
13	8.23	7.66	7.61	7.16	5.85	5.30	---	---	4.04	3.41	3.55	3.05
14	8.16	7.69	7.45	6.67	5.99	5.51	---	---	3.65	2.75	3.48	2.60
15	8.25	7.78	6.92	6.29	6.09	5.35	---	---	3.48	2.88	3.14	2.59
16	8.36	7.89	6.94	6.36	5.87	5.32	---	---	4.35	3.55	3.48	2.93
17	8.45	7.93	6.61	5.96	6.12	5.58	---	---	4.52	4.01	3.75	3.17
18	8.39	7.76	6.31	5.50	5.82	5.10	---	---	4.42	3.87	---	---
19	8.48	7.93	5.90	5.18	5.68	5.18	---	---	4.11	3.72	---	---
20	8.66	8.07	6.03	5.43	5.84	5.22	---	---	4.39	3.65	---	---
21	8.43	7.78	6.28	5.73	5.50	4.92	---	---	4.41	3.89	---	---
22	8.06	7.47	6.22	5.58	5.47	5.01	---	---	4.25	3.84	---	---
23	7.86	7.14	5.91	5.30	5.52	5.08	---	---	4.27	3.76	---	---
24	7.77	7.18	6.02	5.41	5.83	5.03	---	---	4.22	3.65	---	---
25	7.72	7.06	6.29	5.81	5.82	5.43	---	---	4.07	3.39	---	---
26	7.21	6.57	6.37	6.00	5.67	5.12	---	---	3.90	3.17	---	---
27	7.16	6.63	6.30	5.84	5.62	5.17	---	---	3.84	3.28	3.68	3.07
28	7.53	6.87	6.22	5.73	5.23	4.41	---	---	4.09	3.56	3.66	3.12
29	7.70	7.26	6.22	5.73	5.08	4.31	---	---	---	---	3.72	2.91
30	7.73	7.09	6.31	5.67	5.23	4.67	4.07	3.34	---	---	3.48	2.89
31	7.58	7.11	---	---	5.41	4.89	4.26	3.53	---	---	3.83	3.15
MONTH	9.24	6.57	7.61	5.18	6.26	4.31	5.66	3.34	4.79	2.75	4.35	2.59

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bg 48--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.84	3.31	4.36	3.76	7.24	6.67	9.68	9.07	12.77	12.20	---	---
2	4.01	3.37	4.49	3.75	7.31	6.73	9.82	9.28	12.85	12.27	---	---
3	4.21	3.55	4.68	3.96	7.43	6.82	9.83	9.35	12.83	12.23	---	---
4	4.23	3.75	4.73	4.12	7.35	6.93	9.86	9.38	12.58	11.95	---	---
5	4.26	3.74	4.61	4.24	7.41	6.85	9.93	9.47	12.59	12.09	---	---
6	4.12	3.79	4.68	4.05	7.82	7.12	10.07	9.55	---	---	---	---
7	4.06	3.64	5.00	4.28	8.02	7.57	10.31	9.74	---	---	---	---
8	3.98	3.62	5.15	4.67	8.13	7.60	10.39	9.77	---	---	---	---
9	4.11	3.57	5.13	4.69	8.25	7.60	---	---	---	---	---	---
10	4.11	3.68	5.04	4.55	8.13	7.51	---	---	---	---	---	---
11	4.33	3.85	5.10	4.58	8.36	7.68	---	---	---	---	---	---
12	4.58	4.17	5.12	4.55	8.42	7.69	---	---	---	---	---	---
13	4.59	3.79	5.16	4.44	8.51	7.85	---	---	---	---	---	---
14	4.20	3.61	5.08	4.39	8.62	7.93	---	---	---	---	---	---
15	4.22	3.56	5.18	4.45	8.69	8.00	---	---	---	---	---	---
16	4.37	3.69	5.31	4.50	8.70	8.06	---	---	---	---	---	---
17	4.35	3.56	5.33	4.62	8.66	8.13	---	---	---	---	---	---
18	4.15	3.53	5.29	4.73	8.59	8.09	---	---	---	---	---	---
19	4.15	3.41	5.44	4.59	8.88	8.16	---	---	---	---	12.02	11.53
20	3.99	3.46	5.88	5.01	9.10	8.60	---	---	---	---	11.87	11.22
21	3.68	3.18	6.07	5.50	9.27	8.76	---	---	---	---	11.67	11.20
22	4.31	3.26	6.20	5.74	9.27	8.62	---	---	---	---	11.73	11.24
23	4.37	3.80	6.19	5.60	9.00	8.38	---	---	---	---	11.66	11.21
24	4.38	3.91	6.15	5.69	9.39	8.81	---	---	---	---	11.65	10.97
25	4.54	4.06	6.58	6.10	9.64	9.09	11.65	11.08	---	---	11.26	10.66
26	4.61	4.08	6.64	5.99	9.76	9.18	12.72	11.28	---	---	11.12	10.54
27	4.58	3.99	6.67	6.12	9.84	9.30	12.85	12.27	---	---	11.22	10.65
28	4.53	3.81	6.91	6.35	9.95	9.36	12.75	12.17	---	---	11.30	10.66
29	4.41	3.84	7.07	6.47	9.95	9.37	12.44	11.70	---	---	11.31	10.76
30	4.45	3.86	7.14	6.52	9.73	9.14	12.79	12.22	---	---	11.24	10.45
31	---	---	7.19	6.56	---	---	12.67	12.18	---	---	---	---
MONTH	4.61	3.18	7.19	3.75	9.95	6.67	12.85	9.07	12.85	11.95	12.02	10.45



GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

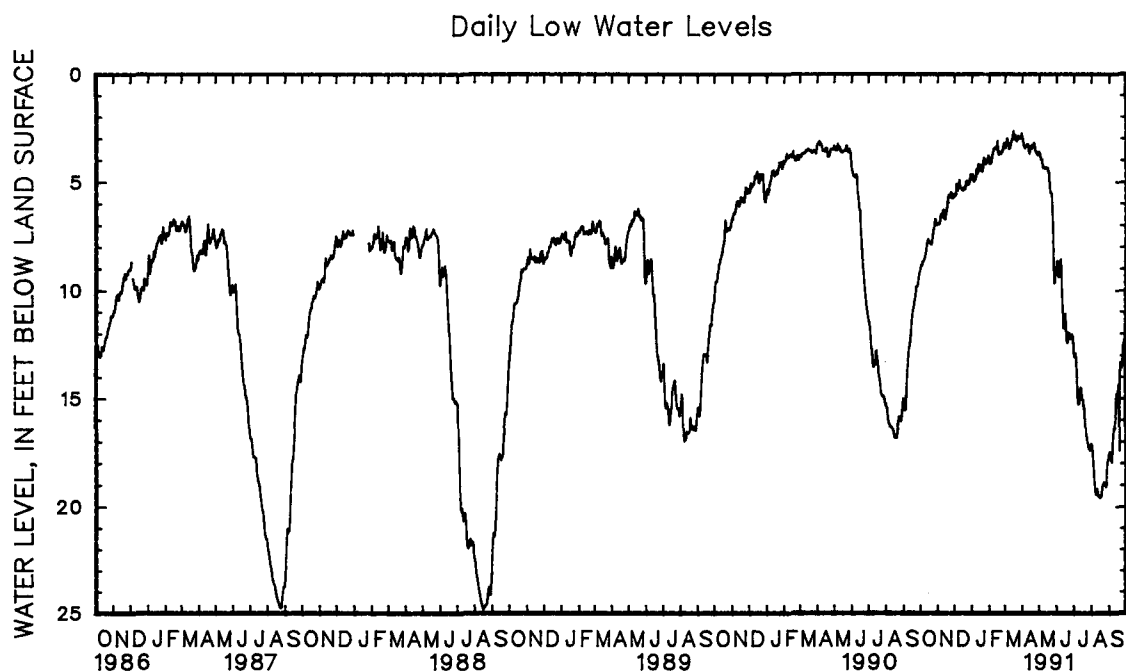
WELL NUMBER.--WO Bg 49. SITE ID.--382038075065901. PERMIT NUMBER.--WO-73-0520.
 LOCATION.--Lat 38°20'38", long 75°06'59", Hydrologic Unit 020060010, near Keyser Point Rd.,
 West Ocean City.
 Owner: U.S. Geological Survey.
 AQUIFER.--Ocean City aquifer of Miocene age. Aquifer code: 1220CNC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 243 ft; casing diameter 4 in., to 233 ft;
 screen diameter 4 in. from 233 to 243 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape October 1975 to May 1985. Equipped with
 digital water-level recorder--60-minute recording interval, May 1985 to current year.
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder shelf, 4.4 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--October 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.61 ft below land surface, March 14 and 15, 1991;
 lowest recorded, 24.84 ft below land surface, Aug. 16, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.94	8.76	6.93	6.83	5.62	5.48	4.85	4.62	4.16	3.91	3.43	3.32
2	8.84	8.76	6.95	6.85	5.63	5.51	4.66	4.52	4.17	4.05	3.33	3.16
3	8.88	8.76	6.94	6.82	5.59	5.11	4.71	4.61	4.12	4.04	3.22	2.99
4	8.79	8.61	6.88	6.65	5.11	4.82	4.98	4.70	4.11	4.01	3.01	2.93
5	8.67	8.56	6.69	6.45	5.32	5.00	4.92	4.84	3.98	3.78	3.17	2.96
6	8.65	8.52	6.49	6.35	5.39	5.26	4.90	4.82	3.76	3.69	3.22	3.14
7	8.60	8.45	6.62	6.48	5.28	5.12	4.87	4.72	3.70	3.47	3.25	3.06
8	8.51	8.36	6.62	6.48	5.10	4.86	4.74	4.45	3.47	3.36	3.48	3.24
9	8.41	8.24	6.51	6.29	4.92	4.84	4.41	4.17	3.44	3.35	3.47	3.38
10	8.26	8.06	6.30	5.80	5.17	4.90	4.60	4.36	3.42	3.31	3.40	3.15
11	8.09	7.90	6.28	5.95	5.27	5.15	4.60	4.21	3.41	3.29	3.21	3.06
12	7.91	7.73	6.67	6.29	5.28	5.17	4.18	3.97	3.47	3.40	3.13	2.96
13	7.76	7.62	6.71	6.66	5.31	5.14	4.21	4.06	3.49	3.30	3.01	2.87
14	7.66	7.59	6.72	6.50	5.37	5.25	4.38	4.19	3.30	2.97	2.91	2.61
15	7.72	7.60	6.50	6.30	5.39	5.13	4.44	4.37	3.11	2.96	2.67	2.61
16	7.77	7.72	6.36	6.21	5.28	5.12	4.41	4.02	3.53	3.15	2.82	2.67
17	7.82	7.75	6.21	5.97	5.35	5.26	4.21	4.00	3.73	3.55	3.01	2.84
18	7.81	7.62	5.97	5.66	5.26	5.05	4.40	4.24	3.74	3.63	2.97	2.70
19	7.81	7.65	5.67	5.44	5.33	5.05	4.51	4.41	3.62	3.50	2.87	2.69
20	7.89	7.80	5.61	5.47	5.26	5.07	4.39	4.03	3.65	3.48	3.07	2.83
21	7.83	7.61	5.71	5.61	5.06	4.89	4.00	3.87	3.71	3.58	3.12	3.00
22	7.60	7.43	5.71	5.53	4.96	4.88	3.90	3.78	3.65	3.51	3.09	3.00
23	7.42	7.12	5.53	5.33	4.96	4.90	3.95	3.83	3.60	3.50	3.01	2.80
24	7.22	7.09	5.48	5.32	5.08	4.85	4.15	3.93	3.60	3.43	2.89	2.68
25	7.16	6.91	5.65	5.48	5.13	5.07	4.16	4.08	3.46	3.28	2.96	2.86
26	6.89	6.60	5.72	5.64	5.07	4.98	4.16	3.98	3.32	3.09	3.00	2.91
27	6.71	6.60	5.72	5.63	5.07	4.91	4.05	3.98	3.21	3.11	3.00	2.85
28	6.84	6.65	5.72	5.61	4.88	4.57	4.03	3.87	3.42	3.23	2.96	2.87
29	6.96	6.85	5.68	5.59	4.65	4.45	3.94	3.76	---	---	2.99	2.72
30	6.98	6.86	5.67	5.57	4.70	4.55	3.80	3.57	---	---	2.78	2.67
31	6.92	6.87	---	---	4.82	4.69	3.87	3.60	---	---	2.95	2.75
MONTH	8.94	6.60	6.95	5.32	5.63	4.45	4.98	3.57	4.17	2.96	3.48	2.61

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bg 49--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.01	2.87	3.69	3.51	8.83	8.65	13.01	12.54	17.26	17.15	17.55	17.36
2	3.21	2.99	3.82	3.61	8.73	8.59	13.17	13.02	17.51	17.26	17.60	17.41
3	3.34	3.16	3.97	3.74	9.16	8.75	13.16	12.98	17.94	17.52	17.88	17.66
4	3.40	3.28	3.99	3.91	9.43	9.18	13.02	12.83	18.22	17.95	17.92	17.77
5	3.45	3.32	3.98	3.86	9.44	9.17	13.27	12.84	18.69	18.23	18.03	17.66
6	3.40	3.34	4.20	3.92	9.17	8.70	13.83	13.25	19.07	18.71	17.65	17.16
7	3.34	3.26	4.37	4.16	8.71	8.56	14.65	13.85	19.37	19.09	17.15	16.71
8	3.31	3.22	4.38	4.29	8.64	8.57	15.18	14.68	19.52	19.33	16.71	16.29
9	3.26	3.18	4.35	4.22	9.07	8.64	15.36	15.18	19.45	19.20	16.43	16.21
10	3.27	3.21	4.39	4.28	10.06	9.11	15.36	15.16	19.29	19.20	16.45	16.36
11	3.39	3.25	4.36	4.28	10.83	10.10	15.20	14.75	19.41	19.23	16.40	16.09
12	3.59	3.42	4.39	4.27	11.41	10.87	14.79	14.52	19.59	19.40	16.10	15.66
13	3.70	3.43	4.36	4.25	11.84	11.40	14.62	14.49	19.64	19.50	15.65	15.11
14	3.43	3.28	4.36	4.21	11.85	11.50	14.64	14.48	19.61	19.51	15.07	14.85
15	3.36	3.26	4.38	4.27	11.53	11.13	14.94	14.65	19.63	19.51	14.80	14.63
16	3.45	3.25	4.50	4.36	11.18	11.01	15.16	14.96	19.69	19.53	14.81	14.61
17	3.47	3.38	4.53	4.44	11.62	11.07	15.18	15.07	19.62	19.51	14.66	14.38
18	3.34	3.25	4.77	4.51	12.03	11.64	15.44	15.12	19.62	19.44	14.37	13.97
19	3.29	3.16	5.17	4.78	12.45	12.06	15.56	15.42	19.43	19.02	17.52	13.76
20	3.26	3.14	5.45	5.17	12.51	12.19	15.97	15.50	19.18	19.05	13.75	13.33
21	3.20	2.92	5.53	5.44	12.19	12.05	16.50	15.98	19.07	18.89	13.33	13.18
22	3.28	2.95	5.56	5.51	12.04	11.89	16.84	16.52	18.99	18.90	13.50	13.35
23	3.53	3.26	5.69	5.48	12.05	11.88	16.97	16.81	18.98	18.88	13.56	13.43
24	3.62	3.51	6.41	5.71	12.29	12.07	17.15	16.93	19.10	18.93	13.43	13.00
25	3.65	3.58	7.16	6.44	12.32	12.15	17.24	17.06	19.11	19.02	12.99	12.53
26	3.70	3.62	8.14	7.21	12.25	12.10	17.40	17.16	19.17	19.05	12.53	12.34
27	3.76	3.59	9.27	8.18	12.12	12.03	17.45	17.37	19.13	18.02	12.45	12.26
28	3.64	3.55	9.75	9.30	12.18	12.04	17.49	17.39	18.11	17.94	12.30	12.15
29	3.66	3.55	9.74	9.38	12.21	12.11	17.52	17.29	17.94	17.85	12.19	12.07
30	3.63	3.52	9.34	9.27	12.53	12.21	17.31	17.14	17.87	17.65	12.10	11.86
31	---	---	9.26	8.85	---	---	17.20	17.09	17.64	17.56	---	---
MONTH	3.76	2.87	9.75	3.51	12.53	8.56	17.52	12.54	19.69	17.15	18.03	11.86



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

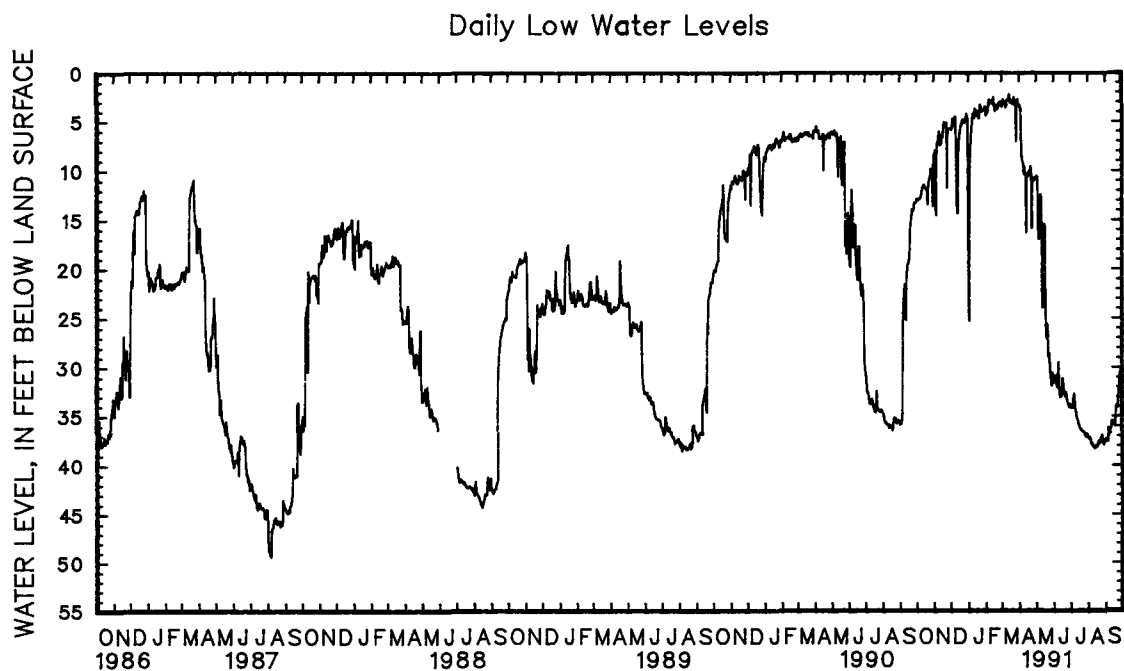
WELL NUMBER.--WO Bh 31. SITE ID.--382215075041801. PERMIT NUMBER.--WO-04-9586.
 LOCATION.--Lat 38°22'15", long 75°04'18", Hydrologic Unit 020060010, at 44th St, Ocean City.
 Owner: Town of Ocean City
 AQUIFER.--Ocean City aquifer of Miocene age. Aquifer code: 1220CNC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 278 ft; casing diameter 4 in., to 263 ft;
 screen diameter 4 in. from 263 to 278 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape September 1970 to May 1985. Equipped with
 digital water-level recorder--60-minute recording interval, May 1985 to current year.
 DATUM.--Elevation of land surface is 5.59 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 3.47 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--September 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.23 ft below land surface, March 15, 1991;
 lowest recorded, 51.03 ft below land surface, July 27, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.89	11.78	8.38	7.09	5.75	4.26	23.56	14.21	4.43	3.29	3.51	2.27
2	12.99	12.03	8.19	6.82	5.90	4.34	25.51	11.59	4.23	3.08	3.31	2.04
3	13.02	11.94	7.98	6.50	5.59	3.72	11.56	7.49	4.15	3.12	3.22	1.80
4	12.88	11.71	13.92	6.04	4.76	3.16	8.09	6.17	4.04	2.83	2.79	1.74
5	12.90	11.33	14.61	6.55	5.46	4.12	6.85	5.42	3.35	2.63	3.08	1.79
6	12.90	11.51	7.25	5.88	5.46	4.16	6.06	5.08	3.33	2.44	3.14	2.12
7	12.80	11.45	7.43	6.06	5.05	3.89	5.32	4.36	2.81	2.25	3.18	2.03
8	12.69	11.39	7.17	5.84	4.55	3.54	4.62	3.90	2.89	1.97	3.59	2.52
9	12.49	11.20	6.59	5.53	4.65	3.60	4.28	3.16	2.88	2.07	3.37	2.69
10	12.15	10.97	6.05	4.84	8.04	3.94	4.69	3.55	2.89	2.00	3.00	2.25
11	11.84	10.68	6.92	5.33	12.75	7.78	4.64	3.32	3.12	1.97	2.85	1.98
12	11.62	10.54	7.44	6.50	14.29	12.20	3.73	2.64	3.20	2.15	2.80	1.81
13	11.50	10.50	7.45	6.46	14.49	8.52	3.82	2.87	3.32	2.18	2.75	1.84
14	11.44	10.51	7.23	5.87	8.59	6.69	4.23	3.02	2.86	1.33	2.66	1.24
15	11.59	10.65	6.53	5.39	7.19	5.59	4.45	3.30	2.58	1.40	2.29	1.23
16	11.73	10.72	6.66	5.56	6.29	5.10	4.26	2.73	3.63	2.43	2.72	1.61
17	11.85	10.75	6.16	4.92	6.27	5.07	4.03	2.63	3.96	2.94	3.13	1.93
18	11.84	10.71	5.60	4.23	5.66	4.38	4.39	3.35	3.78	2.55	2.99	1.48
19	11.85	10.74	5.12	3.99	5.38	4.27	4.72	3.47	3.40	2.47	2.88	1.70
20	12.06	10.90	5.31	4.27	5.38	4.23	4.06	2.59	3.73	2.47	3.24	1.94
21	13.44	10.75	5.58	4.60	4.91	3.89	3.34	2.32	3.77	2.70	3.28	2.11
22	11.59	10.47	5.49	4.45	4.86	3.96	3.42	2.23	3.44	2.68	3.11	2.12
23	11.15	10.00	5.16	4.18	4.91	4.06	3.69	2.52	3.53	2.48	2.60	1.82
24	10.85	9.86	11.81	4.32	5.17	4.00	4.07	2.98	3.25	2.36	3.04	1.59
25	10.74	9.66	5.94	5.12	5.12	4.42	3.97	3.03	3.15	2.02	2.95	2.08
26	9.83	8.90	5.88	5.14	5.03	4.00	3.90	2.78	3.06	1.71	7.10	1.91
27	10.00	9.19	5.78	4.88	4.84	4.01	3.90	2.82	3.01	1.83	3.14	1.97
28	10.54	9.52	5.81	4.73	4.29	3.05	3.90	2.48	3.40	2.17	3.17	2.09
29	10.69	9.85	5.76	4.68	4.62	2.93	3.73	2.31	---	---	3.25	1.73
30	13.61	8.48	5.72	4.46	4.78	3.35	3.53	2.02	---	---	2.79	1.63
31	9.13	7.54	---	---	14.08	3.49	3.72	2.20	---	---	3.33	2.12
MONTH	13.61	7.54	14.61	3.99	14.49	2.93	25.51	2.02	4.43	1.33	7.10	1.23

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bh 31--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.36	2.30	10.64	9.50	31.82	30.68	34.27	32.98	37.41	36.39	37.54	36.49
2	3.58	2.52	10.71	9.66	31.14	23.34	34.42	32.35	37.56	36.07	37.55	36.67
3	3.83	2.64	10.91	9.79	31.16	22.47	34.32	32.78	37.58	36.59	37.71	36.25
4	6.95	2.90	16.03	9.96	31.09	23.39	34.33	32.83	37.45	36.03	37.83	34.36
5	8.59	6.65	17.12	14.72	31.33	22.45	34.38	33.29	37.76	36.29	37.22	26.17
6	9.03	7.95	15.99	12.84	32.27	25.06	33.24	28.03	38.12	36.03	36.41	29.89
7	9.29	8.32	16.05	12.18	32.32	25.37	32.99	27.21	38.11	36.09	36.49	28.52
8	9.44	8.57	15.80	12.31	31.08	23.41	33.66	29.37	38.06	32.10	36.96	35.70
9	10.49	8.68	12.52	11.45	29.68	23.17	34.31	28.25	38.34	36.66	36.92	32.52
10	9.77	8.91	12.94	10.96	32.18	27.99	34.66	28.71	38.28	36.96	36.48	30.85
11	10.43	9.13	22.84	13.22	33.04	31.70	34.90	28.93	38.50	37.12	36.39	30.84
12	10.46	7.30	24.18	15.18	33.33	27.91	35.38	33.96	38.54	37.15	35.76	30.71
13	16.49	9.27	15.65	12.92	32.82	24.27	35.61	34.27	38.46	37.20	35.66	30.22
14	10.56	9.14	19.38	12.11	33.22	27.46	35.76	34.41	38.46	37.26	35.68	30.14
15	10.47	9.03	15.52	11.83	32.96	27.65	36.03	34.68	38.25	36.16	35.87	31.19
16	10.66	9.39	15.70	12.59	31.38	29.98	36.17	35.06	38.34	34.09	35.85	29.72
17	10.62	8.97	22.77	13.38	31.37	28.99	36.43	35.29	38.27	37.36	36.16	31.11
18	10.20	8.92	26.64	22.30	31.95	28.67	36.54	35.39	38.11	37.16	36.19	30.02
19	10.26	8.91	27.24	17.38	32.76	27.31	36.64	35.67	37.76	36.54	34.54	28.71
20	10.03	8.97	25.76	16.11	33.05	26.94	36.59	34.09	38.00	36.30	34.10	27.79
21	9.69	8.65	26.50	16.60	33.24	32.22	36.78	35.49	37.93	36.47	34.18	27.89
22	10.42	8.90	29.14	24.47	33.10	26.90	36.86	36.06	37.93	36.52	34.26	32.91
23	16.01	9.41	28.86	18.37	32.85	26.41	36.79	35.43	37.41	36.50	33.65	26.88
24	10.79	9.69	29.81	24.38	33.53	32.35	36.83	35.93	37.45	36.11	32.43	25.01
25	10.95	9.93	30.79	27.06	33.76	29.04	37.06	35.88	37.17	35.90	31.81	23.44
26	11.10	9.98	31.07	29.73	34.04	29.86	37.25	34.96	37.55	35.98	30.84	23.00
27	11.11	9.92	31.77	30.59	34.19	29.65	37.21	36.10	37.83	36.79	30.58	22.75
28	11.00	9.61	32.13	24.48	34.34	29.93	37.37	35.57	38.13	37.02	30.38	22.76
29	10.81	9.63	30.77	22.88	34.08	28.74	37.07	35.98	37.67	33.05	30.53	22.98
30	10.83	9.67	30.98	22.78	34.06	32.91	37.10	35.89	37.66	36.45	31.28	23.08
31	---	---	31.37	23.73	---	---	37.29	36.19	37.77	35.84	---	---
MONTH	16.49	2.30	32.13	9.50	34.34	22.45	37.37	27.21	38.54	32.10	37.83	22.75



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 34. SITE ID.382443075033501. PERMIT NUMBER.--WO-04-9588.

LOCATION.--Lat 38°24'43", long 75°03'35", Hydrologic Unit 02060010, north side of 100th St., 0.2 mi west of MD Rt. 528, Ocean City.

Owner: Town of Ocean City.

AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 353 ft; casing diameter 4 in., to 337 ft; screened from 337 to 353 ft.

INSTRUMENTATION.--April 1985 to current year, digital water-level recorder--60-minute recording interval.

Prior to April 1985, periodic measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder shelf, 2.86 ft above land surface.

REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--December 1972 to current year.

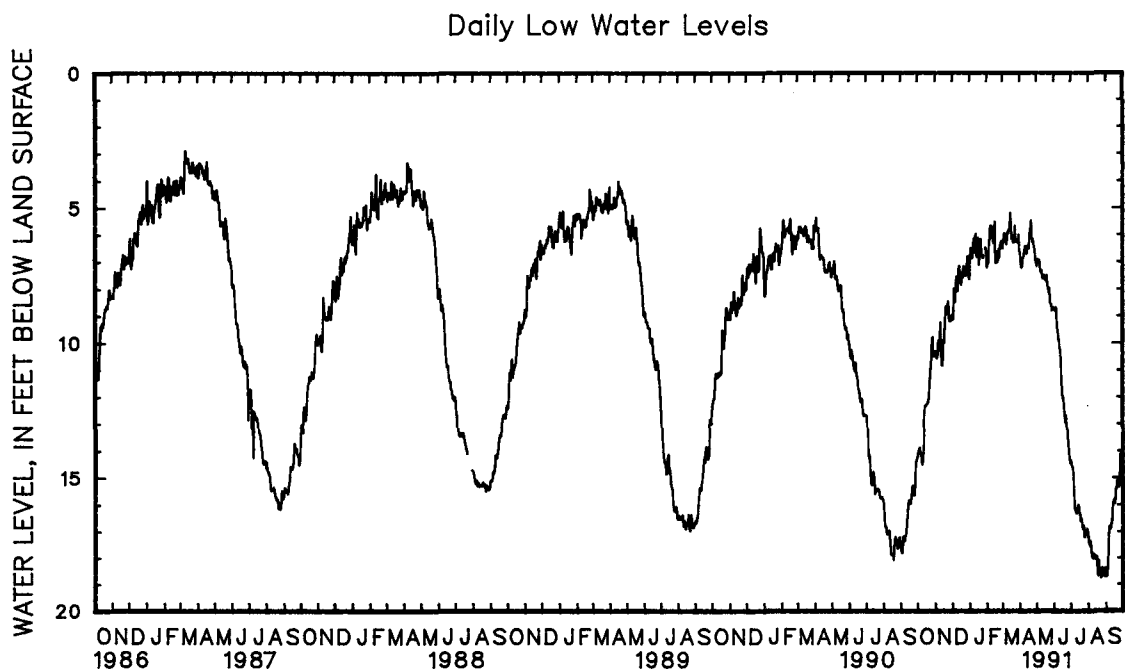
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.54 ft above land surface, March 27, 1973; lowest recorded, 18.77 ft below land surface, Aug. 23, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.13	13.01	10.33	9.24	9.02	7.64	7.54	5.91	7.22	6.20	6.52	5.35
2	14.02	13.12	10.51	9.29	9.15	7.72	6.79	5.26	7.04	6.00	6.21	5.07
3	13.97	12.91	10.58	9.27	8.88	7.13	6.51	5.27	7.08	6.13	6.25	5.01
4	13.90	12.84	10.55	9.09	8.00	6.51	6.67	5.59	7.04	5.90	5.98	5.02
5	14.05	12.76	10.35	8.91	8.51	7.38	6.74	5.84	6.35	5.65	6.13	5.13
6	14.16	12.89	9.96	8.74	8.49	7.31	6.87	6.11	6.18	5.51	6.15	5.13
7	14.25	13.09	10.27	9.06	8.08	7.01	6.65	5.82	5.70	5.24	6.06	5.07
8	14.53	13.36	10.12	8.98	7.56	6.68	6.29	5.31	5.72	5.00	6.36	5.54
9	14.46	13.31	9.65	8.70	7.67	6.75	6.17	5.10	5.69	5.03	6.23	5.65
10	14.24	13.14	9.26	8.10	8.09	7.04	6.67	5.60	5.75	5.00	5.94	5.33
11	13.84	12.62	10.23	8.66	7.76	7.05	6.14	5.50	6.04	4.97	5.94	5.20
12	13.01	11.92	10.86	9.93	7.22	6.51	5.99	4.91	6.25	5.26	5.85	5.06
13	12.57	11.60	10.87	9.97	7.17	6.24	6.27	5.24	6.33	5.25	5.83	5.02
14	12.35	11.48	10.68	9.41	7.50	6.33	6.83	5.83	5.78	4.38	5.60	4.29
15	12.35	11.49	9.96	8.93	7.52	6.41	6.68	5.24	5.53	4.45	5.21	4.26
16	12.33	11.39	10.02	9.05	7.65	6.54	6.14	5.20	6.58	5.54	5.68	4.60
17	12.30	11.29	9.56	8.49	7.85	6.87	6.72	5.47	7.06	6.08	6.16	5.11
18	12.28	11.22	9.12	7.90	7.51	6.43	7.12	5.92	7.05	6.01	6.10	4.73
19	12.20	11.16	8.68	7.59	7.42	6.49	6.82	5.59	6.75	5.86	6.06	5.08
20	12.20	11.21	8.73	7.82	7.58	6.57	6.21	5.41	7.02	5.89	6.31	5.29
21	11.99	10.96	8.92	8.07	7.20	6.31	6.18	5.17	6.89	6.12	6.31	5.31
22	11.59	10.67	8.83	7.93	7.19	6.36	6.61	5.84	6.56	5.90	6.16	5.28
23	11.26	10.22	8.48	7.61	7.27	6.54	6.79	5.95	6.85	5.79	5.70	5.04
24	10.93	10.00	8.67	7.75	7.51	6.54	6.78	5.96	6.64	5.87	6.21	4.80
25	10.63	9.69	9.13	8.30	7.51	6.88	6.87	5.61	6.43	5.56	6.25	5.41
26	9.88	8.88	9.22	8.61	7.37	6.54	6.79	5.47	6.32	5.15	6.29	5.36
27	9.80	9.01	9.22	8.39	7.23	6.53	---	---	6.26	5.16	6.22	5.24
28	10.38	9.35	9.19	8.28	6.81	5.73	---	---	6.44	5.35	6.28	5.29
29	10.51	9.81	9.09	8.18	7.27	5.66	---	---	---	---	6.31	4.99
30	10.46	9.44	9.01	7.92	7.52	6.17	6.50	5.10	---	---	6.03	5.01
31	10.34	9.45	---	---	7.65	6.53	6.66	5.29	---	---	6.62	5.56
MONTH	14.53	8.88	10.87	7.59	9.15	5.66	7.54	4.91	7.22	4.38	6.62	4.26

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bh 34--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.70	5.77	7.19	6.07	8.77	7.91	14.50	13.69	17.28	16.49	18.74	17.66
2	6.94	6.09	6.94	6.05	8.80	7.95	14.63	13.88	17.51	16.65	18.74	17.68
3	7.21	6.27	6.94	6.11	8.85	7.98	14.70	13.91	17.57	16.61	18.49	17.37
4	7.26	6.48	7.07	6.15	8.76	8.06	14.71	13.94	17.42	16.42	18.38	17.17
5	7.20	6.49	6.96	6.34	8.79	7.95	14.96	14.12	17.55	16.55	17.81	16.29
6	6.92	6.43	7.03	6.24	9.26	8.24	15.62	14.56	17.76	16.64	17.09	15.57
7	6.86	6.22	7.31	6.40	9.54	8.77	16.03	15.12	17.97	16.80	16.83	15.61
8	6.73	6.20	7.40	6.77	9.70	8.79	16.25	15.15	18.04	16.73	16.93	15.78
9	6.61	6.05	7.37	6.67	9.95	8.81	16.31	15.04	17.98	16.63	16.89	15.85
10	6.46	5.71	7.36	6.52	9.94	8.78	16.38	15.07	17.91	16.64	16.76	15.59
11	6.70	5.78	7.55	6.56	10.27	8.92	16.41	15.08	18.07	16.95	16.64	15.51
12	6.72	5.86	7.64	6.48	10.32	8.92	16.30	14.91	18.09	17.05	16.28	15.08
13	6.72	5.51	7.65	6.30	10.69	9.54	16.19	14.92	18.04	16.98	15.97	15.02
14	6.44	5.35	7.60	6.25	11.31	10.19	16.09	15.02	17.98	17.01	15.88	15.00
15	6.50	5.21	7.54	6.15	11.67	10.60	16.19	15.23	18.00	17.12	15.82	15.07
16	6.53	5.41	7.70	6.34	12.03	10.76	16.37	15.37	18.28	17.42	15.96	15.29
17	6.53	4.97	7.73	6.54	12.15	11.09	16.46	15.57	18.56	17.82	15.81	14.86
18	5.99	4.82	7.65	6.33	12.13	11.17	16.67	15.77	18.70	17.84	15.42	14.63
19	5.95	4.85	7.55	6.32	12.34	11.33	16.58	15.75	18.15	17.21	15.38	14.61
20	5.79	4.84	7.87	6.72	12.64	11.82	16.70	15.86	18.61	17.79	15.13	14.22
21	5.49	4.57	8.03	7.13	12.89	12.03	16.85	16.03	18.45	17.66	15.12	14.33
22	6.17	4.75	8.16	7.33	13.05	12.07	16.98	16.07	18.61	17.84	15.34	14.52
23	6.26	5.27	8.01	7.04	12.80	11.83	16.86	15.98	18.77	17.78	15.36	14.40
24	6.18	5.23	8.22	7.24	13.28	12.40	16.90	16.13	18.69	17.70	15.23	14.00
25	6.31	5.42	8.58	7.69	13.62	12.75	17.28	16.26	18.42	17.44	14.63	13.40
26	6.45	5.49	8.61	7.53	13.87	12.94	17.15	16.20	18.42	17.63	14.14	13.03
27	6.54	5.58	8.65	7.69	14.10	13.20	17.13	16.18	18.56	17.74	14.27	13.19
28	6.70	5.64	8.85	7.84	14.31	13.42	17.13	16.21	18.71	17.88	14.29	13.24
29	6.99	5.94	8.84	7.81	14.54	13.64	17.05	16.06	18.66	17.68	14.51	13.60
30	7.06	6.01	8.79	7.81	14.46	13.54	16.96	16.18	18.42	17.43	14.60	13.49
31	---	---	8.76	7.85	---	---	17.07	16.30	18.73	17.77	---	---
MONTH	7.26	4.57	8.85	6.05	14.54	7.91	17.28	13.69	18.77	16.42	18.74	13.03



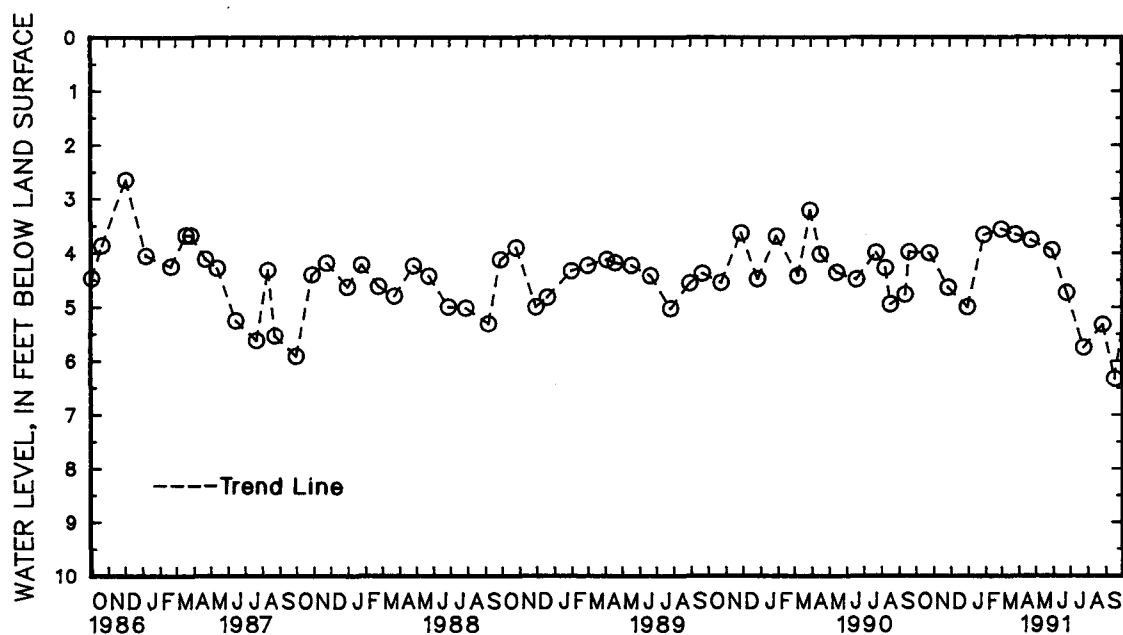
5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 84. SITE ID.--382215075041901. PERMIT NUMBER.--WO-73-0094.
LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 02060010, west end of 44th St., Ocean City.
Owner: U.S. Geological Survey.
AQUIFER.--Columbia Formation of Pleistocene age. Aquifer code: 122CLMB.
WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 86 ft; casing diameter 4 in., to 81 ft; screen diameter 4 in. from 81 to 86 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of 4 in. coupling, 0.9 ft above land surface.
REMARKS.--Ocean City ground-water monitoring network well.
PERIOD OF RECORD.--April 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.65 ft below land surface, Dec. 3, 1986, lowest measured, 6.34 ft below land surface, Sept. 17, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	4.00	DEC 31	5.00	MAR 1	3.56	APR 23	3.75	JUN 25	4.74	AUG 27	5.33
NOV 27	4.64	JAN 29	3.66	26	3.65	MAY 30	3.95	JUL 25	5.76	SEP 17	6.34
WATER YEAR 1991		HIGHEST	3.56	MAR 1, 1991	LOWEST	6.34	SEP 17, 1991				

