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CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA

LOCATION.--Lat 39°57'42", long 75°48'06", Chester County, Hydrologic Unit 02040205, on left bank at bridge on SR 15068 at Modena, and 300 ft upstream from Dennis Run.

DRAINAGE AREA.--55.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year.

REVISED RECORDS.--WDR PA-74-1: 1971-72(P), 1973. WDR PA-75-1: 1974(m).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 265 ft above sea level, from topographic map.

REMARKS.—No estimated daily discharges. Records fair. Slight regulation from Rock Run Reservoir 5.6 mi upstream, capacity, 982 acre-ft, and by Lukens Steel Company. Diversion from Rock Run Reservoir for municipal supply of city of Coatesville reenters creek upstream from gage. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by the city of Coatesville.

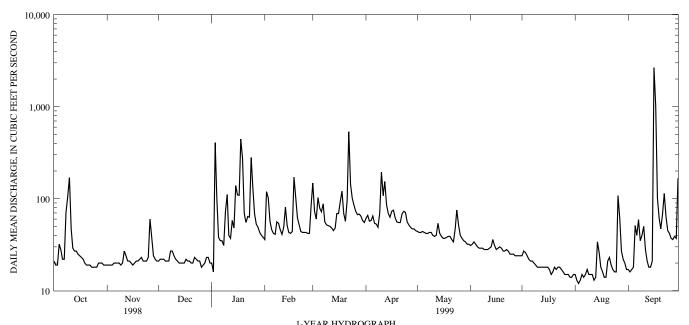
PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date		Time		ischarge ft ³ /s	Gage Height (ft)			Date	Tim	e :	charge ft ³ /s	Gage Height (ft)	
Sept.	16	1730	*	6,090	*10.38			No other	peak gr	eater th	an base	discharge.	
				DISCHA	RGE, CUBIC F	EET PER SE		ER YEAR OC AN VALUES	TOBER 199	8 TO SEPT	EMBER 19	999	
DAY	OCT	:	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1 2 3 4 5	21 19 19 32 28)) !	19 19 19 19 20	21 22 22 22 21	20 16 407 103 38	36 119 102 57 46	148 73 60 103 79	61 66 57 58 65	44 43 43 44 43	31 32 34 32 30	24 27 26 24 22	15 13 12 13 15	17 16 17 18 51
6 7 8 9 10	22 71 105 169	<u>.</u>	20 20 20 19 20	21 21 27 27 24	35 35 31 72 111	42 41 56 54 46	72 88 56 52 51	54 53 49 70 194	42 42 43 43	29 29 29 28 28	21 21 20 19 18	14 15 17 15	40 59 35 40 50
11 12 13 14 15	45 25 25 25	,	27 24 21 21 20	22 21 20 20 20	40 37 58 48 139	41 49 81 51 43	50 48 45 48 69	108 154 86 69 63	39 40 54 42 39	28 29 30 36 31	18 18 18 18	15 13 14 34 26	28 21 18 18 21
16 17 18 19 20	24 23 22 20 19	} !	19 20 21 21 22	20 22 21 21 20	110 109 445 273 69	42 44 171 103 62	69 93 121 69 57	73 75 62 56 55	37 37 38 39 39	28 29 30 29 27	18 17 15 16	18 16 14 14 21	2660 1010 101 61 47
21 22 23 24 25	19 18 18) } }	23 21 21 21 23	20 23 22 21 21	55 64 63 281 134	52 44 43 43	97 534 144 101 85	55 68 73 71 56	36 34 47 75 52	27 28 27 25 25	17 18 18 17 16	23 19 17 16 16	68 114 64 45 42
26 27 28 29 30 31	18 20 20 20 19)))	60 38 24 22 21	18 19 20 23 23 20	69 53 49 43 40 38	42 42 86 	73 67 68 65 58 55	52 49 47 47 45	40 37 35 34 32 32	25 24 24 24 24	15 15 15 14 14 15	108 62 27 22 20 17	37 36 39 37 167
TOTAL MEAN MAX MIN CFSM IN. (†)	979 31.6 169 18 .57		685 22.8 60 19 .42 .46	665 21.5 27 18 .39 .45	3085 99.5 445 16 1.81 2.09 +4.1	1681 60.0 171 36 1.09 1.14	2798 90.3 534 45 1.64 1.89	2091 69.7 194 45 1.27 1.41	1285 41.5 75 32 .75 .87 -1.4	852 28.4 36 24 .52 .58	570 18.4 27 14 .33 .39 -2.6	676 21.8 108 12 .40 .46	4977 166 2660 16 3.02 3.37 +6.1
STATIST	CS OF	MONT	HLY M	EAN DATA	FOR WATER Y	EARS 1970	0 - 1999,	BY WATER Y	EAR (WY)				
MEAN MAX (WY) MIN (WY)	55.8 190 1997 21.7 1998	,	73.5 144 1997 22.8 1999	93.7 306 1997 21.5 1999	106 330 1979 20.1 1981	109 235 1971 41.9 1992	125 308 1994 43.0 1985	119 241 1983 39.9 1985	95.7 213 1989 41.5 1999	82.2 302 1972 28.4 1999	70.4 236 1984 18.4 1999	47.2 123 1971 16.8 1995	55.9 186 1979 21.4 1981

[†] Change in contents from Rock Run Reservoir, equivalent in cubic feet per second.

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1970 - 1999
ANNUAL TOTAL	25074	20344	
ANNUAL MEAN	68.7	55.7	86.0
HIGHEST ANNUAL MEAN			130 1979
LOWEST ANNUAL MEAN			37.6 1981
HIGHEST DAILY MEAN	581 Apr 2	2660 Sep 16	4010 Jun 22 1972
LOWEST DAILY MEAN	18 Sep 28-30 a	12 Aug 3	9.8 Sep 13 1981
ANNUAL SEVEN-DAY MINIMUM	18 Oct 20	14 Jul 29	11 Sep 4 1995
INSTANTANEOUS PEAK FLOW		6090 Sep 16	b 9600 Jun 29 1973
INSTANTANEOUS PEAK STAGE		10.38 Sep 16	12.47 Jun 29 1973
ANNUAL RUNOFF (CFSM)	1.25	1.01	1.56
ANNUAL RUNOFF (INCHES)	16.96	13.76	21.25
10 PERCENT EXCEEDS	134	85	148
50 PERCENT EXCEEDS	44	32	57
90 PERCENT EXCEEDS	20	18	26



1-YEAR HYDROGRAPH OCTOBER 1, 1998 TO SEPTEMBER 30, 1999

a Also Oct. 23-26, Dec. 26.
 b From rating curve extended above 7,800 ft³/s on basis of slope-area measurement at gage height 11.48 ft.

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1969 to October 1978, August 1981 to current year.

PERIOD OF DAILY RECORD.-SPECIFIC CONDUCTANCE: May 1971 to October 1977, August 1981 to current year.
pH: May 1971 to October 1977, August 1981 to current year.
WATER TEMPERATURES: May 1971 to October 1977, August 1981 to current year.
DISSOLVED OXYGEN: May 1971 to October 1977, August 1981 to current year.

INSTRUMENTATION.--Water-quality monitor May 1971 to October 1977, August 1981 to current year.

REMARKS.-Data collection discontinued during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the recording or monitoring instrument.

EXTREMES FOR PERIOD OF DAILY RECORD .--

SPECIFIC CONDUCTANCE: Maximum, 858 microsiemens, Jan. 10, 1977; minimum, 72 microsiemens, Nov. 16, 1985.

pH: Maximum, 10.0, Dec. 21, 1971; minimum, 5.9, July 14, 1991.
WATER TEMPERATURE: Maximum, 33.5°C, July 19, 1977; minimum, 0.0°C, many days during winters.

DISSOLVED OXYGEN: Maximum, 19.5 mg/L, Sept. 2, 1990; minimum, 0.6 mg/L, Nov. 1, 3, 1974.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)		WA WH N, FI - (ST ED A L) UN	OLE C: ELD C: AND- DI RD AI ITS) (μ	UCT- A' NCE W S/CM) (D	MPER- FURE ATER EG C)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT 1998 19	0930	80020	1028	21	10.3	7	.8	373 1	5.5	120	32
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODI PERCE	A WA UNF I FI UM MG/ NT CA	NC TER CI LTRD R. T D. ELD SO L AS (I	HLO- F: IDE, R: IS- : OLVED S: MG/L (I S CL) A:	LUO- ; IDE, DIS- OLVED MG/L S F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SULFATE
OCT 1998 19	9.2	5.7	. 8	21	26	1	01	33	.76	11	38
DATE OCT 1998 19	GE AMMO DI SOL (MG AS (006	N, GE NIA NO2+ S- DI VED SOL /L (MG N) AS 08) (006	EN, GE -NO3 NITE -S- DI -VED SOI -S/L (MG -N) AS -631) (006	S- DI LVED SOL G/L (MG N) AS 513) (00	RUS SI THO, CO S- TI VED /L : P) 671) (OLIDS, UM OF ONSTI- UENTS, DIS- SOLVED (MG/L) 70301)	ALUM- INUM, DIS- SOLVED (µG/L AS AL) (01106)	(µG/L AS AS)	DIS	ED SOL L (µC) AS	S- VED G/L CD) 25)
DATE		M, COPF - DIS VED SOL -/L (μC CR) AS	S- DI LVED SOI G/L (μα CU) AS	IS- D LVED SO G/L (µ FE) AS	AD, IS- LVED : .G/L PB) :	MANGA- NESE, DIS- SOLVED (µG/L AS MN) 01056)	MERCURY DIS- SOLVED (μG/L AS HG) (71890)	DIS- SOLVED (µG/L AS MO)	(µG,	DI ED SOL /L (µ I) AS	S- VED G/L ZN)
OCT 1998 19		1 4.	7 21	. 1	. 5	42	<.1	67	12	<2	0

