

## SWATARA CREEK BASIN

403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA  
(Swatara Creek Project)

**LOCATION.**--Lat 40°35'42", long 76°26'32", Schuylkill County, Hydrologic Unit 02050305, on left bank above weir, 350 ft downstream from drainage tunnel. Located on Schuylkill County property.

**DRAINAGE AREA.**--Indeterminate.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--August 2000 to current year.

**GAGE.**--Water-stage recorder. Elevation of gage is 1,000 ft above National Geodetic Vertical Datum of 1929, from topographic map.

**REMARKS.**--Records fair except those for estimated daily discharges, which are poor. Outflow is from mine drainage tunnel and is regulated by mining activity. Other data for this project presented in tables on pages 436-482.

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	1.2	3.1	5.9	7.6	4.2	4.4	11	6.3	10	9.6	4.2	5.6
2	1.9	2.6	7.0	8.6	5.3	3.8	11	7.2	10	8.9	3.0	4.2
3	1.5	3.7	5.5	8.8	4.2	4.9	11	5.8	10	8.9	2.9	5.2
4	1.0	2.9	4.9	9.1	4.4	4.2	10	6.7	12	7.9	4.7	5.6
5	2.0	2.7	6.0	11	4.8	4.3	10	6.0	11	7.5	4.6	4.5
6	1.3	4.0	6.2	9.7	3.6	5.3	10	5.9	12	7.6	5.4	5.8
7	1.1	2.7	4.7	10	4.4	e4.1	9.2	6.5	13	6.6	7.1	5.2
8	2.0	3.2	5.2	10	4.0	4.5	9.8	5.3	14	6.6	7.0	5.0
9	1.3	3.6	4.9	8.8	3.4	4.5	8.9	5.8	14	6.8	8.1	5.8
10	1.0	3.0	4.0	9.4	4.8	3.9	8.7	5.9	15	5.5	8.0	4.9
11	2.4	4.2	4.3	8.3	3.2	5.3	9.1	5.1	15	6.2	7.2	5.4
12	2.1	4.1	3.5	8.2	3.7	4.4	9.3	6.1	13	6.2	8.8	5.5
13	1.7	3.6	3.9	8.1	4.2	4.8	13	4.9	13	4.7	11	4.5
14	2.8	4.4	6.0	7.0	3.0	5.2	14	5.3	13	5.6	11	5.6
15	1.8	3.4	7.0	7.9	4.0	4.6	13	5.4	11	5.4	12	4.9
16	2.0	3.9	8.7	6.8	3.4	6.1	14	4.4	12	4.5	11	4.9
17	3.6	4.9	11	6.7	3.0	6.0	13	5.6	11	5.4	9.9	5.5
18	2.3	4.1	10	7.0	4.4	8.6	11	4.4	10	4.7	9.8	4.6
19	2.7	6.1	11	5.8	2.9	14	11	5.1	10	4.3	8.6	5.0
20	3.5	6.8	11	6.7	3.4	18	10	5.0	9.0	5.1	8.2	5.4
21	2.6	7.2	9.9	5.8	3.9	25	9.7	4.2	11	3.9	8.3	6.0
22	3.4	9.2	12	5.6	2.9	29	9.8	5.4	12	4.4	7.1	5.7
23	3.1	7.3	12	6.3	4.2	30	8.5	4.0	16	4.8	7.2	7.7
24	2.1	8.2	12	4.9	3.4	28	8.9	4.5	17	4.1	7.0	15
25	3.3	8.0	12	5.9	3.0	26	8.3	5.2	16	3.6	5.8	17
26	2.9	7.0	11	5.4	4.6	23	7.8	4.5	15	4.2	6.6	17
27	2.3	8.5	11	4.7	3.3	19	8.2	6.6	14	4.5	5.9	16
28	3.5	6.7	11	5.8	4.0	16	6.7	7.9	12	3.1	5.2	14
29	2.3	7.2	8.8	4.4	---	14	7.3	9.0	11	4.4	6.1	13
30	2.5	7.2	9.1	4.9	---	13	6.8	10	11	3.6	5.0	12
31	3.5	---	8.5	5.0	---	12	---	9.2	---	3.2	5.0	---
TOTAL	70.7	153.5	248.0	224.2	107.6	355.9	299.0	183.2	373.0	171.8	221.7	226.5
MEAN	2.28	5.12	8.00	7.23	3.84	11.5	9.97	5.91	12.4	5.54	7.15	7.55
MAX	3.6	9.2	12	11	5.3	30	14	10	17	9.6	12	17
MIN	1.0	2.6	3.5	4.4	2.9	3.8	6.7	4.0	9.0	3.1	2.9	4.2

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

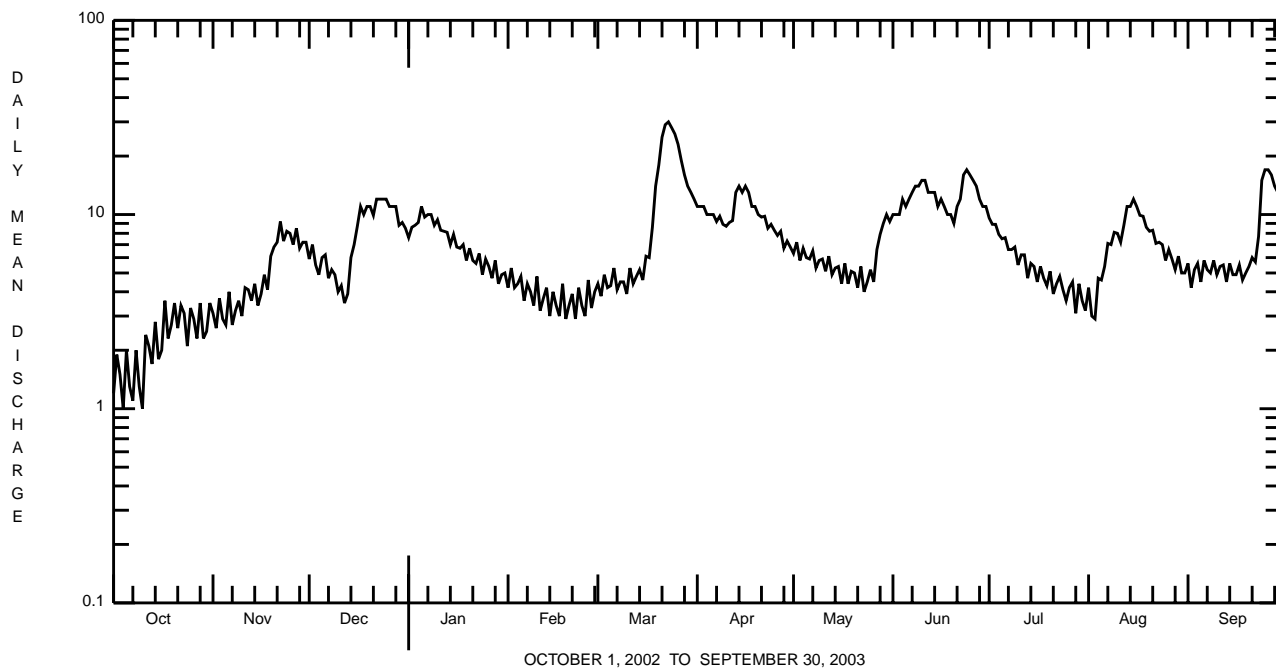
MEAN	2.17	2.92	5.97	4.78	4.24	7.83	9.37	7.06	7.27	4.12	3.72	3.22
MAX	2.74	5.12	8.00	7.23	4.49	11.5	9.97	10.6	12.4	5.54	7.15	7.55
(WY)	2001	2003	2003	2003	2001	2003	2003	2002	2003	2003	2003	2003
MIN	1.49	1.23	2.62	3.01	3.84	5.53	9.00	4.65	4.34	2.47	1.51	1.25
(WY)	2002	2002	2002	2002	2003	2002	2002	2001	2001	2002	2002	2002