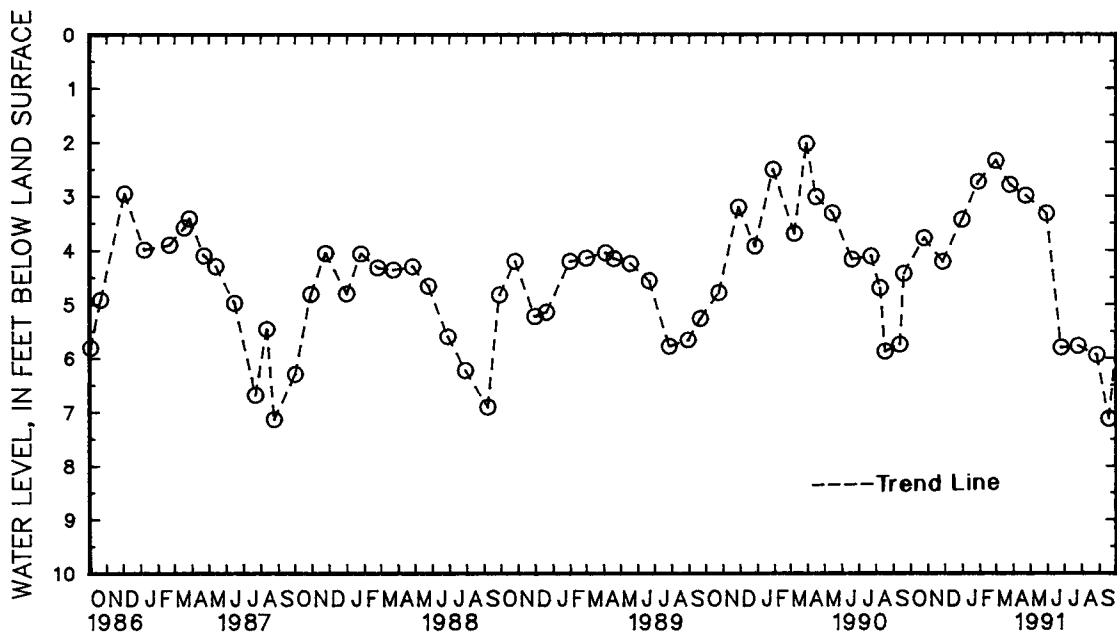


GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 85. SITE ID.--382215075041902. PERMIT NUMBER.--WO-73-0094.
LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 02060010, west end of 44th St, Ocean City.
Owner: U.S. Geological Survey.
AQUIFER.--Pocomoke aquifer of Miocene age. Aquifer code: 122PCMK.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 195 ft; casing diameter 4 in., to 190 ft; screen diameter 4 in. from 190 to 195 ft.
INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of 4 in. coupling, 2.1 ft above land surface.
REMARKS.--Ocean City ground-water monitoring network well. Water levels maybe affected by seasonal pumping.
PERIOD OF RECORD.--April 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.00 ft below land surface, April 26, 1973; lowest measured, 7.48 ft below land surface, Sept. 15, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	3.77	DEC 31	3.43	MAR 1	2.34	APR 23	2.99	JUN 25	5.81	AUG 27	5.95
NOV 27	4.21	JAN 29	2.73	26	2.79	MAY 30	3.32	JUL 25	5.78	SEP 17	7.13
WATER YEAR 1991		HIGHEST	2.34	MAR 1, 1991		LOWEST	7.13	SEP 17, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

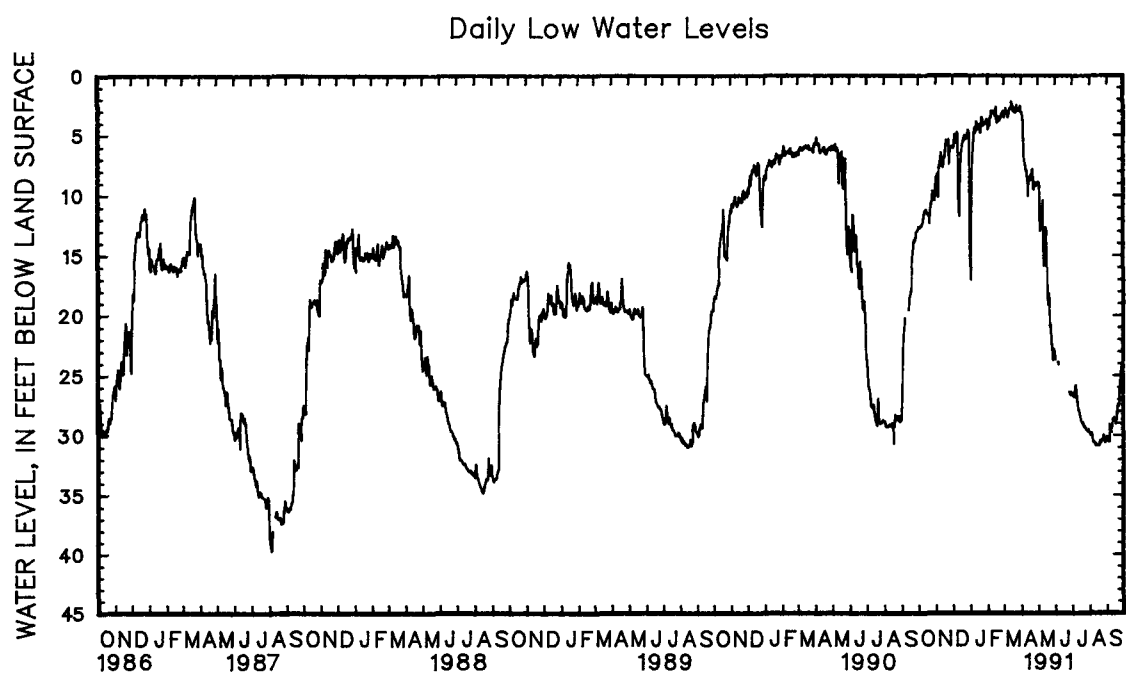
WELL NUMBER.--WO Bh 89. SITE ID.--382215075041903 PERMIT NUMBER.--WO-81-1497.
 LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 020060010, at 44th St, Ocean City.
 Owner: Town of Ocean City
 AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 500 ft; casing diameter 4 in., to 388 ft;
 screen diameter 4 in. from 388 to 500 ft.
 INSTRUMENTATION.--Equipped with digital water-level recorder--60-minute recording interval, October 1986 to
 current year.
 DATUM.--Elevation of land surface is 5.59 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 2.90 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.27 ft below land surface, March 14 and 15, 1991;
 lowest recorded, 39.83 ft below land surface, Aug. 6, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.68	11.65	8.63	7.48	5.89	4.60	15.40	10.51	4.53	3.53	3.50	2.41
2	12.76	11.92	8.46	7.20	6.07	4.68	17.20	11.28	4.33	3.32	3.25	2.10
3	12.77	11.81	8.25	6.91	5.79	4.07	11.25	7.51	4.26	3.33	3.15	1.88
4	12.62	11.60	9.32	6.47	4.97	3.51	8.01	6.26	4.16	3.11	2.77	1.83
5	12.64	11.39	10.17	6.92	5.64	4.45	6.84	5.53	3.50	2.89	3.02	1.84
6	12.64	11.41	7.53	6.30	5.64	4.49	6.09	5.19	3.47	2.68	3.09	2.20
7	12.54	11.32	7.67	6.45	5.26	4.21	5.43	4.57	2.96	2.48	3.12	2.06
8	12.43	11.25	7.43	6.24	4.78	3.88	4.74	4.01	3.02	2.20	3.52	2.55
9	12.25	11.08	6.88	5.91	4.85	3.93	4.40	3.40	3.00	2.29	3.30	2.71
10	11.93	10.86	6.46	5.28	6.48	4.24	4.79	3.77	3.00	2.21	3.02	2.29
11	11.62	10.57	7.14	5.72	10.01	6.30	4.74	3.56	3.20	2.17	2.79	2.01
12	11.39	10.41	7.62	6.84	11.52	9.61	3.88	2.90	3.26	2.36	2.78	1.85
13	11.26	10.36	7.66	6.81	11.79	8.55	3.98	3.11	3.39	2.37	2.69	1.87
14	11.20	10.38	7.48	6.27	8.63	6.87	4.42	3.25	2.93	1.56	2.58	1.27
15	11.34	10.51	6.80	5.78	7.27	5.82	4.55	3.55	2.68	1.62	2.21	1.27
16	11.47	10.58	6.90	5.93	6.42	5.37	4.38	3.01	3.68	2.62	2.63	1.65
17	11.57	10.62	6.44	5.33	6.40	5.35	4.11	2.89	3.98	3.10	2.99	1.94
18	11.56	10.53	5.89	4.64	5.81	4.69	4.50	3.59	3.84	2.73	2.87	1.50
19	11.56	10.58	5.41	4.40	5.55	4.60	4.82	3.72	3.48	2.66	2.76	1.63
20	11.75	10.74	5.58	4.66	5.55	4.55	4.21	2.86	3.77	2.63	3.11	1.87
21	12.36	10.56	5.83	4.96	5.10	4.19	3.52	2.58	3.80	2.85	3.14	2.10
22	11.34	10.30	5.74	4.82	5.04	4.25	3.59	2.52	3.51	2.83	2.98	2.11
23	10.88	9.84	5.43	4.55	5.09	4.36	3.85	2.78	3.57	2.63	2.51	1.81
24	10.62	9.70	7.39	4.67	5.35	4.29	4.20	3.24	3.36	2.54	2.89	1.58
25	10.48	9.50	6.14	5.43	5.30	4.69	4.11	3.29	3.25	2.17	2.82	2.05
26	9.65	8.74	6.12	5.46	5.20	4.29	4.04	3.05	3.09	1.88	2.97	1.89
27	9.74	9.02	5.97	5.21	5.01	4.31	4.04	3.09	3.03	1.98	2.91	1.84
28	10.24	9.32	6.01	5.05	4.59	3.37	4.04	2.77	3.41	2.32	2.93	1.97
29	10.38	9.66	5.98	5.01	4.76	3.26	3.88	2.61	---	---	3.00	1.65
30	10.42	8.75	5.94	4.79	4.88	3.67	3.67	2.31	---	---	2.58	1.54
31	9.32	7.91	---	---	10.40	3.82	3.84	2.50	---	---	3.10	2.01
MONTH	12.77	7.91	10.17	4.40	11.79	3.26	17.20	2.31	4.53	1.56	3.52	1.27

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bh 89--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.12	2.21	8.99	7.94	23.84	22.76	26.80	25.66	30.05	29.21	30.32	29.33
2	3.35	2.34	9.07	8.04	---	---	26.93	25.95	30.16	29.27	30.41	29.51
3	3.60	2.49	9.26	8.23	---	---	26.86	25.92	30.18	29.29	30.56	29.63
4	5.25	2.79	12.00	8.43	---	---	26.96	26.13	30.04	29.14	30.76	29.67
5	6.80	5.00	13.10	11.45	---	---	27.05	26.24	30.33	29.31	30.66	25.62
6	7.21	6.23	12.79	11.35	24.08	22.81	26.22	25.22	30.66	29.55	29.28	26.88
7	7.50	6.61	12.83	10.65	24.24	22.81	26.05	24.46	30.82	29.74	29.50	26.67
8	7.65	6.86	12.69	10.81	---	---	26.31	23.93	30.78	28.97	29.85	28.74
9	7.97	7.00	11.05	10.00	---	---	26.88	25.03	30.89	29.52	29.91	28.82
10	7.97	7.22	10.55	9.56	---	---	27.35	25.53	30.86	29.67	29.52	27.81
11	8.58	7.43	14.84	10.31	---	---	27.58	25.71	31.07	29.91	29.35	27.81
12	8.65	6.91	16.05	12.68	---	---	27.99	26.76	31.10	30.01	28.86	27.68
13	10.16	7.60	13.90	11.84	---	---	28.19	26.98	31.04	30.02	28.75	27.28
14	8.72	7.46	13.61	11.03	---	---	28.30	27.16	31.09	30.10	28.69	27.19
15	8.63	7.38	12.83	10.83	---	---	28.60	27.37	31.07	29.85	28.91	28.16
16	8.84	7.72	13.05	11.45	---	---	28.83	27.76	31.06	30.23	28.85	26.99
17	8.81	7.32	15.63	12.02	---	---	29.04	28.11	31.09	30.20	29.21	27.89
18	8.42	7.26	18.54	15.07	---	---	29.12	28.31	30.92	30.15	28.95	26.98
19	8.47	7.24	19.29	15.64	---	---	29.24	28.36	30.65	29.49	28.43	26.29
20	8.27	7.35	18.37	15.43	---	---	29.14	28.23	30.85	30.04	27.77	25.39
21	7.94	7.00	18.86	15.07	---	---	29.32	28.57	30.73	29.94	27.57	25.33
22	8.64	7.23	21.12	18.21	---	---	29.50	28.67	30.71	29.69	27.68	26.70
23	9.64	7.75	20.95	20.70	---	---	29.46	28.60	30.58	29.68	27.50	25.22
24	9.02	8.00	21.66	20.72	---	---	29.56	28.66	30.51	29.52	26.17	23.77
25	9.15	8.24	22.57	21.24	---	---	29.63	28.70	30.19	29.17	25.68	22.34
26	9.30	8.31	22.79	22.02	26.61	25.66	29.72	28.66	30.25	29.28	24.79	21.91
27	9.34	8.27	23.52	22.59	26.73	25.84	29.85	28.82	30.61	29.72	24.51	21.68
28	9.24	8.02	23.89	22.78	26.87	25.88	29.92	28.98	30.82	29.93	24.26	21.67
29	9.08	8.05	22.98	22.78	26.68	25.58	29.82	28.73	30.68	29.46	24.44	21.91
30	9.13	8.09	23.05	21.77	26.62	25.65	29.73	28.84	30.38	29.39	25.05	21.96
31	---	---	23.45	21.29	---	---	29.89	28.92	30.44	29.42	---	---
MONTH	10.16	2.21	23.89	7.94	26.87	22.76	29.92	23.93	31.10	28.97	30.76	21.67



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

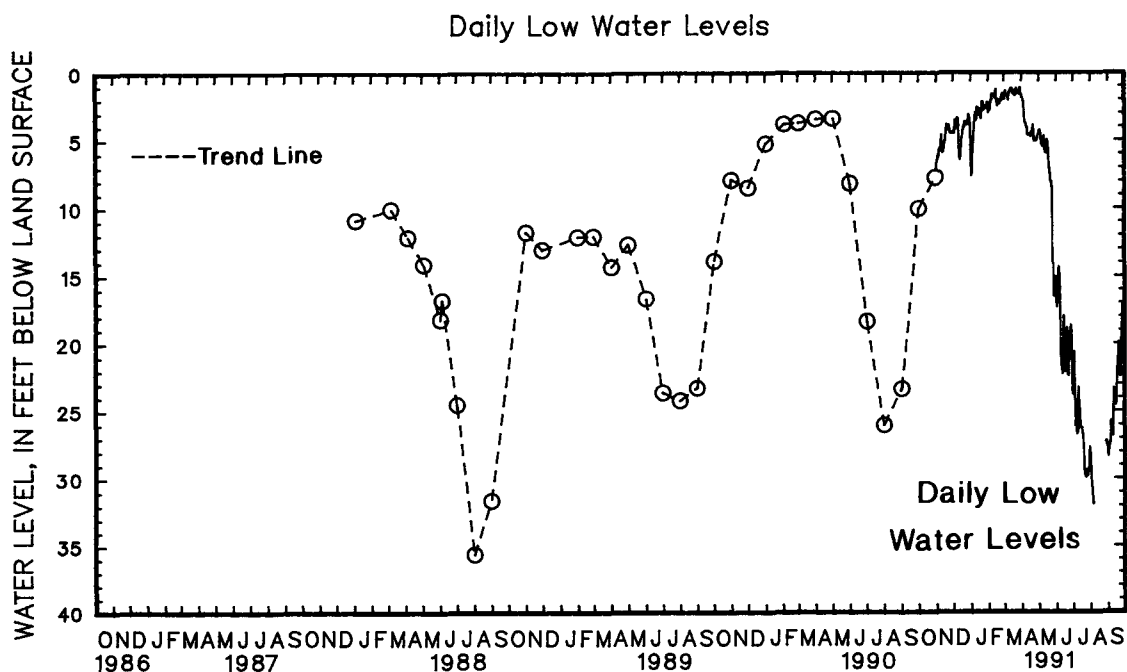
WELL NUMBER.--WO Bh 98. SITE ID.--382127075043802. PERMIT NUMBER.--WO-81-1822.
 LOCATION.--Lat 38°21'27", long 75°04'38", Hydrologic Unit 02060010, at 28th Street Park, Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Ocean City aquifer of Miocene age. Aquifer code: 122OCNC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 275 ft; casing diameter 4 in., to 255 ft; screen diameter 4 in. from 255 to 275 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel from January 1988 to October 1990. Equipped with digital water-level recorder--60-minute recorder interval from November 1990 to current year.
 DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.52 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.48 ft below land surface, March 18, 1991; lowest measured, 35.70 ft below land surface, Aug. 1, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	6.80	5.98	4.43	3.51	6.36	4.58	3.01	2.33	1.99	1.28
2	---	---	6.62	5.74	4.56	3.59	7.73	6.54	2.89	2.19	1.83	1.13
3	---	---	6.43	5.51	4.32	3.02	7.48	5.60	2.82	2.23	1.75	.87
4	---	---	6.18	5.12	3.57	2.53	5.98	4.92	2.75	2.07	1.39	.80
5	---	---	6.32	5.27	4.12	3.28	5.27	4.27	2.18	1.73	1.62	1.13
6	---	---	5.71	4.83	4.17	3.28	4.62	3.99	2.05	1.58	1.70	1.20
7	---	---	5.87	5.02	3.86	3.10	4.06	3.41	2.05	1.30	1.73	1.20
8	---	---	5.71	4.85	3.40	2.76	3.40	2.87	1.65	1.16	2.09	1.36
9	---	---	5.24	4.55	3.41	2.77	3.02	2.35	1.64	1.17	1.91	1.57
10	---	---	4.70	3.96	3.94	3.02	3.57	2.62	1.62	1.14	1.66	1.22
11	---	---	5.45	4.29	5.63	3.67	3.49	2.53	1.79	1.14	1.46	1.17
12	---	---	5.99	5.28	6.35	5.20	2.60	1.93	1.83	1.24	1.40	1.14
13	---	---	5.96	5.37	6.51	5.90	2.65	2.07	1.93	1.26	1.33	1.13
14	---	---	5.84	4.91	6.27	5.24	3.04	2.18	1.59	1.09	1.20	1.19
15	---	---	5.24	4.51	5.55	4.45	3.18	2.51	1.28	1.09	1.20	1.20
16	---	---	5.28	4.61	4.86	4.11	3.03	1.98	2.18	1.44	1.20	.67
17	---	---	4.90	4.02	4.88	4.12	2.78	1.87	2.51	1.92	1.58	.88
18	---	---	4.39	3.46	4.40	3.57	3.14	2.55	2.40	1.63	1.48	.48
19	---	---	3.91	3.19	4.10	3.44	3.44	2.64	2.05	1.52	1.37	.67
20	---	---	4.01	3.39	4.12	3.41	2.91	1.83	2.32	1.50	1.69	1.16
21	---	---	4.28	3.68	3.74	3.01	2.20	1.57	2.35	1.70	1.75	1.16
22	---	---	4.24	3.60	3.67	3.12	2.19	1.49	2.07	2.07	1.62	1.22
23	---	---	3.96	3.32	3.71	3.19	2.45	1.67	2.09	2.07	1.21	1.21
24	---	---	4.23	3.39	3.89	3.13	2.79	2.05	2.09	1.41	1.46	.77
25	---	---	4.52	4.02	3.91	3.47	2.72	2.16	1.86	1.14	1.49	1.17
26	---	---	4.57	4.06	3.79	3.18	2.63	1.97	1.67	1.14	1.60	1.15
27	---	---	4.52	3.95	3.65	3.17	2.63	1.97	1.58	1.16	1.59	1.21
28	---	---	4.54	3.88	3.15	2.39	2.62	1.72	1.88	1.19	1.56	1.16
29	---	---	4.49	3.85	3.32	2.23	2.45	1.58	---	---	1.60	.64
30	---	---	4.46	3.67	3.50	2.60	2.25	1.41	---	---	1.16	.48
31	7.33	6.35	---	---	4.41	2.78	2.36	1.83	---	---	1.63	1.03
MONTH	7.33	6.35	6.80	3.19	6.51	2.23	7.73	1.41	3.01	1.09	2.09	.48

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bh 98--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.67	1.23	4.39	3.63	16.97	14.34	23.96	21.37	28.54	26.99	28.45	27.78
2	1.87	1.25	4.34	3.74	17.49	16.08	21.31	20.10	29.51	28.27	28.01	26.87
3	2.10	1.36	4.41	3.75	17.03	15.45	20.76	19.55	30.68	29.49	27.71	26.79
4	2.42	1.57	4.63	3.80	15.48	14.58	23.93	20.82	30.91	30.52	27.49	26.59
5	3.30	2.22	5.10	4.41	14.52	13.96	24.80	23.23	31.58	30.91	26.91	25.29
6	3.61	3.23	5.40	4.75	14.78	14.14	26.39	24.79	32.04	31.58	25.89	24.45
7	3.80	3.25	5.51	4.85	15.98	14.49	26.88	26.06	---	---	25.79	24.26
8	3.90	3.38	5.56	5.08	18.28	15.53	26.87	25.85	---	---	26.48	25.43
9	4.12	3.47	5.21	4.52	20.56	18.42	26.76	24.59	---	---	26.90	25.48
10	4.13	3.66	4.78	4.08	21.81	20.56	25.25	23.09	---	---	26.18	24.42
11	4.66	3.90	5.49	4.13	21.82	20.37	23.37	22.12	---	---	25.04	23.30
12	4.72	4.15	5.92	5.08	22.40	20.31	24.41	22.36	---	---	23.36	22.34
13	4.66	4.24	6.04	4.83	20.37	17.53	25.02	23.30	---	---	23.70	21.93
14	4.66	3.84	5.40	4.50	18.04	16.65	25.95	24.49	---	---	23.83	22.27
15	4.68	3.82	5.11	4.13	18.71	16.70	26.43	24.96	---	---	24.61	23.40
16	4.83	4.19	5.06	4.17	20.55	18.92	26.42	24.91	---	---	24.40	22.57
17	4.84	3.81	5.38	4.29	22.27	20.44	26.84	24.97	---	---	22.45	21.25
18	4.48	3.67	6.30	4.84	22.05	19.22	27.03	26.02	---	---	21.29	20.57
19	4.50	3.66	7.07	5.82	19.04	18.21	27.76	26.27	---	---	20.75	19.71
20	4.31	3.66	7.29	6.59	18.93	18.02	28.72	27.72	---	---	19.94	18.86
21	3.98	3.37	7.64	6.77	20.97	18.38	29.65	28.69	---	---	21.71	18.73
22	4.65	3.54	8.22	7.29	22.49	21.08	29.95	29.43	---	---	22.50	20.90
23	5.16	4.07	8.17	7.90	22.56	20.66	30.09	29.01	---	---	22.53	20.00
24	5.05	4.39	8.55	7.88	20.72	18.94	29.76	28.68	---	---	20.21	18.46
25	5.13	4.52	10.10	8.54	19.26	18.41	29.53	28.48	---	---	18.66	17.44
26	5.18	4.49	13.95	10.27	19.30	18.26	29.98	29.10	---	---	17.69	16.75
27	5.12	4.36	16.36	14.08	18.75	18.00	29.90	28.89	---	---	17.27	16.41
28	4.95	4.04	16.70	16.20	19.16	18.24	29.60	28.86	27.33	26.19	16.98	16.13
29	4.67	3.95	16.49	16.11	20.97	19.24	29.48	27.37	27.53	27.37	16.92	16.19
30	4.61	3.88	16.11	14.89	23.71	21.17	27.82	26.27	27.50	27.48	17.10	16.32
31	---	---	15.26	14.29	---	---	28.19	26.58	28.07	27.21	---	---
MONTH	5.18	1.23	16.70	3.63	23.71	13.96	30.09	19.55	32.04	26.19	28.45	16.13



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

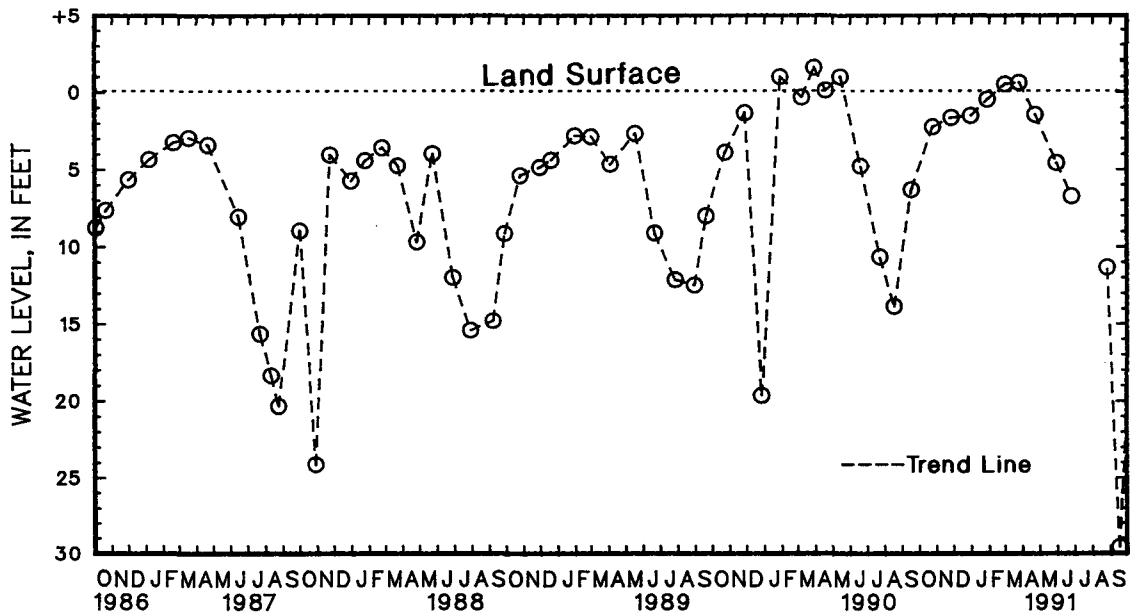
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Cg 72. SITE ID.--381939075052101. PERMIT NUMBER.--WO-73-1304.
 LOCATION.--Lat 38°19'39", long 75°05'21", Hydrologic Unit 02060010, at South Division St., Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 450 ft; casing diameter 4 in., to 384 ft; screen diameter 4 in. from 384 to 450 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.
 DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of 6 in. flange, 3.2 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--January 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.58 ft above land surface, March 30, 1990, lowest measured, 29.85 ft below land surface, July 14, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	2.25	DEC 31	1.53	MAR 1	+1.50	APR 23	1.49	JUN 25	6.83	SEP 17	29.59
NOV 27	1.66	JAN 29	.48	26	+1.60	MAY 30	4.65	AUG 26	11.46		
WATER YEAR 1991		HIGHEST	+1.60	MAR 26, 1991		LOWEST	29.59	SEP 17, 1991			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Dd 7. SITE ID.--381037075234301.

LOCATION.--Lat 38°10'37", long 75°23'43", Hydrologic Unit 02060009, near intersection of Green and Commerce Sts., Snow Hill.

Owner: City of Snow Hill.

AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 290 ft; casing diameter 6 in.; casing length unknown.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing extension, 0.40 ft below land-surface datum.

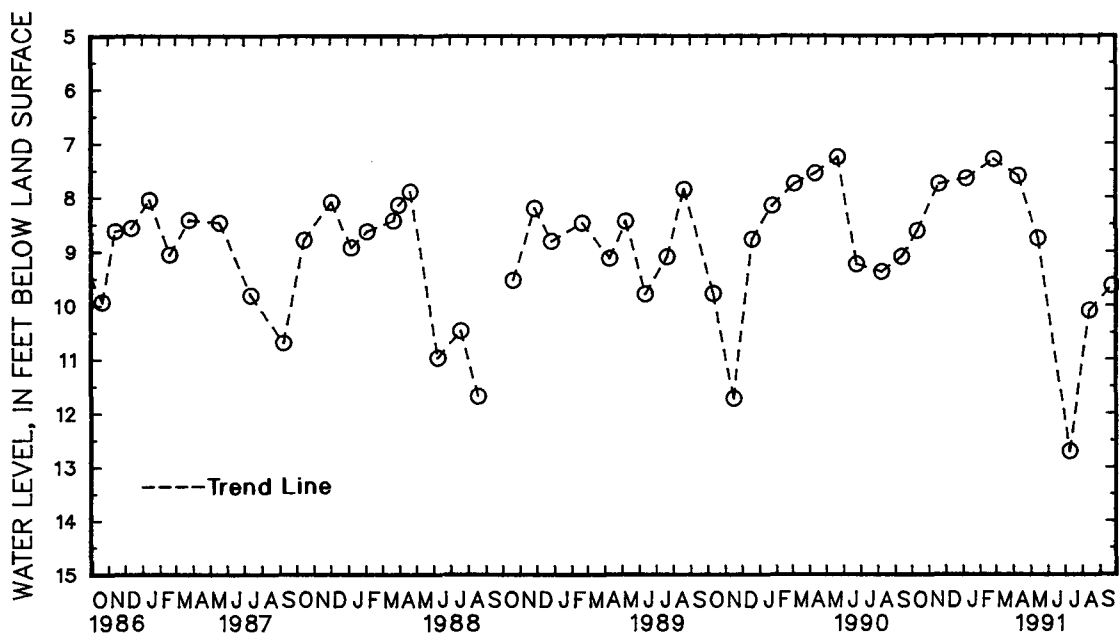
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--July 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.63 ft below land-surface datum, March 8, 1962; lowest measured, 38.02 ft below land-surface datum, Sept. 17, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	8.62	JAN 8	7.65	APR 10	7.60	JUL 10	12.71	SEP 23	9.63
NOV 20	7.75	FEB 26	7.29	MAY 14	8.76	AUG 14	10.09		
WATER YEAR 1991		HIGHEST	7.29	FEB 26, 1991	LOWEST	12.71	JUL 10, 1991		



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

MARYLAND--Continued

WORCESTER COUNTY--Continued

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 330 ft; casing diameter 4 in., to 320 ft; screen diameter 4 in. from 320 to 330 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of 4 in. coupling, 2.00 ft above land surface.

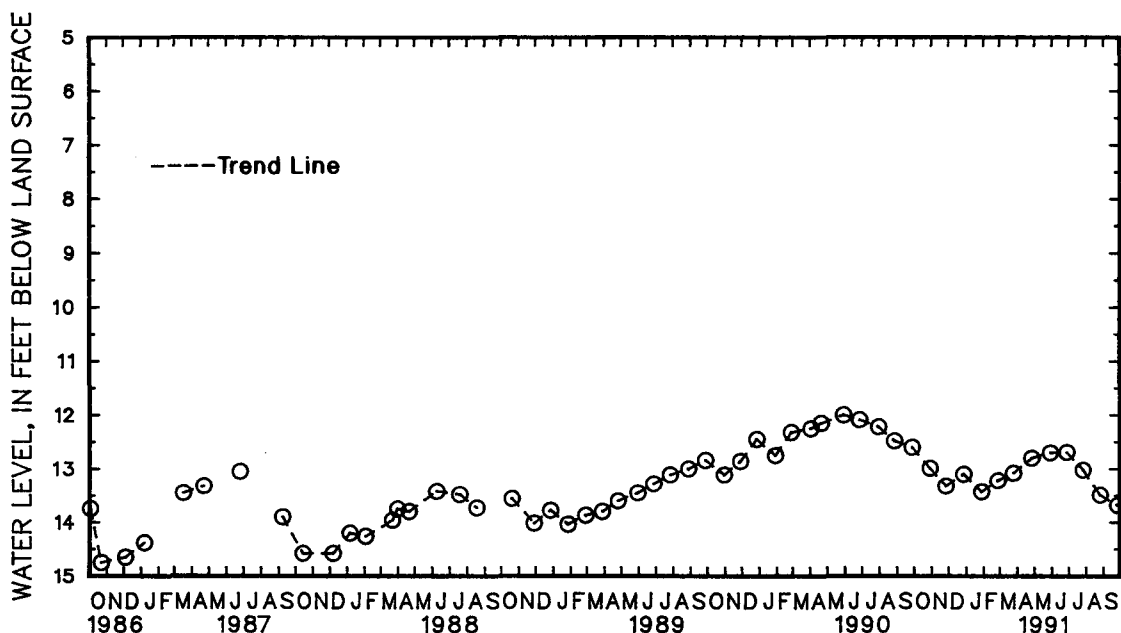
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.62 ft below land surface, May 20, 1976, lowest measured, 14.75 ft below land surface, Oct. 22, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WATER		WATER		WATER		WATER		WATER		WATER	
DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL	DATE	LEVEL
OCT 29	12.99	DEC 27	13.10	FEB 26	13.22	APR 26	12.80	JUN 27	12.69	AUG 26	13.49
NOV 26	13.32	JAN 28	13.43	MAR 25	13.08	MAY 29	12.70	JUL 26	13.02	SEP 26	13.68
WATER YEAR 1991		HIGHEST	12.69	JUN 27, 1991		LOWEST	13.68	SEP 26, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

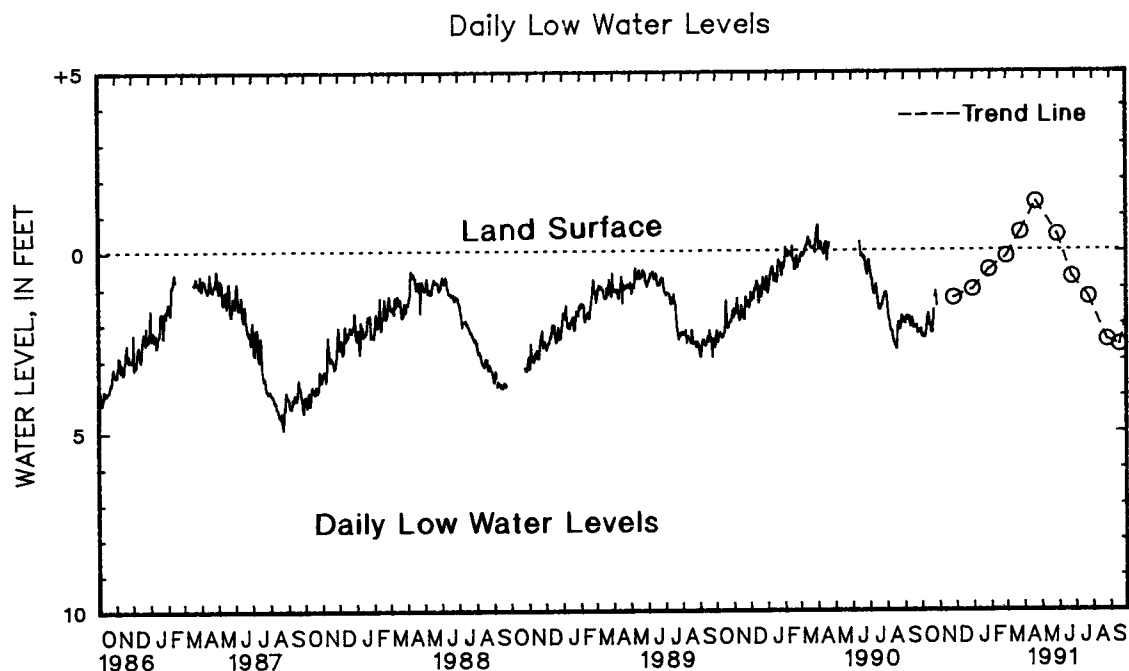
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Dg 21. SITE ID.--381427075081102. PERMIT NUMBER.--WO-73-0519.
 LOCATION.--Lat 38°14'27", long 75°08'11", Hydrologic Unit 020060010, at Assateague Island State Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 310 ft; casing diameter 4 in., to 300 ft; screen diameter 4 in. from 300 to 310 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape October 1975, to April 1985. Equipped with digital water-level recorder--60-minute recording interval, April 1985 to October 1990. Monthly measurements with chalked steel tape by USGS personnel, November 1990 to current year.
 DATUM.--Elevation of land surface is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of recorder shelf, 4.06 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping. No record from April 24 to June 18, 1990 due to recorder malfunction.
 PERIOD OF RECORD.--October 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.37 ft above land surface, April 22, 1991; lowest recorded, 5.25 ft below land surface, Aug. 25, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
NOV 27	1.33	JAN 29	.54	MAR 26	+1.52	MAY 30	+1.44	JUL 25	1.30	SEP 18	2.63	
DEC 31	1.09	MAR 01	.16	APR 22	+1.37	JUN 25	.74	AUG 27	2.49			
WATER YEAR 1991		HIGHEST	+1.37	APR 22, 1991		LOWEST	2.63	SEP 18, 1991				



5 YEAR HYDROGRAPH
 OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Fb 2. SITE ID.--380408075335701.

LOCATION.--Lat 38°04'08", long 75°33'57", Hydrologic Unit 02060009, nr 7th and Young Sts., Pocomoke City.
Owner: Pocomoke City.

AQUIFER.--Pocomoke aquifer of Miocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 130 ft; casing diameter 16 in., to 100 ft; casing diameter 10 in., to 100 ft; screen diameter 9.5 in. from 100 to 130 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel.

DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 1.5 in. casing extension, 3.40 ft above land surface.

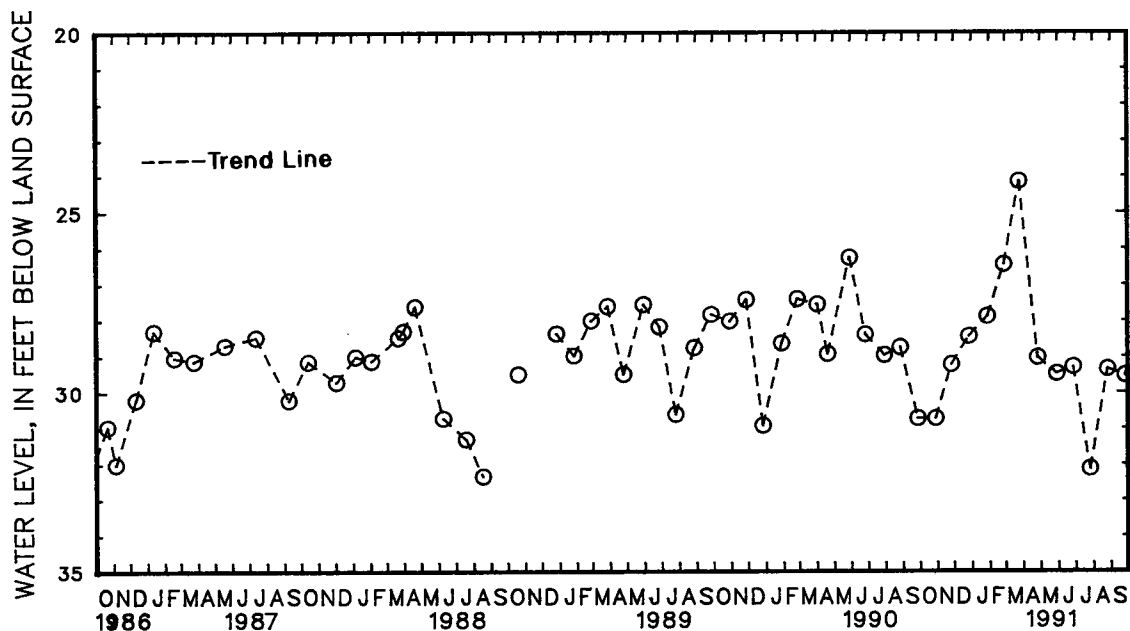
REMARKS.--Maryland Water-Level Network observation well. Water level reported 30 ft below land surface, Oct. 3, 1947; water levels may be affected by nearby pumpage.

PERIOD OF RECORD.--January 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.61 ft below land surface, Feb. 20, 1953;
lowest measured, 49.70 ft below land surface, July 1, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE. WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE		WATER LEVEL		DATE		WATER LEVEL		DATE		WATER LEVEL	
OCT 29	30.74	DEC 27	28.45	FEB 26	26.45	APR 26	29.05	JUN 27	29.31	AUG 26	29.36
NOV 26	29.24	JAN 28	27.89	MAR 25	24.15	MAY 29	29.50	JUL 26	32.14	SEP 26	29.53
WATER YEAR 1991		HIGHEST	24.15	MAR 25, 1991		LOWEST	32.14	JUL 26, 1991			



5 YEAR HYDROGRAPH
OCTOBER 1, 1986 THROUGH SEPTEMBER 30, 1991

GROUND-WATER QUALITY RECORDS

REMARK CODES.--The following remark codes may appear with the water-quality data in this section.

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

NOTES: 1. In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

2. Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Present data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey will begin using new trace-element protocols in the near future.

