

LEHIGH RIVER BASIN**01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA**
(Pennsylvania Water-Quality Network Station)

LOCATION--Lat 41°05'05", long 75°36'21", Carbon County, Hydrologic Unit 02040106, on left bank 50 ft downstream from bridge on State Highway 940, 500 ft downstream from Shingle Mill Run, and 1.5 mi southwest of Blakeslee.

DRAINAGE AREA--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD--October 1961 to current year.

GAGE--Water-stage recorder. Datum of gage is 1,511.23 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 16, 1962, nonrecording gage at site 50 ft upstream at same datum.

REMARKS--Records good except those for estimated daily discharges, which are poor. Power generation at Pocono Lake about 5.0 mi upstream since 1985 and minor diversion from Tunkhannock Creek Basin into Wild Creek Basin. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD--Flood of Aug. 19, 1955, reached a stage of 19.41 ft, from floodmark, discharge, 35,300 ft³/s, by slope-area measurement.

PEAK DISCHARGES FOR CURRENT YEAR--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Mar. 22	0430	2,580	6.98	Sept. 16	0430	3,130	7.58
June 1	1800	2,170	6.50	Sept. 23	1330	3,700	8.15
June 22	1015	*3,790	*8.23				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e130	225	253	384	168	183	762	207	1650	275	128	201
2	107	206	214	680	167	222	719	199	1370	253	159	367
3	91	206	213	631	167	257	734	189	827	234	154	457
4	99	183	e240	526	203	250	637	166	701	216	340	437
5	116	181	284	445	205	211	567	171	560	200	750	354
6	104	266	219	386	e190	251	527	138	448	189	1050	275
7	84	271	e190	346	182	234	490	168	496	191	822	223
8	79	222	186	323	e170	210	443	191	725	208	512	185
9	70	206	e180	312	e170	208	407	187	610	197	394	149
10	75	188	e180	311	169	198	403	184	475	180	671	131
11	435	198	201	295	e160	192	468	180	390	205	670	122
12	1160	233	467	266	e160	179	527	184	438	201	639	114
13	887	350	503	239	e150	193	479	189	570	183	432	129
14	592	323	662	223	e150	190	406	168	517	150	310	162
15	431	265	751	214	e150	190	356	154	499	136	282	1470
16	e800	262	605	e210	e160	261	326	172	425	124	232	2660
17	e1230	540	449	214	e200	432	310	167	342	117	275	1460
18	835	734	359	e210	267	717	287	164	341	121	243	851
19	573	608	313	e210	192	921	292	159	354	122	211	714
20	431	483	521	e200	165	956	267	133	707	114	181	584
21	340	429	808	e200	166	1910	250	120	2400	122	157	476
22	285	429	670	e200	191	2470	254	123	3490	404	150	441
23	225	443	536	e190	248	2040	250	121	2260	536	144	2750
24	208	392	427	e190	295	1460	231	129	1290	516	121	2310
25	207	346	e380	e190	304	1100	214	173	816	348	117	1320
26	330	313	367	e180	270	953	247	295	590	242	112	850
27	372	304	369	e190	216	880	298	379	463	197	115	592
28	329	267	344	e210	191	734	275	321	389	204	107	513
29	281	247	348	e190	---	840	237	276	341	188	103	530
30	240	245	303	e180	---	1250	222	207	308	153	129	430
31	222	---	290	168	---	1010	---	241	---	126	121	---
TOTAL	11368	9565	11832	8713	5426	21102	11885	5855	24792	6652	9831	21257
MEAN	367	319	382	281	194	681	396	189	826	215	317	709
MAX	1230	734	808	680	304	2470	762	379	3490	536	1050	2750
MIN	70	181	180	168	150	179	214	120	308	114	103	114
CFSM	3.11	2.70	3.23	2.38	1.64	5.77	3.36	1.60	7.00	1.82	2.69	6.00
IN.	3.58	3.02	3.73	2.75	1.71	6.65	3.75	1.85	7.82	2.10	3.10	6.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2003, BY WATER YEAR (WY)