e Estimated.

## SWATARA CREEK BASIN

403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	1770.95		2635.1			
ANNUAL MEAN	4.85		7.22		5.26	
HIGHEST ANNUAL MEAN					7.22	
LOWEST ANNUAL MEAN					4.01	
HIGHEST DAILY MEAN	14	May 21,23	30	Mar 23	30	Mar 23 2003
LOWEST DAILY MEAN	0.59	Sep 13	1.0	Oct 4,10	0.59	Nov 23 2001 <sup>a</sup>
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 13	1.4	Oct 4	1.00	Nov 17 2001
MAXIMUM PEAK FLOW			30	Mar 22,23	30	Mar 22,23 2003
MAXIMUM PEAK STAGE			2.30	Mar 22,23	2.30	Mar 22,23 2003
INSTANTANEOUS LOW FLOW			0.88	Oct 6	0.59	Nov 17 2001 <sup>b</sup>
10 PERCENT EXCEEDS	10		12		10	
50 PERCENT EXCEEDS	3.8		5.9		4.2	
90 PERCENT EXCEEDS	1.3		3.1		1.6	

<sup>a</sup> Also Sept. 13, 2002.<sup>b</sup> Also Nov. 18, 20-24, 2001, Sept. 12-15, 19, 2002.

OCTOBER 1, 2002 TO SEPTEMBER 30, 2003

## SWATARA CREEK BASIN

403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued  
(Swatara Creek Project)

## WATER-QUALITY RECORDS

**PERIOD OF RECORD.**--April 1996 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 fair except for periods Nov. 5 to Dec. 12, and Dec. 23 to Jan. 9, which are poor. pH records rated fair except for period Oct. 1 to Nov. 18, which is poor. The pH probe is subject to fouling from precipitation of iron, adhesion of lime on electrodes, and occasional burial by sediment. 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 436-482. Figure 8 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, 904 microsiemens, Sept. 28, 2002; minimum, 141 microsiemens, Aug. 13, 1999.

pH: Maximum, 7.0, June 26, 27, 1999; minimum, 3.4, Sept. 8, 17, 1999.

WATER TEMPERATURE: Maximum, 14.5°C, Sept. 30, 1999; minimum, 10.0°C, Dec. 17, 2000.

**EXTREMES FOR CURRENT YEAR.**--

SPECIFIC CONDUCTANCE: Maximum, 795 microsiemens, Oct. 12; minimum, 227 microsiemens, Mar. 24, 25.

pH: Maximum, 6.6, Nov. 13, 14; minimum, 3.6, Oct. 11.

WATER TEMPERATURE: Maximum, 13.5°C, Aug. 4; minimum 10.5°C, Feb. 17.

## SWATARA CREEK BASIN

## 403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued

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

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Oxi- dation re- duc- tion poten- tial, mV (00090)	Tur- bidity, water, unfltrd field, NTU (61028)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unf µS/cm 25 degC (00095)
OCT										
16...	0400	1028	89203	1.77	--	--	--	4.9	4.2	599
16...	0800	1028	89203	1.77	--	--	--	4.9	4.2	585
16...	1000	1028	89203	1.93	--	--	--	4.9	4.2	571
16...	1400	1028	89203	2.09	--	--	--	4.9	4.1	564
16...	1700	1028	89203	2.26	--	--	--	4.8	4.1	620
NOV										
06...	0100	1028	89203	4.23	--	--	--	4.3	4.3	463
06...	0400	1028	89203	4.23	--	--	--	4.3	4.3	449
06...	0830	1028	89203	4.23	--	--	--	4.5	4.4	442
06...	1130	1028	89203	4.23	--	--	--	4.6	4.4	439
06...	1900	1028	89203	4.02	--	--	--	4.8	3.9	430
12...	1500	1028	89203	3.60	--	--	--	6.5	6.1	371
12...	1630	1028	89203	3.60	--	--	--	6.5	6.0	369
12...	1930	1028	89203	3.60	--	--	--	6.5	6.0	368
12...	2100	1028	89203	3.60	--	--	--	6.5	6.0	373
13...	0600	1028	89203	3.60	--	--	--	6.5	6.1	375
14...	0900	1028	89203	4.45	--	--	--	5.6	--	416
14...	1400	1028	89203	4.45	444	10.0	9.40	5.8	5.1	416
16...	1600	1028	89203	3.40	--	--	--	6.2	6.3	401
16...	2000	1028	89203	5.35	--	--	--	6.1	4.9	416
17...	1800	1028	89203	5.35	--	--	--	6.0	6.0	389
17...	2000	1028	89203	3.81	--	--	--	6.0	5.6	389
18...	0200	1028	89203	4.02	--	--	--	6.0	5.4	382
DEC										
12...	0800	1028	89203	3.60	--	--	--	6.0	6.1	371
12...	0815	1028	89203	3.60	--	--	--	6.0	6.1	371
13...	0600	1028	89203	3.40	--	--	--	6.1	6.5	373
13...	1930	1028	89203	3.60	--	--	--	6.1	6.3	373
14...	0130	1028	89203	5.59	--	--	--	5.2	5.0	392
14...	0430	1028	89203	5.83	--	--	--	5.3	5.2	395
14...	0600	1028	89203	5.83	--	--	--	5.3	4.7	400
14...	0730	1028	89203	6.07	--	--	--	5.2	5.0	413
14...	1030	1028	89203	6.07	--	--	--	5.2	4.7	442
19...	1445	1028	89203	11.3	476	16.0	8.90	5.6	5.2	310
JAN										
01...	0900	1028	89203	7.46	--	--	--	5.9	6.1	274
01...	1500	1028	89203	7.46	--	--	--	5.9	6.0	270
01...	2100	1028	89203	7.93	--	--	--	5.8	5.6	305
02...	0300	1028	89203	7.93	--	--	--	5.6	4.8	327
02...	0600	1028	89203	8.87	--	--	--	5.2	4.1	342
MAR										
05...	1600	1028	89203	4.01	364	7.00	9.50	6.4	6.1	310
19...	1300	1028	89203	13.7	--	--	--	5.7	5.3	312
20...	1230	1028	89203	17.3	--	--	--	5.7	--	264
20...	1630	1028	89203	18.1	--	--	--	5.7	--	259
20...	1830	1028	89203	18.8	--	--	--	5.7	--	263
20...	2030	1028	89203	19.5	--	--	--	5.7	--	272
21...	0030	1028	89203	20.6	--	--	--	5.6	--	285
21...	0230	1028	89203	21.1	--	--	--	5.6	--	280
21...	0830	1028	89203	24.4	--	--	--	5.4	--	303
22...	0030	1028	89203	28.6	--	--	--	5.5	--	279
APR										
03...	1430	1028	89203	11.0	493	32.0	9.24	5.2	4.8	267
MAY										
01...	1445	1028	89203	6.06	472	36.0	9.38	5.4	5.6	268
24...	0900	1028	89203	3.80	--	--	--	6.2	--	263
24...	1200	1028	89203	3.80	--	--	--	6.2	6.0	264
24...	1500	1028	89203	5.36	--	--	--	5.5	4.1	302
25...	2100	1028	89203	5.36	--	--	--	5.6	4.3	329
26...	0000	1028	89203	4.01	--	--	--	6.0	5.5	316
JUN										
03...	1400	1028	89203	9.91	439	24.0	9.23	5.6	5.3	274
20...	0315	1028	89203	9.10	--	--	--	5.4	5.0	264
20...	1500	1028	89203	8.87	--	--	--	5.4	4.3	264
20...	2100	1028	89203	8.87	--	--	--	5.4	4.0	262
21...	0300	1028	89203	9.37	--	--	--	5.1	3.9	302
21...	2100	1028	89203	11.5	--	--	--	4.6	3.9	360
22...	0900	1028	89203	11.8	--	--	--	5.0	3.8	317
23...	0600	1028	89203	14.3	--	--	--	5.0	4.0	288
23...	0900	1028	89203	16.0	--	--	--	4.8	--	296
JUL										
23...	1530	1028	89203	4.89	459	17.0	10.2	5.2	4.8	299
AUG										
19...	1415	1028	89203	8.16	378	36.0	9.30	6.1	5.7	262
SEP										
24...	1500	1028	89203	15.3	484	21.6	9.39	5.2	5.2	314