QUALITY OF GROUND WATER

471

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
Bb24-06	02-21-91	1100	394807075411001	300WSCK	GW		4090	--	156.00
Bb34-57	02-22-91	1030	394735075415001	300WSCK	GW		4040	--	60.00
Bb43-28	02-21-91	1315	394644075423801	300CCKV	GW		4040	--	100.00
Bb44-29	02-22-91	1230	394627075413301	300WSCK	GW		4040	--	300.00
Eb41-13	09-06-91	1630	393150075440401	211MGTY	GW		4040	51.40	145.00
Eb43-04	09-04-91	1130	393104075425001	211MGTY	GW		4040	--	230.00
Eb43-09	09-10-91	1030	393120075424701	211MLRL	GW		4040	--	38.00
Eb43-11	09-09-91	1645	393106075422201	211MLRL	GW		4040	--	39.00
Eb43-12	09-03-91	1000	393110075422101	211EGLS	GW		4040	--	110.00
Eb43-13	09-12-91	0945	393113075421901	211MGTY	GW		4040	--	177.00
Eb43-14	09-06-91	1100	393100075420501	211EGLS	GW		4040	30.91	138.00
Eb45-26	09-10-91	1430	393144075403501	211MLRL	GW		4040	--	65.00
Eb45-27	08-30-91	1300	393143075403401	211MLRL	GW		4040	--	80.00
Eb51-10	08-29-91	1330	393013075445201	211EGLS	GW		4040	--	60.00
Eb52-11	09-09-91	1815	393018075433401	211MLRL	GW		4040	7.34	80.00
Eb52-12	08-29-91	1030	393008075432201	211EGLS	GW		4040	8.07	90.00
Eb52-13	09-11-91	0930	393028075434701	211MLRL	GW		4040	--	70.00
Eb53-15	09-06-91	0930	393032075423801	211MLRL	GW		4040	--	75.00
Eb54-05	08-29-91	1500	393007075410601	211MLRL	GW		4040	--	65.00
Eb54-09	09-09-91	1600	393054075415701	211MLRL	GW		4040	13.63	75.00
Ec31-21	09-11-91	1245	393212075395701	211MGTY	GW		4040	--	185.00
Ec32-16	09-10-91	1800	393254075384801	211MLRL	GW		4040	--	--
Ec34-03	09-10-91	1700	393248075365501	217PTMC	GW		4040	--	317.00
Ec43-07	09-09-91	1400	393139075375001	211MLRL	GW		4040	30.10	130.00
Ec43-08	09-11-91	1030	393141075372501	211MLRL	GW		4040	--	96.00
Ec43-09	09-05-91	1700	393111075374301	211MLRL	GW		4040	37.10	120.00
Ec51-15	09-12-91	1100	393013075393501	211MLRL	GW		4040	--	141.00
Ec51-16	09-04-91	1400	393037075391301	211MLRL	GW		4040	--	180.00
Ec52-09	09-04-91	1500	392959075385401	211MLRL	GW		4040	--	160.00
Ec53-05	09-05-91	1600	393053075374001	211MLRL	GW		4040	--	73.00
Ed21-20	09-10-91	1215	393314075345501	217PTMC	GW		4040	--	230.00
Ed51-10	09-12-91	1400	393058075344601	125RCCS	GW		4040	--	30.00
Fa15-05	09-04-91	1030	392935075461001	211MGTY	GW		4040	--	210.00
Fa35-08	09-06-91	1500	392751075453401	211MLRL	GW		4040	--	95.00
Fa55-07	09-09-91	1130	392938075455801	125RCCS	GW		4040	--	100.00
Fb12-10	09-11-91	1730	392948075433901	211MLRL	GW		4040	--	100.00
Fb22-10	08-29-91	1645	392847075433401	211MLRL	GW		4040	--	113.00
Fb25-10	09-03-91	1600	392854075400901	211MLRL	GW		4040	--	152.00
Fb33-12	09-05-91	0930	392713075430003	211MGTY	GW		4040	--	345.00
Fb33-24	08-30-91	1500	392708075425701	217PTMC	GW		4040	--	540.00
Fb33-25	09-03-91	1430	392708075425702	217PTMC	GW		4040	--	846.00
Fb35-24	09-09-91	1000	392755075404701	211MLRL	GW		4040	40.10	155.00
Fb42-03	09-05-91	1030	392655075430801	211MLRL	GW		4040	--	206.00
Fb43-03	09-05-91	1400	392617075424801	211MGTY	GW		4040	--	375.00
Fc11-19	09-04-91	1700	392908075400101	211MLRL	GW		4040	--	194.00
Fc11-20	08-30-91	1000	392913075394601	211MLRL	GW		4040	--	117.00
Fc11-21	09-03-91	1120	392927075391601	125RCCS	GW		4040	--	54.00
Fc11-22	09-05-91	1200	392926075391401	211MLRL	GW		4040	52.50	155.00
Fc12-13	09-06-91	1330	393000075382601	211MLRL	GW		4040	--	120.00
Fc12-14	09-06-91	1200	392953075381501	211MLRL	GW		4040	43.67	170.00
Fc14-06	09-11-91	1430	392913075361301	211MLRL	GW		4040	--	150.00
Gb41-06	11-20-90	1030	392045075443501	112PCPC	GW		4040	9.05	27.00
Gb41-12	11-08-90	1630	392120075441001	112CLMB	GW		4040	6.05	18.00

Geologic unit (aquifer): 112CLMB - Columbia Formation
 112PCPC - Pleistocene-Pliocene Series
 125RCCS - Rancocas Formation
 211EGLS - Englishtown Formation
 211MGTY - Magothy Formation
 211MLRL - Mount Laurel Sand
 217PTMC - Potomac Group
 300CCKV - Cockeysville Marble
 300WSCK - Wissahickon Formation

Site type: GW - Groundwater

Sampling method: 4040 - Submersible pump
 4090 - Jet pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
Bb24-06	21	156	315	50	7.0	296	5.6	15.5	12.0
Bb34-57	--	60	275	40	5.0	242	5.8	16.0	14.0
Bb43-28	--	100	260	75	1.0	392	7.5	14.5	15.0
Bb44-29	--	300	265	30	2.0	166	7.8	12.5	20.0
Eb41-13	125	145	70.0	20	--	137	6.5	15.0	--
Eb43-04	210	230	72.0	120	--	226	7.0	14.0	--
Eb43-09	28	38	62.0	20	--	311	5.6	16.0	--
Eb43-11	35	39	65.0	25	--	186	6.3	15.0	--
Eb43-12	90	110	50.0	25	--	261	7.7	15.0	--
Eb43-13	165	177	50.0	50	4.0	236	7.3	14.5	--
Eb43-14	128	138	71.0	35	--	252	7.7	14.0	--
Eb45-26	55	65	60.0	20	--	128	6.0	17.5	--
Eb45-27	70	80	73.0	15	--	132	6.4	16.5	--
Eb51-10	50	60	52.0	15	--	342	6.5	16.0	--
Eb52-11	60	80	61.0	35	--	253	7.5	14.0	--
Eb52-12	70	90	65.0	45	--	235	6.3	18.5	--
Eb52-13	50	70	65.0	40	--	215	7.5	15.5	--
Eb53-15	65	75	70.0	35	--	208	7.7	15.5	--
Eb54-05	38	45	66.0	20	--	210	6.3	16.0	--
Eb54-09	65	75	71.0	25	--	199	7.4	14.0	--
Ec31-21	165	185	60.0	35	--	207	7.0	16.5	--
Ec32-16	60	70	52.0	25	--	1130	5.7	15.0	--
Ec34-03	300	317	15.0	25	--	160	6.7	16.0	--
Ec43-07	120	130	55.0	30	--	272	7.6	13.5	--
Ec43-08	88	96	49.0	30	--	246	7.2	16.0	--
Ec43-09	110	120	52.0	25	--	277	7.4	14.5	--
Ec51-15	76	141	52.0	25	--	261	7.5	14.0	--
Ec51-16	120	180	55.0	25	--	206	7.1	13.0	--
Ec52-09	100	160	62.0	1440	--	258	6.6	16.5	--
Ec53-05	63	73	20.0	30	2.0	254	7.6	14.5	--
Ed21-20	214	230	7.0	35	--	276	7.3	15.0	--
Ed51-10	25	30	11.0	45	--	260	5.2	14.0	--
Fa15-05	180	210	58.0	120	17	162	6.7	14.5	--
Fa35-08	87	95	64.0	25	--	165	7.5	15.5	--
Fa55-07	20	100	65.0	25	--	86	5.9	18.5	--
Fb12-10	90	100	72.0	30	--	242	7.6	15.0	--
Fb22-10	110	113	71.0	40	2.0	252	7.5	15.5	--
Fb25-10	130	150	42.0	20	--	268	7.9	19.0	--
Fb33-12	271	345	70.0	120	375	206	7.2	15.5	--
Fb33-24	420	526	70.0	120	375	180	6.9	17.5	33.0
Fb33-25	505	846	70.0	120	375	180	7.2	19.5	--
Fb35-24	145	155	56.0	25	--	256	7.6	15.0	--
Fb42-03	133	206	65.0	120	375	239	7.6	16.0	--
Fb43-03	270	375	30.0	120	375	235	7.5	16.0	--
Fc11-19	184	194	50.0	60	--	261	7.4	13.5	--
Fc11-20	107	117	48.0	20	--	254	7.8	14.5	--
Fc11-21	47	54	68.0	30	--	203	7.8	15.5	--
Fc11-22	145	155	67.0	40	--	183	7.6	15.5	--
Fc12-13	110	120	50.0	30	--	236	7.6	14.5	--
Fc12-14	150	170	50.0	35	--	241	7.5	15.5	--
Fc14-06	140	150	9.0	35	--	268	7.6	19.0	--
Gb41-06	24	27	83.6	15	1.4	53	5.5	13.0	9.0
Gb41-12	15	18	80.8	15	0.8	260	5.4	16.0	6.5

QUALITY OF GROUND WATER

473

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)
Bb24-06	7.5	24	9.3	16	1.6	20	24	23
Bb34-57	6.5	27	6.1	8.5	2.0	35	43	25
Bb43-28	3.6	45	24	5.3	3.1	180	220	6.1
Bb44-29	0.2	19	4.3	7.4	2.4	57	70	23
Eb41-13	0.8	14	3.1	3.3	2.1	52	63	6.4
Eb43-04	1.4	31	5.6	3.6	3.9	111	135	4.7
Eb43-09	4.6	19	8.3	14	16	15	18	35
Eb43-11	7.0	26	1.7	4.6	1.6	45	59	8.1
Eb43-12	--	46	2.5	3.2	2.2	127	155	6.6
Eb43-13	<0.1	33	6.2	4.6	4.6	117	143	3.9
Eb43-14	0.6	41	4.1	3.1	3.2	112	137	6.4
Eb45-26	9.7	12	2.3	5.6	2.3	39	48	1.6
Eb45-27	5.0	16	1.2	5.2	1.9	41	50	1.9
Eb51-10	8.5	38	1.9	22	2.5	43	52	28
Eb52-11	0.2	47	1.4	2.9	1.7	97	118	13
Eb52-12	0.8	43	1.3	2.7	1.8	98	120	11
Eb52-13	1.3	39	1.2	2.8	1.5	100	122	15
Eb53-15	0.7	37	1.5	2.4	1.4	87	106	9.2
Eb54-05	5.7	25	5.7	3.8	2.4	33	40	18
Eb54-09	1.6	35	1.5	3.0	1.4	84	102	5.4
Ec31-21	0.5	24	5.0	5.8	4.7	89	109	5.5
Ec32-16	9.1	32	16	160	3.9	16	20	28
Ec34-03	0	13	3.3	4.0	3.1	80	98	2.3
Ec43-07	0.2	44	4.1	4.0	3.3	120	148	8.4
Ec43-08	2.9	43	1.8	3.0	1.3	91	111	8.7
Ec43-09	0.6	50	1.8	3.2	1.4	139	170	8.2
Ec51-15	0.1	46	2.4	3.1	1.7	120	146	9.1
Ec51-16	3.3	35	1.6	3.4	1.1	94	115	4.1
Ec52-09	1.0	42	3.4	3.6	4.0	118	144	8.7
Ec53-05	0.5	45	1.6	3.1	1.8	124	151	9.6
Ed21-20	--	12	2.8	40	5.0	93	113	6.9
Ed51-10	--	8.4	5.0	28	4.0	11	13	48
Fa15-05	1.1	19	4.1	2.7	2.6	67	82	6.8
Fa35-08	0.7	36	2.3	3.3	3.8	84	102	20
Fa55-07	3.4	5.3	2.7	4.9	2.3	27	33	<0.20
Fb12-10	3.1	43	2.3	2.6	2.2	109	133	10
Fb22-10	0.6	44	1.8	3.2	3.7	86	105	20
Fb25-10	1.7	42	4.2	6.7	4.1	124	151	3.2
Fb33-12	0.9	18	4.1	22	7.0	117	143	9.0
Fb33-24	0.6	14	3.3	14	6.1	89	109	7.3
Fb33-25	0.8	2.1	0.40	38	2.7	83	101	8.7
Fb35-24	1.2	43	3.4	3.0	3.7	120	146	8.4
Fb42-03	0.9	38	3.5	3.1	3.8	94	115	9.6
Fb43-03	0.7	8.4	2.0	40	5.0	96	117	9.6
Fc11-19	0.5	45	3.0	3.3	3.2	131	160	9.5
Fc11-20	0.7	44	2.8	3.3	2.5	117	143	4.8
Fc11-21	0.9	40	2.1	3.5	1.5	108	132	5.9
Fc11-22	0.7	37	1.9	3.1	1.6	97	118	4.4
Fc12-13	0.6	40	2.6	3.0	2.6	96	117	5.3
Fc12-14	0.7	41	2.5	3.4	2.4	126	154	4.2
Fc14-06	1.0	40	5.5	7.5	4.8	124	151	3.2
Gb41-06	0.1	2.3	0.91	2.3	1.4	13	16	4.6
Gb41-12	9.1	20	11	5.0	1.6	4	5	18

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
Bb24-06	58	<0.10	--	25	179	--	<0.010	2.10	0.010
Bb34-57	14	<0.10	--	25	163	--	<0.010	7.70	<0.010
Bb43-28	11	<0.10	--	12	236	--	<0.010	4.90	<0.010
Bb44-29	3.7	<0.10	--	27	122	--	<0.010	<0.100	0.010
Eb41-13	1.7	0.20	--	15	85	--	<0.010	0.020	0.020
Eb43-04	1.7	0.20	--	7.6	127	--	<0.010	<0.020	0.090
Eb43-09	41	<0.10	--	12	176	--	<0.010	4.90	<0.010
Eb43-11	10	0.20	--	17	140	--	<0.010	9.50	0.010
Eb43-12	2.0	0.20	--	17	156	--	<0.010	<0.020	0.030
Eb43-13	1.6	0.20	--	8.8	135	--	<0.010	<0.020	0.110
Eb43-14	1.8	0.20	--	15	142	--	<0.010	<0.020	0.060
Eb45-26	12	<0.10	--	14	103	--	<0.010	6.60	0.010
Eb45-27	7.3	0.20	--	15	91	--	<0.010	3.80	0.010
Eb51-10	23	0.20	--	13	218	--	<0.010	14.0	0.010
Eb52-11	3.3	0.20	--	15	143	--	<0.010	<0.020	0.010
Eb52-12	4.2	0.40	--	18	142	--	<0.010	<0.020	0.020
Eb52-13	3.3	0.20	--	14	137	--	<0.010	0.030	0.010
Eb53-15	2.8	0.40	--	15	122	--	<0.010	<0.020	0.020
Eb54-05	15	0.10	--	14	129	--	<0.010	5.60	0.010
Eb54-09	5.2	0.50	--	15	124	1.46	0.040	1.50	0.010
Ec31-21	1.4	0.20	--	7.8	110	--	<0.010	<0.020	0.140
Ec32-16	300	<0.10	--	11	593	--	<0.010	7.40	0.010
Ec34-03	1.9	0.20	--	8.1	98	--	0.010	<0.020	0.070
Ec43-07	5.1	0.30	--	12	154	--	<0.010	<0.020	0.070
Ec43-08	6.2	0.30	--	12	141	--	<0.010	2.20	<0.010
Ec43-09	6.1	0.40	--	16	172	--	<0.010	<0.020	0.010
Ec51-15	3.2	0.40	--	18	157	--	<0.010	<0.020	0.010
Ec51-16	4.5	0.30	--	16	132	--	<0.010	2.20	0.010
Ec52-09	3.9	0.40	--	22	161	--	<0.010	0.020	0.040
Ec53-05	5.5	0.40	--	18	161	--	<0.010	<0.020	0.010
Ed21-20	19	0.20	--	7.6	151	--	<0.010	<0.020	0.150
Ed51-10	28	<0.10	--	28	165	--	<0.010	1.90	0.010
Fa15-05	1.9	0.30	--	13	96	--	<0.010	<0.020	0.040
Fa35-08	3.6	0.50	--	27	151	--	<0.010	0.040	0.020
Fa55-07	4.3	<0.10	--	24	--	--	<0.010	4.40	0.010
Fb12-10	3.9	0.30	--	21	151	--	<0.010	<0.020	0.020
Fb22-10	7.2	0.20	--	30	162	--	<0.010	0.030	0.010
Fb25-10	2.5	0.30	--	17	155	--	0.010	<0.020	0.050
Fb33-12	0.90	0.20	--	7.8	140	--	<0.010	<0.020	0.200
Fb33-24	1.0	0.20	--	7.8	110	--	<0.010	<0.020	0.180
Fb33-25	1.8	0.20	--	8.6	114	--	<0.010	<0.020	0.080
Fb35-24	2.2	0.30	--	23	159	--	<0.010	<0.020	0.050
Fb42-03	2.2	0.20	--	17	134	--	<0.010	<0.020	0.040
Fb43-03	0.80	0.30	--	7.6	132	--	<0.010	<0.020	0.170
Fc11-19	2.9	0.40	--	19	165	--	<0.010	<0.020	0.020
Fc11-20	2.2	0.40	--	18	149	--	<0.010	0.020	0.020
Fc11-21	6.0	0.30	--	13	137	--	<0.010	<0.020	0.010
Fc11-22	4.4	0.30	--	15	127	--	<0.010	<0.020	0.020
Fc12-13	2.2	0.40	--	18	132	--	<0.010	<0.020	0.020
Fc12-14	2.4	0.40	--	17	150	--	<0.010	<0.020	0.020
Fc14-06	2.2	0.40	--	15	153	--	<0.010	0.040	0.100
Gb41-06	1.4	<0.10	--	11	38	--	<0.010	<0.100	0.120
Gb41-12	21	<0.10	0.040	18	164	--	<0.010	15.0	<0.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)
Bb24-06	<0.20	0.040	<10	<1	<1	150	<0.5	10	3.0
Bb34-57	<0.20	0.040	<10	<1	<1	130	<0.5	10	1.0
Bb43-28	<0.20	0.030	<10	<1	<1	27	<0.5	<10	<1.0
Bb44-29	<0.20	0.040	20	<1	<1	11	<0.5	20	<1.0
Eb41-13	<0.20	0.450	<10	--	--	--	--	--	--
Eb43-04	0.25	0.020	<10	--	--	--	--	--	--
Eb43-09	<0.20	0.050	<10	--	--	--	--	--	--
Eb43-11	<0.20	0.110	<10	--	--	--	--	--	--
Eb43-12	<0.20	0.010	<10	--	--	--	--	--	--
Eb43-13	<0.20	0.030	<10	--	--	--	--	--	--
Eb43-14	0.20	0.020	<10	--	--	--	--	--	--
Eb45-26	<0.20	0.140	10	--	--	--	--	--	--
Eb45-27	0.20	0.380	10	--	--	--	--	--	--
Eb51-10	<0.20	0.470	<10	--	--	--	--	--	--
Eb52-11	<0.20	0.010	<10	--	--	--	--	--	--
Eb52-12	<0.20	0.030	<10	--	--	--	--	--	--
Eb52-13	<0.20	0.010	10	--	--	--	--	--	--
Eb53-15	<0.20	0.020	<10	--	--	--	--	--	--
Eb54-05	<0.20	0.100	10	--	--	--	--	--	--
Eb54-09	<0.20	0.070	<10	--	--	--	--	--	--
Ec31-21	0.30	0.050	<10	--	--	--	--	--	--
Ec32-16	<0.20	0.020	<10	--	--	--	--	--	--
Ec34-03	<0.20	0.010	10	--	--	--	--	--	--
Ec43-07	<0.20	0.010	<10	--	--	--	--	--	--
Ec43-08	<0.20	0.010	<10	--	--	--	--	--	--
Ec43-09	<0.20	0.040	10	--	--	--	--	--	--
Ec51-15	<0.20	0.020	<10	--	--	--	--	--	--
Ec51-16	<0.20	0.010	<10	--	--	--	--	--	--
Ec52-09	0.22	0.090	10	--	--	--	--	--	--
Ec53-05	<0.20	0.050	<10	--	--	--	--	--	--
Ed21-20	<0.20	0.130	<10	--	--	--	--	--	--
Ed51-10	<0.20	0.020	<10	--	--	--	--	--	--
Fa15-05	<0.20	0.100	<10	--	--	--	--	--	--
Fa35-08	<0.20	0.020	<10	--	--	--	--	--	--
Fa55-07	<0.20	0.030	<10	--	--	--	--	--	--
Fb12-10	<0.20	0.010	<10	--	--	--	--	--	--
Fb22-10	<0.20	0.090	10	--	--	--	--	--	--
Fb25-10	<0.20	0.010	10	--	--	--	--	--	--
Fb33-12	0.37	0.050	<10	--	--	--	--	--	--
Fb33-24	0.25	0.020	<10	--	--	--	--	--	--
Fb33-25	0.20	0.120	<10	--	--	--	--	--	--
Fb35-24	<0.20	0.020	<10	--	--	--	--	--	--
Fb42-03	<0.20	0.010	10	--	--	--	--	--	--
Fb43-03	0.30	0.110	<10	--	--	--	--	--	--
Fc11-19	0.25	0.020	10	--	--	--	--	--	--
Fc11-20	<0.20	0.070	<10	--	--	--	--	--	--
Fc11-21	<0.20	0.060	<10	--	--	--	--	--	--
Fc11-22	<0.20	0.050	<10	--	--	--	--	--	--
Fc12-13	<0.20	0.020	<10	--	--	--	--	--	--
Fc12-14	<0.20	0.040	<10	--	--	--	--	--	--
Fc14-06	<0.20	0.010	<10	--	--	--	--	--	--
Gb41-06	0.50	0.010	130	<1	<1	61	0.6	<10	1.0
Gb41-12	0.60	<0.010	<10	<1	<1	88	<0.5	<10	<1.0

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)
Bb24-06	<5	<3	110	24	<10	<4	4	<10	<10
Bb34-57	<5	<3	130	9	<10	<4	2	<10	<10
Bb43-28	<5	<3	10	5	<10	<4	1	<10	<10
Bb44-29	<5	<3	<10	160	<10	<4	130	<10	<10
Eb41-13	--	--	--	6000	--	--	120	--	--
Eb43-04	--	--	--	2000	--	--	30	--	--
Eb43-09	--	--	--	10	--	--	10	--	--
Eb43-11	--	--	--	50	--	--	10	--	--
Eb43-12	--	--	--	250	--	--	10	--	--
Eb43-13	--	--	--	1200	--	--	10	--	--
Eb43-14	--	--	--	210	--	--	10	--	--
Eb45-26	--	--	--	10	--	--	30	--	--
Eb45-27	--	--	--	20	--	--	10	--	--
Eb51-10	--	--	--	30	--	--	10	--	--
Eb52-11	--	--	--	240	--	--	10	--	--
Eb52-12	--	--	--	190	--	--	40	--	--
Eb52-13	--	--	--	170	--	--	20	--	--
Eb53-15	--	--	--	150	--	--	20	--	--
Eb54-05	--	--	--	10	--	--	<10	--	--
Eb54-09	--	--	--	40	--	--	10	--	--
Ec31-21	--	--	--	1400	--	--	30	--	--
Ec32-16	--	--	--	50	--	--	10	--	--
Ec34-03	--	--	--	14000	--	--	140	--	--
Ec43-07	--	--	--	210	--	--	10	--	--
Ec43-08	--	--	--	90	--	--	10	--	--
Ec43-09	--	--	--	1400	--	--	30	--	--
Ec51-15	--	--	--	700	--	--	20	--	--
Ec51-16	--	--	--	40	--	--	<10	--	--
Ec52-09	--	--	--	1300	--	--	50	--	--
Ec53-05	--	--	--	1600	--	--	20	--	--
Ed21-20	--	--	--	1600	--	--	10	--	--
Ed51-10	--	--	--	50	--	--	60	--	--
Fa15-05	--	--	--	5200	--	--	110	--	--
Fa35-08	--	--	--	3600	--	--	40	--	--
Fa55-07	--	--	--	10	--	--	<10	--	--
Fb12-10	--	--	--	240	--	--	20	--	--
Fb22-10	--	--	--	230	--	--	20	--	--
Fb25-10	--	--	--	70	--	--	20	--	--
Fb33-12	--	--	--	750	--	--	10	--	--
Fb33-24	--	--	--	2400	--	--	50	--	--
Fb33-25	--	--	--	950	--	--	30	--	--
Fb35-24	--	--	--	210	--	--	10	--	--
Fb42-03	--	--	--	250	--	--	<10	--	--
Fb43-03	--	--	--	360	--	--	<10	--	--
Fc11-19	--	--	--	360	--	--	10	--	--
Fc11-20	--	--	--	540	--	--	20	--	--
Fc11-21	--	--	--	150	--	--	50	--	--
Fc11-22	--	--	--	1100	--	--	60	--	--
Fc12-13	--	--	--	570	--	--	10	--	--
Fc12-14	--	--	--	500	--	--	10	--	--
Fc14-06	--	--	--	30	--	--	10	--	--
Gb41-06	<5	<3	<10	5500	<10	<4	91	<10	<10
Gb41-12	<5	<3	<10	<3	<10	<4	10	<10	<10

QUALITY OF GROUND WATER

477

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	RADON 222 TOTAL (PCI/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
Bb24-06	<1	<1.0	170	<6	37	1100	99	--
Bb34-57	2	<1.0	120	<6	34	450	93	--
Bb43-28	<1	<1.0	36	<6	25	140	210	--
Bb44-29	<1	<1.0	82	<6	3	250	65	--
Eb41-13	--	--	--	--	--	--	48	0.6
Eb43-04	--	--	--	--	--	--	100	0.4
Eb43-09	--	--	--	--	--	1700	82	0.6
Eb43-11	--	--	--	--	--	--	72	0.3
Eb43-12	--	--	--	--	--	--	130	0.4
Eb43-13	--	--	--	--	--	--	110	0.4
Eb43-14	--	--	--	--	--	--	120	0.8
Eb45-26	--	--	--	--	--	1400	39	0.3
Eb45-27	--	--	--	--	--	--	45	0.3
Eb51-10	--	--	--	--	--	--	100	0.5
Eb52-11	--	--	--	--	--	--	120	0.3
Eb52-12	--	--	--	--	--	--	110	1.4
Eb52-13	--	--	--	--	--	360	100	0.2
Eb53-15	--	--	--	--	--	--	99	0.4
Eb54-05	--	--	--	--	--	--	86	0.4
Eb54-09	--	--	--	--	--	--	94	0.3
Ec31-21	--	--	--	--	--	130	81	0.5
Ec32-16	--	--	--	--	--	--	150	0.7
Ec34-03	--	--	--	--	--	--	46	0.5
Ec43-07	--	--	--	--	--	--	130	0.4
Ec43-08	--	--	--	--	--	--	110	0.2
Ec43-09	--	--	--	--	--	--	130	0.5
Ec51-15	--	--	--	--	--	--	120	0.5
Ec51-16	--	--	--	--	--	--	94	1.9
Ec52-09	--	--	--	--	--	--	120	0.5
Ec53-05	--	--	--	--	--	--	120	0.3
Ed21-20	--	--	--	--	--	89	42	0.6
Ed51-10	--	--	--	--	--	--	42	0.8
Fa15-05	--	--	--	--	--	--	64	0.5
Fa35-08	--	--	--	--	--	--	99	0.8
Fa55-07	--	--	--	--	--	--	24	0.4
Fb12-10	--	--	--	--	--	--	120	0.3
Fb22-10	--	--	--	--	--	--	120	0.4
Fb25-10	--	--	--	--	--	--	120	0.5
Fb33-12	--	--	--	--	--	--	62	0.6
Fb33-24	--	--	--	--	--	--	49	1.2
Fb33-25	--	--	--	--	--	--	7	0.6
Fb35-24	--	--	--	--	--	--	120	0.3
Fb42-03	--	--	--	--	--	--	110	0.4
Fb43-03	--	--	--	--	--	--	29	0.4
Fc11-19	--	--	--	--	--	--	120	2.7
Fc11-20	--	--	--	--	--	--	120	1.2
Fc11-21	--	--	--	--	--	--	110	0.4
Fc11-22	--	--	--	--	--	--	100	0.3
Fc12-13	--	--	--	--	--	--	110	0.4
Fc12-14	--	--	--	--	--	--	110	0.4
Fc14-06	--	--	--	--	--	370	120	0.6
Gb41-06	<1	<1.0	44	8	4	--	10	2.9
Gb41-12	<1	<1.0	250	<6	<3	--	96	1.2

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
Gb42-05	11-08-90	1100	392120075434402		112CLMB	GW	4040	2.19	18.00
	03-04-91	1410			112CLMB	GW	4040	1.20	18.00
	04-24-91	1330			112CLMB	GW	4040	0.98	18.00
	05-29-91	1630			112CLMB	GW	4040	2.35	18.00
	06-18-91	1240			112CLMB	GW	4040	2.59	18.00
	06-26-91	1200			112CLMB	GW	4040	2.63	18.00
	07-23-91	1030			112CLMB	GW	4040	3.45	18.00
	08-19-91	1400			112CLMB	GW	4040	3.75	18.00
	09-17-91	1100			112CLMB	GW	4040	4.29	18.00
	11-08-90	0900			112CLMB	GW	4040	9.25	18.00
Gb42-06	03-05-91	0920			112CLMB	GW	4040	7.63	18.00
	04-24-91	1720			112CLMB	GW	4040	6.89	18.00
Gb42-07	05-29-91	1800	392120075434301		112CLMB	GW	4040	8.22	18.00
	11-08-90	1500			112CLMB	GW	4040	0.16	5.50
	03-05-91	1040			112CLMB	GW	4040	3.38	5.50
	04-24-91	1230			112CLMB	GW	4040	-1.27	5.50
	05-29-91	1415			112CLMB	GW	4040	-0.33	5.50
	06-26-91	1100			112CLMB	GW	4040	-0.12	5.50
	07-23-91	0940			112CLMB	GW	4040	0.64	5.50
	08-19-91	1300			112CLMB	GW	4040	0.86	5.50
	09-17-91	0940			112CLMB	GW	4040	1.42	5.50
	11-08-90	1300			112CLMB	GW	4040	2.26	9.00
Gb42-08	03-04-91	1210	392120075434403		112CLMB	GW	4040	1.25	9.00
	04-24-91	1430			112CLMB	GW	4040	1.07	9.00
	05-29-91	1750			112CLMB	GW	4040	2.80	9.00
	06-18-91	1400			112CLMB	GW	4040	2.41	9.00
	06-26-91	1120			112CLMB	GW	4040	4.65	9.00
	07-23-91	1100			112CLMB	GW	4040	3.69	9.00
	08-19-91	1430			112CLMB	GW	4040	2.63	9.00
	09-17-91	1130			112CLMB	GW	4040	4.37	9.00
	03-05-91	1130			112CLMB	GW	4040	1.49	11.00
	05-29-91	1700			112CLMB	GW	4040	0.41	11.00
Gb42-09	03-12-91	1300	392120075434501		112CLMB	GW	4040	4.32	9.00
	04-24-91	1520			112CLMB	GW	4040	1.64	9.00
	05-29-91	1930			112CLMB	GW	4040	2.98	9.00
	06-18-91	1500			112CLMB	GW	4040	3.35	9.00
	06-18-91	2100			112CLMB	GW	4040	2.90	9.00
Gb42-10	06-26-91	1230			112CLMB	GW	4040	3.03	9.00
	07-23-91	1130			112CLMB	GW	4040	4.12	9.00
	08-19-91	1530			112CLMB	GW	4040	4.30	9.00
	09-17-91	1230			112CLMB	GW	4040	4.98	9.00

Geologic unit (aquifer): 112CLMB - Columbia Formation

Site type: GW - Groundwater

Sampling method: 4040 - Submersible pump

NEW CASTLE COUNTY, DELAWARE--Continued

	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
Gb42-05	15	18	75.0	15	1.0	173	5.4	14.5	12.5
	15	18	80.0	10	2.0	180	5.5	12.5	5.0
	15	18	75.0	12	0.9	175	5.6	12.5	17.0
	15	18	75.0	12	0.8	164	5.5	14.0	35.0
	15	18	75.0	17	1.3	166	5.6	13.5	19.5
	15	18	75.0	9	1.3	131	5.8	14.0	28.0
	15	18	75.0	8	1.5	166	5.6	15.0	33.0
	15	18	75.0	9	1.3	165	5.8	15.5	33.0
	15	18	75.0	12	1.0	166	5.3	16.0	30.0
	15	18	80.0	15	1.0	179	5.0	14.5	5.0
Gb42-06	15	18	80.0	9	0.8	195	4.9	12.0	6.5
	15	18	80.0	8	0.6	204	--	11.5	12.0
	15	18	80.0	5	1.0	219	4.8	12.5	29.0
	2.5	5.5	73.0	15	0.3	65	5.8	14.5	16.0
	2.5	5.5	70.0	9	0.6	73	5.8	12.0	8.0
	2.5	5.5	73.0	9	0.8	85	5.7	12.5	17.0
	2.5	5.5	73.0	9	0.8	84	5.8	16.5	38.0
	2.5	5.5	73.0	7	0.8	70	6.0	17.5	28.0
	2.5	5.5	73.0	12	0.6	86	5.7	20.5	32.0
	2.5	5.5	73.0	7	0.6	99	5.9	21.5	31.5
Gb42-07	2.5	5.5	73.0	9	0.4	103	5.8	20.5	29.0
	6.0	9.0	75.0	20	0.3	252	5.5	16.5	15.0
	6.0	9.0	80.0	9	1.1	284	6.1	9.0	10.0
	6.0	9.0	75.0	12	0.6	278	5.9	11.0	17.0
	6.0	9.0	75.0	12	0.4	249	6.0	16.0	39.0
	6.0	9.0	75.0	11	0.5	235	6.0	16.5	16.5
	6.0	9.0	75.0	12	0.4	198	6.1	17.5	28.0
	6.0	9.0	75.0	13	0.5	233	6.1	20.5	33.0
	6.0	9.0	75.0	11	0.3	237	6.3	21.0	31.0
	6.0	9.0	75.0	11	0.4	231	6.0	21.0	32.0
Gb42-08	8.0	11	73.0	10	0.7	107	6.1	13.0	15.0
	8.0	11	70.9	4	1.0	122	6.2	15.0	27.0
	6.0	9.0	74.4	5	0.5	245	5.8	9.0	10.0
	6.0	9.0	74.4	25	0.4	228	5.6	11.5	15.0
	6.0	9.0	74.4	14	--	222	5.6	20.0	20.0
	6.0	9.0	74.4	15	0.5	224	5.4	17.5	--
	6.0	9.0	74.4	15	0.5	227	5.5	17.5	--
	6.0	9.0	74.4	--	--	217	5.4	22.5	32.0
	6.0	9.0	74.4	--	--	222	6.0	23.5	34.0
	6.0	9.0	74.4	--	--	227	6.1	23.5	31.0
Gb42-09	6.0	9.0	74.4	--	--	230	5.9	23.0	33.0

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WAT WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
Gb42-05	8.8	8.5	2.5	18	1.4	5	6	<1.0	24
	9.0	8.8	2.6	18	1.2	5	6	<1.0	22
	11.0	--	--	--	--	--	--	--	--
	9.1	8.3	2.3	17	1.5	4	5	0.20	23
	11.0	8.2	2.4	17	1.4	--	--	0.60	21
Gb42-06	8.9	--	--	--	--	--	--	--	--
	9.4	--	--	--	--	--	--	--	--
	8.7	--	--	--	--	--	--	--	--
	9.2	--	--	--	--	--	--	--	--
	9.5	6.3	9.6	4.7	1.9	1	1	3.4	26
Gb42-07	9.6	7.3	10	4.9	2.1	2	2	9.1	24
	11.8	--	--	--	--	--	--	--	--
	9.9	8.1	12	4.9	1.9	1	1	3.1	28
	5.9	3.8	1.1	6.5	0.80	14	16	<1.0	5.6
	6.6	4.8	1.3	7.5	0.90	31	37	<1.0	5.2
Gb42-08	7.4	--	--	--	--	--	--	--	--
	6.6	5.1	1.4	8.1	1.1	8	10	0.40	6.3
	5.4	--	--	--	--	--	--	--	--
	4.9	--	--	--	--	--	--	--	--
	1.3	--	--	--	--	--	--	--	--
Gb42-09	4.1	--	--	--	--	--	--	--	--
	8.8	19	7.6	4.5	1.6	3	4	20	21
	8.1	24	12	3.9	1.4	12	15	26	21
	9.3	--	--	--	--	--	--	--	--
	8.9	22	10	3.8	1.8	4	5	28	19
Gb42-10	11.3	20	8.9	3.9	1.6	--	--	20	21
	9.3	--	--	--	--	--	--	--	--
	8.0	--	--	--	--	--	--	--	--
	8.7	--	--	--	--	--	--	--	--
	8.7	--	--	--	--	--	--	--	--
Gb42-09	8.0	6.9	1.8	9.2	1.1	24	29	<0.10	6.4
	8.0	7.6	1.9	11	1.2	17	21	<0.10	6.8
	2.1	19	11	2.2	1.2	7	9	28	13
	7.6	--	--	--	--	--	--	--	--
	6.1	18	10	2.3	1.6	--	--	30	14
Gb42-10	8.0	17	10	2.4	1.5	--	--	24	12
	8.4	17	10	2.3	1.5	--	--	31	14
	7.2	--	--	--	--	--	--	--	--
	5.0	--	--	--	--	--	--	--	--
	4.4	--	--	--	--	--	--	--	--
Gb42-10	4.5	--	--	--	--	--	--	--	--
	4.5	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

481

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS, (MG/L AS N)
Gb42-05	<0.10	0.050	22	--	--	<0.010	10.0	<0.010	0.60
	<0.10	0.050	21	--	--	<0.010	10.0	<0.010	0.40
	--	--	--	--	9.33	0.070	9.40	0.030	0.50
	<0.10	0.050	22	100	--	<0.010	9.90	<0.010	1.0
	<0.10	0.050	23	119	--	<0.010	9.30	0.020	0.40
	--	--	--	--	--	<0.010	9.70	<0.010	0.40
	--	--	--	--	--	<0.010	9.00	0.020	1.5
	--	--	--	--	--	<0.010	8.90	<0.010	0.60
	--	--	--	--	5.36	0.040	9.40	0.020	0.30
	<0.10	0.040	17	111	--	<0.010	9.30	0.010	0.60
Gb42-06	<0.10	0.040	15	115	--	<0.010	9.30	<0.010	0.50
	--	--	--	--	9.35	0.050	9.40	0.020	0.70
Gb42-07	<0.10	0.040	16	129	--	<0.010	12.0	0.020	0.60
	<0.10	0.040	27	--	--	<0.010	2.50	<0.010	<0.20
	<0.10	0.040	24	--	--	<0.010	4.50	<0.010	0.30
	--	--	--	--	4.53	0.070	4.60	0.020	0.20
	<0.10	0.050	28	77	--	<0.010	4.90	<0.010	0.50
	--	--	--	--	--	<0.010	4.20	0.010	1.3
	--	--	--	--	--	<0.010	3.80	0.050	0.70
	--	--	--	--	--	<0.010	2.40	0.010	<0.20
Gb42-08	--	--	--	--	2.66	0.040	2.70	0.030	0.20
	<0.10	0.020	19	153	--	<0.010	13.0	0.030	0.60
	<0.10	0.020	16	175	--	<0.010	14.0	0.020	0.60
	--	--	--	--	10.9	0.060	11.0	0.050	0.70
	<0.10	0.040	18	156	--	<0.010	11.0	0.030	0.80
	0.10	0.030	18	143	--	<0.010	10.0	0.040	0.60
	--	--	--	--	--	<0.010	11.0	0.040	0.80
	--	--	--	--	--	<0.010	9.70	0.050	1.4
	--	--	--	--	--	<0.010	9.50	0.030	0.70
	--	--	--	--	5.37	0.030	10.0	0.060	0.40
Gb42-09	<0.10	0.050	24	--	--	<0.010	6.80	0.010	0.30
Gb42-10	<0.10	0.050	25	--	7.19	0.010	7.20	0.070	0.40
	0.20	0.030	8.1	114	5.77	0.030	5.80	0.090	0.80
	--	--	--	--	9.92	0.080	10.0	0.090	0.80
	<0.10	0.060	9.3	142	11.0	0.040	11.0	0.120	0.80
	0.10	0.030	10	131	--	<0.010	11.0	0.110	1.0
	0.10	0.030	10	140	--	<0.010	11.0	0.060	0.30
	--	--	--	--	--	<0.010	11.0	0.040	0.50
	--	--	--	--	--	<0.010	9.70	0.110	1.0
	--	--	--	--	9.59	0.010	9.60	0.130	0.50
	--	--	--	--	5.34	0.060	9.10	0.180	0.40

