

SWATARA CREEK BASIN

01571774 LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA  
(Swatara Creek Project)

LOCATION.--Lat 40°35'32", long 76°26'22", Schuylkill County, Hydrologic Unit 02050301, on left bank 350 ft downstream from Rowe Drainage Tunnel. Located on Schuylkill County property.

DRAINAGE AREA.--1.15 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1997 to current year.

PERIOD OF DAILY RECORD.--  
SPECIFIC CONDUCTANCE: April 1999 to current year.  
pH: April 1999 to current year.  
WATER TEMPERATURE: April 1999 to current year.

INSTRUMENTATION.--Water-quality monitor (in situ system).

REMARKS.--Specific conductance records rated good, Oct. 1 to Mar. 1; poor, Mar.1 to Apr. 11; fair, Apr. 11 to May 22. pH records rated good except for period Oct. 1-19, which is poor. Water temperature records rated good. Interruptions in the record were due to malfunctions of the instrumentation. Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods. Instantaneous discharge data provided by the Pottsville Mining office of the Pennsylvania Department of Environmental Protection. Other data for this project presented in tables on pages 350-392. Figure 9 shows the location of sites sampled as part of the Swatara Creek Project. Abbreviations used: E, estimated.

EXTREMES FOR PERIOD OF DAILY RECORD.--  
SPECIFIC CONDUCTANCE: Maximum, 924 microsiemens, Sept. 17, 1999; minimum, 84 microsiemens, Aug. 13, 1999.  
pH: Maximum, 7.0, Mar. 31, Apr. 2, Nov. 17, 18, 1999; minimum, 3.3, Sept. 25, 1999.  
WATER TEMPERATURE: Maximum, 20.0°C, Aug. 13, 1999; minimum, 8.5°C, Feb. 18, Mar. 21, 2000.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER)	AGENCY COL-LECTING SAMPLE (CODE NUMBER)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 19...	1445	80020	1028	6.0	93	10.1	4.7	4.6	390	12.0	19.3
DEC 07...	1245	9813	1028	5.0	96	10.2	6.3	--	323	11.6	16.9
JAN 20...	1300	9813	1028	4.5	98	10.9	6.2	--	299	10.9	14.8
MAR 01...	1430	9813	1028	7.3	96	10.5	6.2	--	254	11.1	11.9
APR 18...	1145	9813	1028	12	78	8.6	4.9	4.6	277	11.4	12.0
JUN 19...	1345	9813	1028	7.5	96	10.3	5.3	4.9	288	12.2	15.6
AUG 01...	1000	9813	1028	2.1	97	10.4	5.6	5.9	352	12.6	20.0
SEP 14...	1100	9813	1028	3.2	94	10.1	4.2	4.4	514	12.5	27.6

DATE	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K) (00937)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	ACIDITY TOTAL HEATED AS CAC03) (70508)	ANC WATER UNFLTRD FET FIELD (MG/L AS CAC03) (00410)	ANC WATER UNFLTRD FET LAB (MG/L AS CAC03) (00417)
OCT 19...	--	26.9	--	--	--	3.7	--	--	--	--
DEC 07...	17.1	24.8	24.4	1.8	1.5	3.6	3.5	11	--	7
JAN 20...	15.2	23.0	23.5	<1.0	<1.0	3.1	3.2	15	--	7
MAR 01...	12.1	21.0	21.0	1.3	1.4	4.1	4.0	8.8	--	11
APR 18...	12.3	22.0	22.6	1.1	1.0	3.1	3.1	18	--	1
JUN 19...	14.1	23.8	23.9	<1.0	<1.0	3.4	3.5	18	--	2
AUG 01...	24.0	28.9	29.8	1.4	1.3	4.0	3.9	9.2	--	7
SEP 14...	26.8	45.7	44.7	1.8	1.6	4.7	4.7	36	0	0