## SWATARA CREEK BASIN

403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued

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

Date	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium unfltrd recover- able, mg/L (00916)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, unfltrd recover- able, mg/L (00927)	Potas- sium, water, fltrd, mg/L (00935)	Potas- sium, unfltrd recover- able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, unfltrd recover- able, mg/L (00929)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)
OCT										
16...	11.7	25.3	22.8	68.2	69.2	1.90	1.70	6.00	5.00	.00
16...	11.7	21.5	23.6	59.3	66.5	1.70	1.60	5.20	4.80	.00
16...	11.7	24.3	21.7	63.2	65.4	1.80	1.70	5.60	5.30	.00
16...	11.8	23.0	22.9	67.9	70.4	1.80	1.60	5.20	4.80	.00
16...	11.7	26.0	23.7	72.8	72.2	1.90	1.60	5.70	4.60	.00
NOV										
06...	12.1	16.5	16.1	36.0	38.0	1.40	1.40	4.80	3.80	.00
06...	12.1	21.5	21.9	37.3	41.8	1.80	1.50	5.10	4.80	.00
06...	12.2	21.1	19.2	37.2	36.9	1.70	1.40	4.90	3.90	.00
06...	12.3	20.7	18.4	36.1	34.9	1.70	1.30	4.80	3.60	.00
06...	12.2	21.1	19.5	36.1	36.8	1.60	1.50	4.70	3.80	.00
12...	11.9	14.7	12.9	28.9	27.5	1.40	1.20	5.10	3.60	6.80
12...	11.9	14.2	13.0	27.6	27.6	1.30	1.30	4.10	3.70	8.60
12...	11.9	14.1	12.8	27.3	27.3	1.40	1.20	4.30	3.30	8.90
12...	11.9	14.5	13.4	28.1	28.5	1.30	1.20	4.70	4.10	9.30
13...	11.9	14.4	13.2	28.1	28.8	1.40	1.20	4.90	3.80	10.2
14...	12.2	17.1	20.7	30.8	34.8	1.40	1.60	3.50	4.00	--
14...	12.2	--	--	--	--	--	--	--	--	2.50
16...	11.9	13.1	12.3	24.8	26.7	1.30	1.10	4.50	3.20	13.1
16...	12.1	16.4	14.8	30.3	29.3	1.50	1.30	4.30	3.60	1.90
17...	12.2	15.0	13.3	29.0	29.4	1.20	1.20	4.40	3.60	10.9
17...	11.9	17.3	--	30.3	--	1.50	--	4.90	--	4.60
18...	11.8	16.7	15.2	28.9	28.2	1.50	1.40	4.30	3.80	3.90
DEC										
12...	11.6	14.8	--	30.0	--	1.30	--	4.40	--	15.2
12...	11.6	--	12.7	--	28.5	--	1.10	--	3.60	15.2
13...	11.6	12.9	11.4	25.8	25.2	1.50	1.20	4.30	3.20	14.7
13...	11.6	13.6	15.1	27.7	34.2	1.30	1.60	4.10	4.00	13.0
14...	11.8	15.6	17.3	27.8	33.5	1.50	1.60	4.20	3.50	3.00
14...	11.9	15.6	18.0	27.8	35.0	1.50	1.50	4.00	4.30	3.00
14...	11.9	16.3	17.3	28.7	33.7	1.50	1.50	3.60	3.50	1.00
14...	11.9	17.6	18.4	32.5	36.4	1.60	1.80	3.80	4.00	3.00
14...	11.9	18.2	18.2	36.7	40.3	1.70	1.60	4.10	3.30	2.00
19...	11.8	12.9	12.0	24.6	24.0	1.30	1.30	3.60	3.50	4.70
JAN										
01...	11.8	11.7	11.6	21.6	22.9	1.30	1.20	3.50	3.30	10.3
01...	11.7	12.1	12.0	21.8	23.7	1.30	1.20	3.50	3.20	11.0
01...	11.7	13.4	13.2	27.9	29.8	1.30	1.40	3.80	3.50	5.20
02...	11.6	14.7	14.2	29.6	30.4	1.50	1.30	3.70	3.50	1.50
02...	11.7	15.5	14.2	30.3	30.2	1.50	1.20	3.60	3.40	.00
MAR										
05...	11.7	13.0	13.8	25.3	28.2	1.40	1.30	4.10	3.00	15.0
19...	11.8	13.3	13.0	25.0	26.4	1.40	1.40	4.50	4.70	4.80
20...	11.7	10.1	10.5	18.8	20.6	1.60	1.50	4.10	4.30	--
20...	11.7	10.6	9.90	19.5	19.2	1.60	1.60	4.20	3.90	--
20...	11.6	10.3	10.3	19.1	20.5	1.70	1.50	4.30	4.40	--
20...	11.6	10.8	10.9	20.9	23.1	1.70	1.80	4.20	3.90	--
21...	11.6	11.1	--	20.9	--	1.70	--	4.40	--	--
21...	11.6	10.9	10.8	21.5	22.8	1.60	1.50	4.00	4.20	--
21...	11.7	12.0	11.5	23.3	24.1	1.90	1.60	4.30	4.20	--
22...	11.7	--	11.4	--	22.7	--	1.80	--	4.00	--
APR										
03...	11.9	11.4	11.1	19.5	21.2	1.30	1.30	3.90	2.90	1.60
MAY										
01...	11.9	10.3	10.1	19.2	20.5	1.10	1.20	3.70	2.70	5.70
24...	11.9	11.2	11.1	18.8	20.4	1.10	1.30	3.10	3.10	--
24...	11.9	11.6	11.6	19.6	20.7	1.20	1.20	3.50	3.30	4.00
24...	12.2	14.2	14.1	21.7	23.2	1.40	1.40	3.40	3.80	.00
25...	12.2	15.2	15.1	25.5	27.0	1.40	1.50	3.50	3.60	.00
26...	11.9	13.3	13.1	27.2	28.1	1.30	1.40	3.60	3.40	4.00
JUN										
03...	11.8	9.60	10.0	19.3	20.7	1.20	1.00	4.20	3.30	4.40
20...	11.8	10.7	10.2	22.1	22.7	1.30	1.20	3.50	3.80	1.00
20...	11.8	10.6	9.90	21.7	21.9	1.20	1.20	4.00	3.40	.00
20...	11.8	10.6	10.2	22.7	23.4	1.30	1.40	3.50	3.70	.00
21...	11.7	11.7	11.7	24.5	25.3	1.30	1.30	3.80	3.70	.00
21...	11.8	13.1	12.6	28.9	29.7	1.40	1.40	3.70	3.90	.00
22...	11.6	11.3	10.7	26.4	27.0	1.20	1.30	3.70	4.20	.00
23...	11.7	10.0	9.90	22.0	23.4	1.20	1.20	4.10	4.00	.00
23...	11.8	11.1	11.1	22.8	24.2	1.20	1.20	4.10	3.90	--
JUL										
23...	12.3	13.8	14.8	22.8	24.4	1.20	1.30	3.00	3.50	1.20
AUG										
19...	11.9	10.5	10.8	21.5	22.0	1.20	1.30	3.60	4.20	9.00
SEP										
24...	11.9	11.8	12.3	24.5	25.8	1.20	1.30	3.40	4.60	3.60