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
Gb42-05	<0.010	<10	<1	<1	27	0.6	<10	<1.0	<5
	<0.010	<10	<1	<1	26	1	<10	<1.0	<5
	<0.010	--	--	--	--	--	--	--	--
	<0.010	<10	<1	<1	23	0.7	<10	<1.0	<5
	0.020	<10	1	<1	25	0.6	<10	<1.0	<5
Gb42-06	<0.010	--	--	--	--	--	--	--	--
	<0.010	--	--	--	--	--	--	--	--
	0.020	--	--	--	--	--	--	--	--
	<0.010	--	--	--	--	--	--	--	--
	<0.010	160	<1	<1	310	1	<10	<1.0	<5
Gb42-07	<0.010	100	<1	<1	240	0.9	10	<1.0	<5
	<0.010	--	--	--	--	--	--	--	--
	<0.010	160	<1	<1	290	1	20	1.0	<5
	0.020	1	<1	<1	54	0.5	<10	<1.0	<5
	<0.010	7	<1	<1	69	<0.5	<10	<1.0	<5
Gb42-08	<0.010	--	--	--	--	--	--	--	--
	<0.010	5	<1	<1	74	0.8	<10	<1.0	<5
	<0.010	--	--	--	--	--	--	--	--
	0.040	--	--	--	--	--	--	--	--
	0.030	--	--	--	--	--	--	--	--
Gb42-09	0.020	--	--	--	--	--	--	--	--
	<0.010	<10	<1	<1	100	<0.5	<10	<1.0	<5
	<0.010	<10	<1	<1	100	0.8	<10	2.0	<5
	<0.010	--	--	--	--	--	--	--	--
	<0.010	<10	<1	<1	120	0.9	<10	<1.0	<5
Gb42-10	<0.010	<10	2	<1	120	0.5	<10	<1.0	<5
	<0.010	--	--	--	--	--	--	--	--
	<0.010	--	--	--	--	--	--	--	--
	0.010	--	--	--	--	--	--	--	--
	<0.010	--	--	--	--	--	--	--	--
Gb42-09	<0.010	<10	<1	<1	76	<0.5	<10	2.0	<5
	<0.010	<10	<1	<1	85	0.5	<10	<1.0	<5
	<0.010	10	<1	<1	120	3	10	<1.0	<5
	<0.010	--	--	--	--	--	--	--	--
	<0.010	<10	<1	<1	140	3	20	<1.0	<5
Gb42-10	0.020	30	<1	<1	150	2	20	<1.0	<5
	<0.010	40	<1	<1	170	3	20	<1.0	<5
	<0.010	--	--	--	--	--	--	--	--
	<0.010	--	--	--	--	--	--	--	--
	0.030	--	--	--	--	--	--	--	--
Gb42-10	<0.010	--	--	--	--	--	--	--	--
	<0.010	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

483

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

NEW CASTLE COUNTY, DELAWARE--Continued

	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)
Gb42-05	<3	<10	9	<10	<4	15	<10	<10
	<3	<10	9	<10	<4	20	<10	<10
	--	--	--	--	--	--	--	--
	<3	<10	<3	<10	<4	10	<10	<10
	<3	<10	4	<10	<4	7	<10	<10
Gb42-06	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
Gb42-07	<3	<10	<3	<10	<4	150	<10	<10
	<3	<10	18	<10	<4	170	<10	<10
	--	--	--	--	--	--	--	--
	<3	<10	9	<10	<4	180	<10	<10
	<3	<10	110	<10	<4	3	<10	<10
Gb42-08	<3	<10	110	<10	<4	4	<10	<10
	--	--	--	--	--	--	--	--
	<3	<10	99	<10	<4	3	<10	<10
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
Gb42-09	--	--	--	--	--	--	--	--
	<3	<10	390	<10	<4	13	<10	<10
	<3	<10	670	<10	<4	26	<10	20
	--	--	--	--	--	--	--	--
	<3	10	1000	10	<4	23	<10	20
Gb42-10	<3	10	1300	<10	<4	26	<10	10
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
Gb42-09	<3	<10	170	<10	<4	14	<10	<10
	<3	<10	390	<10	<4	30	<10	<10
	7	<10	940	<10	<4	76	<10	70
	--	--	--	--	--	--	--	--
	4	<10	2700	<10	<4	76	<10	30
Gb42-10	4	<10	3000	<10	<4	76	<10	30
	4	<10	1400	<10	<4	53	<10	10
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 NEW CASTLE COUNTY, DELAWARE--Continued

WELL NUMBER	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	HARD- NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
Gb42-05	<1	<1.0	100	<6	<3	32	0.9	--
	<1	<1.0	110	<6	<3	33	0.5	--
	--	--	--	--	--	--	--	--
	<1	<1.0	100	<6	<3	30	0.7	0.07
	<1	<1.0	100	<6	<3	30	1.6	--
	--	--	--	--	--	--	--	--
Gb42-06	4	<1.0	170	<6	8	56	0.6	--
	7	<1.0	170	<6	<3	60	0.8	--
	--	--	--	--	--	--	--	--
Gb42-07	6	<1.0	200	<6	8	70	0.5	0.09
	<1	<1.0	37	<6	3	14	1.3	--
	<1	<1.0	46	<6	<3	17	0.3	--
	--	--	--	--	--	--	--	--
	<1	<1.0	50	<6	<3	19	0.4	0.03
Gb42-08	--	--	--	--	--	--	--	--
	2	<1.0	400	<6	5	79	0.8	--
	1	<1.0	490	<6	8	110	1.0	--
	--	--	--	--	--	--	--	--
	1	<1.0	480	<6	7	97	1.0	0.07
	<1	<1.0	430	<6	12	87	0.9	--
Gb42-09	--	--	--	--	--	--	--	--
	<1	<1.0	62	<6	9	25	0.3	--
	<1	<1.0	69	<6	8	27	0.3	0.05
Gb42-10	2	<1.0	160	<6	21	93	1.0	--
	--	--	--	--	--	--	--	--
	<1	<1.0	160	<6	13	86	0.8	0.06
	<1	<1.0	150	<6	18	84	1.0	--
	<1	<1.0	160	<6	13	84	1.1	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

485

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

ANNE ARUNDEL COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
AA Ad 1	05-15-91	1215	391010076374601	217PPSC	GW	--	--	--	65.00	--
AA Ad 41	05-15-91	1145	391013076375001	217PPSC	GW	--	--	--	153.00	126
	05-23-91	1200		217PPSC	GW	--	--	--	153.00	126
AA Ad 67	05-15-91	1125	391014076374501	217PPSC	GW	--	--	--	151.00	131
AA Ad 68	05-15-91	1100	391006076380601	217PPSC	GW	--	--	--	160.00	140
AA Ad 102	04-10-91	1315	391032076385904	217PPSC	GW	4040	6.70	95.00	85	
AA Ad 104	04-11-91	1120	391032076385905	217PPSC	GW	4030	5.40	29.00	19	
	06-26-91	1120		217PPSC	GW	4040	6.99	29.00	19	
AA Ad 108	04-11-91	1115	391032076385906	217PPSC	GW	4040	6.70	11.00	6.0	
AA Bc 210	06-06-91	1200	390700076412702	217PPSC	GW	--	--	295.00	275	
AA Bd 36	05-23-91	1245	390843076362502	217PPSC	GW	4040	--	120.00	100	
AA Bd 55	05-07-91	1050	390951076384201	217PPSC	GW	--	--	131.00	111	
AA Bd 56	05-07-91	1030	390950076384001	217PPSC	GW	--	--	153.00	133	
AA Bd 61	06-06-91	1100	390852076365202	217PPSC	GW	--	--	206.00	186	
AA Bd 64	05-07-91	1330	390952076390201	217PPSC	GW	--	--	181.00	161	
AA Bd 66	05-17-91	1400	390949076392002	217PTXN	GW	--	--	517.00	497	
AA Bd 91	05-17-91	1210	390950076391101	217PPSC	GW	4040	55.80	160.00	155	
AA Bd 92	05-17-91	1415	390949076392401	217PPSC	GW	--	--	157.00	132	
	05-22-91	1100		217PPSC	GW	--	--	157.00	132	
AA Bd 97	05-07-91	1240	390921076393202	217PTXN	GW	--	--	534.00	504	
AA Bd 101	05-22-91	1215	390855076373402	217PPSC	GW	--	--	212.00	172	
AA Bd 103	05-23-91	1330	390935076364302	217PPSC	GW	--	--	221.00	176	
AA Bd 105	05-22-91	1345	390810076380702	217PPSC	GW	--	--	237.00	197	
AA Bd 107	05-23-91	1130	390801076372302	217PPSC	GW	--	--	221.00	185	
AA Bd 109	05-15-91	1310	390845076385801	217PPSC	GW	--	--	300.00	260	
AA Bd 122	05-15-91	1350	390802076392802	217PPSC	GW	--	--	349.00	329	
AA Bd 160	04-11-91	1415	390908076394402	217PPSC	GW	4030	14.00	98.00	88	
AA Cg 25	05-14-91	1617	390127076240301	112PLSC	GW	4040	15.64	107.00	100	
AA Df 103	05-14-91	1230	385623076274401	125AQUI	GW	4040	23.43	46.00	39	
AA Df 150	11-19-90	1150	385710076282401	125AQUI	GW	4040	30.00	87.00	80	

Geologic unit (aquifer): 112PLSC - Pleistocene Series
 125AQUI - Aquia Formation
 217PPSC - Patapsco Formation
 217PTXN - Patuxent Formation

Site type: GW - Groundwater

Sampling method: 4030 - Suction pump
 4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

ANNE ARUNDEL COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)
AA Ad 1	65	45.0	85	250	178	5.2	14.5	--	--	--
AA Ad 41	146	45.0	65	250	97	5.0	14.5	--	--	--
	146	45.0	25	250	96	5.2	16.0	--	--	--
AA Ad 67	151	40.0	40	250	120	5.0	14.0	--	--	--
AA Ad 68	160	50.0	25	250	312	5.0	14.0	--	--	--
AA Ad 102	95	80.0	75	10	52	4.8	15.5	24.0	--	2.9
AA Ad 104	29	80.0	45	12	568	6.0	12.5	21.0	--	--
	29	80.0	76	1.0	610	6.2	13.5	24.0	0.1	--
AA Ad 108	11	80.0	40	1.2	104	5.5	10.5	21.0	--	--
AA Bc 210	295	126	1440	300	19	4.9	14.0	22.0	--	--
AA Bd 36	120	30.0	120	300	21	5.5	15.0	25.0	--	--
AA Bd 55	131	70.0	30	350	86	4.5	14.0	22.0	--	--
AA Bd 56	153	70.0	50	350	358	4.9	13.5	21.0	--	--
AA Bd 61	206	40.0	1440	300	53	4.8	14.0	--	--	--
AA Bd 64	181	75.0	1440	350	49	4.2	14.5	22.0	--	--
AA Bd 66	517	89.4	1440	250	30	4.2	17.0	--	--	--
AA Bd 91	160	82.6	76	7.0	64	5.0	14.0	--	--	--
AA Bd 92	157	85.6	1440	250	60	4.6	15.5	--	--	--
	157	85.6	1440	250	66	4.6	14.0	--	--	3.9
AA Bd 97	534	75.0	1440	350	36	--	15.5	22.0	--	--
AA Bd 101	212	55.0	1440	250	149	4.8	17.0	--	--	--
AA Bd 103	221	80.0	1440	300	76	4.8	14.0	--	--	--
AA Bd 105	237	90.0	1440	300	62	4.7	16.0	25.0	--	--
AA Bd 107	221	20.0	1440	250	41	4.5	14.5	25.0	--	--
AA Bd 109	300	190	1440	300	60	4.5	14.0	--	--	--
AA Bd 122	349	110	1440	350	25	4.6	14.5	--	--	--
AA Bd 160	98	90.0	30	30	74	4.7	13.0	21.0	--	--
AA Cg 25	107	10.0	105	0.9	132	6.3	14.0	--	0.1	--
AA Df 103	46	22.0	104	0.8	246	5.4	14.5	26.0	5.6	14
AA Df 150	87	37.0	15	10	1100	6.5	15.0	--	--	--

QUALITY OF GROUND WATER

487

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

ANNE ARUNDEL COUNTY, MARYLAND--Continued

WELL NUMBER	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
AA Ad 1	--	--	--	6	7	--	35	--	--
AA Ad 41	--	--	--	4	5	--	14	--	--
AA Ad 67	--	--	--	4	5	--	16	--	--
AA Ad 68	--	--	--	3	4	--	19	--	--
AA Ad 68	--	--	--	3	4	--	80	--	--
AA Ad 102	1.6	2.5	1.3	3	-- 4	0.30	--	0.10	--
AA Ad 104	--	--	--	68	84	--	130	--	--
AA Ad 108	--	--	--	104	127	--	130	--	--
AA Bc 210	--	--	--	12	15	--	7.0	--	--
AA Bc 210	--	--	--	--	--	--	2.5	--	--
AA Bd 36	--	--	--	6	7	--	3.0	--	--
AA Bd 55	--	--	--	--	--	--	11	--	--
AA Bd 56	--	--	--	3	4	--	86	--	--
AA Bd 61	--	--	--	1	1	--	6.5	--	--
AA Bd 64	--	--	--	--	--	--	6.4	--	--
AA Bd 66	--	--	--	--	--	--	1.8	--	--
AA Bd 91	--	--	--	6	7	--	10	--	--
AA Bd 92	--	--	--	--	--	--	--	--	--
AA Bd 97	1.5	3.2	1.4	--	--	3.8	5.6	<0.10	--
AA Bd 97	--	--	--	--	--	--	--	--	--
AA Bd 101	--	--	--	--	--	--	17	--	0.080
AA Bd 103	--	--	--	2	2	--	12	--	--
AA Bd 105	--	--	--	1	1	--	12	--	--
AA Bd 107	--	--	--	--	--	--	4.0	--	--
AA Bd 109	--	--	--	2	2	--	8.0	--	--
AA Bd 122	--	--	--	--	--	--	3.0	--	--
AA Bd 160	--	--	--	2	2	--	9.0	--	--
AA Cg 25	--	--	--	55	67	--	5.0	--	--
AA Df 103	5.2	18	3.3	17	20	9.2	23	<0.10	--
AA Df 150	--	--	--	--	--	14	300	<0.10	0.090

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

ANNE ARUNDEL COUNTY, MARYLAND--Continued

WELL NUMBER	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
AA Ad 1	--	--	--	--	--	--	--	--	--	--
AA Ad 41	--	--	--	--	--	--	--	--	--	--
AA Ad 67	--	--	--	--	--	--	--	--	--	--
AA Ad 68	--	--	--	--	--	--	--	--	--	--
AA Ad 102	8.6	37	--	--	--	2.60	<0.010	<0.010	--	6000
AA Ad 104	--	--	--	--	0.120	--	--	0.020	--	--
AA Ad 108	--	--	--	--	--	--	--	--	--	--
AA Bc 210	--	--	--	--	--	--	--	--	--	--
AA Bd 36	--	--	--	--	--	--	--	--	--	--
AA Bd 55	--	--	--	--	--	--	--	--	--	--
AA Bd 56	--	--	--	--	--	--	--	--	--	--
AA Bd 61	--	--	--	--	--	--	--	--	--	--
AA Bd 64	--	--	--	--	--	--	--	--	--	--
AA Bd 66	--	--	--	--	--	--	--	--	--	--
AA Bd 91	--	--	--	--	--	--	--	--	--	--
AA Bd 92	--	--	--	--	--	--	--	--	--	--
AA Bd 97	8.3	66	42	--	--	3.00	0.030	0.010	--	10
AA Bd 101	--	--	--	--	--	--	--	--	--	--
AA Bd 103	--	--	--	--	--	--	--	--	--	--
AA Bd 105	--	--	--	--	--	--	--	--	--	--
AA Bd 107	--	--	--	--	--	--	--	--	--	--
AA Bd 109	--	--	--	--	--	--	--	--	--	--
AA Bd 122	--	--	--	--	--	--	--	--	--	--
AA Bd 160	--	--	--	--	--	--	--	--	--	--
AA Cg 25	--	--	--	--	<0.050	--	--	0.310	--	--
AA Df 103	16	193	99	<0.010	1.60	--	<0.010	0.040	0.010	280
AA Df 150	--	--	--	<0.010	0.500	--	0.050	--	<0.010	--

ANNE ARUNDEL COUNTY, MARYLAND--Continued

[illegible]

ANNE ARUNDEL COUNTY, MARYLAND--Continued

[illegible]

491

ANNE ARUNDEL COUNTY, MARYLAND--Continued

[illegible]

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

BALTIMORE COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
BA Dc 444	06-19-91	1407	392931076410301	300CCKV	GW		4040	38.36	300.00	88
BA Dd 299	03-25-91	0930	392511076351001	300CCKV	SP		4010	--	--	--
	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)
BA Dc 444	300	390	190	7.7	261	7.9	12.5	20.0	1.4	34
BA Dd 299	--	345	--	60	566	7.1	12.5	10.5	6.2	84
	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
BA Dc 444	15	1.8	1.5	144	176	1.3	4.0	<0.10	9.0	150
BA Dd 299	21	9.0	1.9	240	293	20	31	<0.10	22	346
	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)
BA Dc 444	153	<0.010	0.290	<0.010	<0.010	<0.010	<10	<1	28	0.7
BA Dd 299	333	0.010	2.90	0.010	0.020	0.040	--	--	--	--
	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOVERABLE (UG/L AS MN)	
BA Dc 444	<1.0	<1	<1	1	3100	8	2	<4	<10	
BA Dd 299	--	--	--	--	<10	4	--	--	<10	
	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	
BA Dc 444	3	<0.1	1	2	<1	<1	<3	0.3	150	
BA Dd 299	<1	--	--	--	--	--	--	1.4	300	

Geologic unit (aquifer): 330CCKV - Cockeysville Marble

Site type: GW - Groundwater
SP - SpringSampling method: 4010 - Thief sampler
4040 - Submersible pump

QUALITY OF GROUND WATER

493

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CALVERT COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)				
CA Fc 13	11-01-90	0935	382343076302901		122CSPK	GW	4040	27.57	35.00				
	01-03-91	0935						28.89	35.00				
	02-06-91	0820						28.51	35.00				
	03-20-91	0905						29.09	35.00				
	05-20-91	1027						29.49	35.00				
	07-10-91	0915						29.84	35.00				
	08-27-91	0845						30.06	35.00				
	09-09-91	1031						30.07	35.00				
	11-01-90	0955			111LLND	GW	4040	27.79	30.00				
CA Fc 14	01-03-91	1055	382340076303001					16.52	36.00				
CA Fc 15	02-06-91	0910						16.07	36.00				
	03-20-91	1015						16.58	36.00				
	05-20-91	1233						16.83	36.00				
	07-10-91	1015						17.21	36.00				
	08-27-91	1050						17.54	36.00				
	01-03-91	1110	122CSPK		GW	4040	16.81	23.00					
CA Fc 16	02-06-91	0925					16.38	23.00					
	03-20-91	0945					16.85	23.00					
	05-20-91	1207					17.13	23.00					
	07-10-91	0955					17.50	23.00					
	08-27-91	1110					17.89	23.00					
CA Fc 17	11-01-90	1215	382343076303801		122CSPK	GW	4040	13.15	32.00				
	01-03-91	1340						13.55	32.00				
	02-06-91	1200						12.96	32.00				
	03-20-91	1235						13.42	32.00				
	07-10-91	1055						14.05	32.00				
	08-27-91	1315						14.47	32.00				
CA Fc 18	11-01-90	1045			122CSPK	GW	4040	7.60	23.00				
	01-03-91	1315						7.96	23.00				
	02-06-91	1110						7.58	23.00				
	03-20-91	1210						7.83	23.00				
	05-20-91	1400						8.23	23.00				
	07-10-91	1120						8.63	23.00				
	08-27-91	1345						9.02	23.00				
CA Fc 19	08-27-91	1441			122CSPK	GW	4040	19.58	33.00				
CA Fc 20	11-01-90	1115	382337076303702					12.51	27.00				
	01-03-91	1220						13.04	27.00				
	02-06-91	1130						12.57	27.00				
	03-20-91	1130						12.98	27.00				
	07-10-91	1145						13.54	27.00				
	08-27-91	1415						13.96	27.00				
CA Fc 21	08-27-91	1155	122CSPK		GW	4040	20.18	33.00					
CA Fc 22	08-27-91	1005					20.31	35.00					
CA Fc 28	11-02-90	1040	382340076303401		111LLND	LYS	4030	--	3.56				
	01-04-91	1120						--	3.56				
	02-07-91	0925						--	3.56				
	03-21-91	0950						--	3.56				
	05-21-91	1235						--	3.56				
	07-11-91	0800						--	3.56				
CA Fc 29	11-02-90	1045	382340076303402		111LLND	LYS	4030	--	8.52				
	01-04-91	1125						--	8.52				
	02-07-91	0930						--	8.52				
	03-21-91	0955						--	8.52				
	05-21-91	1240						--	8.52				
	07-11-91	0810						--	8.52				
CA Fc 30	11-02-90	1120	382340076303403		111LLND	LYS	4030	--	13.70				
	01-04-91	1130						--	13.70				
	02-07-91	0935						--	13.70				
	03-21-91	1000						--	13.70				
	05-21-91	1245						--	13.70				
	07-11-91	0815						--	13.70				
CA Fc 31	01-04-91	1010	382340076303802		111LLND	LYS	4030	--	2.50				
	02-07-91	0915						--	2.50				
	03-21-91	0940						--	2.50				
	05-21-91	1135						--	2.50				
								--	2.50				

Geologic Unit (aquifer): 111LLND - Lowland Deposits
122CSPK - Chesapeake Group

Site type: GW - Groundwater
LYS - Lysimeter

Sampling method: 4030 - Suction pump
4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CALVERT COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
CA Fc 13	30	35	47.4	10	0.9	555	7.2	19.0	14.5
	30	35	47.4	10	1.0	581	7.2	17.0	8.0
	30	35	47.4	10	0.9	562	7.1	15.5	11.0
	30	35	47.4	8	0.8	535	7.2	15.5	11.0
	30	35	47.4	7	0.8	--	7.4	15.5	17.0
	30	35	47.4	6	0.7	600	--	16.0	24.5
	30	35	47.4	5	1.0	592	7.0	17.0	26.5
	30	35	47.4	60	0.6	561	7.3	16.0	26.5
CA Fc 14	25	30	47.6	2	0.9	578	7.1	19.5	17.5
CA Fc 15	31	36	30.6	20	1.0	531	7.3	15.0	9.0
	31	36	30.6	20	1.0	539	7.4	14.5	11.5
	31	36	30.6	25	0.9	540	7.4	14.5	13.0
	31	36	30.6	20	1.0	--	7.6	14.5	22.0
	31	36	30.6	15	1.3	555	--	14.5	25.0
	31	36	30.6	25	0.6	550	7.3	17.0	30.5
	18	23	30.7	10	1.0	526	7.4	15.0	8.5
	18	23	30.7	10	1.0	525	7.4	14.5	12.0
CA Fc 16	18	23	30.7	15	0.8	529	7.4	14.5	12.5
	18	23	30.7	7	1.2	--	7.6	14.0	20.5
	18	23	30.7	5	1.3	532	--	14.5	25.0
	18	23	30.7	10	0.7	531	7.3	17.0	32.5
	27	32	22.6	20	1.0	568	7.2	16.5	20.5
	27	32	22.6	20	1.0	575	7.2	15.0	8.0
	27	32	22.6	20	1.0	566	7.3	15.0	13.0
	27	32	22.6	20	0.8	567	7.3	14.5	18.0
CA Fc 17	27	32	22.6	15	1.3	567	6.1	14.5	25.5
	27	32	22.6	20	0.7	556	7.3	18.0	33.0
	18	23	15.6	15	1.0	579	7.1	17.5	16.0
	18	23	15.6	25	1.0	568	7.1	14.5	8.0
	18	23	15.6	20	1.0	572	7.2	13.5	11.0
	18	23	15.6	20	0.9	567	7.1	13.0	14.5
	18	23	15.6	15	1.0	--	7.4	14.0	24.0
	18	23	15.6	15	1.3	565	--	15.5	29.5
CA Fc 18	18	23	15.6	20	0.9	557	7.1	18.5	31.5
	28	33	25.5	15	0.5	558	7.3	17.5	32.0
	22	27	20.6	15	1.0	592	7.1	16.0	16.5
	22	27	20.6	15	1.0	601	7.1	15.0	10.0
	22	27	20.6	15	1.0	599	7.2	14.5	13.5
	22	27	20.6	15	0.9	596	7.2	13.5	14.0
	22	27	20.6	15	1.3	596	--	14.5	30.5
	22	27	20.6	15	0.6	583	7.1	17.5	34.0
CA Fc 21	28	33	35.5	20	0.7	501	7.3	17.5	32.5
CA Fc 22	30	35	36.5	10	1.0	594	7.1	16.5	30.0
CA Fc 28	3.6	3.6	31.4	--	--	243	--	--	--
	3.6	3.6	31.4	--	--	207	--	--	--
	3.6	3.6	31.4	--	--	197	--	--	--
	3.6	3.6	31.4	--	--	188	--	--	--
	3.6	3.6	31.4	--	--	201	--	--	--
	3.6	3.6	31.4	--	--	277	--	--	--
	8.5	8.5	31.4	--	--	429	--	--	--
	8.5	8.5	31.4	--	--	390	--	--	--
CA Fc 29	8.5	8.5	31.4	--	--	383	--	--	--
	8.5	8.5	31.4	--	--	385	--	--	--
	8.5	8.5	31.4	--	--	415	--	--	--
	8.5	8.5	31.4	--	--	378	--	--	--
	14	14	31.4	--	--	625	--	--	--
	14	14	31.4	--	--	484	--	--	--
	14	14	31.4	--	--	446	--	--	--
	14	14	31.4	--	--	454	--	--	--
CA Fc 30	14	14	31.4	--	--	522	--	--	--
	14	14	31.4	--	--	579	--	--	--
	2.5	2.5	15.5	--	--	949	--	--	--
	2.5	2.5	15.5	--	--	610	--	--	--
	2.5	2.5	15.5	--	--	592	--	--	--
	2.5	2.5	15.5	--	--	638	--	--	--
	2.5	2.5	15.5	--	--	638	--	--	--
	2.5	2.5	15.5	--	--	638	--	--	--
CA Fc 31	2.5	2.5	15.5	--	--	638	--	--	--
	2.5	2.5	15.5	--	--	638	--	--	--
	2.5	2.5	15.5	--	--	638	--	--	--
	2.5	2.5	15.5	--	--	638	--	--	--

QUALITY OF GROUND WATER

495

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CALVERT COUNTY, MARYLAND--Continued

WELL NUMBER	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
CA Fc 13	7.0	--	--	--	--	--	--	--
	6.7	--	--	--	--	--	--	--
	6.2	--	--	--	--	--	--	--
	6.6	--	--	--	--	--	--	--
	6.8	--	--	--	--	--	--	--
	6.2	--	--	--	--	--	--	--
	5.9	--	--	--	--	--	--	--
	6.5	110	4.9	10	2.8	254	18	12
CA Fc 14	8.7	--	--	--	--	--	--	--
CA Fc 15	6.8	--	--	--	--	--	--	--
	7.3	--	--	--	--	--	--	--
	6.7	--	--	--	--	--	--	--
	6.8	--	--	--	--	--	--	--
	6.5	--	--	--	--	--	--	--
CA Fc 16	7.0	--	--	--	--	--	--	--
	8.0	--	--	--	--	--	--	--
	8.2	--	--	--	--	--	--	--
	8.5	--	--	--	--	--	--	--
	7.6	--	--	--	--	--	--	--
	8.4	--	--	--	--	--	--	--
	6.7	--	--	--	--	--	--	--
CA Fc 17	7.3	--	--	--	--	--	--	--
	6.2	--	--	--	--	--	--	--
	7.2	--	--	--	--	--	--	--
	6.3	--	--	--	--	--	--	--
	7.2	--	--	--	--	--	--	--
	6.5	--	--	--	--	--	--	--
CA Fc 18	7.0	--	--	--	--	--	--	--
	7.2	--	--	--	--	--	--	--
	7.6	--	--	--	--	--	--	--
	8.0	--	--	--	--	--	--	--
	7.7	--	--	--	--	--	--	--
	6.9	--	--	--	--	--	--	--
	5.6	--	--	--	--	--	--	--
CA Fc 19	3.4	--	--	--	--	--	--	--
CA Fc 20	8.7	--	--	--	--	--	--	--
	6.8	--	--	--	--	--	--	--
	7.0	--	--	--	--	--	--	--
	7.4	--	--	--	--	--	--	--
	7.8	--	--	--	--	--	--	--
	6.7	--	--	--	--	--	--	--
CA Fc 21	4.0	--	--	--	--	--	--	--
CA Fc 22	6.8	--	--	--	--	--	--	--
CA Fc 28	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
CA Fc 29	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
CA Fc 30	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
CA Fc 31	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CALVERT COUNTY, MARYLAND--Continued

WELL NUMBER	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
CA Fc 13	--	--	--	--	--	--	<0.010	--	8.40
	--	--	--	--	--	--	<0.010	--	8.00
	--	--	--	--	--	--	<0.010	--	8.20
	--	--	--	--	--	--	<0.010	--	7.90
	--	--	--	--	--	--	<0.010	--	8.40
	--	--	--	--	7.79	--	0.010	--	7.80
	--	--	--	--	--	--	<0.010	--	7.70
	0.20	20	360	334	--	<0.010	--	8.40	--
CA Fc 14	--	--	--	--	--	--	<0.010	--	9.00
CA Fc 15	--	--	--	--	--	--	<0.010	--	9.60
	--	--	--	--	--	--	<0.010	--	9.40
	--	--	--	--	--	--	<0.010	--	9.50
	--	--	--	--	--	--	<0.010	--	9.90
	--	--	--	--	--	--	<0.010	--	9.60
CA Fc 16	--	--	--	--	--	--	<0.010	--	9.60
	--	--	--	--	--	--	<0.010	--	9.80
	--	--	--	--	--	--	<0.010	--	9.40
	--	--	--	--	--	--	<0.010	--	8.80
	--	--	--	--	--	--	<0.010	--	10.0
	--	--	--	--	--	--	<0.010	--	9.60
CA Fc 17	--	--	--	--	--	--	<0.010	--	9.40
	--	--	--	--	--	--	<0.010	--	8.80
	--	--	--	--	--	--	<0.010	--	8.80
	--	--	--	--	--	--	<0.010	--	9.00
	--	--	--	--	--	--	<0.010	--	9.20
	--	--	--	--	9.09	--	0.010	--	9.10
	--	--	--	--	--	--	<0.010	--	9.10
CA Fc 18	--	--	--	--	--	--	<0.010	--	8.90
	--	--	--	--	--	--	<0.010	--	8.80
	--	--	--	--	--	--	<0.010	--	11.0
	--	--	--	--	--	--	<0.010	--	11.0
	--	--	--	--	11.0	--	0.010	--	11.0
	--	--	--	--	8.49	--	0.010	--	8.50
	--	--	--	--	--	--	<0.010	--	7.40
CA Fc 19	--	--	--	--	--	--	<0.010	--	6.40
CA Fc 20	--	--	--	--	--	--	<0.010	--	9.20
	--	--	--	--	--	--	<0.010	--	8.40
	--	--	--	--	--	--	<0.010	--	8.60
	--	--	--	--	--	--	<0.010	--	8.60
	--	--	--	--	9.89	--	0.010	--	9.90
	--	--	--	--	--	--	<0.010	--	9.90
CA Fc 21	--	--	--	--	--	--	<0.010	--	8.10
CA Fc 22	--	--	--	--	--	--	<0.010	--	9.00
CA Fc 28	--	--	--	--	--	--	<0.010	--	0.100
	--	--	--	--	--	--	<0.010	--	0.300
	--	--	--	--	--	--	<0.010	--	1.90
	--	--	--	--	--	--	<0.010	--	2.90
	--	--	--	--	--	--	<0.010	--	0.460
	--	--	--	--	--	--	--	--	--
CA Fc 29	--	--	--	--	--	--	<0.010	--	0.200
	--	--	--	--	--	--	<0.010	--	0.400
	--	--	--	--	--	--	<0.010	--	0.600
	--	--	--	--	--	--	<0.010	--	0.340
	--	--	--	--	--	--	<0.010	--	0.056
	--	--	--	--	--	--	--	--	--
CA Fc 30	--	--	--	--	--	--	<0.010	--	5.10
	--	--	--	--	--	--	<0.010	--	2.60
	--	--	--	--	--	--	<0.010	--	0.900
	--	--	--	--	--	--	<0.010	--	0.078
	--	--	--	--	--	--	<0.010	--	<0.050
	--	--	--	--	--	--	<0.010	--	0.100
CA Fc 31	--	--	--	--	--	--	<0.010	--	0.400
	--	--	--	--	--	--	<0.010	--	2.30
	--	--	--	--	--	--	<0.010	--	1.80
	--	--	--	--	0.043	--	0.010	--	0.053

QUALITY OF GROUND WATER

497

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CALVERT COUNTY, MARYLAND--Continued

WELL NUMBER	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
CA Fc 13	--	<0.010	0.80	--	--	0.130	--	--	--
	--	0.050	0.30	--	--	0.130	--	--	--
	--	<0.010	0.40	--	--	0.140	--	--	--
	--	<0.010	0.60	--	--	0.140	--	--	--
	--	0.020	0.80	--	--	0.120	--	--	--
	--	0.020	0.70	--	--	0.130	--	--	--
	--	0.030	0.80	--	--	0.110	--	--	--
	0.010	--	--	0.150	0.050	0.130	50	5	<10
CA Fc 14	--	<0.010	0.80	--	--	0.130	--	--	--
CA Fc 15	--	0.030	0.80	--	--	0.190	--	--	--
	--	<0.010	0.80	--	--	0.200	--	--	--
	--	<0.010	0.30	--	--	0.200	--	--	--
	--	0.010	0.70	--	--	0.180	--	--	--
	--	0.020	0.60	--	--	0.180	--	--	--
	--	0.010	0.80	--	--	0.150	--	--	--
CA Fc 16	--	0.070	0.60	--	--	0.160	--	--	--
	--	<0.010	0.90	--	--	0.170	--	--	--
	--	<0.010	0.40	--	--	0.160	--	--	--
	--	0.020	0.80	--	--	0.140	--	--	--
	--	0.020	0.50	--	--	0.160	--	--	--
	--	0.010	0.60	--	--	0.130	--	--	--
CA Fc 17	--	<0.010	0.60	--	--	0.150	--	--	--
	--	0.070	0.40	--	--	0.140	--	--	--
	--	<0.010	1.2	--	--	0.150	--	--	--
	--	<0.010	0.60	--	--	0.150	--	--	--
	--	0.010	0.40	--	--	0.140	--	--	--
	--	0.010	0.50	--	--	0.110	--	--	--
CA Fc 18	--	<0.010	0.70	--	--	0.130	--	--	--
	--	0.070	0.60	--	--	0.110	--	--	--
	--	<0.010	0.60	--	--	0.110	--	--	--
	--	<0.010	0.50	--	--	0.110	--	--	--
	--	0.020	0.60	--	--	0.100	--	--	--
	--	0.020	0.90	--	--	0.130	--	--	--
	--	0.020	0.80	--	--	0.120	--	--	--
CA Fc 19	--	0.010	0.70	--	--	0.080	--	--	--
CA Fc 20	--	<0.010	0.70	--	--	0.170	--	--	--
	--	0.030	0.30	--	--	0.160	--	--	--
	--	<0.010	1.6	--	--	0.160	--	--	--
	--	<0.010	0.40	--	--	0.170	--	--	--
	--	0.030	0.60	--	--	0.160	--	--	--
	--	0.020	0.60	--	--	0.130	--	--	--
CA Fc 21	--	0.010	0.50	--	--	0.080	--	--	--
CA Fc 22	--	0.020	0.60	--	--	0.140	--	--	--
CA Fc 28	--	0.060	0.50	--	--	0.010	--	--	--
	--	0.170	0.30	--	--	0.020	--	--	--
	--	0.040	0.60	--	--	<0.010	--	--	--
	--	0.020	0.30	--	--	<0.010	--	--	--
	--	0.080	0.40	--	--	<0.010	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 29	--	<0.010	0.30	--	--	<0.010	--	--	--
	--	0.100	0.30	--	--	<0.010	--	--	--
	--	0.010	0.40	--	--	<0.010	--	--	--
	--	<0.010	0.30	--	--	<0.010	--	--	--
	--	0.020	0.60	--	--	<0.010	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 30	--	<0.010	0.90	--	--	0.240	--	--	--
	--	0.070	0.50	--	--	0.230	--	--	--
	--	<0.010	0.20	--	--	0.240	--	--	--
	--	<0.010	0.20	--	--	0.230	--	--	--
	--	0.020	0.30	--	--	0.220	--	--	--
	--	0.020	0.40	--	--	0.230	--	--	--
CA Fc 31	--	0.090	0.60	--	--	0.050	--	--	--
	--	0.010	0.30	--	--	0.030	--	--	--
	--	0.010	0.50	--	--	0.030	--	--	--
	--	0.040	0.60	--	--	<0.010	--	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CALVERT COUNTY, MARYLAND--Continued

WELL NUMBER	DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)
CA Fc 13	09-09-91	<1	0.5	290	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
CA Fc 15	08-27-91	--	--	--	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
CA Fc 16	08-27-91	--	--	--	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
CA Fc 17	08-27-91	--	--	--	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
CA Fc 18	08-27-91	--	--	--	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
CA Fc 19	08-27-91	--	--	--	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
CA Fc 20	08-27-91	--	--	--	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
CA Fc 21	08-27-91	--	--	--	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
CA Fc 22	08-27-91	--	--	--	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010
		DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- SYSTON TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)
CA Fc 13	09-09-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
CA Fc 15	08-27-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
CA Fc 16	08-27-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
CA Fc 17	08-27-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
CA Fc 18	08-27-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
CA Fc 19	08-27-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
CA Fc 20	08-27-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
CA Fc 21	08-27-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
CA Fc 22	08-27-91	<0.010	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010
		LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHO- MYL TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	PHORATE TOTAL (UG/L)
CA Fc 13	09-09-91	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
CA Fc 15	08-27-91	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
CA Fc 16	08-27-91	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
CA Fc 17	08-27-91	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
CA Fc 18	08-27-91	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
CA Fc 19	08-27-91	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
CA Fc 20	08-27-91	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
CA Fc 21	08-27-91	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
CA Fc 22	08-27-91	<0.010	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01
		DEF TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
CA Fc 13	09-09-91	<0.01	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01
CA Fc 15	08-27-91	<0.01	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01
CA Fc 16	08-27-91	<0.01	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01
CA Fc 17	08-27-91	<0.01	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01
CA Fc 18	08-27-91	<0.01	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01
CA Fc 19	08-27-91	<0.01	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01
CA Fc 20	08-27-91	<0.01	<0.5	<1	<0.01	--	--	--	<0.50	--
CA Fc 21	08-27-91	<0.01	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01
CA Fc 22	08-27-91	<0.01	--	<1	<0.01	<0.01	<0.01	<0.01	--	<0.01

QUALITY OF GROUND WATER

499

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CALVERT COUNTY, MARYLAND--Continued

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
CA Fc 32	11-02-90	0945	382340076303803		111LLND	LYS	4030	--	5.00
	01-04-91	1015			111LLND	LYS	4030	--	5.00
	02-07-91	0920			111LLND	LYS	4030	--	5.00
	03-21-91	0945			111LLND	LYS	4030	--	5.00
CA Fc 33	05-21-91	1140	382339076304201		111LLND	LYS	4030	--	5.00
	07-11-91	0900			111LLND	LYS	4030	--	5.00
	11-01-90	1335			111LLND	GW	4030	7.67	13.70
	01-04-91	0850			111LLND	GW	4030	8.01	13.70
	02-06-91	1245			111LLND	GW	4030	7.87	13.70
	03-20-91	1400			111LLND	GW	4030	7.55	13.70
	05-21-91	0940			111LLND	GW	4030	8.12	13.70
	07-10-91	1300			111LLND	GW	4030	8.56	13.70
	08-28-91	1000			111LLND	GW	4030	8.65	13.70
	11-01-90	1325			111LLND	GW	4030	7.52	17.80
CA Fc 34	01-04-91	0900	382339076304202		111LLND	GW	4030	8.06	17.80
	02-06-91	1300			111LLND	GW	4030	7.80	17.80
	03-20-91	1410			111LLND	GW	4030	7.75	17.80
	05-21-91	0950			111LLND	GW	4030	8.00	17.80
	07-10-91	1305			111LLND	GW	4030	8.47	17.80
	08-28-91	0930			111LLND	GW	4030	8.59	17.80
	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
CA Fc 32	5.0	5.0	15.5	356	--	--	--	--	--
	5.0	5.0	15.5	271	--	--	--	--	--
	5.0	5.0	15.5	347	--	--	--	--	--
	5.0	5.0	15.5	350	--	--	--	--	--
CA Fc 33	5.0	5.0	15.5	397	--	--	--	--	--
	5.0	5.0	15.5	404	--	--	--	--	--
	12	14	12.2	737	7.2	17.0	1.0	--	--
	12	14	12.2	734	7.1	14.0	2.0	--	--
	12	14	12.2	713	7.2	12.5	1.9	--	--
	12	14	12.2	731	7.2	11.5	3.3	--	--
	12	14	12.2	695	7.4	12.0	3.6	--	--
	12	14	12.2	668	--	14.5	3.5	--	--
	12	14	12.2	675	7.2	17.0	3.5	130	3.1
	16	18	12.0	692	7.5	17.0	1.1	--	--
CA Fc 34	16	18	12.0	712	7.3	15.0	1.3	--	--
	16	18	12.0	715	7.4	13.5	1.8	--	--
	16	18	12.0	712	7.3	12.0	2.4	--	--
	16	18	12.0	685	7.5	12.0	3.1	--	--
	16	18	12.0	686	--	14.0	6.0	--	--
	16	18	12.0	680	7.2	16.0	6.0	130	3.4