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY ANA- LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COL- LECTING SAMPLE (CODE NUMBER) (00027)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)		PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (µS/CM) (00095)		COLI- FORM, FECAL, 0.45 µM-MF (COLS./ 100 ML) (31616)	TOTAL UREASE (COL / 100 ML)
MAR 1999										
11	1025	1028	1028	51	12.9	8.2	285	4.0	150	
22 APR	1030	1028	1028	786	12.7	7.8	146	5.0	5000	
08	1556	1028	1028	50	12.0	9.2	301	17.5	К6	
16	0735	1028	1028	63	10.4	7.6	265	11.5	390	
29	0800	1028	1028	48	8.3	7.6	283	12.0	240	
MAY										
03	1033 0958	1028 1028	1028	43 39	8.3 9.7	7.8 7.8	296 307	13.5 16.0	280	
18 25	1330	1028	1028 1028	39 48	10.2	7.8	307 276	16.0	K1400 2800	800
JUN	1330	1026	1020	40	10.2	7.0	276	17.5	2000	
02	1217	1028	1028	33	10.3	7.8	298	22.5	480	
23	1355	1028	1028	29	10.8	8.2	335	22.5	K2000	
28	0635	1028	1028	24	7.3	7.5	356	23.0	2100	
JUL										
15	1136	1028	1028	18	11.3	8.2	368	21.0	K2200	
19	0936	1028	1028	15	8.4	7.8	409	24.5	2300	
26	1202	1028	1028	17	10.2	8.4	395	25.5	750	
AUG 03	1115	1028	1028	13	9.5	8.0	402	24.5	1300	
14	1215	1028	1028	26	5.7	7.7	328	26.0	>6000	>8000
16	1346	1028	1028	19	9.1	8.2	380	25.5	860	660
26	0914	1028	1028	46	6.1	7.7	252	20.5	K11000	K600
SEP										
08	0918	1028	1028	33	7.8	7.6	333	22.5	4400	
13	1008	1028	1028	17	8.1	7.9	433	16.0	610	310
16	0917	1028	1028	776	7.6	7.5	410	19.0	4000	2900
27	1215	1028	1028	35	9.0	8.0	377	17.5	K2700	

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

BIOLOGICAL DATA BENTHIC MACROINVERTEBRATES

Benthic Macroinvertebrate	10/19/98 Count
Platyhelminthes	
Turbellaria (Flatworms)	
Tricladida	22
Planariidae Mollusca	22
Gastropoda (Snails)	
Basommatophora	
Ancylidae	19
Ferrissia Planorbidae	19
Gyraulus	1
Annelida (Segmented Worms)	2
Oligochaeta Arthropoda	2
Acariformes	
Hydrachnidia (Water Mites)	167
Crustacea Amphipoda (Scuds)	
Gammaridae	
Gammarus	2
Insecta	
Ephemeroptera (Mayflies) Baetidae	
Baetis	2
Ephemerellidae	
Serratella	2
Heptageniidae <i>Stenonema</i>	15
Isonychiidae	13
Isonychia	3
Megaloptera (Fishflies and Dobsonflies) Corydalidae	
Corydalus	2
Trichoptera (Caddisflies)	-
Hydropsychidae	220
Cheumatopsyche Hydropsyche	230 403
Hydroptilidae	403
Hydroptila	1
Leucotrichia	25
Leptoceridae Oecetis	1
Philopotamidae	1
Chimarra	1
Lepidoptera Pyralididae (Moths)	
Petrophila	69
Coleoptera (Beetles)	
Elmidae (Riffle Beetles)	102
Optioservus Stenelmis	102 103
Hydrophilidae	103
Berosus	1
Psephenidae (Water Pennies)	8
Psephenus Diptera (True Flies)	8
Chironomidae (Midges)	22
Empididae (Dance Flies)	
Hemerodromia Tipulidae (Crane Flies)	34
Antocha	15
	1 252
Total count	1,252
Cotal number of taxa	25