## SWATARA CREEK BASIN

## 403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued

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

Date	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, recover- able, µg/L (01105)	Iron, water, fltrd, µg/L (01046)	Iron, water, recover- able, µg/L (01045)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, recover- able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, recover- able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, recover- able, µg/L (01092)
OCT										
16...	2000	3400	9080	11600	2720	2500	167	159	340	296
16...	1700	3400	7800	14100	2390	2460	145	154	329	293
16...	1600	3400	9310	14800	2560	2420	160	158	332	283
16...	2200	3800	8020	13700	2450	2320	157	162	357	293
16...	2000	3700	9700	13600	2670	2410	173	170	371	295
NOV										
06...	1800	1900	10800	11800	2310	2220	113	117	228	195
06...	2500	2700	6390	12500	2870	2950	169	182	414	388
06...	2400	2300	7200	10700	2960	2680	166	161	410	354
06...	2300	2100	7940	10100	2950	2590	159	168	409	350
06...	2000	2000	7780	10800	2870	2670	158	157	381	328
12...	<100	1300	8770	10400	2390	2050	109	92.0	173	145
12...	<100	1000	8910	10000	2330	2090	112	104	173	145
12...	<100	1400	8620	11700	2310	2070	93.0	92.0	171	141
12...	<100	1300	8860	11800	2340	2140	107	86.0	172	146
13...	<100	1300	9550	11400	2330	2130	102	96.0	177	149
14...	700	1800	8600	10600	2610	2870	109	130	296	283
14...	--	--	--	--	--	--	--	--	--	--
16...	<100	1200	7210	10300	2010	1960	88.0	101	157	140
16...	100	1700	8390	15800	2470	2200	112	109	260	226
17...	200	2000	8300	18800	2300	2040	111	103	221	169
17...	600	--	8000	--	2610	--	139	--	295	--
18...	200	1300	7640	10100	2500	2250	122	126	283	234
DEC										
12...	200	--	10900	--	2230	--	105	--	174	--
12...	--	1400	--	9850	--	1940	--	87.0	--	141
13...	<100	1400	7940	9790	1960	1740	85.0	81.0	157	133
13...	<100	1600	8190	11800	2040	2310	95.0	114	160	165
14...	500	1900	7080	10400	2320	2520	123	149	277	280
14...	400	1900	6680	10600	2260	2610	125	145	279	284
14...	400	1900	6900	10500	2310	2470	124	142	273	274
14...	500	2000	7300	11300	2470	2620	108	147	275	290
14...	1000	2000	7700	9590	2440	2470	128	158	306	318
19...	700	1200	7380	8560	2160	1900	96.0	87.0	226	191
JAN										
01...	<100	900	6370	8960	1980	2010	65.0	86.0	133	131
01...	<100	900	6450	8980	2020	2060	57.0	93.0	136	130
01...	<100	1300	6830	9080	2070	2050	72.0	101	163	162
02...	900	1800	6310	9380	2240	2160	114	133	261	261
02...	1700	1900	6070	9040	2310	2150	113	128	276	264
MAR										
05...	<100	1100	10200	11500	2100	2130	70.0	68.0	123	118
19...	600	1800	5990	9460	2030	2040	100	102	239	225
20...	400	1700	4050	12400	1710	1850	75.0	68.0	154	161
20...	200	1500	4200	11400	1800	1730	73.0	64.0	163	156
20...	300	2000	4100	16200	1760	1800	72.0	66.0	150	164
20...	100	2200	3960	15500	1770	1900	73.0	75.0	162	170
21...	900	--	4310	--	1790	--	86.0	--	207	--
21...	900	2000	3970	13200	1730	1780	71.0	66.0	178	187
21...	1100	2600	4030	16000	1890	1840	87.0	90.0	211	225
22...	--	2500	--	15500	--	1870	--	80.0	--	223
APR										
03...	1000	1100	3010	5050	1880	1820	94.0	85.0	242	243
MAY										
01...	400	800	4840	6510	1770	1690	72.0	64.0	176	169
24...	<100	800	<10.0	8920	1950	1990	58.0	65.0	111	124
24...	<100	700	60.0	9120	2010	2070	64.0	68.0	117	127
24...	800	1200	50.0	8650	2240	2290	106	86.0	245	263
25...	600	1100	910	7630	2140	2180	99.0	84.0	222	240
26...	<100	1200	2610	9140	2010	2030	86.0	70.0	150	156
JUN										
03...	600	1000	4510	6130	1650	1620	73.0	75.0	174	168
20...	500	900	3420	5220	1790	1750	90.0	86.0	221	226
20...	800	900	60.0	4970	1750	1690	88.0	79.0	205	201
20...	1400	1500	100	5830	1720	1680	107	101	329	324
21...	1500	1500	110	5220	1780	1780	108	108	316	311
21...	1600	1600	80.0	4730	1790	1750	110	101	305	293
22...	1300	1300	80.0	4380	1660	1600	94.0	88.0	242	236
23...	1100	1200	30.0	3820	1520	1540	90.0	82.0	222	225
23...	1200	1300	180	4000	1670	1660	100	93.0	253	252
JUL										
23...	600	1100	4540	6630	1940	2090	85.0	85.0	255	245
AUG										
19...	300	800	5280	7080	1780	1850	68.0	72.0	161	151
SEP										
24...	800	1300	4340	6910	1770	1840	85.0	74.0	214	199