Geologic Unit (aquifer): 111LLND - Lowland Deposits

Site type: GW - Groundwater
LYS - LysimeterSampling method: 4020 - Bailer
4030 - Suction pump

WELL NUMBER	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
CA Fc 32	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 33	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 34	5.0	0.40	261	22	16	0.20	0.050	11	368
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	6.3	0.50	292	24	15	0.20	0.050	21	413
	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)
CA Fc 32	--	<0.010	0.900	<0.010	0.30	--	0.050	--	--
	--	<0.010	0.700	0.060	0.30	--	0.050	--	--
	--	<0.010	2.70	<0.010	0.20	--	0.050	--	--
	--	<0.010	2.30	<0.010	0.20	--	0.050	--	--
CA Fc 33	--	<0.010	0.100	0.020	0.40	--	0.040	--	--
	--	<0.010	<0.050	0.020	0.30	--	0.050	--	--
	2.06	0.140	2.20	<0.010	0.50	--	0.110	--	--
	2.58	0.120	2.70	0.070	0.30	--	0.090	--	--
	3.86	0.140	4.00	<0.010	0.30	--	0.100	--	--
	5.41	0.090	5.50	<0.010	0.20	--	0.100	--	--
	8.02	0.180	8.20	0.020	0.90	--	0.070	--	--
	7.51	0.190	7.70	0.020	0.40	--	0.090	--	--
CA Fc 34	5.07	0.230	5.30	0.020	0.80	0.110	0.090	10	<3
	--	<0.010	5.40	0.030	0.70	--	0.110	--	--
	--	<0.010	6.40	0.030	0.20	--	0.100	--	--
	6.49	0.010	6.50	<0.010	0.50	--	0.110	--	--
	--	<0.010	8.40	<0.010	0.60	--	0.110	--	--
	--	<0.010	9.50	0.020	1.3	--	0.090	--	--
	8.39	0.010	8.40	0.020	0.40	--	0.100	--	--
	--	<0.010	8.50	0.010	0.80	0.120	0.100	<10	<3

QUALITY OF GROUND WATER

501

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CALVERT COUNTY, MARYLAND--Continued

WELL NUMBER	DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	HARD- NESS TOTAL (MG/L AS CACO3)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	PCB, TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)
CA Fc 33	08-28-91	<1	340	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010	<0.010
CA Fc 34	08-28-91	<1	340	<0.10	<0.1	<0.010	<0.1	<0.010	<0.010	<0.010
		DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	DI- SYSTON TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)
CA Fc 33	08-28-91	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010
CA Fc 34	08-28-91	<0.01	<0.010	<0.01	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010
		MALA- THION, TOTAL (UG/L)	METHO- MYL TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	MIREX, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PER- THANE TOTAL (UG/L)	PHORATE TOTAL (UG/L)	DEF TOTAL (UG/L)
CA Fc 33	08-28-91	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01
CA Fc 34	08-28-91	<0.01	<0.5	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.01
		PROPHAM TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	
CA Fc 33	08-28-91	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01	
CA Fc 34	08-28-91	<0.5	<1	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01	

Sampling method: 4020 - Bailer
4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CARROLL COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
CL Bf 184	05-22-91	1145	393754076512401	300PRTB	GW		4030	0.30	340.00
	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
	50	340	785	67	48	194	6.4	12.0	29.0
	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
	6.0	25	4.9	4.1	0.60	36	43	4.0	11
	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
	<0.10	9.9	137	81	<0.010	10.0	<0.010	0.020	0.010
	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
	<10	<1	7	<0.5	<1.0	<1	<1	<1	710
	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
	34	<1	<4	<10	5	<0.1	<1	2	<1
	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	
	<1	3	0.3	83	<0.01	<0.01	<0.01	<0.01	

Geologic unit (aquifer): 300PRTB - Prettyboy Schist

Site type: GW - Groundwater

Sampling method: 4030 - Suction pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CECIL COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)
CE Cc 40	05-20-91	1038	393459076045001	300LFFP	SP		4010	--	--	180
CE Dd 102	09-13-91	1145	392544075574803	217PTMC	GW		4040	112.00	107.00	65.0
	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
CE Cc 40	--	4.6	322	5.4	11.5	17.5	--	18	10	25
CE Dd 102	120	--	62	5.1	14.5	24.0	4.8	2.4	1.3	5.0
	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD (MG/L AS CACO3)	BICAR- BONATE WATER WH IT FIELD (MG/L AS HCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)
CE Cc 40	1.0	10	12	0.70	80	0.20	21	220	162	<0.010
CE Dd 102	1.6	4	5	2.5	7.2	<0.10	11	30	34	<0.010
	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	
CE Cc 40	1.00	0.010	<0.010	<0.010	--	10	<1	65	0.7	
CE Dd 102	2.00	<0.010	<0.010	<0.010	10	20	<1	28	<0.5	
	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	
CE Cc 40	--	<1	<1	2	3	<10	34	1	2	
CE Dd 102	<10	<1	2	2	2	300	330	--	<1	
	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	
CE Cc 40	<4	<10	6	<0.1	<1	8	<1	<1	--	
CE Dd 102	<4	20	14	<0.1	<1	<1	<1	<1	90	

Geologic unit (aquifer): 217PTMC - Potomac Group
 300LFFP - Little Northeast Creek, Frenchtown, Principio Furnace Members,
 James Run Formation

Sample type: GW - Groundwater
 SP - Spring

Sampling method: 4010 - Thief sampler

QUALITY OF GROUND WATER

505

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CECIL COUNTY, MARYLAND

WELL NUMBER	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	PCN DISSOLV (UG/L)	PCB, DIS- SOLVED (UG/L)	ALDRIN, DIS- SOLVED (UG/L)	CHLOR- DANE, DIS- SOLVED (UG/L)	DDD, DIS- SOLVED (UG/L)	DDE, DIS- SOLVED (UG/L)
CE Cc 40	16	<0.1	86	--	--	--	--	--	--
CE Dd 102	81	--	11	<0.1	<0.1	<0.010	<0.1	<0.010	<0.010
	DDT, DIS- SOLVED (UG/L)	DI- AZINON, DIS- SOLVED (UG/L)	DI- ELDRIN, DIS- SOLVED (UG/L)	ENDO- SULFAN DISSOLV (UG/L)	ENDRIN, DIS- SOLVED (UG/L)	ETHION DISSOLV (UG/L)	HEPTA- CHLOR, DIS- SOLVED (UG/L)	HEPTA- CHLOR EPOXIDE DIS- SOLVED (UG/L)	LINDANE DIS- SOLVED (UG/L)
CE Cc 40	--	--	--	--	--	--	--	--	--
CE Dd 102	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
	MALA- THION, DIS- SOLVED (UG/L)	METH- OXY- CHLOR DISSOLV (UG/L)	METHYL PARA- THION, DIS- SOLVED (UG/L)	METHYL- TRI- THION DISSOLV (UG/L)	MIREX, DIS- SOLVED (UG/L)	PARA- THION, DIS- SOLVED (UG/L)	PER- THANE DISSOLV (UG/L)	TOX- APHENE, DIS- SOLVED (UG/L)	TRI- THION DISSOLV (UG/L)
CE Cc 40	--	--	--	--	--	--	--	--	--
CE Dd 102	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.10	<1.00	<0.010

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHARLES COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
CH Bb 6	08-27-91	1130	383505077101006	210CRCS	GW	4040	4040	--	398.00
CH Bb 7	08-27-91	1140	383505077101007	217PPSC	GW	4040	4040	--	399.00
CH Bb 9	08-27-91	1530	383505077101009	217PPSC	GW	4040	4040	--	390.00
CH Bb 17	09-11-91	1230	383524077111802	217PPSC	GW	4040	4040	115.40	294.00
CH Bb 19	08-28-91	1345	383533077104002	217PPSC	GW	4040	4040	--	380.00
CH Bc 3	08-27-91	1100	383507077094903	210CRCS	GW	4040	4040	--	390.00
CH Bc 6	08-29-91	1345	383631077083501	217PTXN	GW	4040	4040	--	417.00
CH Bc 23	08-28-91	0835	383545077095501	217PPSC	GW	4040	4040	--	311.00
CH Bc 49	08-28-91	1130	383540077090701	217PTXN	GW	4040	4040	--	404.00
CH Bc 67	08-28-91	0800	383606077092101	217PTXN	GW	4040	4040	--	522.00
CH Bc 68	08-29-91	0945	383610077081001	217PTXN	GW	4040	4040	--	514.00
CH Bc 70	08-28-91	0900	383554077085702	217PPSC	GW	4040	4040	--	442.00
CH Bc 72	08-28-91	0930	383548077091101	217PPSC	GW	4040	4040	--	360.00
CH Cb 7	06-25-91	1520	383422077114601	217PPSC	GW	4040	4040	87.00	167.00
CH Cb 9	08-28-91	1400	383354077121501	217PPSC	GW	4040	4040	--	280.00
CH Cb 11	08-29-91	1115	383313077125401	217PTXN	GW	4040	4040	--	454.00
CH Cb 18	08-27-91	1445	383412077112802	217PPSC	GW	4040	4040	--	295.00
CH Cb 19	08-27-91	1420	383448077105202	217PPSC	GW	4040	4040	--	302.00
CH Cb 28	08-29-91	1105	383315077131401	217PPSC	GW	4040	4040	--	290.00
CH Cb 29	08-27-91	1430	383451077102601	217PPSC	GW	4040	4040	--	286.00
CH Cb 34	08-29-91	1400	383427077121001	217PPSC	GW	4040	4040	--	232.00
CH Cb 35	08-28-91	1200	383407077120501	217PTXN	GW	4040	4040	--	486.00
CH Cb 38	08-28-91	1530	383328077114201	217PPSC	GW	4040	4040	--	235.00
CH Cb 39	08-29-91	1200	383332077111501	217PPSC	GW	4040	4040	--	383.00
CH Cb 40	08-28-91	1550	383308077110301	217PPSC	GW	4040	4040	--	301.00
CH Ee 16	05-09-91	1325	382103076560201	112TLBT	GW	4040	4040	18.92	23.00
CH Ee 90	05-08-91	1350	382456076562201	124NNJM	GW	4040	4040	5.29	21.00

	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
CH Bb 6	251	397	38.3	1000	150	286	8.0	17.0	23.0
CH Bb 7	255	399	38.9	1000	150	305	7.7	17.0	23.0
CH Bb 9	185	376	32.1	180	150	270	8.0	17.5	28.0
CH Bb 17	240	294	52.0	150	4.0	650	7.1	18.0	28.0
CH Bb 19	270	380	90.0	190	150	461	7.5	17.0	28.0
CH Bc 3	--	--	18.7	1000	150	281	7.9	17.5	22.0
CH Bc 6	362	412	65.0	45	150	224	7.7	17.0	29.0
CH Bc 23	229	311	65.0	180	150	574	7.4	16.0	24.0
CH Bc 49	340	404	33.0	120	150	225	7.6	16.5	27.0
CH Bc 67	488	522	30.0	180	200	664	7.9	18.5	23.0
CH Bc 68	414	514	75.0	20	150	217	7.6	17.0	26.0
CH Bc 70	372	442	35.0	180	200	230	7.9	17.0	25.0
CH Bc 72	224	347	34.0	180	200	283	7.7	16.0	25.0
CH Cb 7	154	167	36.0	280	9.2	293	7.7	15.5	26.5
CH Cb 9	191	280	24.0	1000	150	346	7.8	17.5	28.0
CH Cb 11	--	--	5.0	30	100	560	7.6	18.0	28.0
CH Cb 18	261	295	30.5	1000	150	500	8.1	18.0	27.0
CH Cb 19	208	302	32.0	1000	150	378	7.7	17.0	27.0
CH Cb 28	190	290	5.0	20	150	256	7.3	16.0	28.0
CH Cb 29	228	286	12.4	1000	150	305	8.2	17.0	27.0
CH Cb 34	217	232	30.0	90	150	1140	7.1	17.0	30.0
CH Cb 35	433	486	25.0	80	300	540	7.6	17.5	28.0
CH Cb 38	220	235	4.0	30	10	274	7.4	17.0	29.0
CH Cb 39	300	383	10.0	15	15	256	8.1	17.0	28.0
CH Cb 40	287	301	80.0	20	15	348	7.6	16.0	28.0
CH Ee 16	21	23	40.0	25	0.6	194	6.6	14.5	19.5
CH Ee 90	16	21	6.8	80	0.3	232	5.6	13.5	27.0

Geologic unit (aquifer): 112TLBT - Talbot Formation
 124NNJM - Nanjemoy Formation
 210CRCS - Cretaceous System
 217PPSC - Patapsco Formation
 217PTXN - Patuxent Formation

Sampling method: 4020 - Bailer
 4040 - Submersible pump

Site type: GW - Groundwater

QUALITY OF GROUND WATER

507

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHARLES COUNTY, MARYLAND--Continued

WELL NUMBER	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
CH Bb 6	--	0.27	0.28	70	--	--	--	7.9	10
CH Bb 7	--	0.28	0.16	74	--	--	--	9.4	12
CH Bb 9	--	0.35	0.28	66	--	--	--	10	5.0
CH Bb 17	--	4.0	1.8	150	--	--	--	<0.10	96
CH Bb 19	--	0.84	0.83	120	--	--	--	1.5	24
CH Bc 3	--	0.21	0.16	69	--	--	--	7.3	7.6
CH Bc 6	--	0.05	0.11	60	--	--	--	13	--
CH Bc 23	--	3.3	2.6	150	--	--	--	0.30	32
CH Bc 49	--	0.17	0.15	60	--	--	--	11	0.70
CH Bc 67	--	0.34	0.20	150	--	--	--	6.4	120
CH Bc 68	--	0.11	0.10	58	--	--	--	12	--
CH Bc 70	--	0.34	0.13	58	--	--	--	11	0.50
CH Bc 72	--	0.25	0.27	76	--	--	--	10	9.2
CH Cb 7	0.1	2.7	1.5	65	2.6	135	165	7.8	11
CH Cb 9	--	0.80	0.69	81	--	--	--	8.1	19
CH Cb 11	--	1.2	0.63	140	--	--	--	7.2	--
CH Cb 18	--	0.53	0.48	120	--	--	--	5.8	49
CH Cb 19	--	0.66	0.33	91	--	--	--	6.5	24
CH Cb 28	--	1.5	1.0	64	--	--	--	10	--
CH Cb 29	--	0.27	0.25	70	--	--	--	9.4	10
CH Cb 34	--	7.8	7.6	270	--	--	--	<0.10	--
CH Cb 35	--	0.36	0.43	140	--	--	--	7.5	44
CH Cb 38	--	1.1	1.0	67	--	--	--	11	--
CH Cb 39	--	0.13	0.19	65	--	--	--	12	--
CH Cb 40	--	0.86	0.76	91	--	--	--	10	--
CH Ee 16	6.7	28	4.1	4.4	2.8	57	70	18	12
CH Ee 90	3.9	21	4.9	12	5.2	21	26	42	13

	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)
CH Bb 6	--	0.050	33	209	--	--	--	--	--
CH Bb 7	--	0.060	35	193	--	--	--	--	--
CH Bb 9	--	0.020	36	206	--	--	--	--	--
CH Bb 17	--	0.48	45	422	--	--	--	--	--
CH Bb 19	--	0.20	34	319	--	--	--	--	--
CH Bc 3	--	0.050	35	189	--	--	--	--	--
CH Bc 6	1.0	0.020	39	189	--	--	--	--	--
CH Bc 23	--	0.22	34	404	--	--	--	--	--
CH Bc 49	--	<0.010	35	177	--	--	--	--	--
CH Bc 67	--	0.41	35	414	--	--	--	--	--
CH Bc 68	0.80	0.010	36	175	--	--	--	--	--
CH Bc 70	--	0.010	34	180	--	--	--	--	--
CH Bc 72	--	0.050	36	220	--	--	--	--	--
CH Cb 7	0.90	--	33	202	206	<0.010	<0.050	0.680	1.60
CH Cb 9	--	0.080	32	250	--	--	--	--	--
CH Cb 11	1.3	0.17	34	377	--	--	--	--	--
CH Cb 18	--	0.22	33	328	--	--	--	--	--
CH Cb 19	--	0.11	35	261	--	--	--	--	--
CH Cb 28	1.2	0.030	32	199	--	--	--	--	--
CH Cb 29	--	0.060	33	199	--	--	--	--	--
CH Cb 34	0.40	0.97	39	762	--	--	--	--	--
CH Cb 35	--	0.17	34	360	--	--	--	--	--
CH Cb 38	1.2	0.020	33	199	--	--	--	--	--
CH Cb 39	1.2	0.010	33	205	--	--	--	--	--
CH Cb 40	1.2	0.030	33	240	--	--	--	--	--
CH Ee 16	1.3	--	74	168	179	<0.010	0.100	0.050	1.60
CH Ee 90	<0.10	--	13	137	124	<0.010	5.50	<0.010	<0.010

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHARLES COUNTY, MARYLAND--Continued

WELL NUMBER	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
CH Bb 6	--	--	--	8	<0.5	<1.0	<5	<3	<10
CH Bb 7	--	--	--	9	<0.5	<1.0	<5	<3	<10
CH Bb 9	--	--	--	8	<0.5	<1.0	<5	<3	<10
CH Bb 17	--	--	--	28	<0.5	<1.0	<5	<3	<10
CH Bb 19	--	--	--	12	<0.5	<1.0	<5	<3	<10
CH Bc 3	--	--	--	5	<0.5	<1.0	<5	<3	<10
CH Bc 6	--	--	--	<2	<0.5	<1.0	<5	3	<10
CH Bc 23	--	--	--	58	<0.5	<1.0	<5	<3	<10
CH Bc 49	--	--	--	2	<0.5	1.0	<5	<3	<10
CH Bc 67	--	--	--	11	<0.5	<1.0	<5	<3	<10
CH Bc 68	--	--	--	<2	<0.5	<1.0	<5	<3	<10
CH Bc 70	--	--	--	3	<0.5	<1.0	<5	<3	<10
CH Bc 72	--	--	--	7	<0.5	<1.0	<5	<3	<10
CH Cb 7	1.60	<10	<1	14	<0.5	<1.0	<1	1	<1
CH Cb 9	--	--	--	6	<0.5	<1.0	<5	<3	<10
CH Cb 11	--	--	--	5	<0.5	1.0	<5	<3	<10
CH Cb 18	--	--	--	5	<0.5	<1.0	<5	<3	<10
CH Cb 19	--	--	--	9	<0.5	<1.0	<5	<3	<10
CH Cb 28	--	--	--	9	<0.5	<1.0	<5	<3	<10
CH Cb 29	--	--	--	5	<0.5	<1.0	<5	<3	<10
CH Cb 34	--	--	--	58	<0.5	2.0	<5	<3	<10
CH Cb 35	--	--	--	9	<0.5	<1.0	<5	<3	<10
CH Cb 38	--	--	--	8	<0.5	<1.0	<5	<3	<10
CH Cb 39	--	--	--	<2	<0.5	<1.0	<5	<3	<10
CH Cb 40	--	--	--	9	<0.5	<1.0	<5	<3	<10
CH Ee 16	1.50	--	--	--	--	--	--	--	--
CH Ee 90	<0.010	<10	<1	29	<0.5	<1.0	<1	<1	1
	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	
CH Bb 6	--	36	<10	<4	--	11	--	<10	
CH Bb 7	--	32	<10	<4	--	9	--	<10	
CH Bb 9	--	32	<10	<4	--	9	--	<10	
CH Bb 17	--	5200	<10	9	--	120	--	<10	
CH Bb 19	--	200	<10	5	--	29	--	<10	
CH Bc 3	--	63	<10	<4	--	8	--	<10	
CH Bc 6	--	59	<10	<4	--	3	--	<10	
CH Bc 23	--	500	<10	8	--	66	--	<10	
CH Bc 49	--	42	<10	<4	--	9	--	<10	
CH Bc 67	--	100	<10	7	--	9	--	<10	
CH Bc 68	--	61	<10	<4	--	4	--	<10	
CH Bc 70	--	190	<10	<4	--	8	--	<10	
CH Bc 72	--	76	<10	<4	--	8	--	<10	
CH Cb 7	820	600	<1	<4	30	41	<0.1	<1	
CH Cb 9	--	130	<10	6	--	20	--	<10	
CH Cb 11	--	88	<10	7	--	14	--	<10	
CH Cb 18	--	420	<10	8	--	20	--	<10	
CH Cb 19	--	100	<10	4	--	16	--	<10	
CH Cb 28	--	520	<10	8	--	25	--	<10	
CH Cb 29	--	200	<10	<4	--	10	--	<10	
CH Cb 34	--	2200	<10	20	--	330	--	<10	
CH Cb 35	--	55	<10	5	--	12	--	<10	
CH Cb 38	--	430	<10	7	--	24	--	<10	
CH Cb 39	--	270	10	5	--	9	--	<10	
CH Cb 40	--	710	10	6	--	28	--	<10	
CH Ee 16	630	35	--	--	80	87	--	--	
CH Ee 90	600	9	<1	<4	10	16	<0.1	<1	

QUALITY OF GROUND WATER

509

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CHARLES COUNTY, MARYLAND--Continued

WELL NUMBER	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CaCO3)
CH Bb 6	<10	--	<1.0	4	<6	<3	0.4	2
CH Bb 7	<10	--	<1.0	4	<6	<3	0.3	1
CH Bb 9	<10	--	<1.0	5	<6	5	0.3	2
CH Bb 17	<10	--	<1.0	29	<6	8	2.9	17
CH Bb 19	<10	--	<1.0	11	<6	3	1.5	6
CH Bc 3	<10	--	<1.0	3	<6	<3	0.6	1
CH Bc 6	<10	--	2.0	<1	<6	<3	0.5	1
CH Bc 23	<10	--	<1.0	37	<6	<3	3.0	19
CH Bc 49	<10	--	<1.0	2	<6	<3	0.2	1
CH Bc 67	<10	--	<1.0	5	<6	<3	0.5	2
CH Bc 68	<10	--	<1.0	2	<6	3	0.4	1
CH Bc 70	<10	--	1.0	2	<6	<3	0.2	1
CH Bc 72	<10	--	1.0	4	<6	<3	0.6	2
CH Cb 7	<1	<1	--	--	<1	<3	0.5	13
CH Cb 9	<10	--	1.0	8	<6	4	0.2	5
CH Cb 11	<10	--	<1.0	12	<6	12	0.1	6
CH Cb 18	<10	--	<1.0	7	<6	6	1.1	3
CH Cb 19	<10	--	<1.0	7	<6	<3	0.7	3
CH Cb 28	<10	--	<1.0	16	<6	<3	0.2	8
CH Cb 29	<10	--	4.0	3	<6	<3	0.3	2
CH Cb 34	<10	--	<1.0	95	<6	<3	5.6	51
CH Cb 35	<10	--	<1.0	5	<6	15	0.3	3
CH Cb 38	<10	--	1.0	13	<6	140	0.3	7
CH Cb 39	<10	--	<1.0	2	<6	16	0.4	1
CH Cb 40	10	--	<1.0	9	<6	96	0.7	5
CH Ee 16	--	--	--	--	--	--	0.8	87
CH Ee 90	5	<1	--	--	<1	8	1.7	73

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DORCHESTER COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
DO Cg 46	05-29-91	1620	383218075522802	112BVDM	GW		4040	2.97	17.00
	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
	14	17	18.0	54	0.9	99	5.0	14.5	32.0
	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
	0.1	4.6	2.5	7.8	1.7	1	1	14	9.5
	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
	<0.10	21	66	61	<0.010	1.40	<0.010	<0.010	<0.010
	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)
	80	<10	<10	6	80	81	<10	0.6	22

Geologic unit (aquifer): 112BVDM - Beaverdam Sand

Site type: GW - Groundwater

Sampling method: 4040 - Submersible pump

QUALITY OF GROUND WATER

511

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

FREDERICK COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
FR Af 27	04-17-91	1522	394200077190701	231GBRG	GW		4040	0.56	385.00
FR Cd 38	04-16-91	1130	393218077271001	377WVRN	SP		4010	--	--
FR Dd 178	04-17-91	1105	392552077262201	377FDCK	SP		4010	--	--
FR Df 35	07-10-91	1630	392517077190401	300SMCK	GW		4040	58.29	302.00
FR Fb 12	04-16-91	1435	391846077370501	400PCMB	SP		4010	--	--
	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
FR Af 27	39	385	365	108	1.3	450	7.7	13.0	24.5
FR Cd 38	--	--	820	--	--	25	5.2	11.0	21.5
FR Dd 178	--	--	315	--	180	560	7.3	13.0	--
FR Df 35	26	302	570	164	3.8	123	6.7	13.0	22.0
FR Fb 12	--	--	300	--	11	334	6.5	12.5	25.0
	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD CACO3	BICAR- BONATE WAT WH WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
FR Af 27	1.8	57	19	21	0.30	178	217	66	8.8
FR Cd 38	8.2	0.80	0.81	1.4	1.4	6	7	16	12
FR Dd 178	6.3	85	11	22	1.9	199	243	20	45
FR Df 35	9.7	--	--	--	--	61	74	--	2.4
FR Fb 12	--	30	11	18	1.2	32	38	38	41
	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
FR Af 27	0.10	25	331	304	<0.010	1.90	<0.010	0.020	<0.010
FR Cd 38	0.10	6.2	32	42	<0.010	0.390	<0.010	<0.010	<0.010
FR Dd 178	<0.10	8.5	332	330	<0.010	5.30	<0.010	0.020	0.010
FR Df 35	--	--	--	--	--	0.400	--	0.100	--
FR Fb 12	<0.10	20	212	178	<0.010	4.40	<0.010	0.090	0.060
	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
FR Af 27	<10	4	76	<0.5	<1.0	<1	1	<1	5400
FR Cd 38	<10	<1	24	<0.5	<1.0	<1	1	1	20
FR Dd 178	--	--	--	--	--	--	--	--	70
FR Df 35	--	--	--	--	--	--	--	--	--
FR Fb 12	--	--	--	--	--	--	--	--	40

Geologic unit (aquifer): 231GBRG - Gettysburg Shale
300SMCK - Sams Creek Metabasalt
377FDCK - Frederick Limestone
377WVRN - Weverton Formation
400PCMB - Precambrian Erathem

Sampling method: 4010 - Thief sampler
4040 - Submersible pump

Site type: GW - Groundwater
SP - Spring

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

FREDERICK COUNTY, MARYLAND--Continued

WELL NUMBER	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)
FR Af 27	8	--	1	34	40	2	<0.1	6	<1
FR Cd 38	3	--	1	<4	<10	7	<0.1	<1	1
FR Dd 178	<3	2	<1	--	<10	<1	--	--	--
FR Df 35	--	--	--	--	--	--	--	--	--
FR Fb 12	7	2	1	--	<10	<1	--	--	--

	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
FR Af 27	1	7	<3	0.4	220	--	--	--	--
FR Cd 38	<1	<1	7	0.7	5	--	--	--	--
FR Dd 178	--	--	--	0.8	260	<0.01	<0.01	<0.01	<0.01
FR Df 35	--	--	--	0.2	--	--	--	--	--
FR Fb 12	--	--	--	1.0	120	--	--	--	--

QUALITY OF GROUND WATER

513

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

GARRETT COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)
GA Ae 50	06-11-91	1612	394202079093901	321CNMG	GW	4040	90.00	21	90
GA Ba 1	06-12-91	1115	393930079264301	321CNMG	GW	4040	70.00	--	--
GA Da 17	06-18-91	1126	392959079252402	324PVAG	GW	4040	226.00	--	--
GA Eb 72	12-11-90	0900	392420079221701	341JNGS	SP	4010	--	--	--
	03-18-91	1720		341JNGS	SP	4010	--	--	--
	06-12-91	1340		341JNGS	SP	4010	--	--	--

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
GA Ae 50	2410	90	6.0	753	7.0	12.5	25.5	--	100	29
GA Ba 1	2010	100	5.3	382	6.7	13.0	21.5	3.5	49	11
GA Da 17	2430	161	4.3	118	6.2	10.0	20.0	0.1	10	5.2
GA Eb 72	2410	--	27	45	5.4	10.0	-0.5	9.5	3.4	1.2
	2410	--	60	53	5.1	9.5	6.5	9.9	3.8	1.3
	2410	--	19	52	5.0	9.0	22.0	9.5	3.7	--

	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD (MG/L AS CACO3)	BICAR- BONATE WATER WH IT FIELD (MG/L AS HCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
GA Ae 50	20	2.7	200	244	22	100	0.10	5.3	485	399
GA Ba 1	7.1	1.1	79	96	5.8	73	0.30	7.4	213	205
GA Da 17	0.90	1.2	39	48	14	5.2	<0.10	6.4	62	72
GA Eb 72	1.5	1.0	2	2	11	3.2	<0.10	4.6	33	27
	1.5	1.0	1	1	12	3.1	<0.10	4.1	19	27
	--	0.90	2	2	11	--	0.10	--	--	--

	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)
GA Ae 50	0.150	12.0	<0.010	<0.020	<0.010	<10	<10	<1	110	<0.5
GA Ba 1	<0.010	<0.050	0.030	0.020	<0.010	50	<10	<1	340	<0.5
GA Da 17	<0.010	<0.050	0.040	0.050	0.010	490	<10	<1	120	0.8
GA Eb 72	<0.010	0.400	0.020	<0.010	<0.010	--	--	--	--	--
	<0.010	0.440	0.020	<0.010	<0.010	--	--	--	--	--
	<0.010	0.490	<0.010	<0.010	<0.010	60	80	<1	61	<0.5

Geologic unit (aquifer): 321CNMG - Conemaugh Formation
 324PVAG - Pottsville-Allegheny Formation, Undifferentiated
 341JNGS - Jennings Formation

Site type: GW - Groundwater
 SP - Spring

Sampling method: 4010 - Thief sample
 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

GARRETT COUNTY, MARYLAND--CONTINUED

WELL NUMBER	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
GA Aa 50	<10	1.0	<1	1	10	<10	8	2	9
GA Ba 1	20	<1.0	<1	3	<1	4200	1300	2	7
GA Da 17	100	<1.0	<1	<1	1	21000	5200	<1	16
GA Eb 72	--	--	--	--	--	<10	<3	--	--
	--	--	--	--	--	10	<3	--	--
	--	<1.0	<1	2	1	<10	<3	<1	<4

	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
GA Aa 50	80	58	<0.1	4	3	<1	<1	<10	7
GA Ba 1	890	930	<0.1	<1	5	<1	<1	<10	9
GA Da 17	520	560	<0.1	<1	6	<1	<1	130	74
GA Eb 72	40	42	--	--	--	--	--	--	--
	70	62	--	--	--	--	--	--	--
	40	52	<0.1	<1	4	<1	<1	30	24

[illegible][illegible]

QUALITY OF GROUND WATER

515

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

GARRETT COUNTY, MARYLAND--CONTINUED

WELL NUMBER	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- FLURA- LIN TOTAL RECOVER (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)
GA Ae 50	<3.0	<3.0	<3.0	<3.0	<0.10	<1.0	<3.0	<3.0	<3.0
GA Ba 1	--	--	--	--	--	--	--	--	--
GA Da 17	--	--	--	--	--	--	--	--	--
GA Eb 72	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<0.10	<1.0	<3.0	<3.0	<3.0
	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)	1,2- DIBROMO ETHANE WHOLE TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	1,2- TRANS DI CHLORO- ETHENE TOTAL (UG/L)	1,3-DI- CHLORO- PROPENE TOTAL (UG/L)
GA Ae 50	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
GA Ba 1	--	--	--	--	--	--	--	--	--
GA Da 17	--	--	--	--	--	--	--	--	--
GA Eb 72	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L)	ALA- CHLOR TOTAL RECOVER (UG/L)	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	METOLA- CHLOR WATER WHOLE TOT.REC (UG/L)	METRI- BUZIN WATER WHOLE TOT.REC (UG/L)
GA Ae 50	<3.0	<3.0	<3.0	<0.20	<0.10	<0.10	<0.20	<0.2	<0.1
GA Ba 1	--	--	--	--	--	--	--	--	--
GA Da 17	--	--	--	--	--	--	--	--	--
GA Eb 72	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<0.20	<0.10	<0.10	<0.20	<0.2	<0.1
	PROME- TRYNE TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
GA Ae 50	<0.1	<0.2	<0.10	<0.01	<0.01	<0.01	<0.01	<0.10	<0.1
GA Ba 1	--	--	--	--	--	--	--	--	--
GA Da 17	--	--	--	--	--	--	--	--	--
GA Eb 72	--	--	--	--	--	--	--	--	--
	<0.1	<0.2	<0.10	<0.01	<0.01	<0.01	<0.01	<0.10	<0.1

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

HARFORD COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
HA Aa 9	04-18-91	1120	394153076325701	300WSCK	SP		4010	--	--	--
HA Bc 30	04-18-91	1415	393757076240101	300WSCK	SP		4010	--	--	--
HA Ca 23	05-22-91	1555	393158076302601	300LCRV	GW		4040	6.60	200.00	24
HA Dd 92	05-20-91	1409	392721076150302	112TLBT	GW		4040	8.87	38.00	18
HA Ed 49	05-20-91	1608	392455076192103	112TLBT	GW		4040	13.10	23.00	14
	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)
HA Aa 9	--	660	--	15	162	5.4	11.0	13.0	9.5	9.5
HA Bc 30	--	290	--	10	26	5.6	11.0	15.0	6.7	1.5
HA Ca 23	200	470	95	1.0	114	6.1	13.0	31.0	7.4	7.4
HA Dd 92	28	19.0	75	1.1	420	6.0	15.0	25.5	0.2	13
HA Ed 49	23	91.9	48	0.8	380	4.4	13.5	25.5	5.6	22
	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
HA Aa 9	7.6	5.9	1.7	6	7	3.6	13	0.20	9.1	102
HA Bc 30	1.1	2.2	0.50	8	9	0.40	2.5	<0.10	9.2	17
HA Ca 23	3.9	7.1	2.1	16	20	1.4	7.5	<0.10	23	81
HA Dd 92	12	54	0.70	49	60	53	75	0.20	32	242
HA Ed 49	17	9.8	2.4	1	--	150	10	0.40	11	254
	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)
HA Aa 9	54	<0.010	11.0	<0.010	<0.010	<0.010	30	<1	40	<0.5
HA Bc 30	22	<0.010	0.097	<0.010	0.020	0.020	--	--	--	--
HA Ca 23	62	<0.010	6.60	<0.010	<0.010	<0.010	<10	<1	9	<0.5
HA Dd 92	273	<0.010	<0.050	0.120	<0.010	<0.010	<10	2	47	0.7
HA Ed 49	232	<0.010	1.60	0.020	0.010	<0.010	5500	<1	41	3
	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
HA Aa 9	<1.0	2	7	1	40	3	<1	<4	10	13
HA Bc 30	--	--	--	--	110	16	--	--	<10	3
HA Ca 23	<1.0	<1	<1	1	2800	23	1	<4	<10	8
HA Dd 92	<1.0	<1	10	<1	3200	3500	<1	<4	230	180
HA Ed 49	2.0	1	60	7	<10	36	1	<4	3500	3500

Geologic unit (aquifer): 112TLBT - Talbot Formation
 300LCRV - Loch Raven Schist
 300WSCK - Wissahickon Formation

Sampling method: 4010 - Thief sample
 4040 - Submersible pump

Site Type: GW - Groundwater
 SP - Spring

HARFORD COUNTY, MARYLAND--Continued

[illegible]

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

HOWARD COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
HO Cd 20	09-09-91	1335	391440076555401	300LCRV	GW		4020	7.74	96.00	30
HO Cd 25	09-09-91	1640	3914440765554701	300LCRV	GW		4020	41.67	97.00	60
HO Cd 28	09-09-91	1000	3914470765554702	300LCRV	GW		4040	28.48	46.00	41
HO Cd 29	09-09-91	1130	3914420765554702	300LCRV	GW		4020	45.37	68.00	63
HO Cd 78	11-14-90	1215	391440076555402	300LCRV	GW		4040	8.58	19.00	9.0
	01-15-91	1150		300LCRV	GW		4040	7.48	19.00	9.0
	02-26-91	1240		300LCRV	GW		4040	8.39	19.00	9.0
	04-02-91	1215		300LCRV	GW		4040	7.82	19.00	9.0
	06-06-91	1600		300LCRV	GW		4040	8.62	19.00	9.0
	07-15-91	1316		300LCRV	GW		4040	9.17	19.00	9.0
	09-09-91	1310		300LCRV	GW		4040	9.75	19.00	9.0
	09-10-91	1310		300LCRV	GW		4040	9.74	19.00	9.0
HO Cd 79	11-14-90	1315	391445076555101	300LCRV	GW		4040	27.00	53.00	43
	01-15-91	1305		300LCRV	GW		4040	26.82	53.00	43
	02-26-91	1330		300LCRV	GW		4040	25.74	53.00	43
	04-02-91	0925		300LCRV	GW		4040	25.83	53.00	43
	06-06-91	1700		300LCRV	GW		4040	25.46	53.00	43
	07-15-91	1424		300LCRV	GW		4040	26.11	53.00	43
	09-09-91	1625		300LCRV	GW		4040	27.38	53.00	43
HO Cd 80	11-14-90	1345	391439076555601	300LCRV	SP		4030	--	2.00	0.0
	01-15-91	1340		300LCRV	SP		4030	--	2.00	0.0
	02-26-91	1440		300LCRV	SP		4030	--	2.00	0.0
	04-02-91	1300		300LCRV	SP		4030	--	2.00	0.0
	06-07-91	1030		300LCRV	SP		4030	--	2.00	0.0
	07-16-91	1240		300LCRV	SP		4030	--	2.00	0.0
	09-09-91	1530		300LCRV	SP		4030	--	2.00	0.0
HO Cd 81	11-14-90	1415	391439076555602	300LCRV	SP		4030	--	2.00	0.0
	01-15-91	1350		300LCRV	SP		4030	--	2.00	0.0
	02-26-91	1450		300LCRV	SP		4030	--	2.00	0.0
	04-02-91	1315		300LCRV	SP		4030	--	2.00	0.0
	06-07-91	1045		300LCRV	SP		4030	--	2.00	0.0
	07-16-91	1230		300LCRV	SP		4030	--	2.00	0.0
	09-09-91	1515		300LCRV	SP		4030	--	2.00	0.0
HO Cd 253	11-15-90	0930	3914470765554703	300LCRV	LYS		4030	--	1.00	1.0
	01-16-91	0845		300LCRV	LYS		4030	--	1.00	1.0
	02-27-91	0940		300LCRV	LYS		4030	--	1.00	1.0
	04-03-91	0840		300LCRV	LYS		4030	--	1.00	1.0
HO Cd 290	11-15-90	0955	3914470765554704	300LCRV	LYS		4030	--	5.00	5.0
	01-16-91	0850		300LCRV	LYS		4030	--	5.00	5.0
	02-27-91	0945		300LCRV	LYS		4030	--	5.00	5.0
	04-03-91	0845		300LCRV	LYS		4030	--	5.00	5.0
HO Cd 291	11-15-90	1000	3914470765554705	300LCRV	LYS		4030	--	9.80	9.8
	01-16-91	0855		300LCRV	LYS		4030	--	9.80	9.8
	02-27-91	0950		300LCRV	LYS		4030	--	9.80	9.8
	04-03-91	0850		300LCRV	LYS		4030	--	9.80	9.8
	07-16-91	0910		300LCRV	LYS		4030	--	9.80	9.8
HO Cd 292	11-15-90	1005	3914470765554706	300LCRV	LYS		4030	--	13.80	14
	01-16-91	0900		300LCRV	LYS		4030	--	13.80	14
	02-27-91	0955		300LCRV	LYS		4030	--	13.80	14
	04-03-91	0855		300LCRV	LYS		4030	--	13.80	14
HO Cd 341	11-14-90	1020	3914470765554707	300LCRV	GW		4040	28.44	30.00	25
	01-15-91	1015		300LCRV	GW		4040	28.50	30.00	25
	02-26-91	1025		300LCRV	GW		4040	27.15	30.00	25
	04-02-91	1030		300LCRV	GW		4040	26.91	30.00	25
	06-06-91	1330		300LCRV	GW		4040	26.50	30.00	25
	07-15-91	1110		300LCRV	GW		4040	27.13	30.00	25
	09-09-91	1045		300LCRV	GW		4040	28.45	30.00	25