## SWATARA CREEK BASIN

01571774 LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	OXID- RED- UCTION POTEN- TIAL (MV) (00090)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	ALUM- INUM, DIS- SOLVED (µG/L AS AL) (01106)	ALUM- INUM, TOTAL RECOV- ERABLE (µG/L AS AL) (01105)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	IRON, TOTAL RECOV- ERABLE (µG/L AS FE) (01045)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L AS MN) (01055)
OCT 19...	3.4	178	412	--	2020	--	6190	--	2660	--
DEC 07...	3.6	147	374	12	<200	1170	6020	7220	2120	2120
JAN 20...	3.1	130	83	20	<200	1050	5600	6980	1960	2020
MAR 01...	4.4	105	289	<2	<200	1450	6640	8270	1820	1820
APR 18...	2.8	124	476	10	1070	1290	3390	5400	1790	1830
JUN 19...	2.8	151	469	24	643	1530	5130	6750	2150	2130
AUG 01...	3.0	184	389	16	<200	1740	5890	8280	2610	2590
SEP 14...	2.8	280	564	24	2710	3400	6890	8170	3140	3240

## SWATARA CREEK BASIN

## 01571774 LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	642	611	629	364	307	323	343	299	308	286	279	283
2	630	586	607	379	288	346	299	295	297	280	249	267
3	617	514	570	381	317	333	353	295	343	284	248	273
4	514	441	485	373	318	328	334	288	302	282	246	263
5	546	466	521	373	349	360	288	286	287	249	246	247
6	536	451	493	352	310	318	338	278	315	292	247	263
7	451	435	444	368	308	319	334	280	318	292	284	290
8	436	415	426	368	344	355	280	271	277	288	252	257
9	415	403	408	345	306	311	277	271	275	297	253	270
10	495	357	436	366	304	316	331	273	305	297	240	273
11	499	441	466	365	346	356	326	311	318	253	247	249
12	441	411	424	346	304	308	312	271	285	301	253	287
13	422	395	413	360	301	306	271	265	268	296	257	270
14	397	358	364	368	342	358	322	244	302	298	257	263
15	409	349	380	342	301	307	314	284	294	303	262	298
16	397	346	384	366	299	320	284	281	282	262	255	257
17	347	342	345	365	300	350	327	280	302	302	255	277
18	364	339	342	300	297	298	298	290	294	302	255	280
19	402	328	364	363	296	312	292	258	263	256	254	255
20	384	322	352	361	299	347	289	248	268	300	254	292
21	377	356	364	299	291	293	289	257	284	293	250	260
22	361	324	352	362	290	301	257	255	256	294	249	263
23	324	319	322	365	338	352	292	255	274	295	249	284
24	367	320	357	338	282	294	286	253	277	249	245	247
25	348	317	329	356	281	291	253	251	252	290	245	274
26	365	316	324	359	295	342	289	251	278	289	242	261
27	365	343	354	383	337	362	284	250	267	284	240	244
28	350	312	324	337	311	322	250	246	248	290	250	286
29	366	311	319	370	305	330	288	246	256	258	240	244
30	366	342	352	364	343	354	267	246	257	288	240	262
31	344	308	318	---	---	---	286	261	275	287	238	266
MONTH	642	308	405	383	281	327	353	244	285	303	238	268

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	239	236	238	291	251	264	259	236	242	245	225	232
2	288	236	277	265	177	222	242	238	240	244	200	222
3	283	236	247	191	176	184	253	238	243	201	198	200
4	285	235	242	189	175	179	266	235	256	241	199	219
5	290	238	282	209	184	200	271	244	262	247	199	216
6	238	235	236	211	192	197	250	238	246	199	197	199
7	236	234	235	203	193	198	268	235	256	227	198	208
8	295	234	273	235	198	221	270	234	253	218	198	202
9	296	238	283	234	203	209	256	237	247	234	201	221
10	289	235	254	213	201	208	282	251	273	248	219	238
11	291	235	254	248	209	235	270	241	260	219	207	211
12	237	235	236	218	198	213	279	250	263	234	205	211
13	307	235	284	235	211	219	283	244	264	251	166	230
14	301	236	250	252	221	241	245	237	243	228	198	213
15	298	241	249	221	213	216	274	241	261	269	222	234
16	335	280	314	232	212	219	276	234	247	284	226	256
17	281	277	279	254	226	237	260	227	240	227	222	224
18	332	268	292	226	223	225	283	219	269	239	221	224
19	332	272	305	254	222	233	---	---	---	260	212	225
20	272	267	270	259	227	241	---	---	---	296	258	274
21	331	266	307	250	182	218	---	---	---	290	230	248
22	322	265	282	271	250	261	---	---	---	---	---	---
23	267	261	264	253	233	241	---	---	---	---	---	---
24	327	267	316	239	232	235	---	---	---	---	---	---
25	268	252	260	250	235	245	221	219	220	---	---	---
26	307	251	269	236	229	232	276	216	254	---	---	---
27	307	233	282	234	221	231	216	203	206	---	---	---
28	248	221	242	257	222	246	253	201	210	---	---	---
29	300	248	284	264	241	254	277	227	255	---	---	---
30	---	---	---	243	236	239	229	224	226	---	---	---
31	---	---	---	257	236	248	---	---	---	---	---	---
MONTH	335	221	269	291	175	226	283	201	247	296	166	224