MEAN	190	260	292	272	270	416	464	322	239	150	120	170
MAX	598	644	827	1019	768	948	1247	784	826	481	372	785
(WY)	1977	1973	1997	1996	1981	1977	1993	1989	2003	1969	1969	1987
MIN	31.2	48.1	58.0	40.6	100	172	162	134	64.1	30.3	34.3	28.0
(WY)	1964	1965	1981	1981	1980	1989	1985	1999	1999	1999	1964	1964

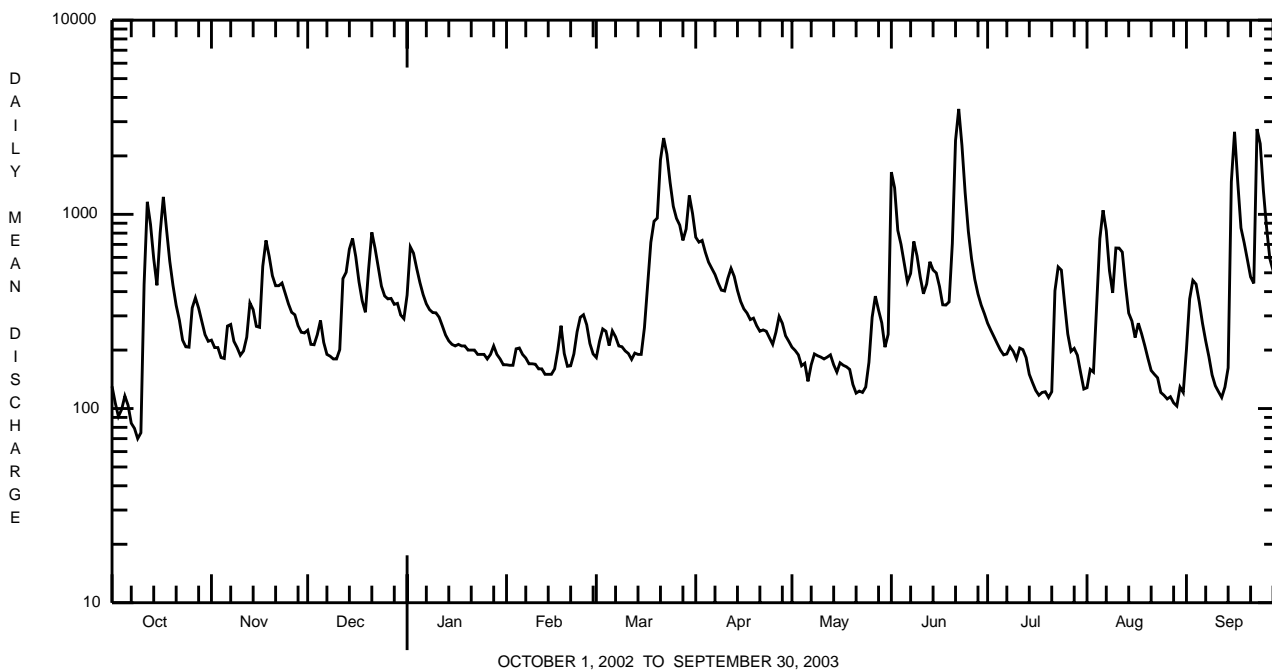
e Estimated.

LEHIGH RIVER BASIN

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1962 - 2003	
ANNUAL TOTAL	90297		148278			
ANNUAL MEAN	247		406		264	
HIGHEST ANNUAL MEAN					406	
LOWEST ANNUAL MEAN					129	
HIGHEST DAILY MEAN	1230	Oct 17	3490	Jun 22	5540	Apr 6 1984
LOWEST DAILY MEAN	27	Aug 22 ^a	70	Oct 9	21	Aug 12 1999 ^b
ANNUAL SEVEN-DAY MINIMUM	31	Aug 17	90	Oct 4	23	Sep 21 1964
MAXIMUM PEAK FLOW			3790	Jun 22	9190	Sep 27 1985
MAXIMUM PEAK STAGE			8.23	Jun 22	12.33	Sep 27 1985
INSTANTANEOUS LOW FLOW					16	Aug 8 1991
ANNUAL RUNOFF (CFSM)	2.10		3.44		2.23	
ANNUAL RUNOFF (INCHES)	28.47		46.75		30.35	
10 PERCENT EXCEEDS	487		777		530	
50 PERCENT EXCEEDS	208		257		178	
90 PERCENT EXCEEDS	65		137		58	

^a Also Sept. 12, 13.
^b Also Sept. 3, 4, 1999.