## SWATARA CREEK BASIN

## 403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° 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	695	638	665	465	429	444	302	300	301	319	270	281
2	638	565	605	429	420	424	319	300	314	348	319	340
3	592	543	572	461	419	446	321	308	312	345	312	328
4	578	545	567	444	400	414	317	307	308	312	294	302
5	558	534	547	465	395	405	332	307	318	301	290	296
6	553	522	538	465	409	439	336	331	334	291	278	282
7	528	510	518	414	407	410	332	314	317	291	279	286
8	548	508	527	450	402	417	345	314	327	293	283	290
9	521	501	513	440	389	415	346	322	338	305	283	286
10	501	450	482	389	380	384	323	320	321	306	303	304
11	602	454	534	425	378	403	351	320	340	307	290	297
12	795	602	728	410	368	386	375	330	365	315	292	304
13	788	731	758	392	374	382	400	370	379	313	298	308
14	731	604	652	419	391	414	464	392	434	301	297	299
15	661	593	633	420	402	408	460	390	436	322	301	319
16	655	555	604	426	401	407	390	337	361	320	301	307
17	659	610	626	426	384	403	351	323	336	328	300	311
18	668	610	645	413	382	398	327	297	307	328	304	321
19	611	531	573	417	383	399	311	293	301	306	302	304
20	531	501	514	383	338	358	320	298	308	332	301	324
21	507	473	490	345	324	332	308	297	304	329	307	316
22	473	460	467	343	322	331	309	290	299	333	305	311
23	462	439	451	322	306	309	290	266	278	333	315	328
24	439	410	424	324	305	316	285	262	271	315	306	308
25	466	408	435	323	301	313	286	270	278	332	306	321
26	439	403	416	309	296	299	270	263	265	331	318	327
27	426	410	420	316	309	314	283	262	272	321	315	316
28	476	425	460	315	296	301	288	277	281	340	321	337
29	449	412	420	314	295	303	281	265	269	339	324	331
30	445	401	408	315	302	311	291	268	285	325	318	322
31	478	409	454	---	---	---	291	272	283	318	285	303
MONTH	795	401	537	465	295	376	464	262	317	348	270	310

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	286	280	283	336	319	328	271	251	259	296	267	276
2	322	282	313	319	297	309	271	267	269	297	290	293
3	312	280	288	324	296	314	269	259	266	293	268	273
4	325	274	289	323	319	321	270	251	257	298	269	289
5	326	303	319	319	308	313	269	251	264	293	267	278
6	304	295	300	315	309	311	268	252	264	297	267	280
7	326	292	312	327	311	315	270	249	256	299	291	296
8	324	300	313	329	308	319	270	268	269	295	269	276
9	300	295	297	321	304	312	268	252	260	292	268	281
10	314	295	310	313	304	308	273	251	263	286	257	276
11	314	304	309	328	310	323	303	264	278	293	256	261
12	308	300	303	321	300	306	302	275	284	294	286	290
13	312	307	310	325	297	305	290	268	277	288	260	267
14	308	295	301	340	325	335	270	253	265	299	259	282
15	308	291	297	350	334	340	265	250	253	292	262	282
16	312	308	310	402	350	372	265	261	263	300	261	266
17	309	293	302	407	400	403	263	250	259	299	289	293
18	308	291	301	403	346	377	268	249	255	290	260	267
19	308	305	307	346	286	314	268	263	265	297	260	282
20	306	301	304	291	258	271	265	249	257	293	263	283
21	305	303	304	303	278	290	270	249	260	304	261	269
22	304	295	300	279	249	264	270	267	268	303	294	298
23	336	292	305	250	233	240	269	252	256	296	265	272
24	353	336	346	235	227	231	285	252	274	327	262	286
25	369	349	361	231	227	229	282	260	273	332	316	329
26	370	360	365	235	230	232	291	260	273	354	303	331
27	360	354	358	241	235	238	291	287	288	355	315	341
28	355	335	347	246	240	243	289	266	270	315	272	290
29	---	---	---	254	245	249	300	267	290	290	274	281
30	---	---	---	262	253	256	294	269	284	289	276	282
31	---	---	---	267	252	262	---	---	---	276	255	259
MONTH	370	274	313	407	227	298	303	249	267	355	255	285

## SWATARA CREEK BASIN

## 403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	292	256	279	275	262	270	321	318	320	286	277	282
2	300	283	292	279	261	268	318	314	316	286	281	283
3	287	270	278	281	278	280	314	312	313	289	279	283
4	298	284	292	283	268	277	416	313	329	343	289	312
5	299	283	291	286	268	276	558	416	519	366	343	357
6	291	275	282	288	285	287	558	440	519	366	357	363
7	307	279	288	289	272	280	440	372	407	357	348	352
8	304	294	300	289	273	281	372	330	348	348	340	343
9	299	276	284	289	283	285	330	320	325	340	327	334
10	288	276	283	287	264	268	320	307	315	327	315	321
11	279	269	275	298	260	287	329	301	309	337	314	327
12	273	260	263	297	290	294	337	306	328	331	307	325
13	288	262	283	290	276	278	306	268	285	308	301	304
14	289	287	288	310	278	301	274	262	268	328	303	325
15	287	269	273	303	277	295	273	269	271	323	294	310
16	288	283	286	303	276	280	271	257	265	356	294	334
17	284	254	271	308	302	305	274	257	265	360	338	355
18	279	253	265	303	280	294	276	273	274	341	325	333
19	280	276	278	306	280	288	276	260	268	343	315	326
20	300	260	268	309	306	307	279	260	268	350	337	344
21	361	298	336	307	286	296	279	277	278	348	338	345
22	353	292	313	309	285	297	279	260	267	341	314	331
23	296	287	291	302	277	297	278	260	272	403	297	361
24	291	278	284	324	279	306	279	275	278	387	299	330
25	278	271	275	327	310	315	275	265	267	299	271	284
26	271	266	269	336	310	325	280	265	277	276	269	274
27	267	265	266	332	303	323	281	273	279	272	267	269
28	267	256	263	308	304	307	274	267	270	268	258	264
29	270	255	263	330	304	325	278	271	274	270	257	263
30	273	270	272	327	313	321	280	272	277	272	270	271
31	---	---	---	319	309	311	277	271	273	---	---	---
MONTH	361	253	282	336	260	294	558	257	307	403	257	317
YEAR	795	227	326									

## PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	4.8	4.7	4.7	5.0	4.6	4.8	6.2	6.2	6.2	6.0	5.7	5.9
2	4.8	4.2	4.4	5.3	5.0	5.2	6.2	5.5	5.6	5.7	5.1	5.2
3	4.8	4.2	4.7	5.4	5.0	5.1	6.2	5.6	6.1	5.5	5.2	5.2
4	5.0	4.8	4.8	5.3	5.1	5.2	6.2	6.0	6.2	5.6	5.3	5.5
5	5.0	4.4	4.6	6.2	4.3	5.4	6.3	5.5	5.9	5.4	5.2	5.3
6	5.0	4.6	4.9	6.0	4.2	4.6	5.6	5.5	5.5	5.7	5.4	5.6
7	5.2	5.0	5.2	6.4	6.0	6.2	6.3	5.6	6.2	5.7	5.3	5.4
8	5.2	4.8	4.8	6.4	4.7	6.4	6.3	5.6	6.3	5.6	5.3	5.3
9	5.3	4.8	5.0	6.4	4.7	5.4	6.0	5.5	5.6	5.8	5.4	5.7
10	5.5	5.2	5.3	6.5	6.4	6.4	6.4	6.0	6.3	5.6	5.4	5.5
11	5.6	3.6	3.7	6.5	5.3	5.5	6.4	5.7	5.9	5.9	5.5	5.9
12	4.6	3.8	4.5	6.5	5.6	6.4	6.1	6.0	6.0	5.9	5.4	5.5
13	4.7	4.6	4.6	6.6	6.5	6.5	6.1	5.2	6.1	5.9	5.5	5.6
14	4.7	3.8	4.0	6.6	5.6	5.8	5.3	5.0	5.2	6.0	5.9	6.0
15	4.8	4.0	4.7	6.2	5.8	6.1	5.8	5.2	5.3	5.9	5.3	5.4
16	4.9	4.7	4.8	6.3	6.1	6.1	5.9	5.5	5.9	5.9	5.5	5.9
17	4.8	4.2	4.3	6.1	6.0	6.1	5.6	5.4	5.5	5.9	5.2	5.9
18	5.0	4.5	4.8	6.1	6.0	6.0	5.9	5.6	5.9	5.9	5.2	5.4
19	5.1	4.8	5.0	6.1	5.3	5.6	5.9	5.5	5.9	5.9	5.8	5.8
20	5.1	4.8	4.9	6.2	5.6	6.0	5.8	5.6	5.6	5.8	5.1	5.2
21	5.4	5.1	5.3	6.2	5.7	6.2	5.9	5.8	5.8	5.8	5.3	5.8
22	5.6	5.2	5.4	5.8	5.6	5.8	5.9	5.5	5.6	5.8	5.0	5.8
23	5.6	5.2	5.4	6.2	5.8	6.2	5.8	5.6	5.7	5.4	5.0	5.1
24	5.8	5.4	5.6	6.2	5.6	5.7	5.8	5.4	5.8	5.6	5.4	5.6
25	5.7	3.8	4.2	6.2	5.7	5.8	5.8	5.4	5.5	5.6	4.9	5.1
26	5.8	4.3	5.6	6.2	5.6	6.2	5.9	5.8	5.9	5.3	5.0	5.0
27	5.9	5.7	5.8	5.8	5.6	5.7	5.9	5.4	5.9	5.4	5.3	5.4
28	5.8	4.1	4.3	6.2	5.8	6.2	5.6	5.5	5.6	5.3	5.0	5.0
29	5.8	4.3	5.6	6.2	5.5	6.1	5.9	5.6	5.9	5.3	5.0	5.2
30	5.8	5.1	5.8	6.2	5.6	5.8	5.9	5.4	5.5	5.7	5.3	5.3
31	5.6	4.6	4.7	---	---	---	6.0	5.6	5.6	6.4	5.7	5.8
MAX	5.9	5.7	5.8	6.6	6.5	6.5	6.4	6.2	6.3	6.4	5.9	6.0
MIN	4.6	3.6	3.7	5.0	4.2	4.6	5.3	5.0	5.2	5.3	4.9	5.0