Geologic unit (aquifer): 300LCRV - Loch Raven Schist

Site type: GW - Groundwater
 LYS - Lysimeter
 SP - Spring

Sampling method: 4020 - Bailer
 4030 - Suction pump
 4040 - Submersible pump

QUALITY OF GROUND WATER

519

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

HOWARD COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)
HO Cd 20	96	426	--	--	--	--	--	--	--	--
HO Cd 25	97	471	--	--	--	--	--	--	--	--
HO Cd 28	46	453	15	--	--	--	--	--	--	--
HO Cd 29	68	470	--	--	--	--	--	--	--	--
HO Cd 78	19	426	15	0.9	104	5.4	14.5	9.5	7.8	--
	19	426	15	1.0	96	5.5	12.5	--	8.9	--
	19	426	10	1.0	101	5.3	10.5	6.5	8.4	--
	19	426	10	1.3	102	4.3	10.0	10.5	9.9	--
	19	426	8	1.3	--	5.4	11.5	21.5	9.4	--
	19	426	7	1.4	103	--	13.0	30.0	4.9	--
	19	426	10	1.0	--	--	--	--	--	--
	19	426	70	0.9	94	5.4	14.5	23.0	8.8	5.4
HO Cd 79	53	452	40	0.7	37	5.4	13.0	13.5	7.2	--
	53	452	30	0.8	37	5.7	--	--	--	--
	53	452	30	0.8	37	5.3	12.5	6.0	8.6	--
	53	452	30	1.0	37	3.7	13.0	10.5	8.8	--
	53	452	25	1.1	--	5.5	14.0	21.5	9.4	--
	53	452	24	1.1	39	--	14.5	33.0	7.6	--
	53	452	25	--	--	--	--	--	--	--
HO Cd 80	2.0	413	--	--	119	5.7	12.5	--	8.2	--
	2.0	413	--	--	118	5.7	11.0	--	10.8	--
	2.0	413	--	--	121	5.4	10.0	--	10.0	--
	2.0	413	--	--	116	5.7	10.5	--	9.2	--
	2.0	413	--	--	113	5.4	--	--	8.0	--
	2.0	413	--	--	111	--	13.0	--	8.5	--
	2.0	413	--	--	--	--	--	--	--	--
HO Cd 81	2.0	412	--	--	103	5.9	11.0	--	8.0	--
	2.0	412	--	--	106	5.8	10.0	--	11.4	--
	2.0	412	--	--	100	5.5	9.0	--	11.0	--
	2.0	412	--	--	97	5.8	10.0	--	8.3	--
	2.0	412	--	--	91	5.7	--	--	7.0	--
	2.0	412	--	--	90	--	14.5	--	4.9	--
	2.0	412	--	--	--	--	--	--	--	--
HO Cd 253	1.0	457	--	--	391	--	--	--	--	--
	1.0	457	--	--	886	--	--	--	--	--
	1.0	457	--	--	923	--	--	--	--	--
	1.0	457	--	--	359	--	--	--	--	--
HO Cd 290	5.0	457	--	--	231	--	--	--	--	--
	5.0	457	--	--	397	--	--	--	--	--
	5.0	457	--	--	401	--	--	--	--	--
	5.0	457	--	--	409	--	--	--	--	--
HO Cd 291	9.8	457	--	--	160	--	--	--	--	--
	9.8	457	--	--	150	--	--	--	--	--
	9.8	457	--	--	148	--	--	--	--	--
	9.8	457	--	--	145	--	--	--	--	--
	9.8	457	--	--	155	--	--	--	--	--
HO Cd 292	14	457	--	--	179	--	--	--	--	--
	14	457	--	--	186	--	--	--	--	--
	14	457	--	--	179	--	--	--	--	--
	14	457	--	--	172	--	--	--	--	--
HO Cd 341	30	453	2	1.0	46	5.7	12.5	7.0	9.5	--
	30	453	3	1.0	48	5.7	--	--	--	--
	30	453	5	0.9	79	5.1	12.0	4.0	8.9	--
	30	453	5	1.1	52	--	13.0	10.5	10.8	--
	30	453	4	0.9	--	5.4	15.0	21.0	10.0	--
	30	453	3	1.0	40	--	--	28.0	8.1	--
	30	453	2	1.0	--	--	--	--	--	--

[illegible]

QUALITY OF GROUND WATER

521

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

HOWARD COUNTY, MARYLAND--Continued

WELL NUMBER	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
HO Cd 20	--	--	--	--	--	--	--	--	--	--
HO Cd 25	--	--	--	--	--	--	--	--	--	--
HO Cd 28	--	<0.010	--	0.710	--	<0.010	<0.20	--	--	<0.010
HO Cd 29	--	--	--	--	--	--	--	--	--	--
HO Cd 78	--	0.010	--	3.40	--	<0.010	0.30	--	--	<0.010
	--	<0.010	--	3.30	--	0.010	0.20	--	--	<0.010
	--	<0.010	--	3.20	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	3.20	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	3.40	--	<0.010	0.30	--	--	<0.010
	--	<0.010	--	2.80	--	<0.010	0.20	--	--	<0.010
	--	<0.010	--	3.10	--	<0.010	0.40	--	--	<0.010
HO Cd 79	<0.010	--	3.30	--	0.020	--	--	0.010	<0.010	--
	--	<0.010	--	1.70	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	1.80	--	0.020	<0.20	--	--	<0.010
	--	<0.010	--	1.70	--	<0.010	0.20	--	--	<0.010
	--	<0.010	--	1.60	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	2.00	--	<0.010	0.30	--	--	<0.010
	--	<0.010	--	1.60	--	<0.010	0.40	--	--	<0.010
HO Cd 80	--	<0.010	--	1.90	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	3.30	--	<0.010	0.40	--	--	<0.010
	--	<0.010	--	3.20	--	0.020	0.20	--	--	<0.010
	--	<0.010	--	3.40	--	<0.010	0.50	--	--	0.010
	--	0.020	--	1.30	--	0.020	<0.20	--	--	<0.010
	--	<0.010	--	3.50	--	0.010	0.40	--	--	<0.010
	--	<0.010	--	2.50	--	<0.010	0.70	--	--	<0.010
HO Cd 81	--	<0.010	--	3.30	--	<0.010	0.60	--	--	<0.010
	--	0.010	--	3.40	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	3.30	--	0.010	<0.20	--	--	0.020
	--	<0.010	--	3.40	--	<0.010	0.20	--	--	0.020
	--	<0.010	--	3.30	--	<0.010	<0.20	--	--	0.010
	--	<0.010	--	3.40	--	<0.010	0.30	--	--	<0.010
	--	<0.010	--	2.80	--	<0.010	0.30	--	--	0.030
HO Cd 253	--	<0.010	--	3.20	--	<0.010	0.30	--	--	<0.010
	--	<0.010	--	0.900	--	<0.010	0.50	--	--	<0.010
	--	0.020	--	3.50	--	0.110	0.50	--	--	<0.010
	--	<0.010	--	10.0	--	0.010	<0.20	--	--	<0.010
HO Cd 290	--	<0.010	--	5.80	--	0.020	1.2	--	--	<0.010
	--	<0.010	--	4.50	--	<0.010	0.60	--	--	<0.010
	--	<0.010	--	3.80	--	0.020	0.50	--	--	<0.010
	--	<0.010	--	3.90	--	<0.010	0.50	--	--	<0.010
HO Cd 291	--	<0.010	--	3.00	--	<0.010	0.40	--	--	<0.010
	--	<0.010	--	9.80	--	0.030	0.90	--	--	0.030
	--	<0.010	--	8.40	--	0.030	0.40	--	--	0.010
	--	<0.010	--	6.90	--	0.010	0.30	--	--	<0.010
	--	<0.010	--	5.10	--	<0.010	0.50	--	--	<0.010
HO Cd 292	--	<0.010	--	4.90	--	0.040	1.3	--	--	0.080
	--	<0.010	--	18.0	--	<0.010	1.1	--	--	<0.010
	--	<0.010	--	19.0	--	0.020	0.80	--	--	<0.010
	--	<0.010	--	18.0	--	<0.010	0.90	--	--	<0.010
HO Cd 341	--	<0.010	--	15.0	--	<0.010	0.50	--	--	<0.010
	--	<0.010	--	2.10	--	0.010	0.20	--	--	<0.010
	--	<0.010	--	1.30	--	0.010	<0.20	--	--	<0.010
	--	<0.010	--	1.90	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	1.50	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	1.80	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	1.50	--	<0.010	<0.20	--	--	<0.010
	--	<0.010	--	1.60	--	<0.010	<0.20	--	--	<0.010

[illegible]

HOWARD COUNTY, MARYLAND--Continued

[illegible]

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

HOWARD COUNTY, MARYLAND--Continued

WELL NUMBER	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	METHO- MYL TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, D TOTAL (UG/L)
HO Cd 20	--	--	--	--	--	--	<0.5	<0.5	<0.50
HO Cd 25	--	--	--	--	--	--	<0.5	<0.5	<0.50
HO Cd 28	--	--	--	--	--	--	<0.5	<0.5	<0.50
HO Cd 29	--	--	--	--	--	--	<0.5	<0.5	<0.50
HO Cd 78	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	<0.5	<0.5	<0.50
HO Cd 79	<1	<1	<10	6	0.2	31	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	<0.5	<0.5	<0.50
HO Cd 80	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	<0.5	<0.5	<0.50
HO Cd 81	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	<0.5	<0.5	<0.50
HO Cd 253	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
HO Cd 290	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
HO Cd 291	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
HO Cd 292	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
HO Cd 341	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	<0.5	<0.5	<0.50

QUALITY OF GROUND WATER

525

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

HOWARD COUNTY, MARYLAND--Continued

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
HO Cd 342	11-14-90	1055	391438076555001		300LCRV	GW	4040	22.84	25.00	20
	01-15-91	1040			300LCRV	GW	4040	20.98	25.00	20
	02-26-91	1115			300LCRV	GW	4040	20.79	25.00	20
	04-02-91	1050			300LCRV	GW	4040	20.18	25.00	20
	06-06-91	1440			300LCRV	GW	4040	20.70	25.00	20
	07-15-91	1218			300LCRV	GW	4040	22.30	25.00	20
	09-09-91	1415			300LCRV	GW	4040	23.44	25.00	20
HO Cd 390	11-15-90	0900	391441076555301		300LCRV	LYS	4030	--	--	3.5
	01-16-91	0835	391441076555301		300LCRV	LYS	4030	--	--	3.5
	02-27-91	0930			300LCRV	LYS	4030	--	--	3.5
	04-03-91	0830			300LCRV	LYS	4030	--	--	3.5
HO Cd 391	11-15-90	0910	391441076555302		300LCRV	LYS	4030	--	--	7.0
	01-16-91	0840			300LCRV	LYS	4030	--	--	7.0
	02-27-91	0935			300LCRV	LYS	4030	--	--	7.0
	04-03-91	0835			300LCRV	LYS	4030	--	--	7.0
	06-14-91	0900			300LCRV	LYS	4030	--	--	7.0
	07-16-91	0845			300LCRV	LYS	4030	--	--	7.0

	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)
HO Cd 342	25	436	5	0.9	84	6.0	11.5	7.0	8.0	--
	25	436	5	1.0	84	6.1	12.0	--	8.4	--
	25	436	5	0.9	89	6.0	11.5	6.0	8.1	--
	25	436	5	1.0	88	--	11.5	13.5	8.5	--
	25	436	2	1.2	--	5.9	13.0	22.0	8.6	--
	25	436	3	0.9	--	--	--	25.5	8.0	--
	25	436	1	--	--	--	--	--	--	--
HO Cd 390	3.5	428	--	--	276	--	--	--	--	--
	3.5	428	--	--	248	--	--	--	--	--
	3.5	428	--	--	303	--	--	--	--	--
	3.5	428	--	--	305	--	--	--	--	--
HO Cd 391	7.0	428	--	--	351	--	--	--	--	--
	7.0	428	--	--	346	--	--	--	--	--
	7.0	428	--	--	338	--	--	--	--	--
	7.0	428	--	--	309	--	--	--	--	--
	7.0	428	--	--	350	--	--	--	--	--
	7.0	428	--	--	343	--	--	--	--	--

	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVE (MG/L AS N)	PHOS- PHORUS ORTHO, DIS- SOLVE (MG/L AS P)	METHO- MYL TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, D TOTAL (UG/L)
HO Cd 342	--	<0.010	3.70	<0.010	0.30	0.020	--	--	--
	3.99	0.010	4.00	0.010	<0.20	0.030	--	--	--
	--	<0.010	3.50	<0.010	<0.20	0.030	--	--	--
	--	<0.010	3.40	<0.010	<0.20	0.020	--	--	--
	--	<0.010	3.50	<0.010	0.30	0.030	--	--	--
	--	<0.010	3.00	<0.010	0.60	0.030	--	--	--
	--	<0.010	3.80	<0.010	0.50	0.010	<0.5	<0.5	<0.5
HO Cd 390	--	<0.010	<0.100	<0.010	0.30	<0.010	--	--	--
	--	<0.010	<0.100	0.020	<0.20	0.010	--	--	--
	--	<0.010	<0.100	<0.010	<0.20	<0.010	--	--	--
	--	0.010	<0.050	<0.010	0.30	<0.010	--	--	--
HO Cd 391	--	<0.010	2.00	<0.010	0.60	<0.010	--	--	--
	--	<0.010	1.10	0.020	<0.20	<0.010	--	--	--
	--	<0.010	2.90	<0.010	0.50	<0.010	--	--	--
	1.19	0.010	1.20	0.020	0.30	<0.010	--	--	--
	--	<0.010	3.10	0.020	0.40	0.010	--	--	--
	--	<0.010	2.80	<0.010	0.50	<0.010	--	--	--

Geologic unit (aquifer): 300LCRV - Loch Raven Schist

Site type: GW - Groundwater
LYS - LysimeterSampling method: 4030 - Suction pump
4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENT COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
KE Be 47	08-19-91	1533	3918320755560802	112CLMB	GW	4040	4040	11.85	24.00	21
KE Be 50	11-19-90	1430	391851075561801	112PCPC	GW	4040	4040	11.85	22.00	19
	04-23-91	1000		112PCPC	GW	4040	4040	9.41	22.00	19
	05-28-91	1330		112PCPC	GW	4040	4040	10.61	22.00	20
	06-25-91	1200		112PCPC	GW	4040	4040	10.40	22.00	20
	07-22-91	1300		112PCPC	GW	4040	4040	10.58	22.00	20
	08-20-91	1330		112PCPC	GW	4040	4040	11.47	22.00	20
	09-16-91	1230		112PCPC	GW	4040	4040	11.98	22.00	20
KE Be 52	11-05-90	1600	391810075555801	112PCPC	GW	4040	4040	17.88	36.00	33
	03-04-91	1300		112PCPC	GW	4040	4040	17.00	36.00	33
	04-23-91	1210		112PCPC	GW	4040	4040	16.48	36.00	33
	05-28-91	1700		112PCPC	GW	4040	4040	16.60	36.00	33
	06-25-91	1230		112PCPC	GW	4040	4040	16.95	36.00	33
	07-22-91	1200		112PCPC	GW	4040	4040	17.42	36.00	33
	08-20-91	1230		112PCPC	GW	4040	4040	17.82	36.00	33
	09-16-91	1330		112PCPC	GW	4040	4040	18.15	36.00	33
KE Be 59	11-19-90	1200	3918320755560803	125AQUI	GW	4040	4040	12.47	26.50	24
KE Be 61	11-05-90	1130	391810075555803	125AQUI	GW	4040	4040	17.74	50.50	48
	03-04-91	1100		125AQUI	GW	4040	4040	17.05	50.50	48
	06-05-91	1030		125AQUI	GW	4040	4040	16.56	50.50	48
KE Be 62	11-06-90	1000	391742075554801	125AQUI	GW	4040	4040	8.51	25.50	23
	03-04-91	1600		125AQUI	GW	4040	4040	7.41	25.50	23
	04-23-91	1400		125AQUI	GW	4040	4040	7.38	25.50	23
	05-28-91	1830		125AQUI	GW	4040	4040	7.48	25.50	23
	09-16-91	1420		125AQUI	GW	4040	4040	9.00	25.50	23
KE Be 63	11-06-90	1600	391721075554501	125AQUI	GW	4040	4040	4.00	39.50	37
KE Be 64	11-06-90	1700	391721075554502	125AQUI	GW	4040	4040	4.13	16.00	13
	04-23-91	1650		125AQUI	GW	4040	4040	3.65	16.00	13
	05-28-91	2030		125AQUI	GW	4040	4040	3.91	16.00	13
KE Be 159	11-07-90	1500	391720075554601	125AQUI	GW	4040	4040	4.90	68.50	66
	03-05-91	1300		125AQUI	GW	4040	4040	4.00	68.50	66
	06-04-91	1130		125AQUI	GW	4040	4040	4.23	68.50	66
KE Be 160	11-19-90	1630	391720075554602	125AQUI	GW	4040	4040	4.56	38.00	35
	03-05-91	1200		125AQUI	GW	4040	4040	4.70	38.00	35
	04-23-91	1740		125AQUI	GW	4040	4040	4.52	38.00	35
	05-28-91	1530		125AQUI	GW	4040	4040	4.43	38.00	35
	06-25-91	1330		125AQUI	GW	4040	4040	4.80	38.00	35
	07-22-91	1050		125AQUI	GW	4040	4040	5.06	38.00	35
	08-20-91	1030		125AQUI	GW	4040	4040	4.88	38.00	35
	09-16-91	1140		125AQUI	GW	4040	4040	4.99	38.00	35
KE Be 161	11-07-90	1630	391720075554603	125AQUI	GW	4040	4040	4.70	19.00	16
	03-05-91	1100		125AQUI	GW	4040	4040	4.90	19.00	16
	06-04-91	1300		125AQUI	GW	4040	4040	4.50	19.00	16
KE Be 162	11-06-90	1130	391742075554802	125AQUI	GW	4040	4040	8.70	67.00	64
	03-04-91	1400		125AQUI	GW	4040	4040	8.24	67.00	64
	06-05-91	1430		125AQUI	GW	4040	4040	8.11	67.00	64
KE Be 163	11-06-90	1300	391742075554803	125AQUI	GW	4040	4040	8.52	43.00	40
	03-04-91	1500		125AQUI	GW	4040	4040	8.44	43.00	40
	06-05-91	1230		125AQUI	GW	4040	4040	7.50	43.00	40
KE Be 164	11-19-90	1000	3918320755560804	125AQUI	GW	4040	4040	12.22	48.00	45
KE Be 165	11-07-90	0930	3918380755560901	125AQUI	GW	4040	4040	6.35	48.00	45
KE Be 166	11-07-90	1030	3918380755560902	125AQUI	GW	4040	4040	6.50	28.00	25
KE Be 167	11-07-90	1130	3918380755560903	125AQUI	GW	4040	4040	6.60	18.00	15
KE Be 169	03-05-91	1500	391719075554701	112PCPC	GW	4040	4040	-0.70	5.50	2.5
	05-29-91	1130		112PCPC	GW	4040	4040	0.93	5.50	2.5
KE Be 170	03-05-91	1400	391720075554701	112PCPC	GW	4040	4040	0.50	6.90	3.9
	05-29-91	1300		112PCPC	GW	4040	4040	1.76	6.90	3.9

Geologic unit (aquifer): 112CLMB - Columbia Formation Sampling method: 4040 - Submersible pump
 112PCPC - Pleistocene-Pliocene Series
 125AQUI - Aquia Formation

Site type: GW - Groundwater

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
KE Be 47	24	66.0	65	0.7	269	6.0	15.0	31.0	9.6
KE Be 50	22	70.2	15	0.5	473	5.1	15.0	17.0	9.0
	22	70.2	15	0.6	404	5.1	13.0	17.0	11.8
	22	70.2	15	0.5	397	5.4	15.0	33.0	10.1
	22	70.2	11	0.8	383	5.1	13.5	31.0	12.8
	22	70.2	11	0.7	366	5.1	16.0	37.0	9.8
	22	70.2	7	0.8	375	5.3	15.5	29.0	10.0
	22	70.2	10	0.8	384	5.2	16.5	32.0	11.0
KE Be 52	36	74.7	40	1.4	188	4.9	14.5	20.0	8.8
	36	74.7	15	1.2	197	5.0	13.5	5.0	10.0
	36	74.7	15	0.5	198	5.0	14.5	21.0	11.2
	36	74.7	15	1.2	196	5.2	15.0	37.0	10.5
	36	74.7	15	0.8	203	5.0	14.5	29.0	12.6
	36	74.7	12	1.0	206	5.1	15.0	36.0	5.7
	36	74.7	12	0.8	208	5.1	15.0	29.0	9.8
	36	74.7	11	0.9	208	5.1	15.5	34.0	10.6
KE Be 59	27	71.4	20	0.8	276	5.9	15.0	--	7.6
KE Be 61	51	74.6	35	1.2	102	4.9	14.0	18.0	10.6
	51	74.6	15	1.3	106	5.1	13.0	9.0	11.4
	51	74.6	17	1.0	117	5.0	14.5	20.0	10.6
KE Be 62	26	60.7	15	0.3	252	5.6	14.0	11.0	8.8
	26	60.7	15	0.6	246	5.6	12.5	9.0	9.0
	26	60.7	20	0.5	249	5.4	13.5	18.0	10.7
	26	60.7	20	0.3	250	5.8	10.0	34.0	10.1
	26	60.7	13	0.5	262	5.8	16.0	34.0	10.4
KE Be 63	40	45.1	20	1.1	77	5.3	13.5	--	9.5
KE Be 64	16	45.1	15	1.0	180	5.0	15.5	--	8.4
	16	45.1	10	0.6	189	4.9	11.5	23.0	10.6
	16	45.1	10	1.2	180	5.3	13.5	31.0	9.9
KE Be 159	69	45.3	15	1.3	197	7.1	13.0	8.5	3.6
	69	45.3	20	1.6	219	7.1	14.0	12.0	1.6
	69	45.3	25	1.2	225	6.9	14.0	21.0	2.5
KE Be 160	38	45.2	15	1.3	56	5.5	12.0	12.0	9.9
	38	45.2	10	1.5	57	5.3	14.0	12.0	10.0
	38	45.2	20	0.8	56	5.5	13.5	22.0	11.4
	38	45.2	35	1.0	57	5.5	14.5	32.5	7.6
	38	45.2	15	1.2	53	5.3	14.5	30.0	12.8
	38	45.2	15	1.2	53	5.5	14.5	35.0	9.9
	38	45.2	15	1.2	55	5.6	14.5	30.0	10.2
	38	45.2	12	1.3	54	5.6	14.5	28.0	10.7
KE Be 161	19	45.2	15	1.0	138	5.0	15.0	8.0	9.4
	19	45.2	10	1.5	136	5.0	14.5	11.0	9.4
	19	45.2	10	1.2	148	4.9	13.5	26.5	9.0
KE Be 162	67	61.0	20	1.0	53	5.6	13.0	12.0	9.5
	67	61.0	20	1.4	53	5.3	13.5	9.0	10.4
	67	61.0	30	1.0	58	5.4	14.0	27.0	9.6
KE Be 163	43	60.8	15	1.3	164	5.3	13.0	12.0	9.7
	43	60.8	15	1.5	161	5.0	14.0	9.0	10.8
	43	60.8	15	1.2	171	4.8	14.0	26.5	10.1
KE Be 164	48	71.0	15	1.3	146	5.5	13.5	4.5	9.2
KE Be 165	48	62.0	30	1.0	231	5.0	13.0	9.0	10.7
KE Be 166	28	62.0	20	1.0	229	5.0	14.0	9.0	10.4
KE Be 167	18	62.0	15	0.5	188	5.1	16.0	9.5	10.1
KE Be 169	5.5	38.7	6	1.2	71	5.2	12.5	12.0	8.7
	5.5	38.7	1	1.0	69	4.9	15.5	29.0	10.0
KE Be 170	6.9	40.3	12	0.9	260	6.1	12.0	12.0	3.2
	6.9	40.3	3	1.0	205	6.0	16.0	28.5	7.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
KE Be 47	19	14	6.0	2.4	17	20	22	26	<0.10
KE Be 50	31	23	9.7	1.5	4	4	<1.0	44	<0.10
	27	20	8.9	1.7	3	3	1.1	52	<0.10
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 52	11	7.9	4.7	3.0	3	4	<1.0	18	<0.10
	11	8.3	4.6	2.7	3	3	<1.0	17	<0.10
	--	--	--	--	--	--	--	--	--
	12	9.0	4.5	3.0	3	3	<0.10	17	<0.10
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 59	20	14	7.5	2.7	26	31	20	26	<0.10
KE Be 61	7.2	2.2	4.9	2.4	2	3	<1.0	9.6	<0.10
	7.4	2.3	5.1	2.4	3	3	<1.0	8.3	<0.10
	8.5	2.7	5.4	2.6	3	4	<0.10	7.6	<0.10
KE Be 62	18	12	4.1	2.6	8	10	21	13	<0.10
	17	12	3.7	2.4	8	9	22	14	<0.10
	--	--	--	--	--	--	--	--	--
	19	13	3.3	2.3	6	8	25	14	<0.10
	--	--	--	--	--	--	--	--	--
KE Be 63	4.3	1.5	4.5	1.8	5	6	1.4	4.8	<0.10
KE Be 64	9.9	8.8	4.7	3.3	3	4	2.9	16	<0.10
	--	--	--	--	--	--	--	--	--
KE Be 159	10	8.8	4.4	3.0	2	2	5.5	16	<0.10
	34	1.5	2.6	1.7	83	101	6.0	1.7	<0.10
	42	0.74	2.9	1.8	96	117	8.4	2.6	0.10
	42	0.69	2.8	1.9	91	111	7.7	1.0	<0.10
KE Be 160	3.4	1.0	3.9	1.7	5	6	<1.0	3.4	<0.10
	3.4	1.0	4.1	1.8	4	5	<1.0	3.3	<0.10
	--	--	--	--	--	--	--	--	--
	3.1	0.96	3.7	1.8	3	4	0.40	3.5	<0.10
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 161	9.3	3.4	4.9	3.2	2	3	2.6	11	<0.10
	11	3.6	5.4	3.5	5	6	7.0	11	0.20
	11	3.4	5.7	3.3	5	6	0.20	12	<0.10
KE Be 162	3.7	0.92	3.7	1.4	5	7	<1.0	3.4	<0.10
	3.6	0.89	3.4	1.5	5	6	<1.0	3.5	<0.10
	--	--	--	--	--	--	--	--	--
KE Be 163	3.7	1.0	3.4	1.6	5	6	0.20	3.7	<0.10
	9.1	5.4	6.6	3.7	5	6	<1.0	9.5	<0.10
	7.4	6.3	7.5	4.0	3	3	<1.0	9.4	<0.10
	8.2	6.5	7.1	4.2	2	2	0.20	8.9	<0.10
KE Be 164	12	3.8	4.6	2.8	4	5	<1.0	12	<0.10
KE Be 165	19	4.5	9.6	2.9	3	3	2.9	18	<0.10
KE Be 166	14	10	4.0	3.7	2	3	1.2	28	<0.10
KE Be 167	6.4	10	5.6	2.5	4	5	31	17	<0.10
KE Be 169	17	16	4.1	2.0	3	4	23	12	<0.10
	14	12	4.5	2.5	3	4	15	13	<0.10
KE Be 170	3.9	1.6	4.4	1.9	34	41	0.60	4.7	<0.10
	3.7	1.4	4.5	2.0	26	32	0.50	4.9	<0.10

QUALITY OF GROUND WATER

529

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
KE Be 47	--	10	178	110	--	0.010	--	14.0	--	0.020
KE Be 50	0.040	17	--	--	--	--	<0.010	--	1.40	--
	--	--	--	--	--	--	<0.010	--	28.0	--
	0.030	17	--	262	--	--	<0.010	--	30.0	--
	--	--	--	--	29.0	--	0.020	--	29.0	--
	--	--	--	--	--	--	<0.010	--	29.0	--
	--	--	--	--	--	--	<0.010	--	29.0	--
	--	--	--	--	5.37	--	0.030	--	30.8	--
KE Be 52	0.030	12	--	--	--	--	<0.010	--	14.0	--
	0.030	12	--	--	--	--	<0.010	--	13.0	--
	--	--	--	--	--	--	<0.010	--	14.0	--
	0.030	13	--	--	--	--	<0.010	--	15.0	--
	--	--	--	--	15.0	--	0.010	--	15.0	--
	--	--	--	--	--	--	<0.010	--	15.0	--
	--	--	--	--	--	--	<0.010	--	15.0	--
	--	--	--	--	5.37	--	0.030	--	16.2	--
KE Be 59	0.020	11	--	175	13.0	--	0.010	--	13.0	--
KE Be 61	0.020	11	--	--	--	--	<0.010	--	7.60	--
	0.020	11	--	--	--	--	<0.010	--	7.10	--
	0.020	11	--	--	--	--	<0.010	--	8.10	--
KE Be 62	0.030	7.9	--	150	--	--	<0.010	--	15.0	--
	0.030	7.8	--	146	--	--	<0.010	--	14.0	--
	--	--	--	--	--	--	<0.010	--	15.0	--
	0.020	7.9	--	159	--	--	<0.010	--	16.0	--
	--	--	--	--	0.290	--	0.030	--	18.4	--
KE Be 63	0.020	11	--	55	--	--	<0.010	--	5.00	--
KE Be 64	0.030	12	--	118	--	--	<0.010	--	13.0	--
	--	--	--	--	--	--	<0.010	--	13.0	--
	0.020	11	--	118	--	--	<0.010	--	13.0	--
KE Be 159	0.010	16	--	119	--	--	<0.010	--	1.30	--
	0.010	17	--	137	--	--	<0.010	--	0.830	--
	0.010	18	--	132	--	--	<0.010	--	0.810	--
KE Be 160	0.020	12	--	--	3.69	--	0.010	--	3.70	--
	0.020	12	--	--	--	--	<0.010	--	3.80	--
	--	--	--	--	--	--	<0.010	--	3.70	--
	0.020	12	--	45	--	--	<0.010	--	3.90	--
	--	--	--	--	3.79	--	0.010	--	3.80	--
	--	--	--	--	--	--	<0.010	--	3.60	--
	--	--	--	--	--	--	<0.010	--	3.40	--
	--	--	--	--	3.87	--	0.030	--	3.90	--
KE Be 161	0.030	11	--	90	--	--	<0.010	--	9.70	--
	0.020	10	--	98	--	--	<0.010	--	9.80	--
	0.020	10	--	92	--	--	<0.010	--	9.80	--
KE Be 162	0.020	14	--	--	--	--	<0.010	--	3.30	--
	0.020	13	--	--	--	--	<0.010	--	3.20	--
	0.010	13	--	45	--	--	<0.010	--	3.50	--
KE Be 163	0.030	9.5	--	--	--	--	<0.010	--	14.0	--
	0.030	9.9	--	--	--	--	<0.010	--	13.0	--
	0.030	10	--	113	--	--	<0.010	--	15.0	--
KE Be 164	0.030	12	--	--	--	--	<0.010	--	11.0	--
KE Be 165	0.050	12	--	151	--	--	<0.010	--	18.0	--
KE Be 166	0.030	12	--	137	--	--	<0.010	--	14.0	--
KE Be 167	0.010	15	--	107	--	--	<0.010	--	3.60	--
KE Be 169	0.020	11	--	--	--	--	<0.010	--	10.0	--
	0.010	12	--	128	--	--	<0.010	--	12.0	--
KE Be 170	0.020	10	--	70	--	--	<0.010	--	5.00	--
	0.020	11	--	65	--	--	<0.020	--	4.80	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
KE Be 47	--	--	<0.020	<0.010	--	--	--	--	--
KE Be 50	0.050	0.70	--	--	<0.010	20	<1	<1	150
	0.020	0.60	--	--	<0.010	--	--	--	--
	0.010	0.60	--	--	<0.010	<10	<1	<1	110
	0.060	0.60	--	--	<0.010	--	--	--	--
	0.020	0.60	--	--	<0.010	--	--	--	--
	<0.010	0.50	--	--	0.010	--	--	--	--
	0.020	0.30	--	--	<0.010	--	--	--	--
KE Be 52	<0.010	0.70	--	--	<0.010	10	<1	<1	180
	<0.010	0.60	--	--	<0.010	<10	<1	<1	190
	0.020	0.50	--	--	<0.010	--	--	--	--
	0.020	0.50	--	--	<0.010	<10	<1	<1	200
	0.040	0.70	--	--	<0.010	--	--	--	--
	0.020	0.40	--	--	<0.010	--	--	--	--
	<0.010	0.50	--	--	0.020	--	--	--	--
	0.020	0.30	--	--	<0.010	--	--	--	--
KE Be 59	0.120	0.60	--	--	<0.010	<10	<1	<1	92
KE Be 61	<0.010	0.60	--	--	0.010	40	<1	<1	64
	<0.010	<0.20	--	--	<0.010	<10	<1	<1	63
	<0.010	0.40	--	--	<0.010	<10	<1	<1	76
KE Be 62	<0.010	1.3	--	--	<0.010	10	<1	<1	93
	<0.010	0.60	--	--	<0.010	<10	<1	<1	81
	<0.010	0.40	--	--	<0.010	--	--	--	--
	<0.010	0.50	--	--	<0.010	<10	<1	<1	77
	0.020	<0.20	--	--	<0.010	--	--	--	--
KE Be 63	<0.010	0.70	--	--	0.030	<10	<1	<1	54
KE Be 64	<0.010	<0.20	--	--	0.020	30	<1	<1	220
	<0.010	0.40	--	--	<0.010	--	--	--	--
	0.010	0.40	--	--	<0.010	20	<1	<1	200
KE Be 159	0.060	0.20	--	--	0.040	<10	<1	<1	85
	<0.010	<0.20	--	--	0.010	<10	<1	<1	87
	<0.010	<0.20	--	--	<0.010	<10	<1	1	94
KE Be 160	0.120	0.60	--	--	<0.010	50	<1	<1	44
	<0.010	<0.20	--	--	<0.010	5	<1	<1	41
	<0.010	<0.20	--	--	<0.010	--	--	--	--
	<0.010	0.40	--	--	<0.010	4	<1	<1	42
	0.040	0.40	--	--	<0.010	--	--	--	--
	0.020	0.30	--	--	<0.010	--	--	--	--
	<0.010	0.30	--	--	0.010	--	--	--	--
	0.020	0.40	--	--	<0.010	--	--	--	--
KE Be 161	0.030	0.60	--	--	0.030	20	<1	<1	180
	<0.010	0.70	--	--	<0.010	<10	<1	<1	150
	<0.010	0.40	--	--	<0.010	<10	<1	<1	190
KE Be 162	<0.010	0.30	--	--	<0.010	<10	<1	<1	35
	<0.010	<0.20	--	--	<0.010	5	<1	<1	33
	<0.010	0.20	--	--	<0.010	30	<1	<1	38
KE Be 163	<0.010	0.50	--	--	0.030	10	<1	<1	140
	<0.010	0.60	--	--	<0.010	<10	<1	<1	180
	<0.010	0.70	--	--	<0.010	20	<1	<1	200
KE Be 164	0.050	0.60	--	--	<0.010	20	<1	<1	53
KE Be 165	<0.010	0.30	--	--	0.030	10	<1	<1	150
KE Be 166	<0.010	0.50	--	--	0.030	40	<1	<1	250
KE Be 167	<0.010	0.30	--	--	0.030	60	<1	<1	110
KE Be 169	<0.050	0.60	--	--	<0.010	8	<1	<1	73
	<0.010	0.30	--	--	<0.010	<10	<1	<1	100
KE Be 170	<0.010	0.70	--	--	<0.010	<10	<1	<1	73
	<0.080	0.60	--	--	<0.010	<10	<1	<1	65

QUALITY OF GROUND WATER

531

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
KE B# 47	--	--	--	--	--	--	170	26	--
KE B# 50	0.5	<10	<1.0	<5	<3	<10	--	14	<10
	--	--	--	--	--	--	--	--	--
	<0.5	<10	<1.0	<5	<3	<10	--	3	<10
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE B# 52	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
	<0.5	<10	<1.0	<5	<3	<10	--	4	<10
	--	--	--	--	--	--	--	--	--
	0.6	<10	<1.0	<5	<3	<10	--	<3	<10
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE B# 59	<0.5	<10	<1.0	<5	<3	<10	--	47	<10
KE B# 61	<0.5	<10	1.0	<5	<3	<10	--	32	<10
	0.8	<10	1.0	<5	<3	<10	--	3	<10
	<0.5	<10	<1.0	<5	<3	<10	--	6	<10
KE B# 62	<0.5	<10	<1.0	<5	<3	<10	--	4	<10
	<0.5	<10	1.0	<5	<3	<10	--	<3	<10
	--	--	--	--	--	--	--	--	--
	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
	--	--	--	--	--	--	--	--	--
KE B# 63	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
KE B# 64	0.6	<10	<1.0	<5	<3	<10	--	6	<10
	--	--	--	--	--	--	--	--	--
	<0.5	<10	<1.0	<5	<3	<10	--	3	<10
KE B# 159	<0.5	<10	<1.0	<5	<3	<10	--	4	<10
	<0.5	<10	1.0	<5	<3	<10	--	3	<10
	<0.5	<10	<1.0	<5	<3	<10	--	9	<10
KE B# 160	<0.5	<10	<1.0	<5	<3	<10	--	65	<10
	<0.5	<10	<1.0	<5	<3	<10	--	8	<10
	--	--	--	--	--	--	--	--	--
	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE B# 161	<0.5	10	<1.0	<5	<3	<10	--	<3	<10
	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
	0.6	<10	<1.0	<5	<3	<10	--	10	<10
KE B# 162	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
	<0.5	<10	<1.0	7	<3	<10	--	68	<10
KE B# 163	<0.5	<10	<1.0	<5	<3	<10	--	4	<10
	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
	<0.5	<10	<1.0	<5	<3	<10	--	13	<10
KE B# 164	<0.5	<10	<1.0	<5	<3	<10	--	26	<10
	<0.5	<10	<1.0	<5	<3	<10	--	<3	<10
KE B# 165	<0.5	10	<1.0	<5	<3	<10	--	<3	<10
KE B# 166	<0.5	10	<1.0	<5	<3	<10	--	<3	<10
KE B# 167	<0.5	10	<1.0	<5	6	<10	--	4	<10
KE B# 169	<0.5	<10	<1.0	<5	<3	<10	--	160	<10
	<0.5	<10	<1.0	<5	<3	<10	--	100	<10
KE B# 170	<0.5	<10	<1.0	<5	<3	<10	--	8	<10
	<0.5	<10	<1.0	<5	<3	<10	--	7	<10

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)
KE Be 47	--	280	290	--	--	--	--	--	--
KE Be 50	<4	--	63	<10	<10	<1	1.0	350	<6
	--	--	--	--	--	--	--	--	--
	<4	--	45	<10	<10	1	<1.0	300	<6
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 52	<4	--	49	<10	<10	<1	<1.0	140	<6
	<4	--	48	<10	<10	<1	<1.0	150	<6
	--	--	--	--	--	--	--	--	--
	<4	--	43	<10	<10	<1	<1.0	160	<6
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 59	<4	--	390	<10	<10	5	<1.0	150	<6
KE Be 61	<4	--	22	<10	<10	<1	<1.0	23	<6
	<4	--	16	<10	<10	<1	<1.0	25	<6
	<4	--	20	<10	<10	<1	<1.0	27	<6
KE Be 62	<4	--	3	<10	<10	1	<1.0	110	<6
	<4	--	3	<10	<10	1	<1.0	100	<6
	--	--	--	--	--	--	--	--	--
	<4	--	3	<10	<10	1	<1.0	100	<6
	--	--	--	--	--	--	--	--	--
KE Be 63	<4	--	10	<10	<10	<1	<1.0	28	<6
KE Be 64	<4	--	37	<10	10	<1	<1.0	120	<6
	--	--	--	--	--	--	--	--	--
	<4	--	26	<10	<10	<1	<1.0	110	<6
KE Be 159	4	--	21	<10	<10	<1	<1.0	96	<6
	4	--	<1	<10	<10	<1	<1.0	110	<6
	<4	--	<1	<10	<10	<1	<1.0	110	<6
KE Be 160	<4	--	84	<10	<10	<1	<1.0	16	<6
	<4	--	30	<10	<10	<1	<1.0	16	<6
	--	--	--	--	--	--	--	--	--
	<4	--	16	<10	<10	<1	<1.0	15	<6
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 161	<4	--	190	<10	10	<1	<1.0	52	<6
	<4	--	87	<10	<10	<1	<1.0	58	<6
	<4	--	80	<10	10	<1	<1.0	59	<6
KE Be 162	<4	--	9	<10	<10	<1	<1.0	15	<6
	<4	--	4	<10	<10	<1	<1.0	15	<6
	<4	--	7	<10	<10	<1	<1.0	16	<6
KE Be 163	<4	--	17	<10	<10	<1	<1.0	79	<6
	<4	--	16	<10	<10	<1	<1.0	90	<6
	<4	--	16	<10	<10	<1	<1.0	100	<6
KE Be 164	<4	--	20	<10	<10	<1	1.0	73	<6
KE Be 165	<4	--	29	<10	10	<1	<1.0	88	<6
KE Be 166	<4	--	230	<10	<10	<1	<1.0	200	<6
KE Be 167	<4	--	320	<10	<10	7	<1.0	70	<6
KE Be 169	<4	--	21	<10	<10	<1	<1.0	140	<6
	<4	--	37	<10	<10	<1	<1.0	120	<6
KE Be 170	<4	--	5	<10	<10	<1	<1.0	22	<6
	<4	--	4	<10	<10	<1	<1.0	20	<6