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01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1930 to 1982, 2002 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1980 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Water temperature records rated good. Interruption in record from Mar. 21 to May 22 was due to malfunctioning temperature probe. Other interruptions in the record were due to malfunctions of the recording instrument. Other data for the Water-Quality Network can be found on pages 430-470.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 28.5°C, July 5, 6, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR--

WATER TEMPERATURE: Maximum, 22.5°C, July 5, 8, 15, 28, Aug. 2, 5, 14, 15, 22; minimum, 0.0°C, many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Sampling method, code (82398)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd μ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover-able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	
Date		Magnesium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (00417)	Acidity water, unfltrd heated, mg/L as CaCO3 (70508)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water, unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho-phosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2002														
05...	1230	1028	9813	182	40	12.6	6.3	63	4.9	14	3.87	3.8	1.02	
JAN 2003														
07...	0900	1028	9813	352	40	13.0	5.7	89	.6	16	4.50	4.6	1.04	
MAR 05...	1300	1028	9813	197	40	13.1	6.5	123	2.2	20	5.87	5.8	1.42	
MAY 06...	0830	1028	9813	179	40	10.9	6.4	92	10.6	16	4.39	4.4	1.11	
JUL 22...	0940	1028	9813	492	40	9.0	6.2	78	20.1	16	4.54	4.7	1.03	
SEP 10...	1120	1028	9813	134	40	9.4	6.7	73	16.6	14	3.90	4.0	1.02	
NOV 2002														
05...	1.0	5	30	5.5	20	<2	<.020	.16	<.040	<.01	<.010	.70	2.0	
JAN 2003														
07...	1.1	4	20	5.0	110	34	<.020	.22	<.040	<.01	<.010	.58	1.4	
MAR 05...	1.4	6	.0	5.5	72	<2	<.020	.36	<.040	.01	<.010	.50	1.3	
MAY 06...	1.1	6	14	4.7	73	<2	<.020	.16	<.040	<.01	.013	.41	1.5	
JUL 22...	1.1	8	--	4.4	30	36	<.020	.12	<.040	.02	.035	.57	1.5	
SEP 10...	1.0	7	.0	3.6	90	2	<.020	.08	<.040	<.01	.021	.15	1.1	

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, unfltrd recover- able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover- able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover- able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover- able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover- able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2002 05...	149	200	<4	<4	160	230	<1.0	<1.0	40	50	<4.0	<4.0	20
JAN 2003 07...	126	300	<4	<4	110	420	<1.0	1.9	40	140	<4.0	<4.0	20
MAR 05...	92	100	<4	<4	110	160	<1.0	<1.0	40	40	<4.0	<4.0	20
MAY 06...	52	100	<4	<4	70	170	<1.0	<1.0	20	60	<4.0	<4.0	9.6
JUL 22...	128	500	<4	<4	280	1170	<1.0	2.5	30	560	<4.0	<4.0	10
SEP 10...	108	100	<4	<4	300	380	<1.0	<1.0	30	60	<4.0	<4.0	10

Date	Zinc, water, unfltrd recover- able, µg/L (01092)
NOV 2002 05...	20
JAN 2003 07...	30
MAR 05...	20
MAY 06...	10
JUL 22...	30
SEP 10...	10

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BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using rapid bioassessment protocols for benthic macroinvertebrates using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 (approximate) subsamples.