## SWATARA CREEK BASIN

## 403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	<b>FEBRUARY</b>			<b>MARCH</b>			<b>APRIL</b>			<b>MAY</b>		
1	6.5	6.4	6.5	6.2	5.9	5.9	5.3	4.9	5.2	5.4	4.9	5.4
2	6.5	5.5	5.7	6.3	6.2	6.3	4.9	4.8	4.8	4.9	4.8	4.9
3	6.4	5.8	6.4	6.4	6.0	6.2	4.9	4.8	4.9	5.4	4.9	5.4
4	6.4	5.3	6.3	6.2	6.0	6.1	5.1	4.8	5.0	5.4	4.8	4.8
5	6.3	5.4	5.6	6.4	6.2	6.4	5.0	4.7	4.8	5.4	4.8	5.3
6	6.3	6.2	6.3	6.3	6.1	6.1	5.0	4.7	4.7	5.5	4.9	5.5
7	6.2	5.2	5.4	6.4	6.1	6.3	5.0	4.6	5.0	4.9	4.8	4.9
8	6.2	5.4	6.0	6.4	5.6	5.9	4.6	4.5	4.6	5.4	4.9	5.3
9	6.2	6.2	6.2	6.4	5.9	6.0	4.9	4.6	4.6	5.4	5.0	5.3
10	6.2	5.2	5.3	6.4	6.4	6.4	4.9	4.7	4.9	5.9	5.3	5.4
11	6.3	5.4	6.1	6.4	5.6	5.8	5.0	4.9	5.0	5.9	5.2	5.9
12	6.3	5.3	6.3	6.4	5.9	6.3	5.3	4.8	5.3	5.5	5.2	5.4
13	5.9	5.3	5.4	6.3	5.6	6.3	5.3	4.8	4.9	6.0	5.4	5.9
14	6.2	5.9	6.2	6.2	5.7	5.8	5.4	5.0	5.1	6.0	5.2	5.3
15	6.2	5.6	5.9	6.2	6.0	6.2	5.5	5.1	5.4	5.9	5.4	5.4
16	6.0	5.6	5.7	6.0	5.4	5.5	5.2	5.1	5.2	6.0	5.2	6.0
17	6.2	6.0	6.2	5.8	5.4	5.7	5.5	5.2	5.2	5.4	5.2	5.4
18	6.2	5.6	5.7	5.7	5.3	5.7	5.5	5.1	5.5	6.0	5.4	6.0
19	6.2	5.7	6.0	5.6	5.4	5.5	5.1	5.1	5.1	6.0	5.2	5.3
20	6.3	5.9	6.2	5.7	5.6	5.7	5.3	5.1	5.1	6.1	5.3	5.4
21	5.9	5.7	5.8	5.6	5.4	5.5	5.3	4.9	5.1	6.1	5.4	6.1
22	6.2	5.8	6.1	5.5	5.4	5.4	5.0	4.9	5.0	5.7	5.5	5.6
23	6.2	5.6	5.9	5.5	5.5	5.5	5.3	4.9	5.3	6.2	5.7	6.2
24	5.9	5.6	5.8	5.5	5.5	5.5	5.3	4.7	4.9	6.2	5.4	6.2
25	6.1	5.9	6.0	5.5	5.4	5.5	5.5	5.0	5.1	6.0	5.4	5.5
26	6.1	5.7	5.8	5.4	5.4	5.4	5.5	4.9	5.5	6.0	5.8	6.0
27	6.2	5.8	6.0	5.4	5.2	5.3	5.0	4.8	4.9	5.9	5.3	5.5
28	6.2	5.9	6.2	5.2	5.1	5.2	5.4	5.0	5.4	5.8	5.5	5.7
29	---	---	---	5.1	5.0	5.1	5.4	4.8	4.8	5.7	5.2	5.6
30	---	---	---	5.1	5.0	5.0	5.4	4.9	5.0	5.4	5.2	5.4
31	---	---	---	5.2	5.0	5.0	---	---	---	5.6	5.4	5.6
MAX	6.5	6.4	6.5	6.4	6.4	6.4	5.5	5.2	5.5	6.2	5.8	6.2
MIN	5.9	5.2	5.3	5.1	5.0	5.0	4.6	4.5	4.6	4.9	4.8	4.8
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	<b>JUNE</b>			<b>JULY</b>			<b>AUGUST</b>			<b>SEPTEMBER</b>		
1	5.6	5.3	5.3	5.0	4.8	4.8	5.3	5.2	5.2	5.8	5.7	5.8
2	5.6	5.2	5.3	5.0	4.8	5.0	5.5	5.3	5.5	5.8	5.8	5.8
3	5.6	5.3	5.6	4.8	4.6	4.7	5.5	5.4	5.5	5.8	5.8	5.8
4	5.4	5.3	5.3	4.8	4.7	4.7	5.4	5.1	5.2	5.8	5.7	5.8
5	5.5	5.3	5.5	4.8	4.7	4.8	5.2	5.0	5.1	5.8	5.7	5.8
6	5.5	5.1	5.4	4.7	4.6	4.6	5.2	5.2	5.2	5.8	5.8	5.8
7	5.2	5.1	5.2	4.7	4.6	4.6	5.2	5.2	5.2	5.8	5.8	5.8
8	5.2	5.1	5.1	5.0	4.7	4.8	5.3	5.2	5.3	5.8	5.8	5.8
9	5.3	5.1	5.3	5.2	4.9	5.1	5.4	5.3	5.3	5.9	5.8	5.9
10	5.3	5.0	5.1	5.6	5.2	5.6	5.4	5.3	5.3	6.0	5.9	5.9
11	5.1	5.1	5.1	5.6	4.8	5.0	5.5	5.4	5.5	6.0	5.3	5.4
12	5.3	5.1	5.3	5.1	5.0	5.1	5.5	5.2	5.4	6.0	5.5	5.5
13	5.3	4.8	5.0	5.6	5.1	5.6	5.8	5.2	5.6	6.0	6.0	6.0
14	4.9	4.8	4.8	5.5	4.6	4.8	5.8	5.6	5.8	6.0	5.4	5.4
15	5.0	4.8	5.0	5.5	4.8	4.9	5.8	5.6	5.6	6.1	5.5	6.0
16	4.8	4.7	4.7	5.5	4.8	5.5	6.0	5.8	5.8	6.0	5.2	5.9
17	5.4	4.8	4.8	4.8	4.5	4.7	6.0	5.7	6.0	5.8	5.2	5.4
18	5.4	4.9	5.4	5.2	4.7	4.7	5.8	5.6	5.7	6.0	5.3	5.9
19	5.1	4.9	5.0	5.2	4.7	5.1	6.0	5.7	5.8	5.9	5.3	5.9
20	5.4	4.9	5.4	4.7	4.5	4.6	6.1	5.6	6.0	5.9	5.2	5.3
21	5.1	4.5	4.6	4.8	4.5	4.7	5.7	5.6	5.7	5.9	5.3	5.3
22	5.2	4.7	5.1	5.0	4.6	4.8	6.0	5.7	6.0	5.9	5.4	5.4
23	5.0	4.8	4.8	5.9	4.9	5.2	6.0	5.5	5.6	5.9	5.1	5.4
24	4.8	4.7	4.8	5.9	4.9	5.8	5.7	5.6	5.6	5.3	5.1	5.2
25	4.8	4.8	4.8	6.0	5.0	5.9	6.0	5.7	5.9	5.4	5.3	5.4
26	4.8	4.7	4.8	6.0	4.8	4.9	6.0	5.7	5.7	5.4	5.3	5.4
27	4.8	4.8	4.8	6.0	4.9	5.2	5.7	5.7	5.7	5.4	5.4	5.4
28	5.0	4.8	4.8	6.1	6.0	6.1	5.9	5.7	5.8	5.6	5.4	5.4
29	5.1	4.8	5.0	6.2	5.0	5.2	5.9	5.8	5.8	5.6	5.3	5.5
30	4.8	4.8	4.8	6.1	5.3	5.4	5.8	5.7	5.8	5.4	5.3	5.4
31	---	---	---	6.1	5.3	6.0	5.8	5.8	5.8	---	---	---
MAX	5.6	5.3	5.6	6.2	6.0	6.1	6.1	5.8	6.0	6.1	6.0	6.0
MIN	4.8	4.5	4.6	4.7	4.5	4.6	5.2	5.0	5.1	5.3	5.1	5.2
YEAR	MAX			MAXIMUM	6.6	MINIMUM	4.6					
	MIN			MAXIMUM	6.5	MINIMUM	3.6					
	MEDIAN			MAXIMUM	6.5	MINIMUM	3.7					