## SWATARA CREEK BASIN

## 01571774 LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	<b>OCTOBER</b>			<b>NOVEMBER</b>			<b>DECEMBER</b>			<b>JANUARY</b>		
1	4.7	4.5	4.5	6.5	5.7	6.5	6.6	6.0	6.6	6.4	6.3	6.3
2	4.6	3.7	4.5	6.4	5.7	6.2	6.6	6.6	6.6	6.6	6.4	6.4
3	5.4	4.2	5.2	6.5	6.2	6.5	6.6	5.7	5.9	6.6	6.3	6.4
4	6.4	5.3	6.2	6.5	5.7	6.5	6.6	6.2	6.6	6.6	6.3	6.5
5	6.4	5.6	5.6	6.2	5.6	5.9	6.6	6.6	6.6	6.6	6.6	6.6
6	6.4	5.5	5.8	6.5	6.2	6.5	6.6	5.9	6.1	6.6	6.2	6.6
7	6.5	6.4	6.5	6.5	5.9	6.5	6.8	6.0	6.3	6.3	6.2	6.2
8	6.5	6.4	6.4	6.3	5.7	5.9	6.8	6.8	6.8	6.6	6.3	6.6
9	6.4	6.2	6.3	6.6	6.3	6.6	6.8	6.7	6.7	6.6	6.1	6.6
10	6.4	5.3	5.4	6.6	6.0	6.6	6.7	6.1	6.4	6.6	6.1	6.2
11	5.3	5.2	5.2	6.4	5.9	6.2	6.6	6.4	6.5	6.6	6.6	6.6
12	5.3	5.0	5.0	6.6	6.4	6.6	6.8	6.6	6.7	6.6	6.1	6.1
13	5.3	5.0	5.2	6.6	6.4	6.6	6.7	6.6	6.7	6.5	6.1	6.4
14	6.0	5.2	5.9	6.4	6.2	6.3	6.6	6.2	6.4	6.6	6.4	6.5
15	6.0	4.9	5.3	6.6	6.4	6.6	6.6	6.4	6.6	6.4	6.1	6.1
16	5.6	4.9	5.0	6.7	5.9	6.6	6.6	6.5	6.6	6.6	6.2	6.5
17	5.9	5.6	5.9	7.0	6.3	6.7	6.5	6.1	6.4	6.6	6.1	6.5
18	5.9	5.7	5.8	7.0	6.9	6.9	6.4	6.4	6.4	6.6	6.2	6.2
19	6.5	4.7	5.8	6.9	5.9	6.8	6.5	6.4	6.5	6.7	6.6	6.7
20	6.6	5.1	6.2	6.7	5.9	6.4	6.5	6.2	6.5	6.7	6.2	6.5
21	5.5	5.4	5.4	6.8	6.7	6.8	6.6	6.3	6.4	6.9	6.7	6.9
22	6.6	5.4	5.7	6.7	5.7	6.7	6.6	6.6	6.6	6.9	6.1	6.9
23	6.6	6.6	6.6	6.6	5.7	6.4	6.6	6.4	6.5	6.9	6.2	6.7
24	6.6	5.3	5.6	6.8	6.6	6.7	6.6	6.5	6.5	6.9	6.8	6.8
25	6.7	5.6	6.5	6.7	6.3	6.7	6.6	6.6	6.6	6.8	6.1	6.5
26	6.7	5.7	6.6	6.5	5.9	6.2	6.6	6.4	6.4	6.8	6.5	6.7
27	6.2	5.7	6.0	6.6	6.3	6.5	6.6	6.4	6.5	6.8	6.5	6.7
28	6.6	6.2	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.4	6.5
29	6.6	5.7	6.5	6.6	5.6	6.6	6.6	6.2	6.5	6.8	6.7	6.7
30	6.2	5.6	5.8	6.0	5.6	5.8	6.6	6.4	6.5	6.7	6.4	6.7
31	6.5	6.2	6.5	---	---	---	6.4	6.3	6.4	6.7	6.5	6.6
MAX	6.7	6.6	6.6	7.0	6.9	6.9	6.8	6.8	6.8	6.9	6.8	6.9