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	384	362	373	372	348	360						
2	383	341	367	369	344	358						
3	381	347	371	364	347	357						
4 5	374 340	274 312	316 327	360 368	337 336	351 355						
3	340	312	341	300	330	333						
6	365	340	353	363	339	353						
7	374	356	367	374	343	355						
8	372	180	286	373	341	358						
9 10	293 236	167 194	261 216	366 356	338 338	353 349						
10	250	171	210	330	330	317						
11	315	229	265	365	278	329						
12	331	300	317	363	316	333						
13	346	320	333	369	321	342						
14 15	356 357	325 322	343 337	376 381	361 362	370 373						
13	337	322	337	301	302	373						
16	361	347	356	386	362	376						
17	366	346	357	384	347	369						
18	373	345	358	380	354	370						
19 20	375 377	353 356	365 367	382 374	348 350	367 362						
20	311	330	307	374	330	302						
21	364	329	350	370	343	353						
22	367	341	355	371	343	358						
23	366	337	348	370	347	361						
24 25	372 367	353 349	363 360	366 401	333 320	354 362						
23	307	313	300	101	320	302						
26				394	174	291						
27				340	264	306						
28	265	210	241	356	335	341						
29 30	365 373	319 329	341 355	375 377	344 359	357 368						
31	368	351	361									
MONTH	384	167	338	401	174	353						
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
DAY			MEAN	MAX		MEAN	MAX		MEAN	MAX		MEAN
DAY		MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1		FEBRUARY	MEAN	243		219	MAX 294	APRIL 276	287	307		285
1 2	:	FEBRUARY		243 275	MARCH 206 243	219 258	294 291	APRIL 276 275	287 282	307 307	MAY 270 244	285 283
1 2 3		FEBRUARY		243 275 275	MARCH 206 243 258	219 258 271	294 291 291	APRIL 276 275 278	287 282 284	307 307 305	MAY 270 244 272	285 283 292
1 2 3 4	:	FEBRUARY	 	243 275 275 261	206 243 258 234	219 258 271 250	294 291 291 288	276 275 278 261	287 282 284 284	307 307 305 302	MAY 270 244 272 285	285 283 292 295
1 2 3	:	FEBRUARY		243 275 275	MARCH 206 243 258	219 258 271	294 291 291	APRIL 276 275 278	287 282 284	307 307 305	MAY 270 244 272	285 283 292
1 2 3 4 5	:	FEBRUARY	 	243 275 275 261 283	206 243 258 234	219 258 271 250 268	294 291 291 288 275	276 275 278 261 259	287 282 284 284 266	307 307 305 302 312	MAY 270 244 272 285 288	285 283 292 295 299
1 2 3 4 5	:	FEBRUARY		243 275 275 261 283 287 273	MARCH 206 243 258 234 252 267 240	219 258 271 250 268 280 255	294 291 291 288 275 290 298	276 275 278 261 259 275 285	287 282 284 284 266 280 289	307 307 305 302 312 312	MAY 270 244 272 285 288 293 292	285 283 292 295 299 304 302
1 2 3 4 5	:	FEBRUARY		243 275 275 261 283 287 273 291	MARCH 206 243 258 234 252 267 240 273	219 258 271 250 268 280 255 279	294 291 291 288 275 290 298 304	276 275 278 261 259 275 285 292	287 282 284 284 266 280 289 298	307 307 305 302 312 312 313 313	MAY 270 244 272 285 288 293 292 292	285 283 292 295 299 304 302 303
1 2 3 4 5 6 7 8 9	:	FEBRUARY		243 275 275 261 283 287 273 291 287	206 243 258 234 252 267 240 273 276	219 258 271 250 268 280 255 279 281	294 291 291 288 275 290 298 304 304	276 275 278 261 259 275 285 292 189	287 282 284 284 266 280 289 298 281	307 307 305 302 312 312 313 313 322	MAY 270 244 272 285 288 293 292 292 287	285 283 292 295 299 304 302 303 300
1 2 3 4 5	:::::::::::::::::::::::::::::::::::::::	FEBRUARY		243 275 275 261 283 287 273 291	MARCH 206 243 258 234 252 267 240 273	219 258 271 250 268 280 255 279	294 291 291 288 275 290 298 304	276 275 278 261 259 275 285 292	287 282 284 284 266 280 289 298	307 307 305 302 312 312 313 313	MAY 270 244 272 285 288 293 292 292	285 283 292 295 299 304 302 303
1 2 3 4 5 6 7 8 9 10		FEBRUARY		243 275 275 261 283 287 273 291 287 369	MARCH 206 243 258 234 252 267 240 273 276 286	219 258 271 250 268 280 255 279 281 304	294 291 291 288 275 290 298 304 231	276 275 278 261 259 275 285 292 189 199	287 282 284 284 266 289 298 281 211	307 307 305 302 312 312 313 313 322 312	MAY 270 244 272 285 288 293 2992 287 288	285 283 292 295 299 304 302 303 300 299
1 2 3 4 5 6 7 8 9 10		FEBRUARY		243 275 275 261 283 287 273 291 287 369	206 243 258 234 252 267 240 273 276 286	219 258 271 250 268 280 255 279 281 304 291 299	294 291 291 288 275 290 298 304 231	276 275 278 261 259 275 285 292 189 199	287 282 284 284 266 280 289 298 211 234 226	307 307 305 302 312 313 313 313 322 312	MAY 270 244 272 285 288 293 292 297 288 292 287 288	285 283 292 295 299 304 302 303 300 299
1 2 3 4 5 6 7 8 9 10	======================================	FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302	206 243 258 234 252 267 240 273 276 286	219 258 271 250 268 280 255 279 281 304 291 299	294 291 291 288 275 290 298 304 231 248 245 276	276 275 278 261 259 275 285 292 189 199 207 202 243	287 282 284 284 266 289 298 291 211 234 226 258	307 307 305 302 312 313 313 313 322 312	MAY 270 244 272 285 288 293 292 297 288 292 287 288	285 283 292 295 299 304 302 303 300 299
1 2 3 4 5 6 7 8 9 10		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491	206 243 258 234 252 267 240 273 276 286	219 258 271 250 268 280 255 279 281 304 291 299 295 318	294 291 291 288 275 290 298 304 231	276 275 278 261 259 275 285 292 189 199 207 202 243 269	287 282 284 284 266 280 289 298 281 211 234 226 258 276	307 307 305 302 312 313 313 322 312 314 313 315 300	MAY 270 244 272 285 288 293 292 297 288 292 287 288	285 283 292 295 299 304 302 303 300 299 301 297 280 289
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349	294 291 291 288 275 290 298 304 231 248 245 276 288 295	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275	287 282 284 284 266 289 298 211 211 234 226 258 276 286	307 307 305 302 312 312 313 313 322 312 314 313 315 300 301	270 244 272 285 288 292 292 292 287 288 292 284 249 279 274	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300	219 258 271 250 268 280 255 279 281 304 291 299 318 349	294 291 291 288 275 290 298 304 231 248 245 276 288 295	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286	307 307 305 302 312 313 313 313 322 312 314 313 315 300 301	270 244 272 285 288 293 2992 2992 287 288 292 287 288 292 249 279 274	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349	294 291 288 275 290 298 304 231 248 245 276 288 295	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286	307 307 305 302 312 313 313 313 322 312 314 313 315 300 301	270 244 272 285 288 293 292 292 287 288 292 287 288 292 284 249 279 274	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232	294 291 291 288 275 290 298 304 231 248 245 276 288 295 292 277	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275	287 282 284 284 266 289 298 291 211 234 226 258 276 286 281 269 270	307 307 305 302 312 312 313 313 322 312 314 313 315 300 301	270 244 272 285 288 293 292 297 288 292 287 288 292 287 284 249 279 274 289 299	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		FEBRUARY		243 275 275 261 283 287 273 369 302 316 302 491 417 323 297 243 269	MARCH 206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242	219 258 271 250 268 280 255 279 281 304 291 295 318 349 299 276 232 252	294 291 291 288 275 290 298 304 231 248 245 276 288 295	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275	287 282 284 284 266 280 289 298 281 211 234 2258 276 286 281 269 270 268	307 307 305 302 312 313 313 313 322 312 314 313 315 300 301	270 244 272 285 288 293 292 292 287 288 292 292 287 288 292 284 249 279 274	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 297 243 269 281	206 243 258 234 252 267 240 273 276 286 282 284 287 300 286 240 210 242 256	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 252 268	294 291 288 275 290 298 304 231 248 245 276 288 295 292 277 279 282	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 262 273	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286 281 269 270 268 277	307 307 305 302 312 313 313 313 312 314 313 315 300 301 304 319 323 314 323	270 244 272 285 288 293 292 292 287 288 292 2284 249 279 274 289 299 295 299 303	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 312
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21		FEBRUARY		243 275 275 261 283 287 273 369 302 316 302 491 417 323 297 243 269 281	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256	219 258 271 250 268 280 255 279 281 304 291 295 318 349 299 276 232 252 268	294 291 291 288 275 290 298 304 304 231 248 245 276 288 295 292 279 277 277 279 282	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 262 273	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286 277 268 277	307 307 305 302 312 313 313 313 322 312 314 315 300 301 304 319 323 314 323 314 323	270 244 272 285 288 293 292 292 292 287 288 292 2287 288 292 224 249 279 274 289 299 303	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 312
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 297 243 269 281	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 252 268	294 291 291 288 275 290 298 304 231 248 245 276 288 295 292 279 277 279 279 282	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273	287 282 284 284 266 280 289 281 211 234 226 258 276 286 281 269 270 268 277	307 307 305 302 312 313 313 322 312 314 313 315 300 301 304 319 323 314 323 314 323	270 244 272 285 288 293 292 292 287 288 292 284 249 279 274 289 299 295 299 303	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 312
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 297 243 269 281	206 243 258 234 252 267 240 273 276 286 282 284 287 300 282 240 210 242 256	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 252 268	294 291 291 288 275 290 298 304 231 248 245 276 288 295 292 277 279 277 279 282 285 286 270	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 262 273	287 282 284 284 266 280 289 298 211 234 226 258 276 286 281 269 270 268 277	307 307 305 302 312 313 313 313 322 312 314 313 315 300 301 304 319 323 314 323 314 323 338 339 334	270 244 272 285 288 293 292 292 287 288 292 2292 287 284 249 279 274 289 299 303 311 320 268	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 312
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 297 243 269 281	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 252 268	294 291 291 288 275 290 298 304 231 248 245 276 288 295 292 279 277 279 279 282	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273	287 282 284 284 266 280 289 281 211 234 226 258 276 286 281 269 270 268 277	307 307 305 302 312 313 313 322 312 314 313 315 300 301 304 319 323 314 323 314 323	270 244 272 285 288 293 292 292 287 288 292 284 249 279 274 289 299 295 299 303	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 312
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 297 243 269 281	206 243 258 234 252 267 240 273 276 286 282 284 287 300 286 240 210 242 256	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 252 268	294 291 291 288 275 290 298 304 231 248 245 276 288 295 292 277 279 282 285 286 270 261 279	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273 271 254 219 236 223	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286 281 269 270 268 277 278 268 277	307 307 305 302 312 313 313 313 322 312 314 313 315 300 301 304 319 323 314 323 338 339 334 297 315	270 244 272 285 288 293 292 292 292 287 288 292 284 249 279 274 289 299 295 299 303 311 320 268 163 261	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 305 312 324 331 301 262 285
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 26 27 28 28 28 28 28 28 28 28 28 28 28 28 28		FEBRUARY		243 275 275 261 283 287 273 369 302 316 302 491 417 323 297 243 269 281 288 280	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256 192 262 277	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 252 268 265 	294 291 288 275 290 298 304 304 231 248 245 276 288 295 279 277 279 282 285 286 270 261 279	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273 271 254 219 236 223	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286 277 268 277 278 268 277 278 268 279 248 260 260 277	307 307 305 302 312 313 313 313 322 312 314 315 300 301 304 319 323 314 323 314 323 315 301 301 301 301 301 301 301 301 302 302 302 302 302 302 302 302 302 302	270 244 272 285 288 293 292 292 287 288 292 2287 288 292 2249 279 274 289 299 299 303 311 320 261 306	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 312 324 331 301 262 285
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 25 26 27		FEBRUARY	 	243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 269 281 288 280 288	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 268 265 267	294 291 291 288 275 290 298 304 231 248 245 276 288 295 292 279 277 279 282 285 286 270 261 279	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273 271 254 219 236 223	287 282 284 284 266 280 289 281 211 234 226 258 276 286 277 268 277 278 268 277 278 268 279 278 268 277	307 307 305 302 312 313 313 322 312 314 313 315 300 301 304 319 323 314 323 314 323 315 301 301 301 301 301 301 301 302 301 302 302 302 302 302 302 302 302 302 302	270 244 272 285 288 293 2992 2992 297 288 2992 297 274 289 299 279 274 289 299 295 295 295 295 295 303	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 305 312 324 331 301 262 285
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 297 243 269 281 288 	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256 192 262 277 284	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 252 268 265 267	294 291 291 288 275 290 298 304 231 248 245 276 288 295 279 277 279 282 285 286 270 261 279 283 293	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273 271 254 219 236 223	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286 287 269 277 278 268 277 278 268 277 278 268 277 268 277 278 268 277 278 278 279 279 279 279 279 279 279 279 279 279	307 307 305 302 312 313 313 313 322 312 314 313 315 300 301 304 319 323 314 323 338 339 334 297 315	270 244 272 285 288 293 292 292 292 292 287 288 292 284 249 279 274 289 299 295 299 303 311 320 368 163 261 301 317	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 305 305 305 312 324 331 301 262 285
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 25 26 27		FEBRUARY	 	243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 269 281 288 280 288	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256 192 262 277 284 277	219 258 271 250 268 280 255 279 281 304 291 295 318 349 299 276 232 252 268 265 267 283 286 283 281	294 291 291 288 275 290 298 304 231 248 245 276 288 295 292 279 277 279 282 285 286 270 261 279	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273 271 254 219 236 223	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286 277 268 277 278 268 277 278 268 277 278 268 277 278 268 277 278 279 270 270 270 270 270 270 270 270 270 270	307 307 305 302 312 313 313 322 312 314 313 315 300 301 304 319 323 314 323 314 323 315 301 301 301 301 301 301 301 302 301 302 302 302 302 302 302 302 302 302 302	270 244 272 285 288 293 292 292 287 288 292 2287 288 292 2249 279 274 289 299 299 303 311 320 268 163 261	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 312 324 331 301 262 285
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20		FEBRUARY		243 275 261 283 287 273 291 287 369 302 316 302 491 417 323 297 243 269 281 288 280 288 289 288	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256 192 262 277 284	219 258 271 250 268 280 255 279 281 304 291 299 295 318 349 299 276 232 252 268 265 267	294 291 288 275 290 298 304 304 231 248 245 276 288 295 279 277 279 282 285 286 270 261 279 283 290	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273 271 254 219 236 223	287 282 284 284 266 280 289 298 281 211 234 226 258 276 286 287 269 277 278 268 277 278 268 277 278 268 277 268 277 278 268 277 278 278 279 279 279 279 279 279 279 279 279 279	307 307 305 302 312 313 313 313 322 312 314 313 301 301 301 304 319 323 314 323 314 323 315 315 301 301	270 244 272 285 288 293 292 292 292 292 287 288 292 284 249 279 274 289 299 295 299 303 311 320 368 163 261 301 317	285 283 292 295 299 304 302 303 300 299 301 297 280 289 290 297 305 305 305 305 305 305 312 324 331 301 262 285
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 27 28 29 30 20 21 22 23 24 25 26 27 27 28 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20		FEBRUARY		243 275 275 261 283 287 273 291 287 369 302 316 302 491 417 323 269 281 288 280 288 289 288 289 288 285 291	206 243 258 234 252 267 240 273 276 286 280 282 284 287 300 286 240 210 242 256 192 262 277 284 279 277	219 258 271 250 268 280 255 279 281 304 291 299 276 232 252 268 265 267 283 286 283 286	294 291 291 288 275 290 298 304 231 248 245 276 288 295 279 277 277 279 282 285 286 270 261 279 283 290 298 290 298 298 290	276 275 278 261 259 275 285 292 189 199 207 202 243 269 275 249 256 262 273 271 254 219 236 223	287 282 284 284 266 289 298 281 211 234 226 258 276 286 277 278 268 277 278 268 277 278 268 279 278 268 279 278 268 279 279 279 279 279 279 279 279 279 279	307 307 305 302 312 313 313 322 312 314 313 315 300 301 304 319 323 314 323 314 323 315 300 301	270 244 272 285 288 293 2992 2992 2987 288 2992 279 274 289 299 295 299 295 299 303 311 320 268 163 301 317 337 344	285 283 292 295 299 304 302 303 300 299 301 297 289 290 297 305 305 305 305 312 324 331 301 262 285