Date	8/8/02
Benthic Macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
<u>Ferrissia</u> sp	1
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
<u>Sphaerium</u> sp	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	4
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<u>Acentrella</u> sp	2
Ephemerellidae	
<u>Dannella</u> sp	3
<u>Serratella</u> sp	3
Heptageniidae	
<u>Epeorus</u> sp	2
<u>Stenonema</u> sp	2
Isonychiidae	
<u>Isonychia</u> sp	1
Leptophlebiidae	3
Tricorythidae	
<u>Tricorythodes</u> sp	1
Odonata	
Gomphidae (DRAGONFLIES)	1
Plecoptera (STONEFLIES)	
Capniidae	1
Perlidae	
<u>Acroneuria</u> sp	1
<u>Paragnetina</u> sp	2
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<u>Corydalus</u> sp	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<u>Cheumatopsyche</u> sp	30
<u>Hydropsyche</u> sp	19
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<u>Optioservus</u> sp	8
<u>Promoresia</u> sp	4
<u>Stenelmis</u> sp	7
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	31
Simuliidae (BLACK FLIES)	
<u>Simulium</u> sp	3
Total Organisms	131

LEHIGH RIVER BASIN

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WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	8.0	6.0	6.5	3.5	1.0	2.0	4.0	2.5	3.0
2	18.5	15.0	17.0	8.0	5.0	6.0	2.5	1.0	1.5	2.5	1.5	2.0
3	18.5	16.0	17.0	7.5	5.0	6.0	1.5	0.0	0.5	1.5	1.0	1.5
4	17.5	16.5	16.5	7.5	5.0	6.0	1.0	0.0	0.5	2.0	1.0	1.5
5	19.0	16.0	17.5	6.5	5.0	6.0	1.0	0.5	0.5	2.5	1.5	2.0
6	16.5	13.5	15.0	8.5	6.0	6.5	1.0	0.5	1.0	2.5	1.5	2.0
7	17.0	14.5	15.5	7.5	4.5	6.0	1.0	0.0	0.5	2.0	1.0	1.5
8	14.5	12.0	13.5	8.0	5.0	6.0	2.0	0.5	1.0	3.0	1.0	2.0
9	14.0	10.5	12.5	8.0	5.5	7.0	1.0	0.0	0.5	3.5	2.5	3.0
10	14.5	13.5	14.0	9.0	7.0	8.0	1.5	0.0	0.5	3.0	1.5	2.5
11	14.5	12.5	13.0	11.5	9.0	10.0	3.0	0.5	1.5	1.5	0.5	1.0
12	14.5	13.5	14.0	9.0	8.5	8.5	2.5	2.0	2.0	1.5	0.5	1.0
13	14.5	13.5	14.0	8.5	7.0	8.0	2.5	2.0	2.0	1.5	0.0	1.0
14	13.5	11.5	12.5	7.5	6.0	7.0	2.5	2.0	2.5	1.5	0.0	0.5
15	12.0	10.5	11.0	8.5	6.5	7.5	2.5	2.0	2.0	1.0	0.0	0.5
16	---	---	---	8.0	6.5	7.0	2.0	1.0	2.0	1.0	0.0	0.5
17	---	---	---	8.5	5.5	6.0	1.5	1.0	1.0	1.0	0.0	0.5
18	10.5	10.0	10.5	5.5	5.0	5.0	1.5	0.5	1.0	0.5	0.0	0.0
19	10.5	9.5	10.0	5.0	4.5	4.5	3.0	1.5	2.5	0.5	0.0	0.0
20	10.5	9.0	9.5	5.5	4.5	5.0	5.0	2.5	3.5	1.0	0.0	0.5
21	10.0	8.5	9.5	6.0	4.5	5.0	2.5	2.0	2.0	0.5	0.0	0.0