MIN	4.6	3.7	4.5	6.0	5.6	5.8	6.4	5.7	5.9	6.3	6.1	6.1
	<b>FEBRUARY</b>			<b>MARCH</b>			<b>APRIL</b>			<b>MAY</b>		
1	6.7	6.7	6.7	---	---	---	---	---	---	6.4	5.4	6.4
2	6.7	6.2	6.4	---	---	---	---	---	---	6.2	5.4	5.4
3	6.7	6.5	6.7	---	---	---	---	---	---	6.5	6.2	6.5
4	6.7	6.2	6.7	---	---	---	---	---	---	6.6	5.4	6.3
5	6.6	6.1	6.4	---	---	---	---	---	---	6.4	5.4	6.0
6	6.7	6.6	6.7	---	---	---	---	---	---	6.6	6.4	6.5
7	6.7	6.6	6.7	---	---	---	---	---	---	6.6	5.9	6.4
8	6.6	5.9	6.1	---	---	---	---	---	---	6.6	6.5	6.5
9	6.6	6.1	6.2	---	---	---	---	---	---	6.6	5.4	6.2
10	6.6	6.2	6.6	---	---	---	---	---	---	6.1	5.4	5.4
11	6.6	6.2	6.5	---	---	---	---	---	---	6.6	6.1	6.5
12	6.6	6.6	6.6	---	---	---	---	---	---	6.8	6.1	6.6
13	6.6	5.8	5.9	---	---	---	5.5	4.8	5.1	6.5	5.8	5.9
14	6.6	6.0	6.6	---	---	---	5.5	5.5	5.5	6.7	6.5	6.7
15	6.6	6.4	6.6	---	---	---	5.6	5.0	5.1	6.8	6.1	6.7
16	---	---	---	---	---	---	5.5	5.1	5.4	6.6	5.8	6.0
17	---	---	---	---	---	---	5.5	4.9	5.4	6.7	6.6	6.7
18	---	---	---	---	---	---	5.3	4.8	4.9	6.7	6.6	6.7
19	---	---	---	---	---	---	5.4	5.3	5.4	6.7	6.5	6.7
20	---	---	---	---	---	---	5.4	4.7	5.4	6.5	5.7	5.8
21	---	---	---	---	---	---	5.6	4.8	5.0	6.6	5.7	6.3
22	---	---	---	---	---	---	5.6	5.6	5.6	---	---	---
23	---	---	---	---	---	---	5.7	4.9	5.0	---	---	---
24	---	---	---	---	---	---	5.7	5.0	5.6	---	---	---
25	---	---	---	---	---	---	5.8	5.7	5.8	---	---	---
26	---	---	---	---	---	---	5.8	5.0	5.1	---	---	---
27	---	---	---	---	---	---	6.1	5.3	5.9	---	---	---
28	---	---	---	---	---	---	6.2	5.5	6.1	---	---	---
29	---	---	---	---	---	---	5.9	5.2	5.3	---	---	---
30	---	---	---	---	---	---	6.4	5.9	6.3	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MAX	6.7	6.7	6.7	---	---	---	6.4	5.9	6.3	6.8	6.6	6.7
MIN	6.6	5.8	5.9	---	---	---	5.3	4.7	4.9	6.1	5.4	5.4