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST		S	EPTEMBE	IR.
1 2 3 4 5	365 356 332 342 348	345 314 307 312 325	354 336 320 328 338	374 368 369 380	336 321 352 352	360 343 363 366	401 417 438 457 424	318 300 335 402 383	371 372 396 431 402	415 421 421 421 418	383 380 392 400 146	400 401 407 412 357
6 7 8 9 10	348 348 355 358 363	330 318 333 338 338	341 338 347 348 349	386 392 378 383 390	357 352 348 349 368	376 373 363 371 382	419 412 407 391 421	384 374 378 309 360	402 397 393 372 395	324 338 373 392 336	238 217 283 151 200	288 292 339 363 304
11 12 13 14 15	352 340 343 331 337	328 314 304 232 241	338 330 332 310 313	382 387 383 378 383	347 355 352 341 294	369 373 367 360 351	404 383 381 402 369	355 308 328 220 238	383 353 363 322 293	399 436 440 441 454	336 392 397 409 391	367 408 419 431 435
16 17 18 19 20	354 357 348 360 361	328 319 316 319 337	341 341 333 337 350	377 385 391 410 386	337 292 280 357 359	366 351 344 386 368	404 421 426 434 451	369 394 375 412 339	386 407 398 423 398	391 	124 	214
21 22 23 24 25	352 347 349 361 369	320 320 327 330 338	342 335 340 344 352	430 433 390 400 416	359 359 360 371 368	383 390 377 386 394	388 403 410 449 426	306 367 384 396 395	349 385 399 416 409	 371 386 391	315 371 378	 344 378 385
26 27 28 29 30 31	356 360 362 370 	338 338 336 347 	348 353 350 358 	412 425 418 407 429 422	382 320 353 307 383 354	399 394 385 381 407 391	410 351 424 456 417 429	141 202 274 374 373 387	271 292 369 422 398 405	393 389 391 376 377	379 370 363 358 171	386 380 375 367 256
MONTH	370	232	340	433	280	374	457	141	380	454	124	363

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER		N	OVEMBER]	DECEMBER			JANUARY	
1 2 3	8.1 7.9 8.0	7.2 7.2 7.2	7.6 7.6 7.5	7.9 8.0 8.0	6.9 6.9 6.9	7.3 7.3 7.5						
4 5	7.6 8.0	7.1 7.2	7.3 7.5	7.8 7.9	7.0 6.8	7.3 7.3						
6 7 8 9 10	8.0 8.2 7.8 7.9	7.2 7.3 7.3 7.3 7.1	7.6 7.7 7.5 7.4 7.2	7.8 8.0 7.9 8.1 7.5	6.8 6.8 6.8 6.8	7.2 7.3 7.3 7.4 7.1	 	 	 	 	 	
11 12 13 14 15	7.5 7.6 7.7 7.8 7.8	7.1 7.1 7.2 7.2 7.2	7.3 7.4 7.4 7.5 7.5	 7.9 7.9 7.9	6.8 6.9	 7.3 7.4 7.4		 	 	 	 	
16 17 18 19 20	7.8 7.9 8.1 8.1	7.1 7.1 7.1 7.1 7.1	7.4 7.5 7.5 7.6 7.5	8.0 8.0 	6.9 7.0 	7.4 7.4 		 				
21 22 23 24 25	8.0 8.0 7.9 7.9	6.8 6.8 6.8 6.8	7.3 7.3 7.3 7.3	 	 						 	
26 27 28 29 30 31	7.3 7.8 7.8	6.8 6.9 6.9	7.0 7.4 7.3	 		 	 		 	 	 	
MONTH	8.2	6.8	7.4	8.1	6.8	7.3						

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUAR	Y		MARCH			APRIL			MAY	
1 2 3 4 5		 		8.1 8.5 8.7 8.4 8.7	7.7 7.7 7.7 7.7 7.7	7.8 8.0 8.1 8.0 8.1	8.7 9.2 9.3 9.1 9.1	7.6 7.6 7.6 7.6 7.5	8.0 8.2 8.3 8.2 8.2	8.7 8.7 8.4 8.7 8.8	7.5 7.5 7.5 7.5 7.5	8.0 8.0 7.9 8.0 8.1
6 7 8 9 10	 	 	 	8.2 8.6 8.8 8.9 9.0	7.7 7.7 7.7 7.7 7.7	7.9 8.0 8.1 8.2 8.2	9.2 9.2 9.2 8.5 7.9	7.5 7.5 7.5 7.6 7.6	8.3 8.3 8.3 7.9 7.7	8.4 8.3 8.5 8.6 8.6	7.5 7.6 7.5 7.5 7.5	7.9 7.8 7.9 7.9 7.9
11 12 13 14 15		 	 	9.0 9.1 9.2 8.9 9.1	7.7 7.7 7.7 7.7 7.7	8.2 8.3 8.3 8.2	7.8 8.3 8.8 9.0 9.0	7.6 7.6 7.6 7.6 7.6	7.7 7.8 8.0 8.1 8.2	8.6 8.8 7.8 8.5 8.6	7.5 7.5 7.4 7.6 7.6	8.0 8.0 7.6 8.0 8.0
16 17 18 19 20	 	 	 	9.1 9.2 8.5 8.8 8.9	7.7 7.6 7.5 7.5 7.5	8.2 8.2 7.9 8.1 8.1	8.7 9.1 9.1 9.1 8.8	7.6 7.6 7.6 7.6 7.6	7.9 8.3 8.3 8.3 8.1	8.6 8.5 8.5 8.1 8.4	7.6 7.6 7.5 7.3 7.5	8.0 8.0 7.9 7.7 7.8
21 22 23 24 25		 	 	8.5 8.7	7.5 7.7	7.9 8.1	9.2 9.0 8.5 8.9 8.9	7.6 7.6 7.5 7.6 7.6	8.3 8.3 7.9 8.2 8.2	8.3 8.3 7.7 7.8 7.9	7.5 7.5 7.5 7.5 7.6	7.8 7.8 7.6 7.6 7.7
26 27 28 29 30 31	8.4 8.5 7.9 	7.8 7.7 7.7 	8.0 8.0 7.8 	8.7 8.9 8.9 9.1 9.2 9.1	7.7 7.7 7.7 7.7 7.7 7.7	8.1 8.2 8.2 8.3 8.4 8.3	8.9 8.9 8.7 8.8 8.7	7.6 7.5 7.5 7.5 7.5	8.1 8.0 8.1 8.0	7.8 7.8 7.8 7.9 8.0 8.0	7.5 7.5 7.5 7.5 7.5 7.4	7.6 7.7 7.6 7.7 7.7
MONTH	8.5	7.7	7.9	9.2	7.5	8.1	9.3	7.5	8.1	8.8	7.3	7.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
DAY 1 2 3 4 5	MAX 7.9 8.0 8.3 8.3 8.4	MIN JUNE 7.4 7.4 7.3 7.6 7.6	MEAN 7.6 7.7 7.8 7.9 7.9	MAX 8.6 8.4 8.6 8.5	MIN JULY 7.6 7.5 7.5 7.5	MEAN 8.0 7.9 8.0 8.0		MIN 7.6 7.6 7.6 7.6 7.6 7.6 7.6	MEAN 8.4 8.4 8.5 8.5		MIN SEPTEMBE 7.7 7.8 7.7 7.7 7.5	
1 2 3 4	7.9 8.0 8.3 8.3	7.4 7.4 7.3 7.6	7.6 7.7 7.8 7.9	 8.6 8.4 8.6	JULY 7.6 7.5 7.5	 8.0 7.9 8.0	8.9 9.0 9.1 9.0	7.6 7.6 7.6 7.6 7.7	8.4 8.4 8.5 8.5	8.9 8.9 8.9 8.8	7.7 7.8 7.7 7.7	8.4 8.5 8.5 8.2
1 2 3 4 5 6 7 8 9	7.9 8.0 8.3 8.3 8.4 8.4 8.4	7.4 7.4 7.3 7.6 7.6 7.6 7.6 7.5	7.6 7.7 7.8 7.9 7.9 8.0 8.0 7.9 7.9	8.6 8.4 8.6 8.5 8.5 8.5	JULY 7.6 7.5 7.5 7.5 7.5 7.5 7.5 7.6	8.0 7.9 8.0 8.0 8.0 7.9 8.0	8.9 9.0 9.1 9.0 9.0 9.1 9.1 8.9 8.9	7.6 7.6 7.6 7.7 7.6 7.6 7.6 7.6 7.5 7.4	8.4 8.4 8.5 8.5 8.5 8.5 8.5	8.9 8.9 8.9 8.8 8.4 8.1 8.1 8.3	7.7 7.8 7.7 7.5 7.5 7.5 7.5 7.5	8.4 8.5 8.5 8.2 7.9 7.8 7.7 7.8 7.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14	7.9 8.0 8.3 8.3 8.4 8.4 8.4 8.3 8.1 8.3 8.2	7.4 7.4 7.6 7.6 7.6 7.6 7.5 7.5 7.6	7.6 7.7 7.8 7.9 7.9 7.9 7.9 7.8 7.9 7.8	8.6 8.4 8.6 8.5 8.5 8.7 8.4 8.6 8.4 8.6	JULY 7.6 7.5 7.5 7.5 7.5 7.5 7.6 7.6 7.6 7.6 7.7	8.0 7.9 8.0 8.0 7.9 8.0 8.1 7.9	8.9 9.0 9.1 9.0 9.1 9.1 8.9 8.9 8.8 8.8 8.8	7.6 7.6 7.6 7.6 7.7 7.6 7.6 7.5 7.4 7.6 7.5 7.6 7.5 7.6	8.4 8.4 8.5 8.5 8.5 8.5 8.5 8.1 8.2 8.2 7.7	8.9 8.9 8.8 8.4 8.1 8.3 8.3 8.0 8.3	7.7 7.8 7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	8.4 8.5 8.5 8.2 7.9 7.8 7.7 7.8 7.7 7.9 7.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	7.9 8.0 8.3 8.3 8.4 8.4 8.4 8.3 8.1 8.3 8.2 8.3 8.2 8.3	7.4 7.4 7.6 7.6 7.6 7.5 7.6 7.6 7.6 7.6 7.6 7.6 7.6	7.6 7.7 7.8 7.9 7.9 7.9 7.9 7.8 7.9 7.8 7.9 7.8 7.9	8.6 8.6 8.5 8.5 8.5 8.7 8.4 8.6 8.7 8.8 8.9	JULY 7.6 7.5 7.5 7.5 7.5 7.6 7.6 7.6 7.6 7.7 7.7 7.7 7.6 7.6 7.7	8.0 7.9 8.0 8.0 7.9 8.1 7.9 8.1 8.2 8.1 8.2 8.3 8.3 8.3	8.9 9.0 9.1 9.0 9.1 9.1 8.9 8.9 8.8 8.8 8.8 8.8 8.5 8.9	7.6 7.6 7.6 7.7 7.6 7.6 7.5 7.4 7.6 7.5 7.5 7.4 7.5 7.5 7.5 7.6 7.5 7.6	8.4 8.5 8.5 8.5 8.5 8.5 8.1 8.2 8.2 7.7 8.1 8.0 7.9 8.0 8.1	8.9 8.9 8.8 8.4 8.1 8.1 8.3 8.3 8.0 8.3 8.4 8.6 8.5	7.7 7.8 7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.7 7.7	8.4 8.5 8.5 8.2 7.9 7.8 7.7 7.8 7.9 7.7 7.9 8.0 8.1 8.2 7.9
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	7.9 8.0 8.3 8.3 8.4 8.4 8.3 8.1 8.3 8.2 8.1 8.2 8.3 8.4 8.3 8.4 8.3 8.4 8.6 8.6	7.4 7.4 7.6 7.6 7.6 7.5 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6	7.6 7.7 7.8 7.9 7.9 7.9 7.9 7.9 7.8 7.9 7.8 7.9 8.0 8.0 8.0 8.1 8.1 8.1	8.6 8.6 8.5 8.5 8.5 8.7 8.4 8.6 8.7 8.8 8.9 8.9 8.7 8.7 8.8	JULY 7.6 7.5 7.5 7.5 7.5 7.6 7.6 7.6 7.7 7.7 7.7 7.7 7.6 7.6 7.7 7.7	8.0 7.9 8.0 8.0 8.0 7.9 8.1 7.9 8.1 8.2 8.3 8.3 8.3 7.9	8.9 9.0 9.1 9.0 9.1 9.1 8.9 8.8 8.8 8.8 8.5 8.4 8.4 8.4 8.3 8.1 8.4 8.5 8.6	7.6 7.6 7.6 7.7 7.6 7.6 7.5 7.4 7.6 7.5 7.5 7.3 7.4 7.6 7.5 7.5 7.6 7.5 7.6 7.5 7.6	8.4 8.5 8.5 8.5 8.5 8.5 8.2 8.2 7.7 8.1 8.0 7.9 8.0 8.1 7.8	8.9 8.9 8.8 8.4 8.1 8.1 8.3 8.3 8.0 8.3 8.4 8.6 8.5	7.7 7.8 7.7 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.7 7.7	8.4 8.5 8.5 8.2 7.9 7.8 7.7 7.9 7.7 7.9 7.7 7.9 7.5