QUALITY OF GROUND WATER

533

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PCI/L)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
KE Be 47	--	--	--	--	--	0.4	110	--	--
KE Be 50	13	1.6	2.5	--	1.9	--	170	1.6	--
	--	--	--	--	--	--	--	--	--
	<3	--	--	--	--	--	150	0.6	0.18
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 52	11	2.1	3.1	810	2.5	--	60	0.8	--
	11	--	--	--	--	--	62	0.8	--
	--	--	--	--	--	--	--	--	--
	8	--	--	--	--	--	67	0.6	0.08
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 59	7	0.6	3.7	--	2.9	--	110	0.7	--
KE Be 61	17	0.8	2.3	220	2.1	--	27	1.2	--
	16	--	--	--	--	--	28	0.3	--
	17	--	--	--	--	--	32	0.3	0.07
KE Be 62	23	0.8	3.2	540	2.5	--	95	4.8	--
	<3	--	--	--	--	--	92	0.7	--
	--	--	--	--	--	--	--	--	--
	<3	--	--	--	--	--	100	0.6	0.11
	--	--	--	--	--	--	--	--	--
KE Be 63	10	<0.4	1.7	220	1.5	--	17	0.7	--
KE Be 64	16	1.0	3.8	370	3.1	--	61	0.8	--
	--	--	--	--	--	--	--	--	--
	12	--	--	--	--	--	61	0.5	0.06
KE Be 159	<3	<0.4	2.3	330	1.9	--	91	0.6	--
	<3	--	--	--	--	--	110	0.4	--
	<3	--	--	--	--	--	110	0.3	0.01
KE Be 160	8	--	--	--	--	--	13	0.3	--
	<3	--	--	--	--	--	13	0.7	--
	--	--	--	--	--	--	--	--	--
	6	--	--	--	--	--	12	0.4	0.03
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
KE Be 161	40	<0.4	3.2	140	2.8	--	37	19	--
	21	--	--	--	--	--	42	0.7	--
	33	--	--	--	--	--	42	0.5	0.06
KE Be 162	8	<0.4	1.5	390	1.4	--	13	0.6	--
	3	--	--	--	--	--	13	0.6	--
	<3	--	--	--	--	--	13	0.3	0.03
KE Be 163	25	0.5	4.3	250	3.6	--	45	0.4	--
	6	--	--	--	--	--	45	--	--
	4	--	--	--	--	--	48	0.2	0.09
KE Be 164	21	1.0	3.2	--	2.8	--	46	0.2	--
KE Be 165	10	<0.4	3.3	280	2.7	--	66	0.5	--
KE Be 166	7	0.9	4.4	420	3.7	--	77	0.8	--
KE Be 167	5	0.6	3.2	350	2.7	--	57	0.8	--
KE Be 169	<5	--	--	--	--	--	110	0.5	--
	9	--	--	--	--	--	85	1.3	0.07
KE Be 170	<3	--	--	--	--	--	16	2.1	--
	4	--	--	--	--	--	15	0.2	0.05

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
MONTGOMERY COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)		
MO Db 68	05-15-91	1418	390802077283801	231NOXF	GW	4040	15.31		
			DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	
			252.00	40	252	260	10	227	7.7
			TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)
			13.5	27.0	6.6	115	140	1.40	0.060

Geologic unit (aquifer): 231NOXF - New Oxford Formation

Site type: GW - Groundwater

Sampling method: 4040 - Submersible pump

QUALITY OF GROUND WATER

535

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

PRINCE GEORGES COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
PG Bc 37	05-21-91	1647	385920076571701	217PTXN	GW		4040	10.80	25.00	15
PG Hf 45	10-18-90	1130	383258076412101	217PPSC	GW		4040	76.77	1085	850
PG Hf 46	11-16-90	1300	383259076412701	217PPSC	GW		4040	78.00	1064	852
	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)
PG Bc 37	25	165	33	1.0	1710	5.0	12.5	26.0	3.2	16
PG Hf 45	1070	60.0	1560	400	240	--	20.0	--	--	19
PG Hf 46	1050	60.0	1680	300	260	7.3	21.0	25.0	--	18
	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
PG Bc 37	10	300	5.1	--	--	9	10	25	540	0.20
PG Hf 45	11	16	9.2	--	--	--	6.5	2.3	0.40	10
PG Hf 46	11	17	9.5	113	--	--	7.5	<0.10	0.30	9.9
	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
PG Bc 37	956	919	<0.010	0.220	0.060	<0.010	<0.010	280	<1	330
PG Hf 45	148	158	<0.010	<0.100	0.170	0.060	0.060	--	--	--
PG Hf 46	142	--	<0.010	<0.100	0.230	0.030	0.030	--	--	--
	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)
PG Bc 37	0.8	<10	<1	140	1	8000	6100	5	<4	1100
PG Hf 45	--	--	--	--	--	820	700	--	--	10
PG Hf 46	--	--	--	--	--	960	900	--	--	20
	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	
PG Bc 37	970	<0.1	<1	46	<1	25	62	1.5	81	
PG Hf 45	11	--	--	--	--	--	--	--	93	
PG Hf 46	12	--	--	--	--	--	--	--	90	

Geologic unit (aquifer): 217PPSC - Patapsco Formation
217PTXN - Patuxent Formation

Site type: GW - Groundwater

Sampling method: 4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

QUEEN ANNES COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
QA Cg 1	11-20-90	1615	390841075515201		112WCML	GW	4030	5.35	60.00	50
	02-20-91	1740			112WCML	GW	4030	4.30	60.00	50
QA Db 14	05-22-91	1050	390055076184501		125AQUI	GW	4010	--	165.00	145
	08-26-91	1030			125AQUI	GW	4010	--	165.00	145
QA Db 15	05-22-91	1000	390022076191801		125AQUI	GW	4010	--	103.00	96
	08-27-91	0730			125AQUI	GW	4010	--	103.00	96
QA Db 17	05-23-91	1045	390059076191801		125AQUI	GW	4010	--	--	--
	08-26-91	1200			125AQUI	GW	4010	--	--	--
QA Db 23	05-22-91	1315	390033076184501		125AQUI	GW	4010	--	185.00	165
	08-26-91	1115			125AQUI	GW	4010	--	185.00	165
QA Db 27	05-29-91	1230	390117076191301		125AQUI	GW	4010	--	145.00	110
	08-23-91	1340			125AQUI	GW	4010	--	145.00	110
QA Db 30	11-27-90	1330	390201076182701		125AQUI	GW	4020	17.20	220.00	210
	02-13-91	1130			125AQUI	GW	4020	16.77	220.00	210
	05-23-91	1245			125AQUI	GW	4020	16.83	220.00	210
QA Db 32	12-06-90	1030	390201076182703		125AQUI	GW	4020	16.91	116.00	106
	02-13-91	1215			125AQUI	GW	4020	16.52	116.00	106
	05-23-91	1400			125AQUI	GW	4020	16.73	116.00	106
	08-22-91	1200			125AQUI	GW	4020	16.76	116.00	106
QA Db 34	12-04-90	1100	390023076174301		125AQUI	GW	4020	7.86	180.00	170
	02-12-91	1400			125AQUI	GW	4020	8.89	180.00	170
	05-20-91	1215			125AQUI	GW	4020	8.08	180.00	170
	08-21-91	1430			125AQUI	GW	4020	12.22	180.00	170
QA Db 35	11-20-90	1320	390119076191001		125AQUI	GW	4030	6.01	200.00	190
	02-14-91	1215			125AQUI	GW	4020	5.77	200.00	190
	05-29-91	1145			125AQUI	GW	4020	5.81	200.00	190
	08-23-91	1000			125AQUI	GW	4020	5.97	200.00	190
QA Db 36	12-04-90	1230	390201076182704		125AQUI	GW	4020	16.57	180.00	170
	02-13-91	1100			125AQUI	GW	4020	16.53	180.00	170
	06-07-91	1315			125AQUI	GW	4030	16.30	180.00	170
QA Db 37	11-27-90	1115	390023076174302		125AQUI	GW	4020	8.75	250.00	240
	02-12-91	1455			125AQUI	GW	4020	8.72	250.00	240
	05-20-91	1145			125AQUI	GW	4020	7.76	250.00	240
	08-22-91	1100			125AQUI	GW	4020	8.79	250.00	240
QA Ea 39	05-30-91	1515	385825076202901		125AQUI	GW	4010	--	95.00	80
	08-27-91	1215			125AQUI	GW	4010	--	95.00	80
QA Ea 42	08-29-91	1145	385820076202501		125AQUI	GW	4010	--	120.00	100
QA Ea 45	05-21-91	1305	385554076213801		125AQUI	GW	4010	--	210.00	200
	08-28-91	1000			125AQUI	GW	4010	--	210.00	200
QA Ea 48	05-31-91	1030	385825076201201		125AQUI	GW	4010	--	160.00	129
	08-27-91	1000			125AQUI	GW	4010	--	160.00	126
QA Ea 59	05-20-91	1415	385505076215001		125AQUI	GW	4010	--	215.00	195
	08-27-91	0915			125AQUI	GW	4010	--	215.00	195
QA Ea 60	05-30-91	1315	385701076212501		125AQUI	GW	4010	--	185.00	165
	08-28-91	1415			125AQUI	GW	4010	--	185.00	165
QA Ea 61	08-26-91	1330	385812076202801		125AQUI	GW	4010	--	170.00	150
QA Ea 71	05-30-91	1445	385742076205801		125AQUI	GW	4010	--	135.00	115
	08-27-91	1145			125AQUI	GW	4010	--	135.00	115
QA Ea 77	11-26-90	1110	385718076211501		125AQUI	GW	4020	13.03	205.00	195
	02-11-91	1145			125AQUI	GW	4020	12.66	205.00	195
	06-06-91	1130			125AQUI	GW	4020	12.46	205.00	195
	08-20-91	1000			125AQUI	GW	4020	12.76	205.00	195
QA Ea 78	12-03-90	0950	385718076211502		125AQUI	GW	4020	13.57	135.00	125
	02-11-91	1130			125AQUI	GW	4020	12.78	135.00	125
	05-28-91	1447			125AQUI	GW	4040	12.15	135.00	125
	06-06-91	1115			125AQUI	GW	4020	12.54	135.00	125
	08-20-91	0930			125AQUI	GW	4020	12.79	135.00	125

Geologic unit (aquifer): 112WCML - Wicomico Formation
 125AQUI - Aquia Formation

Sampling method: 4010 - Thief sampler
 4020 - Bailer
 4030 - Suction pump

Site type: GW - Groundwater

QUALITY OF GROUND WATER

537

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

QUEEN ANNES COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
QA Cg 1	60	69.0	50	6.9	187	5.8	15.5	10.0	--
	60	69.0	40	10	185	5.7	15.5	13.0	2.9
QA Db 14	165	15.0	15	--	450	7.1	17.0	25.0	--
	165	15.0	15	--	450	7.1	16.0	26.0	--
QA Db 15	103	15.0	15	--	1020	6.7	17.0	22.0	--
	103	15.0	15	--	1000	6.8	17.0	24.0	--
QA Db 17	--	20.0	15	--	610	7.1	16.0	25.0	--
	--	20.0	15	--	610	7.0	17.0	26.0	--
QA Db 23	185	18.0	15	--	450	7.0	15.0	27.0	--
	185	18.0	15	--	450	7.3	16.0	26.0	--
QA Db 27	145	15.0	30	--	1390	7.1	16.0	27.0	--
	145	15.0	15	--	1300	7.0	17.0	30.0	--
QA Db 30	220	23.4	60	9.0	18000	6.3	16.0	14.0	--
	220	23.4	90	8.0	18000	6.5	15.0	17.0	--
	220	23.4	90	8.0	0	6.3	16.0	27.0	--
QA Db 32	116	21.2	105	3.5	7000	6.5	14.5	6.5	--
	116	21.2	25	8.0	6200	6.7	15.0	17.0	--
	116	21.2	20	8.5	7000	6.8	16.0	27.0	--
	116	21.2	150	1.3	9000	6.6	16.0	29.0	--
QA Db 34	180	7.4	45	30	470	7.1	15.0	10.0	--
	180	7.4	10	60	470	7.6	15.0	5.0	--
	180	7.4	35	30	500	7.3	16.0	14.5	--
	180	7.4	90	7.0	510	7.1	17.0	30.0	--
QA Db 35	200	7.5	180	1.0	18000	6.9	14.5	12.0	--
	200	7.5	155	4.0	18000	6.3	15.0	12.0	--
	200	7.5	100	4.0	40000	6.5	16.0	27.0	--
	200	7.5	95	4.0	23000	6.5	16.0	27.0	--
QA Db 36	180	21.3	60	7.0	4200	8.9	15.0	10.0	--
	180	21.3	45	8.0	4500	8.4	14.5	17.0	--
	180	21.3	15	2.0	45000	6.7	--	24.0	--
QA Db 37	250	7.1	90	9.0	560	7.7	14.0	14.5	--
	250	7.1	65	7.5	550	7.5	15.0	5.0	--
	250	7.1	105	4.8	580	7.2	15.0	14.5	--
	250	7.1	120	4.8	580	7.2	17.0	26.0	--
QA Ea 39	95	15.0	15	--	410	7.2	17.0	32.0	--
	95	15.0	15	--	410	7.3	17.0	27.0	--
QA Ea 42	120	18.0	15	--	580	7.1	18.0	33.0	--
QA Ea 45	210	15.0	15	--	355	7.2	17.0	22.0	--
	210	15.0	15	--	330	7.3	17.0	30.0	--
QA Ea 48	160	5.0	15	--	1150	7.1	16.0	29.0	--
	160	5.0	15	--	1120	7.1	17.0	26.0	--
QA Ea 59	215	10.0	15	--	630	8.0	16.0	17.0	--
	215	10.0	15	--	630	7.6	17.0	27.0	--
QA Ea 60	185	7.0	15	--	1180	7.2	17.0	32.0	--
	185	7.0	15	--	1120	7.2	18.0	34.0	--
QA Ea 61	170	18.0	15	--	2450	7.0	17.0	27.0	--
QA Ea 71	135	20.0	15	--	575	7.2	17.0	32.0	--
	135	20.0	15	--	620	7.2	17.0	28.0	--
QA Ea 77	205	10.8	90	--	17000	6.8	16.5	11.5	--
	205	10.8	60	12	17500	6.6	14.0	2.0	--
	205	10.8	30	13	20000	6.4	16.0	20.0	--
	205	12.2	40	10	20000	6.9	16.5	17.0	--
QA Ea 78	135	11.9	45	15	310	7.1	14.5	10.0	--
	135	11.9	60	10	320	7.2	14.0	2.0	--
	135	11.8	280	0.9	307	7.8	16.0	29.5	<0.1
	135	11.8	30	8.5	330	7.1	16.0	20.0	--
	135	11.8	60	8.0	310	7.3	17.0	17.0	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

QUEEN ANNES COUNTY, MARYLAND--Continued

WELL NUMBER	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WE TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
QA Cg 1	9.2	4.3	12	6.0	13	16	9.4	17	<0.10
QA Db 14	9.4	4.3	12	6.3	12	15	12	17	<0.10
QA Db 15	--	--	--	--	--	--	--	18	--
QA Db 17	--	--	--	--	--	--	--	17	--
QA Db 23	--	--	--	--	--	--	--	130	--
QA Db 27	--	--	--	--	--	--	--	130	--
QA Db 30	--	--	--	--	--	--	--	65	--
QA Db 32	--	--	--	--	--	--	--	71	--
QA Db 34	--	--	--	--	--	--	--	22	--
QA Db 35	--	--	--	--	--	--	--	20	--
QA Db 36	--	--	--	--	--	--	--	340	--
QA Db 37	--	--	--	--	--	--	--	300	--
QA Db 38	--	--	--	--	--	--	630	6100	0.40
QA Db 39	--	--	--	--	--	--	630	5900	0.20
QA Db 40	--	--	--	--	--	--	--	7200	--
QA Db 41	--	--	--	--	--	--	350	2100	0.40
QA Db 42	--	--	--	--	--	--	320	1800	<0.10
QA Db 43	--	--	--	--	--	--	--	2200	--
QA Db 44	--	--	--	--	--	--	--	2900	--
QA Db 45	--	--	--	--	--	--	1.1	12	0.10
QA Db 46	--	--	--	--	--	--	1.1	16	0.10
QA Db 47	--	--	--	--	--	--	--	16	--
QA Db 48	--	--	--	--	--	--	--	13	--
QA Db 49	--	--	--	--	--	--	540	7800	1.1
QA Db 50	--	--	--	--	--	--	610	7900	0.30
QA Db 51	--	--	--	--	--	--	--	5100	--
QA Db 52	--	--	--	--	--	--	--	6300	--
QA Db 53	--	--	--	--	--	--	180	1200	0.30
QA Db 54	--	--	--	--	--	--	200	1700	0.50
QA Db 55	--	--	--	--	--	--	--	--	--
QA Db 56	--	--	--	--	--	--	53	14	0.20
QA Db 57	--	--	--	--	--	--	57	15	<0.10
QA Db 58	--	--	--	--	--	--	--	16	--
QA Ea 39	--	--	--	--	--	--	--	13	--
QA Ea 42	--	--	--	--	--	--	--	29	--
QA Ea 45	--	--	--	--	--	--	--	35	--
QA Ea 48	--	--	--	--	--	--	--	94	--
QA Ea 59	--	--	--	--	--	--	--	6.6	--
QA Ea 60	--	--	--	--	--	--	--	6.4	--
QA Ea 61	--	--	--	--	--	--	--	--	--
QA Ea 71	--	--	--	--	--	--	--	240	--
QA Ea 77	--	--	--	--	--	--	--	120	--
QA Ea 78	--	--	--	--	--	--	--	110	--
QA Ea 79	--	--	--	--	--	--	--	270	--
QA Ea 80	--	--	--	--	--	--	--	280	--
QA Ea 81	--	--	--	--	--	--	--	810	--
QA Ea 82	--	--	--	--	--	--	--	91	--
QA Ea 83	--	--	--	--	--	--	--	92	--
QA Ea 84	--	--	--	--	--	--	330	6000	0.50
QA Ea 85	--	--	--	--	--	--	300	6500	0.30
QA Ea 86	--	--	--	--	--	--	--	6000	--
QA Ea 87	--	--	--	--	--	--	--	6000	--
QA Ea 78	--	--	--	--	--	--	1.7	10	0.10
	--	--	--	--	--	--	320	12	<0.10
	45	7.4	12	3.9	165	201	0.20	5.9	0.10
	--	--	--	--	--	--	--	8.5	--
	--	--	--	--	--	--	--	3.7	--

QUALITY OF GROUND WATER

539

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

QUEEN ANNES COUNTY, MARYLAND--Continued

WELL NUMBER	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)
QA Cg 1	--	18	--	84	<0.010	9.50	0.910	<0.010	<0.010
	--	19	--	87	<0.010	8.00	0.790	<0.010	<0.010
QA Db 14	0.050	--	--	--	--	--	--	--	--
	0.060	--	--	--	--	--	--	--	--
QA Db 15	0.33	--	--	--	--	--	--	--	--
	0.34	--	--	--	--	--	--	--	--
QA Db 17	0.21	--	--	--	--	--	--	--	--
	0.23	--	--	--	--	--	--	--	--
QA Db 23	0.060	--	--	--	--	--	--	--	--
	0.070	--	--	--	--	--	--	--	--
QA Db 27	1.1	--	--	--	--	--	--	--	--
	0.92	--	--	--	--	--	--	--	--
QA Db 30	22	--	--	--	--	--	--	--	--
	21	--	--	--	--	--	--	--	--
	20	--	--	--	--	--	--	--	--
QA Db 32	7.1	--	--	--	--	--	--	--	--
	7.9	--	--	--	--	--	--	--	--
	7.1	--	--	--	--	--	--	--	--
	9.5	--	--	--	--	--	--	--	--
QA Db 34	<0.010	--	--	--	--	--	--	--	--
	0.040	--	--	--	--	--	--	--	--
	0.030	--	--	--	--	--	--	--	--
QA Db 35	<0.010	--	--	--	--	--	--	--	--
	22	--	--	--	--	--	--	--	--
	22	--	--	--	--	--	--	--	--
	21	--	--	--	--	--	--	--	--
	19	--	--	--	--	--	--	--	--
QA Db 36	3.7	--	--	--	--	--	--	--	--
	5.5	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
QA Db 37	0.030	--	--	--	--	--	--	--	--
	0.040	--	--	--	--	--	--	--	--
	0.040	--	--	--	--	--	--	--	--
	0.020	--	--	--	--	--	--	--	--
QA Ea 39	0.090	--	--	--	--	--	--	--	--
	0.10	--	--	--	--	--	--	--	--
QA Ea 42	0.28	--	--	--	--	--	--	--	--
QA Ea 45	0.020	--	--	--	--	--	--	--	--
	0.030	--	--	--	--	--	--	--	--
QA Ea 48	--	--	--	--	--	--	--	--	--
	0.75	--	--	--	--	--	--	--	--
QA Ea 59	0.33	--	--	--	--	--	--	--	--
	0.35	--	--	--	--	--	--	--	--
QA Ea 60	0.82	--	--	--	--	--	--	--	--
	0.91	--	--	--	--	--	--	--	--
QA Ea 61	2.3	--	--	--	--	--	--	--	--
QA Ea 71	0.25	--	--	--	--	--	--	--	--
	0.32	--	--	--	--	--	--	--	--
QA Ea 77	20	--	--	--	--	--	--	--	--
	20	--	--	--	--	--	--	--	--
	19	--	--	--	--	--	--	--	--
	19	--	--	--	--	--	--	--	--
QA Ea 78	0.020	--	--	--	--	--	--	--	--
	0.020	--	--	--	--	--	--	--	--
	--	24	197	199	0.010	<0.050	0.910	0.180	0.180
	0.040	--	--	--	--	--	--	--	--
	0.020	--	--	--	--	--	--	--	--

[illegible]

QUALITY OF GROUND WATER

541

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

QUEEN ANNES COUNTY, MARYLAND--Continued

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)
QA Ea 79	11-26-90	1330	385757076200101		125AQUI	GW	4020	10.70
	02-12-91	1130			125AQUI	GW	4020	10.49
	06-07-91	1130			125AQUI	GW	4020	10.78
QA Ea 80	12-03-90	1130	385757076200102		125AQUI	GW	4020	11.31
	02-12-91	1230			125AQUI	GW	4020	10.79
	05-21-91	0955			125AQUI	GW	4020	10.57
QA Ea 81	08-21-91	1100	385718076211503		125AQUI	GW	4020	11.20
	11-26-90	1140			125AQUI	GW	4020	12.49
	02-11-91	1300			125AQUI	GW	4020	12.29
	06-06-91	1245			125AQUI	GW	4020	12.32
	08-20-91	1345			125AQUI	GW	4020	12.62
QA Ea 82	05-30-91	1350	385705076212002		125AQUI	GW	4010	--
QA Ea 83	08-28-91	1300			125AQUI	GW	4010	--
	05-30-91	1400			125AQUI	GW	4010	--
QA Eb 156	08-28-91	1345	385852076195201		125AQUI	GW	4010	--
	11-28-90	1000			125AQUI	GW	4020	13.97
	02-15-91	1025			125AQUI	GW	4020	13.42
	05-16-91	1140			125AQUI	GW	4020	13.49
QA Eb 157	08-23-91	1240	385852076195202		125AQUI	GW	4020	14.10
	12-06-90	1200			125AQUI	GW	4020	14.58
	02-15-91	1040			125AQUI	GW	4020	11.86
QA Fa 49	05-16-91	1200	385354076212701		125AQUI	GW	4020	12.08
	08-23-91	1130			125AQUI	GW	4020	12.80
	05-21-91	1130			125AQUI	GW	4010	--
	08-28-91	0830			125AQUI	GW	4010	--
	05-31-91	1130			125AQUI	GW	4010	--
QA Fa 54	09-04-91	1330	385024076222501		125AQUI	GW	4010	--
	05-30-91	1000			125AQUI	GW	4010	--
QA Fa 58	08-29-91	0930	385133076201201		125AQUI	GW	4010	--
QA Fa 60	05-30-91	1115			125AQUI	GW	4010	--
	05-21-91	1215	385434076215601		125AQUI	GW	4010	--
QA Fa 63	08-28-91	0915			125AQUI	GW	4010	--
QA Fa 64	05-20-91	1330	385454076214901		125AQUI	GW	4010	--
	08-27-91	0830			125AQUI	GW	4010	--
QA Fa 66	05-22-91	1215	385236076215201		125AQUI	GW	4010	--
QA Fa 67	08-28-91	1130			125AQUI	GW	4010	--
	05-21-91	1400	385023076222201		125AQUI	GW	4010	--
	08-28-91	11			125AQUI	GW	4010	--
QA Fa 72	08-29-91	1015	385254076201301		125AQUI	GW	4010	--
QA Fa 74	05-30-91	1045			125AQUI	GW	4010	--
QA Fa 75	09-04-91	1415	385155076200401		125AQUI	GW	4010	--
	05-29-91	1345			125AQUI	GW	4010	--

Geologic unit (aquifer): 125AQUI - Aquia Formation

Sampling method: 4010 - Thief sampler
4020 - Bailer

Site type: GW - Groundwater

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 QUEEN ANNES COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
QA Ea 79	298.00	288	298	8.3	70	9.0	350	9.5
	298.00	288	298	8.3	90	8.0	330	8.8
	298.00	288	298	8.3	40	8.5	350	9.6
QA Ea 80	130.00	120	130	8.5	45	7.0	330	7.8
	130.00	120	130	8.5	45	11	320	7.7
	130.00	120	130	8.5	18	30	355	7.1
QA Ea 81	130.00	120	130	8.5	25	20	350	7.5
	310.00	300	310	12.4	120	6.0	500	7.6
	310.00	300	310	12.4	70	6.7	510	7.5
QA Ea 82	310.00	300	310	12.4	70	8.5	550	7.4
	310.00	300	310	12.4	420	1.0	550	7.0
	170.00	155	170	10.0	15	--	910	7.5
QA Ea 83	170.00	155	170	10.0	15	--	900	7.2
	170.00	160	170	10.0	15	--	390	7.5
	170.00	160	170	10.0	15	--	380	7.3
QA Eb 156	220.00	210	220	12.0	60	10	17000	6.2
	220.00	210	220	12.0	60	11	18000	6.2
	220.00	210	220	12.0	60	11	20500	6.2
QA Eb 157	220.00	210	220	12.0	100	4.0	20000	6.4
	120.00	110	120	11.9	40	30	330	7.0
	120.00	110	120	11.9	20	30	340	7.6
QA Fa 49	120.00	110	120	11.9	15	21	370	7.4
	120.00	110	120	11.9	10	30	330	7.1
	210.00	--	--	8.0	15	--	900	7.1
QA Fa 54	210.00	--	--	8.0	15	--	850	7.1
	260.00	240	260	10.0	15	--	350	7.6
	260.00	240	260	10.0	15	--	350	7.3
QA Fa 58	280.00	260	280	7.1	20	--	465	7.6
	280.00	260	280	7.1	15	--	450	7.5
	240.00	230	240	10.0	4	100	410	7.7
QA Fa 63	235.00	200	235	15.0	15	--	460	7.0
	235.00	200	235	15.0	15	--	450	7.0
QA Fa 64	231.00	191	231	5.0	15	--	880	7.5
	231.00	191	231	5.0	15	--	830	7.5
	270.00	250	270	13.0	40	--	510	7.5
QA Fa 66	270.00	250	270	13.0	15	--	500	7.6
	270.00	250	270	7.0	15	--	350	7.3
	270.00	250	270	10.0	15	--	110	7.5
QA Fa 72	220.00	--	--	12.0	15	--	470	7.6
	280.00	--	--	10.0	15	--	460	7.5
	280.00	--	--	10.0	15	--	450	7.4
QA Fa 74	280.00	--	--	10.0	15	--	490	7.5
	280.00	--	--	10.0	15	--	450	7.4
	200.00	--	--	10.0	15	--	490	7.5

QUALITY OF GROUND WATER

543

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

QUEEN ANNES COUNTY, MARYLAND--Continued

WELL NUMBER	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)
QA Ea 79	16.0	11.5	--	44	3.9	0.50	<0.010
	15.0	-1.0	--	42	3.6	0.30	0.020
	17.0	22.0	--	--	42	--	0.010
QA Ea 80	14.5	10.0	--	<1.0	4.2	0.10	<0.010
	15.0	-1.0	7.7	<1.0	5.0	0.10	0.020
	15.0	19.0	--	--	1.0	--	0.020
QA Ea 81	17.0	26.0	--	--	3.9	--	<0.010
	16.0	11.5	--	85	43	0.30	0.15
	14.0	2.0	--	82	54	0.20	0.18
QA Ea 82	16.0	20.0	--	--	100	--	0.20
	17.0	29.0	--	--	54	--	0.21
	17.0	32.0	--	--	160	--	0.70
QA Ea 83	18.0	31.0	--	--	--	--	--
	17.0	32.0	--	--	--	--	--
	18.0	31.0	--	--	15	--	0.070
QA Eb 156	15.5	15.5	--	430	5700	0.30	21
	14.0	4.0	--	210	6400	1.9	23
	16.0	25.5	--	--	6800	--	21
QA Eb 157	17.0	30.0	--	--	7300	--	21
	15.0	6.5	--	1.5	7.1	0.20	0.020
	14.0	4.0	--	25	48	0.80	0.070
QA Fa 49	15.5	25.5	--	--	15	--	0.040
	16.0	30.0	--	--	8.9	--	0.040
	17.0	21.0	--	--	160	--	0.55
QA Fa 54	17.0	26.0	--	--	170	--	0.60
	17.0	30.5	--	--	20	--	0.060
	17.0	32.0	--	--	--	--	--
QA Fa 58	16.0	27.0	--	--	10	--	0.040
	18.0	30.0	--	--	--	--	--
	17.0	28.0	--	--	12	--	0.040
QA Fa 63	17.0	21.0	--	--	11	--	0.040
	17.0	29.0	--	--	11	--	0.040
	16.0	17.0	7.0	--	190	--	0.65
QA Fa 64	18.0	25.0	--	--	190	--	0.58
	18.0	25.0	--	--	--	--	--
QA Fa 66	18.0	33.0	--	--	--	--	--
	17.0	22.0	--	--	--	--	--
	18.0	32.0	--	--	--	--	--
QA Fa 67	17.0	34.0	--	--	16	--	0.050
	17.0	27.0	--	--	16	--	0.040
QA Fa 72	17.0	32.0	--	--	--	--	--
	17.0	29.0	--	--	24	--	0.080
	17.0	29.0	--	--	--	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

ST. MARYS COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
SM Ef 80	05-09-91	1004	381052076253001	1120MAR	GW		4040	17.62	20.70
	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
	21	40.0	94	0.7	166	5.6	13.0	18.5	3.7
	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
	18	4.0	3.1	2.8	7	8	30	5.2	<0.10
	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)
	5.9	101	73	<0.010	6.00	<0.010	<0.010	<0.010	20
	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
	<1	15	<0.5	<1.0	<1	2	5	60	4
	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)
	<1	<4	20	18	<0.1	<1	2	<1	<1
	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	
	20	13	1.3	61	<0.01	<0.01	<0.01	<0.01	

Geologic unit (aquifer): 1120MAR - Omar Formation

Site type: GW - Groundwater

Sampling method: 4040 - Submersible pump

QUALITY OF GROUND WATER

545

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

SOMERSET COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
SO Be 112	05-29-91	1040	381141075415602	112CLMB	GW		4020	8.88	20.00
	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
	17	20	10.0	8	0.9	439	5.5	17.0	30.0
	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
	9.1	8.3	65	2.9	8	63	77	<0.10	22
	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	
	258	252	0.020	3.00	0.130	<0.100	0.020	5000	
	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	
	<10	4000	16	170	180	<10	4.1	57	

Geologic unit (aquifer): 112CLMB - Columbia Formation

Site type: GW - Groundwater

Sampling method: 4020 - Bailer

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
TALBOT COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
TA Co 7	11-20-90	1232	384643076043801		122CLVR	GW	4040	11.56	104.00
	02-20-91	1350			122CLVR	GW	4040	5.93	104.00
	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
	104	13.0	60	9.3	334	7.7	16.0	12.0	--
	104	13.0	85	0.8	334	7.7	18.0	15.5	0.3
	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WE TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
	38	12	14	5.4	180	220	4.4	3.2	0.20
	40	12	15	5.8	181	221	2.8	4.7	0.30
	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	
	58	243	<0.010	<0.050	0.220	<0.010	<0.010	<10	
	53	242	<0.010	<0.100	0.150	<0.010	<0.010	--	
	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)	
	120	210	65	10	2	--	0.7	140	
	--	5800	200	<10	5	90	1.0	150	

Geologic unit (aquifer): 122CLVR - Calvert Formation

Site type: GW - Groundwater

Sampling method: 4040 - Submersible pump

QUALITY OF GROUND WATER

547

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WASHINGTON COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
WA Ab 3	12-12-90	1135	394223078182101	341HMFR	SP		4010	--	--	--
	03-19-91	1205		341HMFR	SP		4010	--	--	--
	06-17-91	1518		341HMFR	SP		4010	--	--	--
WA Ad 101	08-26-91	1415	394149078052801	344RMNY	GW		4040	--	120.00	21
WA Ah 63	07-08-91	1616	394115077461501	367RCKR	GW		4040	17.60	25.00	1.0
WA Ak 99	06-13-91	1606	394219077335301	377TMSN	GW		4040	--	32.00	20
WA Di 103	10-04-90	1210	392836077442701	371CCCG	SP		4010	--	--	--
	12-12-90	1445		371CCCG	SP		4010	--	--	--
	03-19-91	1505		371CCCG	SP		4010	--	--	--
	06-17-91	1150		371CCCG	SP		4010	--	--	--

	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)
WA Ab 3	--	910	--	3.5	51	6.3	11.0	3.5	9.1	3.5
	--	910	--	6.0	49	6.0	9.0	8.5	10.1	3.4
	--	910	--	0.5	45	5.8	13.5	29.5	9.6	3.0
WA Ad 101	120	560	45	5.0	195	7.5	13.5	28.5	--	28
WA Ah 63	25	515	140	0.8	592	7.3	13.0	30.5	4.8	100
WA Ak 99	32	670	71	2.0	662	7.2	12.5	26.0	6.8	92
WA Di 103	--	470	--	3.0	563	7.3	12.5	18.5	--	74
	--	470	--	15	557	7.2	12.5	14.0	5.8	77
	--	470	--	12	508	7.1	12.5	9.5	5.7	69
	--	470	--	3.5	512	7.3	13.5	26.0	6.6	69

	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
WA Ab 3	1.6	1.8	1.6	4	5	12	3.5	<0.10	7.8	39
	1.5	1.6	1.3	3	3	12	2.4	<0.10	6.7	26
	1.4	1.8	1.2	6	7	6.2	1.9	<0.10	9.8	16
WA Ad 101	5.5	7.5	0.80	--	--	2.7	0.80	<0.10	24	124
WA Ah 63	11	9.8	5.1	216	263	35	23	0.10	7.1	362
WA Ak 99	30	16	2.8	267	326	21	46	0.20	8.4	429
WA Di 103	24	11	2.3	216	263	32	17	0.40	11	328
	27	5.9	2.0	219	267	27	12	0.50	11	334
	24	4.9	1.8	201	246	30	12	0.30	10	292
	24	7.9	2.1	205	250	27	12	0.40	11	308

Geologic unit (aquifer): 341HMFR - Hampshire Formation
 344RMNY - Romney Formation
 367RCKR - Rockdale Run Formation
 371CCCG - Conococheague Limestone
 377TMSN - Tomstown Dolomite

Site type: GW - Groundwater
 SP - Spring

Sampling method: 4010 - Thief sampler
 4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WASHINGTON COUNTY, MARYLAND--Continued

WELL NUMBER	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)
WA Ab 3	34	<0.010	0.600	0.020	<0.010	0.020	--	--	--	--
	31	0.010	0.430	0.020	<0.010	<0.010	--	--	--	--
	29	<0.010	0.950	<0.010	<0.010	<0.010	--	<10	<1	33
WA Ad 101	127	<0.010	<0.050	0.020	0.020	0.010	90	<10	<1	100
WA Ah 63	321	<0.010	13.0	<0.010	0.010	0.010	60	<10	<1	42
WA Ak 99	377	<0.010	13.0	0.010	0.010	<0.010	<10	<10	<1	48
WA Di 103	301	<0.010	2.10	0.010	<0.010	<0.010	90	--	--	--
	294	<0.010	12.0	0.020	<0.010	<0.010	--	--	--	--
	273	0.010	9.60	0.020	<0.010	<0.010	--	--	--	--
	276	<0.010	11.0	<0.010	<0.010	<0.010	--	<10	<1	40
	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
WA Ab 3	--	--	--	--	--	--	<10	5	--	--
	--	--	--	--	--	--	20	4	--	--
	<0.5	--	<1.0	<1	<1	1	<10	3	<1	<4
WA Ad 101	<0.5	20	<1.0	<1	<1	2	230	<3	<1	26
WA Ah 63	<0.5	90	<1.0	<1	<1	<1	90	4	<1	4
WA Ak 99	<0.5	40	<1.0	<1	<1	1	<10	<3	<1	5
WA Di 103	--	10	--	--	--	--	90	<3	--	--
	--	--	--	--	--	--	20	5	--	--
	--	--	--	--	--	--	40	3	--	--
	<0.5	--	<1.0	<1	1	1	<10	4	<1	9
	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
WA Ab 3	<10	2	--	--	--	--	--	--	--	0.7
	<10	<1	--	--	--	--	--	--	--	0.5
	<10	<1	<0.1	<1	2	<1	<1	<10	<3	0.3
WA Ad 101	30	13	<0.1	<1	<1	<1	<1	<10	17	0.1
WA Ah 63	<10	<1	--	<1	<1	<1	<1	<10	6	0.7
WA Ak 99	<10	<1	<0.1	<1	<1	<1	<1	<10	4	0.6
WA Di 103	<10	<1	--	--	--	--	--	--	--	1.3
	<10	1	--	--	--	--	--	--	--	0.6
	<10	<1	--	--	--	--	--	--	--	--
	<10	<1	<0.1	<1	1	<1	<1	<10	<3	0.6
	HARD- NESS TOTAL (MG/L AS CACO3)	PCN DISSOLV (UG/L)	BROMO- FORM TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L)	CHLORO- BENZENE TOTAL (UG/L)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L)	CHLORO- FORM TOTAL (UG/L)	CHLORO- ETHANE TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)
WA Ab 3	15	--	--	--	--	--	--	--	--	--
	15	--	--	--	--	--	--	--	--	--
	13	--	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
WA Ad 101	93	<0.10	--	--	--	--	--	--	--	--
WA Ah 63	300	--	--	--	--	--	--	--	--	--
WA Ak 99	350	--	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
WA Di 103	280	--	--	--	--	--	--	--	--	--
	300	--	--	--	--	--	--	--	--	--
	270	--	--	--	--	--	--	--	--	--
	270	--	<3.0	<3.0	<3.0	<3.0	<3.0	7.4	<3.0	<3.0

QUALITY OF GROUND WATER

549

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WASHINGTON COUNTY, MARYLAND--Continued

WELL NUMBER	DI- CHLORO- BROMO- METHANE TOTAL (UG/L)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L)	ETHYL- BENZENE TOTAL (UG/L)	METHYL- BROMIDE TOTAL (UG/L)	METHYL- CHLO- RIDE TOTAL (UG/L)	METHYL- ENE CHLO- RIDE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)
WA Ab 3	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
WA Ad 101	--	--	--	--	--	--	--	--	--	--
WA Ah 63	--	--	--	--	--	--	--	--	--	--
WA Ak 99	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
WA Di 103	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L)	TRI- FLURA- LIN TOTAL RECOVER (UG/L)	VINYL CHLO- RIDE TOTAL (UG/L)	XYLENE TOTAL WATER TOT REC (UG/L)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L)	1,1,2,2 TETRA- CHLORO- ETHANE TOTAL (UG/L)
WA Ab 3	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<0.10	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
WA Ad 101	--	--	--	--	--	--	--	--	--	--
WA Ah 63	--	--	--	--	--	--	--	--	--	--
WA Ak 99	<3.0	<3.0	<0.10	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
WA Di 103	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<0.10	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

	1,2- DIBROMO ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L)	1,2- TRANS DI CHLORO- ETHENE TOTAL (UG/L)	1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L)	PCB, DIS- SOLVED (UG/L)
WA Ab 3	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--
WA Ad 101	--	--	--	--	--	--	--	--	--	<0.1
WA Ah 63	--	--	--	--	--	--	--	--	--	--
WA Ak 99	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--
WA Di 103	--	--	--	--	--	--	--	--	--	--
	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--

	ALA- CHLOR TOTAL RECOVER (UG/L)	ALDRIN, DIS- SOLVED (UG/L)	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CHLOR- DANE, DIS- SOLVED (UG/L)	CYAN- AZINE TOTAL (UG/L)	DDD, DIS- SOLVED (UG/L)	DDE, DIS- SOLVED (UG/L)	DDT, DIS- SOLVED (UG/L)	DI- AZINON, DIS- SOLVED (UG/L)
WA Ab 3	--	--	--	--	--	--	--	--	--	--
	<0.20	--	<0.10	<0.10	--	<0.20	--	--	--	--
WA Ad 101	--	<0.01	--	--	<0.1	--	<0.01	<0.01	<0.01	<0.01
WA Ah 63	--	--	--	--	--	--	--	--	--	--
WA Ak 99	<0.20	--	<0.10	1.2	--	<0.20	--	--	--	--
WA Di 103	--	--	--	--	--	--	--	--	--	--
	<0.20	--	<0.10	1.0	--	<0.20	--	--	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WASHINGTON COUNTY, MARYLAND--Continued