## SWATARA CREEK BASIN

## 01571774 LORBERRY CREEK, SITE E2-0, AT LORBERRY, PA--Continued

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.5	11.5	12.0	12.5	11.5	12.0	10.5	9.5	10.0	11.5	11.0	11.0
2	12.5	11.5	12.0	13.0	12.0	12.5	10.5	10.0	10.5	12.0	11.0	11.5
3	13.0	12.0	12.5	12.0	11.0	11.5	12.0	10.5	11.5	12.0	11.5	12.0
4	12.5	11.5	12.0	11.5	10.5	11.0	12.0	11.0	11.5	12.0	11.0	12.0
5	12.0	11.5	11.5	12.0	11.0	11.5	12.0	11.0	11.5	11.0	10.5	11.0
6	12.0	11.0	11.5	12.5	11.0	11.5	12.0	11.5	12.0	11.0	10.5	11.0
7	11.5	10.5	11.0	11.5	11.0	11.0	11.5	10.5	11.5	11.5	11.0	11.0
8	12.0	10.5	11.5	12.0	11.0	11.5	11.5	10.5	11.0	11.0	10.5	11.0
9	12.5	11.5	12.0	12.0	10.5	11.5	11.5	10.5	11.0	11.5	11.0	11.0
10	12.5	12.0	12.5	12.5	11.5	12.0	12.0	11.0	11.5	11.5	10.5	11.0
11	12.5	12.0	12.5	12.0	11.0	11.5	11.5	11.0	11.5	11.0	10.5	10.5
12	12.5	11.5	12.0	11.5	10.5	11.0	11.0	10.5	11.0	11.0	10.5	11.0
13	12.5	12.0	12.0	12.0	11.0	11.5	11.0	10.5	11.0	11.0	9.5	10.5
14	12.5	11.0	11.5	12.5	11.5	12.0	11.5	9.5	11.0	10.5	9.5	10.0
15	12.0	11.0	11.5	11.5	10.5	11.0	11.0	10.5	11.0	11.0	10.0	10.5
16	12.5	11.5	12.0	11.0	10.0	10.5	11.0	10.5	10.5	11.0	9.5	10.5
17	12.5	11.5	12.0	11.5	10.5	11.0	11.0	10.0	11.0	10.0	9.0	10.0
18	12.0	11.0	11.5	11.0	10.0	10.5	11.5	11.0	11.0	10.5	10.0	10.0
19	12.0	11.0	11.5	11.5	10.5	11.0	11.0	10.5	11.0	10.5	10.0	10.5
20	12.0	11.5	12.0	12.0	11.5	12.0	11.5	11.0	11.0	11.0	10.5	10.5
21	12.0	11.5	12.0	12.0	11.5	11.5	11.5	11.0	11.0	10.5	10.0	10.0
22	12.0	11.5	12.0	12.0	11.5	12.0	11.0	10.5	11.0	10.5	10.0	10.0
23	11.5	11.5	11.5	12.5	12.0	12.0	11.5	10.5	11.0	11.0	10.5	11.0
24	12.0	11.5	11.5	12.5	12.0	12.0	11.0	10.5	10.5	11.0	10.5	10.5
25	11.5	11.0	11.5	12.0	11.5	11.5	10.5	10.5	10.5	10.5	10.0	10.5
26	12.0	11.0	11.5	12.5	11.5	12.0	11.0	10.5	11.0	11.0	10.0	10.5
27	12.0	11.5	12.0	12.0	11.0	11.5	11.0	10.5	11.0	10.5	10.0	10.0
28	12.0	11.0	11.5	11.0	10.5	11.0	11.0	10.5	10.5	11.0	10.0	10.5
29	12.5	11.0	11.5	11.0	10.0	10.5	11.0	10.5	11.0	11.0	10.0	10.5
30	12.5	11.5	12.0	11.0	10.5	11.0	11.5	10.5	11.0	11.0	10.0	10.5
31	12.5	11.5	12.0	---	---	---	11.5	11.0	11.5	11.0	10.5	10.5