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER	!		NOVEMBER			DECEMBER	t		JANUARY	
1 2	21.0 18.0	18.0 15.0	19.5 16.0	12.0 12.0	9.5 10.0	11.0 11.0						
3	16.0	13.5	14.5	10.5	9.5	10.0						
4 5	14.5 16.5	13.5 14.0	14.0 15.0	10.0 9.0	8.5 7.0	9.5 8.0						
6 7	16.5 16.5	14.0 15.0	15.0 16.0	8.0 9.5	7.0 7.0	7.5 8.5						
8	18.0	16.5	17.0	10.5	9.0	9.5						
9 10	17.5 16.5	16.5 15.5	16.5 16.0	11.0 10.5	9.0 8.5	10.0 9.5						
11	18.0	14.5	16.0	13.5	10.5	12.0						
12	17.0	15.5	16.5	11.0	8.5	9.5						
13 14	18.0 17.5	16.0 15.5	17.0 17.0	9.5 10.0	8.0 7.5	8.5 9.0						
15	15.5	13.5	14.5	10.5	9.0	10.0						
16	15.5	12.5	14.0	10.0	8.0	9.0						
17	15.5	12.5	14.0	11.5	9.5	10.5						
18 19	16.5 17.0	13.0 15.5	15.0 16.0	11.0 10.0	9.0 7.5	10.0 8.5						
20	16.0	14.0	15.0	11.5	9.5	10.5						
21	14.5	12.5	13.5	10.5	8.5	9.5						
22 23	13.0 12.5	11.0 9.5	12.0 11.0	9.0 9.0	7.5 6.5	8.0 7.5						
24	13.5	10.5	12.0	9.5	8.5	9.0						
25	14.0	11.0	12.5	8.5	7.0	8.0						
26				9.5	8.0	9.0						
27 28	15.0	13.5	14.0	9.5 9.0	8.0 6.5	8.5 8.0						
29	14.5	12.0	13.5	10.0	7.0	8.5						
30 31	12.5 12.0	10.5 10.0	11.5 11.0	10.5	8.5	9.5						
				12 5	6 5	0 0						
MONTH	21.0	9.5	14.7	13.5	6.5	9.2						
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
DAY	MAX			MAX		MEAN	MAX		MEAN	MAX		MEAN
	MAX	MIN FEBRUAR			MARCH			APRIL			MAY	
1 2		FEBRUAR	 	6.0 7.0	MARCH 4.5 3.5	5.0 5.0	11.5 14.0	APRIL 10.0 11.0	11.0 12.5	17.5 17.0	MAY 12.0 12.5	14.5 14.5
1 2 3		FEBRUAR		6.0 7.0 9.5	MARCH 4.5 3.5 5.0	5.0 5.0 7.0	11.5 14.0 15.0	10.0 11.0 11.0	11.0 12.5 13.0	17.5 17.0 14.5	MAY 12.0 12.5 13.0	14.5 14.5 13.5
1 2	 	FEBRUAR	 	6.0 7.0	MARCH 4.5 3.5	5.0 5.0	11.5 14.0	APRIL 10.0 11.0	11.0 12.5	17.5 17.0	MAY 12.0 12.5	14.5 14.5
1 2 3 4		FEBRUAR	 	6.0 7.0 9.5 10.0	MARCH 4.5 3.5 5.0 4.5	5.0 5.0 7.0 7.0	11.5 14.0 15.0 16.0	10.0 11.0 11.0 12.0	11.0 12.5 13.0 14.0	17.5 17.0 14.5 16.0	MAY 12.0 12.5 13.0 13.0	14.5 14.5 13.5 14.5
1 2 3 4 5		FEBRUAR	 	6.0 7.0 9.5 10.0 6.5	MARCH 4.5 3.5 5.0 4.5 3.5 4.5 2.5	5.0 5.0 7.0 7.0 5.0	11.5 14.0 15.0 16.0 15.0	10.0 11.0 11.0 12.0 11.0	11.0 12.5 13.0 14.0 13.0	17.5 17.0 14.5 16.0 19.5	MAY 12.0 12.5 13.0 13.0 14.0	14.5 14.5 13.5 14.5 16.5
1 2 3 4 5		FEBRUAR	 	6.0 7.0 9.5 10.0 6.5	MARCH 4.5 3.5 5.0 4.5 3.5 4.5	5.0 5.0 7.0 7.0 5.0	11.5 14.0 15.0 16.0 15.0	10.0 11.0 11.0 12.0 11.0	11.0 12.5 13.0 14.0 13.0	17.5 17.0 14.5 16.0 19.5	MAY 12.0 12.5 13.0 13.0 14.0	14.5 14.5 13.5 14.5 16.5
1 2 3 4 5		FEBRUAR	 	6.0 7.0 9.5 10.0 6.5 6.0 6.0	4.5 3.5 5.0 4.5 3.5 4.5 2.5	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0	11.5 14.0 15.0 16.0 15.0	10.0 11.0 11.0 12.0 11.0	11.0 12.5 13.0 14.0 13.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0	MAY 12.0 12.5 13.0 13.0 14.0 15.5 14.5 15.0	14.5 14.5 13.5 14.5 16.5
1 2 3 4 5 6 7 8 9 10		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0	### 4.5 3.5 5.0 4.5 3.5 4.5 2.5 1.0 1.5 2.5	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5	APRIL 10.0 11.0 11.0 11.0 11.0 11.0 11.5 9.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 19.5	MAY 12.0 12.5 13.0 13.0 14.0 15.5 14.5 14.5 14.5	14.5 14.5 13.5 14.5 16.5 16.5 17.0 17.0
1 2 3 4 5 6 7 8 9 10		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0	4.5 3.5 5.0 4.5 3.5 4.5 2.5 1.0 1.5 2.5	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5	APRIL 10.0 11.0 11.0 12.0 11.0 11.0 10.0 11.5 9.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 20.0	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5	14.5 14.5 13.5 14.5 16.5 16.5 17.0 17.0 17.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0 6.0 7.0	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5	10.0 11.0 11.0 12.0 11.0 11.0 10.0 11.5 9.5 9.5 9.0 8.0 9.0	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0 9.5 10.0 10.5 11.5	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 19.5 19.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.5 14.5	14.5 14.5 13.5 14.5 16.5 15.0 16.5 17.0 17.0 18.0 16.5 15.5
1 2 3 4 5 6 7 8 9 10		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0	4.5 3.5 5.0 4.5 3.5 4.5 2.5 1.0 1.5 2.5 2.5 2.5	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.0 5.0	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 9.5 9.0 9.0 8.0	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0 9.5 10.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 20.0	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 14.5 14.5	14.5 14.5 13.5 14.5 16.5 16.5 17.0 17.0 17.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0 6.0 7.5	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 4.5 5.0 4.5 3.5	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 9.5 9.0 9.0 9.0 9.0 9.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0 9.5 10.0 10.5 11.5	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 20.5 19.5 19.5	MAY 12.0 12.5 13.0 13.0 14.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5	14.5 14.5 13.5 14.5 16.5 15.0 16.5 17.0 17.0 17.0 18.0 16.5 15.5 15.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 7.0 6.0 7.0 6.0	4.5 3.5 5.0 4.5 3.5 4.5 2.5 1.0 1.5 2.5 2.5 2.5 2.5	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.0 5.0 4.5	11.5 14.0 15.0 16.0 15.0 14.0 17.0 15.5 13.5	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 9.5 9.0 9.0 8.0 9.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0 9.5 10.0 10.5 11.5	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 19.5 19.5 19.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 14.5 14.5 15.0 15.0 13.5	14.5 14.5 13.5 14.5 16.5 16.5 17.0 17.0 17.0 17.0 16.5 15.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0 6.0 7.0 6.0 7.5 9.5 11.0	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 5.0 4.5 5.0 6.5 8.0	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 13.0 14.0 12.5	APRIL 10.0 11.0 11.0 11.0 11.0 11.0 10.0 11.5 10.5 9.5 9.0 9.0 9.0 9.5 10.5 10.5 10.5 8.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 11.5 11.0 9.5 10.0 10.5 11.5 11.5	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 20.5 19.5 19.5	MAY 12.0 12.5 13.0 13.0 14.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 17.5	14.5 14.5 13.5 14.5 16.5 15.0 16.5 17.0 17.0 17.0 18.0 16.5 15.5 15.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 7.0 6.0 7.0 6.0 7.5 9.5 11.0 10.0	### 4.5 3.5 5.0 4.5 3.5 4.5 2.5 1.0 1.5 2.5 2.5 2.5 2.5 2.0 1.5 2.5 2.0 6.5 7.0 6.5	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.0 5.0 4.5 5.0 8.5 8.0 8.0	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 13.0 14.0 12.5 12.0 12.5	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 9.5 9.0 9.0 8.0 9.0 9.5 10.5 10.5 9.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0 9.5 10.0 10.5 11.5 11.5 11.5	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 19.5 20.0 20.5 19.0 18.5 17.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15	14.5 14.5 14.5 16.5 16.5 17.0 17.0 17.0 17.0 16.5 15.5 15.5 15.5 15.0 16.0 17.5 18.0 18.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0 6.0 7.5 9.5 11.0 10.0	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 4.5 5.0 4.5 3.5 8.0 8.0 7.0	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 12.0 12.5 12.0 12.0 12.0	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 9.5 9.5 9.0 9.0 9.0 9.5 10.5 10.5 9.5 8.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 11.5 11.0 10.5 11.5 11.5 11.5 11.5 11	17.5 17.0 14.5 16.0 19.5 18.0 15.5 19.5 20.0 20.5 19.0 18.5 17.5 17.0 18.5 20.5 20.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.0 15.5 14.5 15.0 13.5 13.5 13.5 13.5	14.5 14.5 13.5 14.5 16.5 15.0 17.0 17.0 17.0 18.0 16.5 15.5 15.5 15.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 7.0 6.0 5.0 7.0 6.0 7.0 6.0 8.0	### 4.5 3.5 5.0 4.5 3.5 4.5 2.5 1.0 1.5 2.5 2.5 2.5 2.5 2.5 2.0 1.5 3.0 4.0 6.5 7.0 6.0 6.0	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 5.0 4.5 8.5 8.0 7.0	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 13.0 14.0 12.5 12.0 11.0	APRIL 10.0 11.0 11.0 11.0 11.0 11.0 11.0 10.0 11.5 10.5 9.5 9.0 9.0 8.0 9.0 9.5 10.5 10.5 9.5 8.5 10.5 10.5 10.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0 9.5 10.0 10.5 11.5 11.5 11.5 11.0 11.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 19.5 20.0 20.5 19.0 18.5 17.5 17.0 18.5 20.5 18.5 20.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.0 15.5 14.5 15.0 15.0 15.0 15.0 15.0 15.0 15.5 14.5	14.5 14.5 14.5 14.5 16.5 16.5 17.0 17.0 17.0 17.0 18.0 16.5 15.5 15.5 15.5 15.0 16.0 17.5 18.0 17.5 18.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 7.0 6.0 6.0 7.5 9.5 11.0 10.0	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 4.5 5.0 6.5 8.0 8.0	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 12.0 12.5 12.0 12.0 12.0 11.0	APRIL 10.0 11.0 11.0 11.0 11.0 11.0 11.0 10.0 11.5 10.5 9.5 9.0 9.0 9.0 9.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 11.0 9.5 10.0 10.5 11.5 11.5 11.0 10.0 11.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 19.5 20.0 20.5 19.0 18.5 17.5 17.0 18.5 20.5 20.5 20.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5	14.5 14.5 13.5 14.5 16.5 15.0 17.0 17.0 17.0 18.0 16.5 15.5 15.5 15.5 15.5 15.5 17.0 18.0 17.5 18.0 18.0 17.5 18.0 17.5 18.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 7.0 6.0 6.0 7.5 9.5 11.0 10.0	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 5.0 6.5 8.0 7.0 7.0 9.0	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 13.0 14.0 12.5 12.0 12.5 12.0 11.0	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 10.5 9.5 9.0 9.0 8.0 9.0 9.5 10.5 10.5 10.5 9.5 8.5 10.5 9.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 14.5 13.0 11.0 9.5 10.0 10.5 11.5 11.5 11.5 11.5 11.0 11.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 19.5 19.5 20.5 19.0 18.5 20.5 18.5 20.5 20.5 18.5 20.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15	14.5 14.5 13.5 14.5 16.5 16.5 17.0 17.0 17.0 18.0 16.5 15.5 15.5 15.5 18.0 17.5 18.0 17.5 18.0 17.5 18.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0 6.0 7.5 9.5 11.0 10.0 10.0	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 4.5 5.0 6.5 8.0 8.0	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 12.0 12.5 12.0 12.0 12.0 11.0	APRIL 10.0 11.0 11.0 11.0 11.0 11.0 11.0 10.0 11.5 10.5 9.5 9.0 9.0 9.0 9.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 11.0 9.5 10.0 10.5 11.5 11.5 11.0 10.0 11.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 19.5 20.0 20.5 19.0 18.5 17.5 17.0 18.5 20.5 20.5 20.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5	14.5 14.5 13.5 14.5 16.5 15.0 17.0 17.0 17.0 18.0 16.5 15.5 15.5 15.5 15.5 15.5 17.0 18.0 17.5 18.0 18.0 17.5 18.0 17.5 18.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	 	FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 7.0 6.0 6.0 7.5 9.5 11.0 10.0 8.0 10.5	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 5.5 8.5 8.0 7.0 7.0 9.0 8.5 8.5 8.0 7.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	11.5 14.0 15.0 16.0 17.0 16.0 17.0 15.5 13.5 11.5 12.0 13.0 14.0 12.5 12.0 12.5 12.0 11.0 11.0	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 10.5 9.5 9.0 9.0 9.0 9.5 10.5 10.0 9.5 8.5 9.5 8.5 10.0 9.5	11.0 12.5 13.0 14.0 13.0 12.0 13.0 11.0 9.5 10.0 10.5 11.5 11.5 11.5 11.5 11.0 11.0	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 19.5 19.5 20.5 19.5 19.5 20.5 19.0 18.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5	14.5 14.5 13.5 14.5 16.5 15.0 16.5 17.0 17.0 17.0 16.5 15.5 15.5 15.5 15.6 17.5 18.0 17.5 18.0 17.5 18.0 17.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 25 26 27		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0 6.0 6.0 7.5 9.5 11.0 10.0 10.0 8.0 10.5	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 4.5 8.5 8.0 7.0 7.0 8.0 7.0 8.0 7.0 8.0 7.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 12.5 12.0 12.5 12.0 12.5 12.0 12.5 12.0 12.5 12.0 12.5	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 10.5 9.5 9.0 9.0 9.5 10.5 10.5 10.5 9.5 8.5 10.0 9.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10	11.0 12.5 13.0 14.0 13.0 12.0 13.0 11.0 9.5 10.0 10.5 11.5 11.5 11.5 11.0 11.0 11	17.5 17.0 14.5 16.0 19.5 18.0 15.5 18.0 20.5 19.5 19.5 20.0 20.5 19.5 20.0 18.5 20.5 20.5 20.5 18.5 20.5 20.5	12.0 12.5 13.0 14.0 15.5 14.5 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 17.5 15.0 17.5 16.0 17.5 16.0 17.5 16.0 17.5	14.5 14.5 13.5 14.5 16.5 15.0 16.5 17.0 17.0 17.0 18.0 16.5 15.5 18.0 17.5 18.0 17.5 18.0 17.5 18.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29		FEBRUAR		6.0 7.0 9.5 10.0 6.5 6.0 5.0 3.5 7.0 6.0 6.0 7.5 9.5 11.0 10.0 10.0	### ### ### ### ### ### ### ### ### ##	5.0 5.0 7.0 7.0 5.0 5.5 4.0 3.0 4.5 4.5 4.5 4.5 6.5 8.0 7.0 9.0 8.0 7.5 8.0 7.5 8.0 7.5 8.0 7.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	11.5 14.0 15.0 16.0 15.0 14.0 16.0 17.0 15.5 13.5 11.5 12.0 12.5 12.0 12.0 12.5 12.0 12.0 12.5 12.0 12.0 12.5 12.0 12.0 12.0 12.5 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	APRIL 10.0 11.0 11.0 12.0 11.0 10.0 11.5 10.5 9.5 9.0 9.0 9.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10	11.0 12.5 13.0 14.0 13.0 12.0 13.0 11.0 9.5 10.0 10.5 11.5 11.5 11.0 10.0 13.0 12.0 13.0 13.0 14.5 14.5 14.5	17.5 17.0 14.5 16.0 19.5 18.0 15.5 19.5 20.0 20.5 19.0 18.5 17.5 17.0 18.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20	12.0 12.5 13.0 14.0 15.5 14.5 15.0 15.5 14.5 15.0 15.5 14.5 15.0 15.0 15.5 14.5 15.0 15.0 13.5 13.5 13.0 13.5 15.0 14.5 15.0 14.5 16.0 17.5 16.0 14.5 16.0 14.5 16.0 14.5	14.5 14.5 14.5 13.5 16.5 16.5 17.0 17.0 17.0 17.0 18.0 16.5 15.5 15.5 15.6 16.0 17.5 18.0 17.5 18.0 17.5 18.0 17.5 18.0 17.5 18.0 17.5 18.5 18.5 19.5