WELL NUMBER	DI- ELDRIN DIS- SOLVED (UG/L)	ENDO- SULFAN DISSOLV (UG/L)	ENDRIN, DIS- SOLVED (UG/L)	ETHION DISSOLV (UG/L)	HEPTA- CHLOR, DIS- SOLVED (UG/L)	HEPTA- CHLOR EPOXIDE DIS- SOLVED (UG/L)	LINDANE DIS- SOLVED (UG/L)	MALA- THION, DIS- SOLVED (UG/L)	METH- OXY- CHLOR DISSOLV (UG/L)
WA Ab 3	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WA Ad 101	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
WA Ah 63	--	--	--	--	--	--	--	--	--
WA Ak 99	--	--	--	--	--	--	--	--	--
WA D1 103	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	METHYL PARA- THION, DIS- SOLVED (UG/L)	METHYL- TRI- THION DISSOLV (UG/L)	METOLA- CHLOR WATER WHOLE TOT. REC (UG/L)	METRI- BUZIN WATER WHOLE TOT. REC (UG/L)	MIREX, DIS- SOLVED (UG/L)	PARA- THION, DIS- SOLVED (UG/L)	PER- THANE DISSOLV (UG/L)	PROME- TRYNE TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)
WA Ab 3	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WA Ad 101	<0.01	<0.01	<0.2	<0.1	<0.01	<0.01	<0.10	<0.1	<0.2
WA Ah 63	--	--	--	--	--	--	--	--	--
WA Ak 99	--	--	<0.2	<0.1	--	--	--	<0.1	<0.2
WA D1 103	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	<0.2	<0.1	--	--	--	<0.1	<0.2
	PRO- PAZINE TOTAL (UG/L)	TOX- APRENE, DIS- SOLVED (UG/L)	TRI- THION DISSOLV (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)
WA Ab 3	--	--	--	--	--	--	--	--	--
	<0.10	--	--	<0.01	<0.01	<0.01	<0.01	<0.10	<0.1
WA Ad 101	--	<1.0	<0.01	--	--	--	--	--	--
WA Ah 63	--	--	--	--	--	--	--	--	--
WA Ak 99	<0.10	--	--	<0.01	<0.01	<0.01	<0.01	0.10	<0.1
WA D1 103	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<0.10	--	--	<0.01	<0.01	<0.01	<0.01	<0.10	<0.1

QUALITY OF GROUND WATER

551

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WICOMICO COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)
WI Bh 2	04-25-91	1320	382511075203601		112FRBG	GW	4040	3.12	11.00	9.0
	05-31-91	1230			112FRBG	GW	4040	4.02	11.00	9.0
	06-27-91	1200			112FRBG	GW	4040	4.07	11.00	9.0
	07-24-91	1000			112FRBG	GW	4040	5.06	11.00	9.0
WI Bh 3	08-21-91	1130	382511075203602		112FRBG	GW	4040	4.45	11.00	9.0
	09-18-91	1230			112FRBG	GW	4040	5.52	11.00	9.0
	06-04-91	1530			112BVDM	GW	4040	3.97	31.00	28
	02-20-91	1000			112FRBG	GW	4040	4.89	12.00	10
WI Bh 4	04-25-91	1530	382543075212201		112FRBG	GW	4040	3.77	12.00	10
	05-30-91	1600			112FRBG	GW	4040	5.14	12.00	10
	06-27-91	1250			112FRBG	GW	4040	5.50	12.00	10
	07-24-91	1200			112FRBG	GW	4040	6.28	12.00	10
WI Bh 5	08-21-91	1230	382543075212202		112FRBG	GW	4040	5.93	12.00	10
	09-18-91	0940			112FRBG	GW	4040	7.09	12.00	10
	02-20-91	1130			112BVDM	GW	4040	6.46	33.00	30
	06-04-91	1730			112BVDM	GW	4040	6.65	33.00	30
WI Bh 8	05-31-91	1400	382609075210501		110ALVM	GW	4040	7.10	13.00	11
WI Bh 9	04-25-91	1420	382609075210502		112BVDM	GW	4040	3.75	41.00	38
	06-04-91	1100			112BVDM	GW	4040	4.34	41.00	38
	06-27-91	1340			112BVDM	GW	4040	4.56	41.00	38
	07-24-91	1120			112BVDM	GW	4040	5.12	41.00	38
WI Bh 11	08-21-91	1330	382626075201801		112BVDM	GW	4040	4.57	41.00	38
	09-18-91	1100			112BVDM	GW	4040	5.42	41.00	38
	11-14-90	1400			112BVDM	GW	4040	3.63	34.00	31
	02-20-91	1500			112BVDM	GW	4040	1.55	34.00	31
WI Bh 12	06-04-91	0930	382549075204101		112BVDM	GW	4040	1.95	34.00	31
	05-31-91	1030			112FRBG	GW	4040	6.18	11.00	8.0
	06-27-91	1120			112FRBG	GW	4040	4.82	11.00	8.0
	07-24-91	1050			112FRBG	GW	4040	5.37	11.00	8.0
WI Cd 71	08-21-91	1030	382329075412002		112FRBG	GW	4040	4.88	11.00	8.0
	09-18-91	1200			112FRBG	GW	4040	5.50	11.00	8.0
	08-20-91	1525			112CLMB	GW	4040	3.85	18.00	15
	11-20-90	0908			112BVDM	GW	4030	3.27	65.00	45
WI Ch 56	02-20-91	0950	382452075202901		112BVDM	GW	4040	3.48	65.00	45
	11-14-90	1030			112FRBG	GW	4040	10.20	17.00	15
	02-19-91	1550			112FRBG	GW	4040	8.80	17.00	15
	06-04-91	1300			112FRBG	GW	4040	8.95	17.00	15
WI Ch 57	11-14-90	0800	382452075202902		112BVDM	GW	4040	10.00	50.00	47
	02-19-91	1730			112BVDM	GW	4040	8.80	50.00	47
	04-25-91	1640			112BVDM	GW	4040	7.97	50.00	47
	05-30-91	1400			112BVDM	GW	4040	9.17	50.00	47
	06-27-91	1500			112BVDM	GW	4040	9.51	50.00	47
	07-24-91	1230			112BVDM	GW	4040	10.08	50.00	47
	08-21-91	1430			112BVDM	GW	4040	9.79	50.00	47
	09-18-91	1330			112BVDM	GW	4040	10.83	50.00	47

Geologic unit (aquifer): 110ALVM - Quaternary Alluvium
 112BVDM - Beaverdam Sand
 112CLMB - Columbia Formation
 112FRBG - Parsonsburg Formation

Site type: GW - Groundwater

Sampling method: 4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WICOMICO COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)
WI Bh 2	11	38.0	17	1.0	205	5.9	11.5	23.0	0.0	--
	11	38.0	11	1.0	257	5.7	15.5	34.0	0.3	27
	11	38.0	12	0.7	294	5.4	17.5	30.0	0.2	--
	11	38.0	8	0.8	325	5.6	19.5	30.0	0.3	--
WI Bh 3	11	38.0	7	0.7	303	5.5	20.5	27.0	0.1	--
	11	38.0	7	0.9	304	5.5	20.5	31.0	2.3	--
	31	38.0	20	0.8	136	6.4	16.5	24.5	0.0	15
	31	38.0	20	0.8	136	6.4	16.5	24.5	0.0	15
WI Bh 4	12	40.0	10	0.7	128	5.2	13.0	18.0	0.4	9.9
	12	40.0	14	0.8	129	4.4	13.5	24.0	0.3	--
	12	40.0	9	0.8	127	5.2	16.5	36.0	0.8	9.8
	12	40.0	12	0.6	141	5.0	19.0	31.0	1.2	--
WI Bh 5	12	40.0	11	0.9	136	5.1	20.5	32.0	0.8	--
	12	40.0	7	0.6	134	5.1	22.0	30.0	0.8	--
	12	40.0	11	1.0	136	5.0	22.0	31.0	3.5	--
	33	40.0	35	0.4	82	5.6	17.0	18.0	0.6	3.0
WI Bh 8	33	40.0	20	0.8	96	6.2	17.0	24.5	0.6	4.3
	13	38.0	12	0.6	206	6.4	15.5	36.5	0.6	4.3
	41	38.0	20	0.8	165	6.2	14.5	23.0	0.1	--
	41	38.0	30	0.8	165	6.4	15.0	23.0	0.4	4.6
WI Bh 11	41	38.0	16	1.3	168	6.2	14.5	30.0	0.3	--
	41	38.0	11	2.0	165	6.4	15.0	31.0	0.1	--
	41	38.0	18	1.0	161	6.4	15.0	29.0	0.2	--
	41	38.0	23	0.9	163	6.4	15.5	30.0	2.4	--
WI Bh 12	34	37.0	15	1.2	145	6.1	13.5	12.5	0.1	9.0
	34	37.0	20	0.8	154	6.1	14.5	20.5	0.2	10
	34	37.0	40	0.8	150	6.1	15.0	22.5	0.6	10
	11	38.7	9	0.8	175	6.5	16.5	35.0	0.2	3.3
WI Cd 71	11	38.7	8	0.8	155	5.8	18.0	31.0	0.4	--
	11	38.7	8	0.6	173	6.4	20.0	31.0	0.2	--
	11	38.7	7	0.5	170	6.3	21.0	25.0	0.2	--
	11	38.7	7	0.8	170	6.4	21.0	30.0	2.2	--
WI Ce 13	18	35.0	75	0.9	47	5.2	16.0	27.5	6.1	1.4
	65	7.0	52	63	144	5.6	15.5	7.0	--	8.6
	65	7.0	54	0.9	146	5.8	15.5	18.0	5.3	8.9
	17	40.0	15	1.0	163	5.3	12.5	5.0	0	9.9
WI Ch 56	17	40.0	10	0.6	196	4.8	13.0	15.0	2.0	13
	17	40.0	25	0.8	310	5.8	15.0	--	0.6	18
	50	40.0	25	1.2	315	5.6	13.0	3.5	0.1	19
	50	40.0	35	0.6	320	5.2	14.0	15.0	0.3	19
WI Ch 57	50	40.0	25	0.9	318	5.7	14.0	24.0	0.2	--
	50	40.0	20	1.5	305	5.6	15.0	36.0	0.4	18
	50	40.0	19	1.3	305	5.7	14.5	30.0	0.2	--
	50	40.0	15	1.3	294	5.9	14.5	32.0	0.5	--
WI Ch 57	50	40.0	16	1.3	276	5.8	15.0	29.0	0.1	--
	50	40.0	28	0.8	268	5.8	16.0	33.0	2.3	--

WICOMICO COUNTY, MARYLAND--Continued

[illegible]

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WICOMICO COUNTY, MARYLAND--Continued

WELL NUMBER	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
WI Bh 2	--	--	--	--	--	--	<0.010	--	0.057
	0.050	5.5	--	160	--	--	<0.010	--	<0.050
	--	--	--	--	--	--	<0.010	--	<0.050
	--	--	--	--	--	--	<0.010	--	<0.050
	--	--	--	--	--	--	<0.010	--	<0.050
	--	--	--	--	--	--	<0.010	--	<0.050
WI Bh 3	0.080	23	--	106	--	--	0.020	--	<0.050
WI Bh 4	0.030	4.7	--	83	--	--	<0.010	--	8.50
	--	--	--	--	--	--	<0.010	--	6.80
	0.030	4.8	--	51	--	--	--	--	--
	--	--	--	--	--	--	<0.010	--	8.70
	--	--	--	--	--	--	<0.010	--	8.20
	--	--	--	--	--	--	<0.010	--	8.50
	--	--	--	--	--	--	<0.010	--	9.20
WI Bh 5	0.060	32	--	82	--	--	<0.010	--	0.100
	0.31	45	--	101	--	--	0.010	--	<0.050
WI Bh 8	0.060	46	--	170	--	--	0.030	--	<0.050
WI Bh 9	--	--	--	--	--	--	<0.010	--	<0.050
	0.030	46	--	--	--	--	0.010	--	<0.050
	--	--	--	--	--	--	0.010	--	<0.050
	--	--	--	--	--	--	0.010	--	<0.050
	--	--	--	--	--	--	0.020	--	<0.050
	--	--	--	--	--	--	<0.010	--	<0.050
WI Bh 11	0.26	49	--	--	--	--	<0.010	--	<0.100
	0.19	49	--	--	--	--	<0.010	--	<0.100
	0.39	51	--	--	--	--	<0.010	--	<0.050
WI Bh 12	0.040	48	--	158	--	--	0.020	--	<0.050
	--	--	--	--	--	--	0.010	--	<0.050
	--	--	--	--	--	--	0.010	--	<0.050
	--	--	--	--	--	--	<0.010	--	0.063
WI Cd 71	--	11	33	33	--	<0.010	--	0.067	--
WI Ce 13	--	25	--	79	--	<0.010	--	7.20	--
	--	25	--	78	--	<0.010	--	6.00	--
WI Ch 56	0.020	8.9	--	105	--	--	<0.010	--	0.900
	0.030	8.9	--	113	--	--	<0.010	--	1.90
	--	8.1	--	144	3.89	--	0.010	--	3.90
WI Ch 57	--	8.3	--	177	--	--	<0.010	--	3.90
	--	7.9	--	180	5.39	--	0.010	--	5.40
	--	--	--	--	--	--	<0.010	--	3.20
	--	7.9	--	177	--	--	<0.010	--	3.90
	--	--	--	--	3.79	--	0.010	--	3.80
	--	--	--	--	3.89	--	0.010	--	3.90
	--	--	--	--	--	--	<0.010	--	3.90
	--	--	--	--	--	--	<0.010	--	4.10

QUALITY OF GROUND WATER

555

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WICOMICO COUNTY, MARYLAND--Continued

WELL NUMBER	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)
WI Bh 2	--	0.050	0.40	--	--	<0.010	--	--	--
	--	0.090	0.30	--	--	<0.010	--	20	<1
	--	0.110	0.60	--	--	<0.010	--	--	--
	--	0.130	0.60	--	--	0.010	--	--	--
	--	0.110	0.40	--	--	0.010	--	--	--
	--	0.150	0.40	--	--	0.020	--	--	--
WI Bh 3	--	0.800	1.3	--	--	0.230	--	40	<1
WI Bh 4	--	<0.010	1.2	--	--	<0.010	--	30	<1
	--	<0.010	0.60	--	--	<0.010	--	--	--
	--	--	--	--	--	<0.010	--	50	<1
	--	0.020	0.70	--	--	<0.010	--	--	--
	--	0.010	0.60	--	--	<0.010	--	--	--
	--	<0.010	0.60	--	--	0.010	--	--	--
	--	0.020	0.30	--	--	0.010	--	--	--
WI Bh 5	--	0.250	0.60	--	--	<0.010	--	10	<1
	--	0.480	0.60	--	--	0.100	--	8	<1
WI Bh 8	--	1.70	1.7	--	--	0.160	--	<20	<1
WI Bh 9	--	0.200	0.20	--	--	0.180	--	--	--
	--	0.180	0.30	--	--	0.200	--	<10	<1
	--	0.190	0.30	--	--	0.170	--	--	--
	--	0.190	0.30	--	--	0.200	--	--	--
	--	0.150	0.20	--	--	0.170	--	--	--
	--	0.200	0.30	--	--	0.220	--	--	--
WI Bh 11	--	2.20	2.3	--	--	0.280	--	<10	<1
	--	2.00	2.2	--	--	0.270	--	<10	<1
	--	2.00	2.2	--	--	0.280	--	<10	<1
WI Bh 12	--	0.500	0.60	--	--	0.010	--	<10	<1
	--	0.500	0.50	--	--	0.110	--	--	--
	--	0.500	0.60	--	--	0.600	--	--	--
	--	0.480	0.60	--	--	0.170	--	--	--
	--	0.510	0.60	--	--	0.620	--	--	--
WI Cd 71	<0.010	--	--	<0.010	<0.010	--	--	--	--
WI Ce 13	0.040	--	--	0.020	<0.010	--	<10	--	--
	<0.010	--	--	<0.010	<0.010	--	--	--	--
WI Ch 56	--	0.050	0.40	--	--	<0.010	--	230	<1
	--	0.040	0.50	--	--	<0.010	--	170	<1
	--	0.010	0.60	--	--	<0.010	--	30	<1
WI Ch 57	--	0.020	1.2	--	--	<0.010	--	30	<1
	--	0.020	1.1	--	--	<0.010	--	30	<1
	--	0.010	0.90	--	--	<0.010	--	--	--
	--	<0.010	1.0	--	--	<0.010	--	20	<1
	--	0.030	0.90	--	--	0.010	--	--	--
	--	0.010	1.0	--	--	<0.010	--	--	--
	--	<0.010	0.80	--	--	<0.010	--	--	--
	--	0.010	0.70	--	--	<0.010	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WICOMICO COUNTY, MARYLAND--Continued

[illegible]

557

WICOMICO COUNTY, MARYLAND--Continued

[illegible]

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WICOMICO COUNTY, MARYLAND--Continued

[illegible]

QUALITY OF GROUND WATER

559

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WORCESTER COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)
WO Ah 34	04-23-91	0840	382632075031901	122MNKN	GW		4040	--	450.00
	09-17-91	0915		122MNKN	GW		4040	--	450.00
WO Bf 87	08-20-91	1046	382332075141802	112BVDM	GW		4040	7.05	18.00
WO Bg 15	04-22-91	1320	382359075094501	122MNKN	GW		4030	-2.76	318.00
WO Bg 45	04-22-91	1430	382358075094501	112CLMB	GW		4030	7.59	77.00
WO Bg 46	04-22-91	1340	382358075094502	122PCMK	GW		4030	1.05	194.00
WO Bg 47	09-18-91	0905	382325075063301	122OCNC	GW		4030	10.68	195.00
WO Bg 48	09-18-91	0855	382325075063302	122MNKN	GW		4030	11.96	420.00
WO Bh 28	04-23-91	1316	382214075041901	122OCNC	GW		4040	--	294.00
	09-17-91	1120		122OCNC	GW		4040	--	294.00
WO Bh 34	09-18-91	1120	382443075033501	122MNKN	GW		4030	15.43	353.00
WO Bh 84	11-19-90	1420	382215075041901	112CLMB	GW		4030	3.15	89.00
	02-19-91	1716		112CLMB	GW		4040	4.14	89.00
	04-23-91	1350		112CLMB	GW		4030	3.75	89.00
	09-17-91	1205		112CLMB	GW		4030	6.34	89.00
WO Bh 85	04-23-91	1400	382215075041902	122PCMK	GW		4030	2.99	195.00
	09-17-91	1210		122PCMK	GW		4030	7.13	195.00
WO Bh 89	04-23-91	1510	382215075041903	122MNKN	GW		4030	9.64	500.00
WO Bh 91	04-24-91	1000	382235075040901	122MNKN	GW		4030	9.43	385.00
WO Bh 93	04-24-91	1310	382304075040601	122MNKN	GW		4030	7.28	435.00
	09-17-91	1645		122MNKN	GW		4030	18.03	435.00
WO Bh 94	09-18-91	1220	382447075033702	122OCNC	GW		4030	15.54	310.00
WO Bh 95	04-24-91	1330	382304075040602	122OCNC	GW		4030	3.81	295.00
	09-17-91	1700		122OCNC	GW		4030	13.39	295.00
WO Bh 96	04-24-91	1000	382235075041902	122OCNC	GW		4030	10.92	300.00
WO Bh 97	04-23-91	1145	382127075043803	122MNKN	GW		4030	4.19	445.00
	09-17-91	1425		122MNKN	GW		4030	--	445.00
WO Bh 98	04-23-91	1140	382127075043802	122OCNC	GW		4030	--	310.00
	09-17-91	1400		122OCNC	GW		4030	21.93	310.00
WO Cc 3	05-29-91	1330	381543075273802	112CLMB	GW		4040	--	17.00
WO Cg 32	04-23-91	0945	381941075052201	122OCNC	GW		4030	--	280.00
WO Cg 75	04-23-91	0950	381939075052102	122MNKN	GW		4040	--	427.00
	09-17-91	1030		122MNKN	GW		4040	--	427.00
WO Dg 21	09-18-91	1530	381427075081102	122OCNC	GW		4030	2.63	310.00

Geologic unit (aquifer): 112BVDM - Beaverdam Sand
 112CLMB - Columbia Formation
 122MNKN - Manokin Aquifer
 122OCNC - Ocean City Aquifer
 122PCMK - Pocomoke Aquifer

Site type: GW - Groundwater

Sampling method: 4030 - Suction pump
 4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WORCESTER COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE, INSTAN- TANEOUS (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TEMPER- ATURE AIR (DEG C)
WO Ah 34	350	450	5.0	20	--	433	6.8	16.5	14.0
	350	450	5.0	20	--	436	6.5	17.0	27.5
WO Bf 87	15	18	33.0	40	0.6	299	5.8	18.5	28.0
WO Bg 15	288	318	7.0	50	30	281	6.8	15.5	23.0
WO Bg 45	56	77	10.0	55	20	74	6.2	14.0	23.0
WO Bg 46	164	194	10.0	65	30	285	6.7	14.5	23.0
WO Bg 47	190	195	5.0	50	25	349	6.7	16.5	29.0
WO Bg 48	410	420	5.0	47	28	404	6.8	17.0	29.0
WO Bh 28	248	294	5.0	180	--	868	6.6	18.5	17.0
	248	294	5.0	15	--	853	5.8	18.0	32.0
WO Bh 34	337	353	4.0	6	30	227	6.7	17.0	30.0
WO Bh 84	84	89	5.0	39	57	343	6.7	15.0	11.0
	84	89	5.0	49	0.8	360	6.9	15.5	11.5
	84	89	5.0	50	30	366	6.6	16.5	16.5
	84	89	5.0	60	30	367	6.1	16.5	33.0
WO Bh 85	190	195	5.0	60	15	409	6.6	17.5	18.5
	190	195	5.0	65	16	406	5.8	16.5	33.0
WO Bh 89	388	500	5.0	60	30	1820	6.8	17.5	18.5
WO Bh 91	340	380	10.0	65	30	1090	6.8	16.5	16.5
WO Bh 93	335	430	4.0	60	30	905	6.9	16.5	15.5
	335	430	4.0	43	40	919	6.7	17.0	29.0
WO Bh 94	285	310	6.5	110	15	399	7.6	19.5	30.0
WO Bh 95	275	295	4.0	90	15	525	6.8	16.0	15.5
	275	295	4.0	80	12	517	6.8	17.0	29.0
WO Bh 96	255	295	10.0	60	30	503	7.0	16.0	16.5
WO Bh 97	370	440	6.0	45	30	395	6.9	16.5	18.0
	370	440	6.0	80	30	393	6.7	17.5	33.0
WO Bh 98	255	310	5.0	35	30	410	6.8	16.5	18.0
	255	310	5.0	50	25	437	6.9	17.0	33.0
WO Cc 3	--	--	30.0	52	0.9	50	5.6	14.0	32.5
WO Cg 32	245	280	4.0	15	--	451	6.5	16.5	18.0
WO Cg 75	367	427	5.0	20	--	465	6.6	17.5	18.0
	367	427	5.0	1440	--	486	6.1	17.5	32.0
WO Dg 21	300	310	6.0	60	20	479	7.8	17.0	30.0

QUALITY OF GROUND WATER

561

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WORCESTER COUNTY, MARYLAND--Continued

WELL NUMBER	DENSITY (GM/ML AT 20 C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3
WO Ah 34	--	--	--	--	--	--	110	--	--
	0.999	--	21	4.5	49	3.9	109	--	--
WO Bf 87	--	7.2	19	13	10	2.9	9	--	--
WO Bg 15	--	--	--	--	--	--	106	--	--
WO Bg 45	--	--	--	--	--	--	20	--	--
WO Bg 46	--	--	--	--	--	--	130	--	--
WO Bg 47	0.998	--	12	5.8	42	4.6	109	--	--
WO Bg 48	0.998	--	15	8.2	47	7.1	163	--	--
WO Bh 28	--	--	--	--	--	--	140	--	--
	1.000	--	18	16	120	11	127	--	--
WO Bh 34	0.998	--	15	5.8	12	5.0	93	--	--
WO Bh 84	--	--	16	9.6	29	10	--	122	149
	--	0.3	18	10	32	11	--	126	153
	--	--	--	--	--	--	115	--	--
	--	--	--	--	--	--	124	--	--
WO Bh 85	--	--	--	--	--	--	130	--	--
	--	--	--	--	--	--	140	--	--
WO Bh 89	--	--	--	--	--	--	185	--	--
WO Bh 91	--	--	--	--	--	--	177	--	--
WO Bh 93	--	--	--	--	--	--	194	--	--
	1.000	--	23	9.5	130	9.3	150	--	--
WO Bh 94	1.000	--	40	11	19	19	178	--	--
WO Bh 95	--	--	--	--	--	--	122	--	--
	0.998	--	16	8.9	59	6.5	117	--	--
WO Bh 96	--	--	--	--	--	--	200	--	--
WO Bh 97	--	--	--	--	--	--	110	--	--
	0.998	--	15	10	37	9.6	103	--	--
WO Bh 98	--	--	--	--	--	--	175	--	--
	1.119	--	41	15	21	11	189	--	--
WO Cc 3	--	0.3	--	--	--	--	--	6	7
WO Cg 32	--	--	--	--	--	--	165	--	--
WO Cg 75	--	--	--	--	--	--	125	--	--
	0.998	--	9.6	8.6	70	7.5	120	--	--
WO Dg 21	0.998	--	39	13	45	9.1	245	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WORCESTER COUNTY, MARYLAND--Continued

WELL NUMBER	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
WO Ah 34	--	72	--	--	--	--	--	--	--
	<0.10	74	0.20	0.84	32	246	--	--	<0.010
WO Bf 87	35	32	<0.10	--	10	181	127	<0.010	--
WO Bg 15	--	28	--	--	--	--	--	--	--
WO Bg 45	--	17	--	--	--	--	--	--	--
WO Bg 46	--	15	--	--	--	--	--	--	--
WO Bg 47	<0.10	46	0.20	0.44	33	195	--	--	<0.010
WO Bg 48	<0.10	64	0.20	0.30	22	224	--	--	<0.010
WO Bh 28	--	180	--	--	--	--	--	--	--
	1.1	170	0.30	0.66	32	451	453	--	0.010
WO Bh 34	<0.10	9.1	0.10	0.11	31	110	--	--	0.020
WO Bh 84	1.1	43	0.10	--	34	--	222	<0.010	--
	<1.0	44	0.10	--	34	--	--	<0.010	--
	--	40	--	--	--	--	--	--	--
	--	40	--	--	--	--	--	--	--
WO Bh 85	--	42	--	--	--	--	--	--	--
	--	49	--	--	--	--	--	--	--
WO Bh 89	--	450	--	--	--	--	--	--	--
WO Bh 91	--	240	--	--	--	--	--	--	--
WO Bh 93	--	200	--	--	--	--	--	--	--
	<0.10	210	0.20	0.70	26	473	--	--	<0.010
WO Bh 94	0.20	16	0.20	0.050	22	211	236	--	<0.010
WO Bh 95	--	98	--	--	--	--	--	--	--
	<0.10	97	0.20	0.28	26	258	--	--	<0.010
WO Bh 96	--	76	--	--	--	--	--	--	--
WO Bh 97	--	55	--	--	--	--	--	--	--
	0.60	59	0.20	0.33	32	211	236	--	<0.010
WO Bh 98	--	28	--	--	--	--	--	--	--
	<0.10	31	0.20	0.090	30	239	--	--	<0.010
WO Cc 3	--	6.7	--	--	--	--	--	--	--
WO Cg 32	--	37	--	--	--	--	--	--	--
WO Cg 75	--	67	--	--	--	--	--	--	--
	<0.10	92	0.30	0.44	28	267	--	--	<0.010
WO Dg 21	<0.10	29	0.20	0.080	19	268	--	--	--

QUALITY OF GROUND WATER

563

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

WORCESTER COUNTY, MARYLAND--Continued

WELL NUMBER	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)
WO Ah 34	--	--	--	--	--	--	--	--
WO Bf 87	13.0	<0.050	<0.010	0.960	0.010	<0.010	0.220	--
WO Bg 15	--	--	--	--	--	--	--	--
WO Bg 45	--	--	--	--	--	--	--	--
WO Bg 46	--	--	--	--	--	--	--	--
WO Bg 47	--	<0.050	--	0.970	--	--	0.440	--
WO Bg 48	--	<0.050	--	1.00	--	--	0.320	--
WO Bh 28	--	--	--	--	--	--	--	--
	--	<0.050	--	0.790	--	--	0.200	--
WO Bh 34	--	<0.050	--	0.640	--	--	0.100	--
WO Bh 84	<0.100	--	0.530	--	0.280	0.270	--	<10
	<0.100	--	0.440	--	0.110	0.020	--	--
	--	--	--	--	--	--	--	--
WO Bh 85	--	--	--	--	--	--	--	--
WO Bh 89	--	--	--	--	--	--	--	--
WO Bh 91	--	--	--	--	--	--	--	--
WO Bh 93	--	--	--	--	--	--	--	--
	--	<0.050	--	0.990	--	--	<0.010	--
WO Bh 94	--	<0.050	--	0.340	--	--	0.050	--
WO Bh 95	--	--	--	--	--	--	--	--
	--	<0.050	--	0.320	--	--	<0.010	--
WO Bh 96	--	--	--	--	--	--	--	--
WO Bh 97	--	--	--	--	--	--	--	--
	--	<0.050	--	0.660	--	--	0.410	--
WO Bh 98	--	--	--	--	--	--	--	--
	--	<0.050	--	0.330	--	--	0.130	--
WO Cc 3	0.057	--	--	--	0.030	--	--	--
WO Cg 32	--	--	--	--	--	--	--	--
WO Cg 75	--	--	--	--	--	--	--	--
	--	<0.050	--	0.520	--	--	0.520	--
WO Dg 21	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
 WORCESTER COUNTY, MARYLAND--Continued

WELL NUMBER	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	HARD- NESS TOTAL (MG/L AS CACO3)
WO Ah 34	--	--	--	--	--	--	--	--
WO Bf 87	--	--	13000	--	140	--	--	71
WO Bg 15	--	110	<3	<10	1	--	0.7	100
WO Bg 45	--	--	--	--	--	--	--	--
WO Bg 46	--	--	--	--	--	--	--	--
WO Bg 47	--	--	7600	--	90	--	--	54
WO Bg 48	--	--	4700	--	96	--	--	71
WO Bh 28	--	--	--	--	--	--	--	--
	--	--	5900	--	120	--	--	110
WO Bh 34	--	--	14000	--	110	--	--	61
WO Bh 84	110	6100	5600	90	72	--	3.1	79
	--	6000	6100	60	81	<10	2.7	86
	--	--	--	--	--	--	--	--
WO Bh 85	--	--	--	--	--	--	--	--
WO Bh 89	--	--	--	--	--	--	--	--
WO Bh 91	--	--	--	--	--	--	--	--
WO Bh 93	--	--	--	--	--	--	--	--
	--	--	15000	--	130	--	--	97
WO Bh 94	--	--	1500	--	36	--	--	150
WO Bh 95	--	--	--	--	--	--	--	--
	--	--	18000	--	280	--	--	77
WO Bh 96	--	--	--	--	--	--	--	--
WO Bh 97	--	--	--	--	--	--	--	--
	--	--	8600	--	140	--	--	79
WO Bh 98	--	--	--	--	--	--	--	--
	--	--	1400	--	27	--	--	160
WO Cc 3	--	--	--	--	--	--	--	--
WO Cg 32	--	--	--	--	--	--	--	--
WO Cg 75	--	--	--	--	--	--	--	--
	--	--	5900	--	180	--	--	59
WO Dg 21	--	--	290	--	42	--	--	150

INDEX

	Page		Page
Access to WAITSTORE data.....	7	Explanation of ground-water level records.....	4-7
Adenosine triphosphate (ATP), definition of.....	8	Extremes for period of record, explanation of....	5
Algae, definition of.....	8		
Algal growth potential (AGP), definition of.....	8	Factors for converting English units to	
Allegany County, MD, ground-water levels in.....	60-62	International System (SI) units...Inside back cover	
Anne Arundel County, MD, ground-water levels in.....	63-110	Fecal coliform bacteria, definition of.....	8
ground-water quality records in.....	485-490	Fecal streptococcal bacteria, definition of.....	8
Aquifer, definition of.....	8	Frederick County, MD, ground-water	
explanation of.....	5	levels in.....	224-228
Artesian, definition of.....	8	ground-water spring discharge in.....	21
Ash mass, definition of.....	8	ground-water quality records in.....	511-512
		Footnotes, ground-water quality records.....	7, 470
Bacteria, definition of.....	14		
Baltimore City, MD, ground-water levels in.....	111-116	Garrett County, MD, ground-water levels in.....	229-259
Baltimore County, MD, ground-water levels in.....	117-126	ground-water quality records in.....	513-515
ground-water quality records in.....	492	Green algae, definition of.....	10
Bibliographic Data Sheet.....	iv	Ground-water level records.....	24-469
Biochemical oxygen demand (BOD), definition of....	8	explanation of.....	5-6
Biomass, definition of.....	8	Ground-water levels at key observation wells.....	3
Blue-green algae, definition of.....	10	Ground-water quality records:	
		Delaware,	
Calvert County, MD, ground-water levels in.....	127-157	New Castle County.....	471-484
ground-water quality records in.....	493-501	Maryland,	
Caroline County, MD, ground-water levels in.....	158-161	Anne Arundel County.....	485-491
ground-water quality records in.....	502	Baltimore County.....	492
Carroll County, MD, ground-water levels in.....	162-165	Calvert County.....	493-501
ground-water quality record in.....	503	Caroline County.....	502
Cecil County, MD, ground-water levels in.....	166-177	Carroll County.....	503
ground-water spring discharge.....	20	Cecil County.....	504-505
ground-water quality records in.....	504-505	Charles County.....	506-509
Cells/volume, definition of.....	8	Dorchester County.....	510
Charles County, MD, ground-water		Frederick County.....	511-512
levels in.....	178-212	Garrett County.....	513-515
ground-water quality records in.....	506-509	Harford County.....	516-517
Chemical data, explanation of.....	6-7	Howard County.....	518-525
Chemical oxygen demand (COD), definition of.....	8	Kent County.....	526-533
Chlorophyll, definition of.....	9	Montgomery County.....	534
Coliform bacteria, fecal.....	8	Prince Georges County.....	535
total.....	8	Queen Annes County.....	536-543
Collection and computation of		Saint Marys County.....	544
ground-water levels.....	5	Somerset County.....	545
ground-water quality.....	6	Talbot County.....	546
Color unit, definition of.....	9	Washington County.....	547-550
Contents, definition of.....	9	Wicomico County.....	551-558
Conversion factors, English units to		Worcester County.....	559-564
International System (SI) units...Inside back cover		Ground-water records.....	20-564
Cooperation, explanation of.....	1-2		
		Hardness of water, definition of.....	9
Data, collection and computation of		Harford County, MD, ground-water levels in.....	260-326
ground-water levels.....	5	ground-water spring discharge in.....	22
collection and computation of		ground-water quality records in.....	516-517
ground-water quality.....	6	Howard County, MD, ground-water levels in.....	327-343
presentation, ground-water levels.....	5-6	ground-water quality records in.....	518-525
presentation, ground-water quality.....	6	Hydrologic Bench-Mark Network,	
Datum of ground-water levels, explanation of.....	5	definition of.....	9
Definition of terms.....	8-12	Hydrologic conditions, summary of.....	2
Delaware and Maryland, 1991, water		Hydrologic unit, definition of.....	9
resources data for, explanation of.....	1-12		
Diatoms, definition of.....	10	Instrumentation, explanation of.....	5
Dissolved, definition of.....	9	Introduction.....	1
Dissolved-solids concentration, definition of....	9		
Dorchester County, MD, ground-water		Kent County, DE, ground-water levels in.....	24-30
levels in.....	213-223	Kent County, MD, ground-water levels in.....	344-351
ground-water quality record in.....	510	ground-water quality records in.....	526-533
Dry mass, definition of.....	8		

INDEX

	Page		Page
Land-surface datum, definition of.....	5	Streptococcal bacteria, fecal.....	8
Latitude-longitude system, explanation of.....	4	Summary of hydrologic conditions.....	2
Location, explanation of.....	5	Suspended, definition of.....	11
		Suspended recoverable, definition of.....	11
Maryland and Delaware, 1991, water resources		Suspended, total, definition of.....	11
data for, explanation of.....	1-12	Sussex County, DE, ground-water levels in.....	45-59
Measuring point, definition of.....	9	System for numbering wells.....	4
Metamorphic stage, definition of.....	9		
Methylene blue active substance (MBAS),		Talbot County, MD, ground-water levels in.....	419-423
definition of.....	9	ground-water quality record in.....	546
Micrograms per gram, definition of.....	9	Taxonomy, definition of.....	11
Micrograms per liter, definition of.....	9	Techniques of Water-Resources Investigations,	
Milligrams, of carbon per area or volume per unit		publications on.....	14-15
of time for periphyton, macrophytes, and		Terms and abbreviations, definition of.....	4-12
phytoplankton, definition of.....	11	Thermograph, definition of.....	12
Milligrams, of oxygen per area or volume per unit		Time-weighted average, definition of.....	12
of time for periphyton, macrophytes, and		Total coliform bacteria, definition of.....	8
phytoplankton, definition of.....	11	Total, definition of.....	12
Milligrams per liter, definition of.....	9	Total organism count, definition of.....	9
Montgomery County, MD, ground-water levels in....	352-357	Total, recoverable, definition of.....	12
ground-water quality record in.....	534		
Monthly ground-water levels at key		Washington County, MD, ground-water	
observation wells.....	3	levels in.....	424-431
		ground-water spring discharge.....	23
National Geodetic Vertical Datum of 1929 (NGVD),		ground-water quality records in.....	547-550
definition of.....	9	Water-level records, explanation of.....	5-6
National Technical Information Service.....	1	Water-quality codes for ground water.....	12
New Castle County, DE, ground-water levels in....	31-44	Water-quality records, explanation of.....	6-7
ground-water quality records in.....	471-484	Water resources data for Maryland and Delaware,	
Numbering system for wells.....	4	1991, explanation of.....	1-12
Numbers, station identification.....	4	Water-resources investigations, publications	
		on techniques of.....	14-15
Organic mass, definition of.....	9	WATSTORE data, access to.....	12
Organism count/area, definition of.....	9	Water year, explanation of.....	12
Organism count/volume, definition of.....	9	WDR (Water Data Report), definition of.....	12
Organism total count, definition of.....	9	Well descriptions and water-level measurements:	
		Delaware,	
Parameter code, definition of.....	10	Kent County.....	24-30
Partial-record station, definition of.....	10	New Castle County.....	31-44
Particle-size classification, definition of.....	10	Sussex County.....	45-59
Particle size, definition of.....	10	Maryland,	
Percent composition, definition of.....	10	Allegany County.....	60-62
Period of record, explanation of.....	5	Anne Arundel County.....	63-110
Periphyton, definition of.....	10	Baltimore, City of.....	111-116
Pesticides, definition of.....	10	Baltimore County.....	117-126
Phytoplankton, definition of.....	10	Calvert County.....	127-157
Picocurie, definition of.....	10	Caroline County.....	158-161
Plankton, definition of.....	10	Carroll County.....	162-165
Preface.....	iii	Cecil County.....	166-177
Primary productivity, definition of.....	10	Charles County.....	178-212
Prince Georges County, MD, ground-water		Dorchester County.....	213-223
levels in.....	358-371	Frederick County.....	224-228
ground-water quality records in.....	535	Garrett County.....	229-259
Publications on Techniques of Water-Resources		Harford County.....	260-326
Investigations.....	14-15	Howard County.....	327-343
		Kent County.....	344-351
Quality of ground water.....		Montgomery County.....	352-357
Queen Annes County, MD, ground-water levels in....	372-397	Prince Georges County.....	358-371
ground-water quality records in.....	536-543	Queen Annes County.....	372-397
		Saint Marys County.....	398-414
Radiochemical program, definition of.....	11	Somerset County.....	415-418
Records of ground-water levels.....	5-6	Talbot County.....	419-423
Records of ground-water quality.....	6-7	Washington County.....	424-431
Remark codes.....	7, 470	Wicomico County.....	432-436
Remarks, explanation of.....	5	Worcester County.....	437-469
		Wells, numbering system for, explanation of.....	4
St. Marys County, MD, ground-water levels in.....	398-414	Wet mass, definition of.....	8
ground-water quality records in.....	544	Wicomico County, MD, ground-water	
Sodium-adsorption-ratio, definition of.....	11	levels in.....	432-436
Solute, definition of.....	11	ground-water quality records in.....	551-558
Somerset County, MD, ground water levels in.....	415-418	Worcester County, MD, ground-water levels in....	437-469
ground-water quality record in.....	545	ground-water quality records in.....	559-564
Specific conductance, definition of.....	11	WSP (Water-Supply Paper), definition of.....	12
Station identification numbers,			
explanation of.....	4	Zooplankton, definition of.....	10

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
208 Carroll Building, 8600 LaSalle Road
Towson, MD 21204



OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

SPECIAL 4th CLASS BOOK RATE