22	10.0	8.0	9.0	6.5	5.5	6.0	3.0	2.0	2.5	0.0	0.0	0.0
23	10.5	8.0	9.0	5.5	4.0	4.5	2.5	2.0	2.5	0.0	0.0	0.0
24	9.5	7.0	8.0	5.0	4.0	4.5	2.5	2.0	2.5	0.0	0.0	0.0
25	9.5	7.5	8.0	5.5	4.0	5.0	2.0	0.0	1.0	0.5	0.0	0.0
26	9.0	7.5	8.5	5.5	4.0	4.5	2.5	1.0	1.5	1.0	0.0	0.5
27	9.0	8.0	8.5	4.0	2.5	3.5	2.0	2.0	2.0	0.5	0.0	0.0
28	9.0	7.5	8.5	3.5	1.5	2.5	2.5	1.5	2.0	0.5	0.0	0.0
29	8.5	6.5	7.5	3.0	2.0	2.5	3.0	2.0	2.5	1.0	0.5	0.5
30	9.0	6.0	7.0	5.0	3.0	3.5	3.0	1.5	2.0	2.0	0.0	0.5
31	8.5	5.5	7.0	---	---	---	5.0	2.5	3.5	1.5	0.5	1.0
MONTH	19.0	5.5	11.6	11.5	1.5	5.8	5.0	0.0	1.7	4.0	0.0	0.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	2.0	1.0	1.5	2.5	1.5	1.5	---	---	---	---	---	---
2	2.0	1.5	1.5	3.5	1.5	2.5	---	---	---	---	---	---
3	3.5	1.5	2.0	2.0	0.0	0.5	---	---	---	---	---	---
4	2.5	1.0	2.0	1.5	0.0	0.5	---	---	---	---	---	---
5	1.0	0.0	0.5	3.5	1.0	2.0	---	---	---	---	---	---
6	1.0	0.0	0.5	2.5	0.0	1.0	---	---	---	---	---	---
7	1.5	0.5	1.0	1.5	0.0	0.5	---	---	---	---	---	---
8	1.0	0.0	0.5	3.5	0.0	1.5	---	---	---	---	---	---
9	1.5	0.0	0.5	2.5	0.0	2.0	---	---	---	---	---	---
10	1.5	0.5	1.0	1.5	0.0	0.5	---	---	---	---	---	---
11	1.0	0.0	0.5	1.5	0.0	0.5	---	---	---	---	---	---
12	0.5	0.0	0.0	3.5	1.0	2.0	---	---	---	---	---	---
13	0.0	0.0	0.0	3.0	1.0	2.0	---	---	---	---	---	---
14	0.5	0.0	0.0	3.0	0.0	1.5	---	---	---	---	---	---
15	0.5	0.0	0.5	5.5	1.0	2.5	---	---	---	---	---	---
16	0.0	0.0	0.0	6.5	1.5	3.0	---	---	---	---	---	---
17	0.0	0.0	0.0	4.5	1.5	2.5	---	---	---	---	---	---
18	0.5	0.0	0.0	4.0	1.5	2.0	---	---	---	---	---	---
19	1.5	0.0	0.5	3.5	1.5	2.0	---	---	---	---	---	---
20	2.5	1.0	1.5	2.0	1.5	2.0	---	---	---	---	---	---
21	2.5	0.0	1.0	---	---	---	---	---	---	---	---	---
22	2.5	1.5	2.0	---	---	---	---	---	---	---	---	---
23	2.5	0.5	1.5	---	---	---	---	---	---	---	---	---
24	1.0	0.0	0.5	---	---	---	---	---	---	12.5	11.0	11.5
25	1.5	0.0	0.5	---	---	---	---	---	---	12.0	11.0	11.5
26	1.5	0.0	0.5	---	---	---	---	---	---	12.5	11.5	12.0
27	1.0	0.0	0.5	---	---	---	---	---	---	12.5	10.5	12.0
28	2.5	1.0	1.5	---	---	---	---	---	---	13.5	12.0	12.5
29	---	---	---	---	---	---	---	---	---	14.0	12.0	13.0
30	---	---	---	---	---	---	---	---	---	16.0	12.0	13.5
31	---	---	---	---	---	---	---	---	---	16.5	12.5	14.5
MONTH	3.5	0.0	0.8	6.5	0.0	1.6	---	---	---	14.0	12.0	13.5
MONTH	3.5	0.0	0.8	6.5	0.0	1.6	---	---	---	16.5	10.5	12.7