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBE	ER.
1 2 3 4 5	23.0 24.5 23.5 23.0 22.0	18.5 20.0 20.5 18.5 17.5	21.0 22.0 22.0 21.0 20.0	25.5 26.0 28.5 29.5	22.0 22.0 23.0 24.0	23.5 24.0 25.5 27.0	28.0 27.5 26.5 25.5 25.5	25.0 23.5 22.5 22.0 22.0	26.5 25.5 24.5 24.0 24.0	21.0 21.0 22.0 22.0 23.5	18.0 18.5 18.0 20.5 21.5	19.5 20.0 20.5 21.5 22.0
6 7 8 9 10	23.0 25.5 26.5 26.0 24.0	17.5 19.0 21.0 21.0 19.5	20.0 22.0 24.0 23.5 21.0	30.0 28.0 26.5 26.0 25.0	24.5 24.5 22.0 21.0 22.5	27.5 26.5 24.5 24.0 23.5	25.5 25.5 24.5 24.5 23.5	21.0 21.5 23.0 21.5 19.5	23.5 23.5 24.0 23.0 22.0	24.5 24.0 25.0 24.5 23.0	21.5 22.0 22.0 22.0 21.0	23.0 23.0 23.0 23.0 22.0
11 12 13 14 15	23.0 21.0 21.5 23.0 24.5	17.5 17.5 19.5 19.5 20.0	20.0 19.5 20.5 21.5 22.0	25.0 23.0 24.5 23.0 25.0	20.0 19.5 19.0 20.0 19.0	22.5 21.0 21.5 21.5 22.0	25.0 25.5 26.5 27.5 24.5	20.5 22.0 23.5 24.0 22.5	23.0 24.0 25.0 25.5 23.5	22.5 22.0 21.5 22.0 21.5	19.0 18.0 18.0 19.5 20.0	21.0 20.0 20.0 21.0 20.5
16 17 18 19 20	22.5 21.0 21.5 22.0 20.0	19.0 18.5 17.0 17.0	21.0 19.0 19.0 19.5 18.5	27.0 28.0 28.5 27.5 26.5	21.0 22.5 23.0 24.0 24.0	24.0 25.0 26.0 26.0 24.5	26.5 27.0 26.0 25.0 24.0	22.0 22.5 23.0 22.0 21.5	24.0 25.0 25.0 23.5 22.5	20.0	18.0 	19.0
21 22 23 24 25	18.5 23.0 23.5 24.5 23.5	17.0 16.0 18.5 18.5	18.0 19.5 21.0 21.5 21.5	25.5 26.0 28.0 27.0 27.5	22.0 22.5 23.5 23.5 24.0	24.0 24.0 25.5 25.5 26.0	21.5 22.0 24.0 23.0 23.0	20.0 19.0 18.5 20.5 20.0	20.5 20.5 21.5 22.0 22.0	17.0 18.5 19.0	13.5 14.5 15.5	15.5 16.5 17.0
26 27 28 29 30 31	25.5 26.0 24.5 26.5 	20.0 21.5 22.5 22.5 	23.0 24.0 23.5 24.5 	27.0 27.0 27.5 26.5 25.5 28.0	23.5 23.0 23.0 22.5 23.0 23.0	25.5 25.0 25.5 24.5 24.5 25.5	23.5 23.5 25.0 24.5 22.5 20.5	20.5 21.0 20.5 21.0 18.5	22.0 22.0 23.0 23.0 20.0 19.0	19.0 18.0 19.0 20.0 19.5	15.5 17.0 17.5 18.0 16.5	17.0 17.5 18.0 19.0 18.0
MONTH	26.5	16.0	21.2	30.0	19.0	24.5	28.0	18.0	23.1	25.0	13.5	19.9