## SWATARA CREEK BASIN

## 403542076263201 ROWE DRAINAGE TUNNEL, SITE E2-244, NR JOLIETT, PA--Continued

## 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	12.0	12.0	12.0	12.5	11.5	12.0	12.0	12.0	12.0	12.0	11.5	11.5
2	12.5	12.0	12.0	12.0	11.5	11.5	12.0	12.0	12.0	12.0	11.5	11.5
3	12.5	12.0	12.0	12.0	11.5	12.0	12.0	11.5	12.0	12.0	11.5	11.5
4	12.0	12.0	12.0	12.0	11.5	12.0	12.0	12.0	12.0	12.0	11.5	11.5
5	12.5	12.0	12.5	12.0	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0
6	12.5	12.0	12.0	12.5	12.0	12.0	12.0	11.5	12.0	12.0	11.5	11.5
7	12.0	11.5	12.0	12.0	11.5	11.5	11.5	11.5	11.5	12.0	11.5	11.5
8	12.5	11.5	12.0	12.0	11.5	12.0	12.0	11.5	11.5	12.0	11.5	12.0
9	12.5	12.0	12.0	12.5	12.0	12.0	12.0	11.5	11.5	12.0	11.5	11.5
10	12.0	12.0	12.0	12.0	12.0	12.0	11.5	11.5	11.5	12.0	12.0	12.0
11	12.5	12.0	12.0	12.5	12.0	12.0	12.0	11.5	11.5	12.0	11.5	11.5
12	12.5	11.5	12.0	12.5	12.0	12.0	11.5	11.5	11.5	12.0	11.5	11.5
13	12.0	11.5	11.5	12.0	12.0	12.0	12.0	11.5	11.5	12.0	11.5	12.0
14	12.5	11.5	12.0	12.5	12.0	12.0	12.0	12.0	12.0	11.5	11.5	11.5
15	12.5	11.5	11.5	12.0	12.0	12.0	12.0	11.5	12.0	12.0	11.5	11.5
16	12.0	11.5	11.5	12.0	12.0	12.0	11.5	11.5	11.5	12.0	11.5	11.5
17	12.5	11.5	12.0	12.0	11.5	12.0	12.0	11.5	12.0	11.5	11.5	11.5
18	12.0	11.5	11.5	12.0	11.5	12.0	12.0	11.5	11.5	12.0	11.5	11.5
19	12.0	11.5	12.0	12.0	12.0	12.0	12.0	11.5	12.0	11.5	11.5	11.5
20	12.5	11.5	12.0	12.0	12.0	12.0	12.0	11.5	12.0	12.0	11.5	11.5
21	12.0	11.5	11.5	12.0	12.0	12.0	12.0	11.5	11.5	12.0	11.5	11.5
22	12.0	11.5	12.0	12.0	12.0	12.0	12.0	11.5	12.0	11.5	11.5	11.5
23	12.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	11.5	12.0
24	11.5	11.5	11.5	12.0	12.0	12.0	12.0	11.5	12.0	11.5	11.5	11.5
25	12.5	11.5	12.0	12.0	12.0	12.0	12.0	11.5	12.0	12.0	11.5	12.0
26	12.5	12.0	12.0	12.0	12.0	12.0	12.0	11.5	11.5	12.0	11.5	12.0
27	12.0	11.5	12.0	12.0	12.0	12.0	12.0	11.5	12.0	11.5	11.5	11.5
28	12.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	11.5	12.0
29	12.5	11.5	11.5	12.0	12.0	12.0	12.0	11.5	12.0	12.0	11.5	11.5
30	12.0	11.5	11.5	12.0	12.0	12.0	12.0	11.5	12.0	12.0	11.5	11.5
31	12.0	11.5	12.0	---	---	---	12.0	12.0	12.0	12.0	11.5	12.0
MONTH	12.5	11.5	11.9	12.5	11.5	11.9	12.0	11.5	11.8	12.0	11.5	11.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.5	11.5	11.5	12.0	11.5	12.0	12.0	11.5	11.5	12.0	12.0	12.0
2	12.0	11.5	12.0	11.5	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0
3	12.0	11.5	11.5	12.0	11.0	11.5	12.0	12.0	12.0	12.0	11.5	12.0
4	11.5	11.5	11.5	11.5	11.5	11.5	12.0	11.5	11.5	12.0	11.5	12.0
5	12.0	11.0	11.5	12.0	11.5	11.5	12.0	11.5	12.0	12.0	11.5	12.0
6	11.5	11.0	11.0	12.0	11.5	12.0	12.0	11.5	12.0	12.0	11.5	12.0
7	12.0	11.0	11.5	12.0	11.5	11.5	11.5	11.5	11.5	12.5	12.0	12.0
8	12.0	11.0	11.5	12.0	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0
9	11.5	11.0	11.0	12.0	11.5	11.5	12.0	11.5	11.5	12.0	12.0	12.0
10	12.0	11.5	12.0	11.5	11.5	11.5	12.0	11.5	11.5	12.0	12.0	12.0
11	12.0	11.0	11.0	12.0	11.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
12	11.5	11.0	11.5	12.0	11.5	11.5	12.0	11.5	11.5	12.0	12.0	12.0
13	12.0	11.0	11.5	12.0	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0
14	11.5	11.0	11.0	12.0	11.5	12.0	12.0	11.5	12.0	12.0	12.0	12.0
15	11.5	11.5	11.5	12.0	11.5	11.5	12.0	11.5	11.5	12.0	12.0	12.0
16	11.5	11.0	11.5	12.0	11.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0
17	11.5	10.5	11.0	12.0	11.5	12.0	12.0	11.5	12.0	12.0	12.0	12.0
18	12.0	11.5	12.0	12.0	11.5	11.5	12.0	11.5	11.5	12.0	11.5	12.0
19	12.0	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0	12.5	11.5	12.0
20	12.0	11.5	11.5	12.0	11.5	11.5	12.0	11.5	12.0	12.5	12.0	12.0
21	12.0	11.5	12.0	12.0	11.5	11.5	12.0	11.5	12.0	12.0	12.0	12.0
22	11.5	11.0	11.5	12.0	11.5	12.0	12.0	12.0	12.0	12.5	12.0	12.0
23	12.0	11.0	11.5	12.0	12.0	12.0	12.0	11.5	11.5	12.5	12.0	12.0
24	11.5	11.0	11.5	12.0	12.0	12.0	12.0	11.5	12.0	12.0	12.0	12.0
25	11.5	11.0	11.0	12.0	12.0	12.0	12.0	12.0	12.0	12.5	12.0	12.0
26	12.0	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
27	12.0	11.5	11.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
28	12.0	11.5	11.5	12.0	12.0	12.0	12.0	11.5	12.0	12.0	12.0	12.0
29	---	---	---	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
30	---	---	---	12.0	12.0	12.0	12.5	12.0	12.0	12.0	12.0	12.0
31	---	---	---	12.0	11.5	11.5	---	---	---	12.0	12.0	12.0
MONTH	12.0	10.5	11.5	12.0	11.0	11.8	12.5	11.5	11.8	12.5	11.5	12.0