MONTH	13.0	10.5	11.8	13.0	10.0	11.4	12.0	9.5	11.0	12.0	9.0	10.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	11.0	10.0	10.5	11.0	10.0	11.0	12.0	11.0	11.5	12.5	11.0	11.5
2	11.0	10.0	10.5	12.0	10.5	11.5	12.0	11.5	11.5	12.5	11.5	12.0
3	10.5	10.0	10.5	12.0	11.5	11.5	12.0	11.5	12.0	12.5	11.0	12.0
4	11.0	10.0	10.5	12.0	11.5	11.5	12.0	11.5	11.5	12.5	11.5	12.0
5	11.0	10.0	11.0	12.0	11.5	11.5	11.5	11.0	11.5	13.0	12.0	12.0
6	11.0	10.0	10.5	12.0	11.5	11.5	12.0	11.0	11.5	13.0	12.0	12.0
7	11.0	10.0	10.5	12.0	11.0	11.5	12.0	11.0	11.5	13.0	12.0	12.5
8	11.0	9.5	10.5	12.5	11.5	12.0	12.5	11.0	11.5	13.0	12.0	12.0
9	11.5	10.0	10.5	12.0	11.5	12.0	11.5	11.0	11.0	13.0	12.0	12.5
10	11.5	10.0	11.0	12.0	11.5	11.5	12.0	11.0	11.5	13.0	12.0	12.0
11	11.5	10.0	11.0	11.5	11.0	11.5	11.5	11.0	11.0	12.5	11.5	12.0
12	10.5	9.5	10.0	11.0	10.5	11.0	11.5	11.0	11.5	12.5	12.0	12.0
13	11.0	9.5	10.5	11.5	10.5	11.0	12.0	11.0	11.5	14.5	12.0	12.5
14	11.0	9.5	10.0	12.0	11.0	11.5	12.0	11.0	11.5	12.5	11.5	12.0
15	10.5	9.5	10.0	12.0	11.0	11.5	12.0	11.5	11.5	12.0	11.5	12.0
16	11.5	10.0	11.0	12.0	11.5	11.5	12.5	11.5	12.0	12.5	11.5	12.0
17	10.0	9.5	9.5	11.5	10.5	11.0	11.5	11.5	11.5	12.5	11.5	12.0
18	10.5	8.5	9.5	11.5	10.5	11.0	11.5	11.5	11.5	12.5	12.0	12.0
19	11.0	10.0	10.5	11.5	10.5	11.0	12.0	11.5	11.5	12.0	12.0	12.0
20	10.5	9.5	10.0	11.5	11.0	11.5	12.5	11.5	12.0	12.0	11.5	12.0
21	11.0	9.5	10.5	11.0	8.5	10.5	12.0	11.5	11.5	12.0	11.5	12.0
22	11.0	9.5	10.5	11.5	10.0	11.0	11.5	11.5	11.5	---	---	---
23	11.0	10.0	10.5	12.0	11.0	11.5	12.0	11.5	11.5	---	---	---
24	12.0	10.5	11.0	12.0	11.5	11.5	12.5	11.5	11.5	---	---	---
25	11.5	10.0	10.5	12.0	11.5	11.5	12.5	11.5	11.5	---	---	---
26	11.0	10.0	10.5	12.0	11.5	11.5	12.0	11.5	11.5	---	---	---
27	11.0	10.0	11.0	12.0	11.0	11.5	11.5	11.5	11.5	---	---	---
28	11.0	9.5	10.0	12.0	11.0	11.5	12.0	11.5	11.5	---	---	---
29	11.5	10.0	10.5	11.5	11.0	11.5	12.5	11.5	12.0	---	---	---
30	---	---	---	11.5	11.0	11.5	12.5	11.5	11.5	---	---	---
31	---	---	---	12.0	11.0	11.5	---	---	---	---	---	---
MONTH	12.0	8.5	10.4	12.5	8.5	11.4	12.5	10.0	11.5	14.5	11.0	12.0