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER	!		DECEMBER	1		JANUARY	
1 2 3 4 5	10.8 11.5 11.8 10.6 11.6	8.1 8.5 9.0 9.5 9.8	9.2 9.8 10.3 10.0	13.4 13.4 13.8 12.2 12.3	10.6 10.6 10.9 10.0 9.7	11.8 11.7 12.1 11.2 10.9	 	 	 		 	
6 7 8 9 10	12.0 11.1 9.5 9.7 9.8	9.5 9.1 8.7 9.2 9.5	10.5 9.9 9.1 9.5 9.7	12.4 12.5 12.5 12.7 11.8	10.1 10.3 9.9 9.8 10.2	11.1 11.1 10.8 11.0 10.8	 	 			 	
11 12 13 14 15	10.2 10.5 10.4 10.5 11.4	9.3 9.3 9.2 9.0 9.2	9.8 9.8 9.7 9.6 10.3	10.7 12.4 12.7 12.8 12.8	9.8 10.0 10.7 10.7	10.1 11.1 11.5 11.5	 	 			 	
16 17 18 19 20	11.7 12.1 12.2 12.0 12.6	9.9 10.0 9.6 9.1 9.1	10.6 10.7 10.7 10.3 10.6	13.3 13.0 12.4 12.6 12.0	10.4 10.5 10.4 10.2 10.2	11.7 11.5 11.1 11.2 10.9	 	 	 	 	 	
21 22 23 24 25	13.0 13.2 13.4 13.1 12.8	9.7 10.0 10.7 10.3 10.0	11.0 11.4 11.7 11.4 11.1	12.4 12.6 12.6 12.6 12.8	10.0 10.6 10.8 10.4 10.8	11.1 11.5 11.5 11.3						
26 27 28 29 30 31	11.4 11.9 12.4 13.0 13.0	8.1 8.7 9.7 10.2 10.5	9.5 10.2 10.8 11.4 11.5	11.4 11.8 12.1 12.1 11.8	10.6 11.0 11.0 10.9 10.6	11.1 11.3 11.4 11.5 11.1	 	 	 	 	 	
MONTH	13.4	8.1	10.4	13.8	9.7	11.3						

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY	•		MARCH			APRIL			MAY	
1 2 3				11.5 12.1 11.9	10.8 10.6 9.7	11.1 11.3 11.0	11.8 12.3 12.9	9.3	10.4 10.4 10.5	11.9 11.9 11.4	9.6 9.7	10.6 10.6 10.5
4 5				11.6 12.6	9.6 11.0	10.8	12.7 12.6	8.9 8.6 8.6	10.1		9.7 	
6 7				12.0 12.7	10.8 10.8	11.4 11.8	13.1 12.6	8.9 8.6	10.8 10.3			
8 9 10				13.3 13.4 13.2	11.5 11.3 10.8	12.4 12.3 11.9	12.5 11.1 11.1	8.2 8.1 10.0	10.1 9.7 10.5			
11 12				13.2 13.6	10.8 10.9	11.8 12.1	11.6 12.0	10.1 10.6	11.0 11.2			
13 14 15				13.6 13.4 13.6	10.5 10.5 11.0	12.0 11.7 12.1	12.9 13.2 13.6	10.4 9.9 9.9	11.6 11.4 11.5			
16 17				13.4 13.3	10.6 10.0	11.9 11.5	12.5 13.3	10.0 10.6	11.0 11.8			
18 19 20				12.0 13.0 13.5	9.9 10.0 9.8	10.8 11.1 11.3	13.6 12.8 11.4	10.6 8.9 8.9	11.8 10.9 10.0	 10.6	 8.2	 9.2
21 22				12.7	9.8	10.9	12.1 11.7	9.2 8.4	10.4 9.9	10.8 10.6	8.3 8.0	9.3 9.2
23 24 25				 12.2	 10.5	 11.2	10.8 11.8 12.1	8.4 9.3 9.3	9.5 10.4 10.5	9.3 9.3 10.4	8.0 8.6 8.8	8.6 9.0 9.6
26 27	12.5 12.4	11.0 10.8	11.7 11.5	12.5 12.7	10.6 10.6	11.4 11.5	12.0 11.9	9.1 9.0	10.4 10.3	10.2 10.4	8.8 8.8	9.4 9.5
28 29 30	11.1	10.7	10.8	12.6 12.9 13.1	10.5 9.9 9.9	11.4 11.3 11.2	11.9 12.3 12.0	9.2 9.4 9.4	10.6 10.8 10.5	10.6 10.5 10.4	8.6 8.3 7.8	9.5 9.3 9.0
31				13.0	9.2	11.1				10.4	7.8	8.9
MONTH	12.5	10.7	11.3	13.6	9.2	11.5	13.6	8.1	10.6	11.9	7.8	9.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST		i	SEPTEMBE	IR.
DAY 1 2 3 4 5	10.3 10.4 8.9 9.5 9.9		8.8 8.9 7.9 8.2 8.6	9.8 9.7 9.9		MEAN 8.1 7.8 7.9 7.6	MAX 11.3 12.0 11.8 11.2 11.0		8.4 8.7 8.7 8.6 8.6			
1 2 3 4	10.3 10.4 8.9 9.5	7.8 7.7 6.8 7.3	8.8 8.9 7.9 8.2	 9.8 9.7 9.9	JULY 6.9 6.3 6.3	 8.1 7.8 7.9	11.3 12.0 11.8 11.2	5.8 5.9 6.1 6.2	8.4 8.7 8.7 8.6	10.5 10.5 10.6 9.5	7.3 7.1 7.2 6.8	8.8 8.7 8.7 8.0
1 2 3 4 5 6 7 8 9	10.3 10.4 8.9 9.5 9.9 10.0 9.8 9.4 9.5	7.8 7.7 6.8 7.3 7.5 7.8 7.1 7.0 7.0	8.8 8.9 7.9 8.2 8.6 8.7 8.4 8.0 8.1	9.8 9.7 9.9 10.0 10.2 10.3 10.6 11.0	JULY 6.9 6.3 6.3 6.0 5.8 5.7 6.2 6.5	7.6 7.6 7.6 7.6 8.0 8.3	11.3 12.0 11.8 11.2 11.0 11.2 11.1 9.9	5.8 5.9 6.1 6.2 6.3 6.4 6.4 6.0 6.1	8.4 8.7 8.7 8.6 8.6 8.7 7.4	10.5 10.5 10.6 9.5 9.4 8.5 8.6 9.0 9.1	7.3 7.1 7.2 6.8 6.7 7.0 6.9 6.7 6.5	8.8 8.7 8.7 8.0 7.6 7.6 7.7
1 2 3 4 5 6 7 8 9 10 11 12 13 14	10.3 10.4 8.9 9.5 9.9 10.0 9.8 9.4 9.5 9.6	7.8 7.7 6.8 7.3 7.5 7.8 7.1 7.0 7.2 8.1 8.2 7.4	8.8 8.9 7.9 8.2 8.6 8.7 8.4 9.1 9.2 8.7 8.6	9.8 9.7 9.9 10.0 10.2 10.3 10.6 11.0 10.3	JULY 6.9 6.3 6.3 6.0 5.8 5.7 6.2 6.5 6.3 7.0 7.0 7.3 7.2	7.8 7.9 7.6 7.6 8.0 8.3 7.8 8.6 9.1	11.3 12.0 11.8 11.2 11.0 11.2 11.1 9.9 10.4 10.8 10.5 10.8 9.8 8.7	5.8 5.9 6.1 6.2 6.3 6.4 6.4 6.0 6.1 6.7	8.4 8.7 8.6 8.6 8.7 7.4 8.1 8.3 7.6 6.6	10.5 10.5 10.6 9.5 9.4 8.5 8.6 9.0 9.1 8.3 8.6 9.4 9.4 9.6 9.5	7.3 7.1 7.2 6.8 6.7 7.0 6.9 6.7 6.5 7.0	8.8 8.7 8.0 7.6 7.6 7.5 7.5 7.5 8.0 8.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	10.3 10.4 8.9 9.5 9.9 10.0 9.8 9.4 9.5 9.6 10.3 10.3 9.7 9.9	7.8 7.7 6.8 7.3 7.5 7.8 7.1 7.0 7.2 8.1 8.2 7.4 7.4 7.4 7.7 8.0 8.6 8.7	8.8 8.9 8.2 8.6 8.7 8.4 8.1 8.4 9.2 8.6 8.6 8.8 9.5 9.7	9.8 9.7 9.9 10.0 10.2 10.3 10.6 11.0 10.3 11.0 11.4 11.6 12.1 12.7 12.5 12.0 12.4	JULY 6.9 6.3 6.3 6.0 5.8 5.7 6.2 6.5 6.3 7.0 7.0 7.3 7.2 7.5 7.1 6.6 6.4 6.1	7.8 7.9 7.6 7.6 8.0 8.3 7.8 8.6 9.1 9.5 9.5 9.2 9.0 8.7	11.3 12.0 11.8 11.2 11.0 11.2 11.1 9.9 10.4 10.8 10.5 10.8 8.7 10.1	5.8 5.9 6.1 6.2 6.3 6.4 6.4 6.0 6.1 6.7 6.7 6.7 6.1 5.9 5.4 6.3	8.4 8.7 8.6 8.6 8.7 7.4 8.1 8.4 8.3 6.6 7.7 7.0 7.1	10.5 10.6 9.5 9.4 8.5 8.6 9.0 9.1 8.3 8.6 9.4 9.5 7.9	7.3 7.1 7.2 6.8 6.7 7.0 6.9 6.7 6.9 6.8 7.0	8.8 8.7 8.0 7.6 7.6 7.5 7.5 7.5 7.5 4.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	10.3 10.4 8.9 9.5 9.9 10.0 9.8 9.4 9.5 9.6 10.3 10.3 9.7 9.9 10.5 9.9 10.7 10.9	7.8 7.7 6.8 7.3 7.5 7.8 7.1 7.0 7.0 7.2 8.1 8.2 7.4 7.4 7.4 7.4 7.7 8.6 8.7 8.6	8.8 8.9 8.2 8.6 8.7 8.4 9.1 8.6 8.8 9.7 9.7 9.8 9.7 9.8 9.7 9.8 9.7 9.8 9.7 9.8 9.7 9.8 9.7 9.7 9.8 9.8 9.8 9.8 9.8 9.8 9.8 9.8	9.8 9.7 9.9 10.0 10.2 10.3 11.0 10.5 11.4 11.6 12.1 12.7 12.5 12.0 12.4 10.5	JULY 6.9 6.3 6.0 5.8 5.7 6.2 6.5 6.3 7.0 7.0 7.3 7.2 7.5 7.1 6.6 6.4 6.1 4.1 6.8 6.6 6.4	7.6 7.6 7.6 8.3 7.8 8.6 9.0 9.5 9.0 8.7 7.5 8.4 8.4 8.3	11.3 12.0 11.8 11.2 11.0 11.2 11.1 10.8 10.5 10.8 8.7 10.1 9.1 8.9 8.7 10.1	5.8 5.9 6.1 6.2 6.3 6.4 6.4 6.0 6.1 6.7 6.7 6.1 5.4 6.3 6.6 7.7 7.6	8.4 8.7 8.6 8.6 8.7 7.4 8.1 8.3 6.6 7.7 7.2 7.0 17.5 8.5 8.5 8.5 8.5	10.5 10.6 9.5 9.4 8.5 8.6 9.0 9.1 8.3 8.6 9.4 9.5 7.9	7.3 7.1 7.2 6.8 6.7 7.0 6.9 6.5 7.0 6.8 7.0 6.8 6.7	8.8 8.7 8.0 7.6 7.6 7.5 7.5 7.5 7.5 7.5 8.0 8.0 7.4
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 27 28 29 30	10.3 10.4 8.9 9.5 9.9 10.0 9.8 9.4 9.5 9.6 10.3 10.3 9.7 9.9 10.5 10.9 10.8 11.0 10.8 11.0 11.3	7.8 7.7 6.8 7.3 7.5 7.8 7.1 7.0 7.2 8.1 8.2 7.4 7.4 7.4 7.7 8.0 8.6 8.7 8.6 9.0 8.5 8.1 7.9 7.2 7.2	8.89 7.26 8.40 8.40 8.41 9.27 8.66 9.85 9.77 9.84 9.95	9.8 9.7 9.9 10.0 10.2 10.3 11.0 10.5 11.4 11.6 12.1 12.7 12.5 12.0 10.5 11.1 10.8 10.9 10.9	JULY	 8.18 7.9 7.6 7.6 8.3 8.6 9.0 9.5 9.0 7.5 8.4 8.4 8.4 8.8 8.6 8.6 8.5	11.3 12.0 11.8 11.2 11.0 11.2 11.1 9.9 10.4 10.8 10.5 10.8 8.7 10.1 9.1 8.9 8.8 9.2 8.6 9.2 9.3 9.5 9.2 9.1	5.8 5.9 6.1 6.2 6.3 6.4 6.4 6.0 6.1 6.7 6.7 6.1 5.4 6.3 6.3 6.6 7.7 7.6 7.6 7.7 7.6 7.6 7.6 6.6 6.6	8.4 8.7 8.6 8.7 7.4 8.3 8.3 6.6 7.7 7.0 154 8.5 8.3 8.7 7.4 8.5 8.7 7.4 8.5 8.5 7.7 7.1 8.5 8.6 8.7 7.1 8.6 8.7 7.1 8.6 8.6 8.7 7.1 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6 8.6	10.5 10.5 10.6 9.5 9.4 8.5 8.6 9.1 8.3 8.6 9.4 9.5 7.9 9.0 8.9 9.1 9.5 9.1	7.3 7.1 7.2 6.8 6.7 7.0 6.9 6.5 7.0 6.8 7.0 6.8 6.7 8.5 8.4 8.4 8.4 8.4 8.3 8.2 8.1 8.0	8.8 8.7 8.0 7.6 7.6 7.5 7.5 7.5 8.0 8.0 7.4