ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

The Pennsylvania Water-Quality Network (WQN) is a statewide, fixed station water-quality sampling system currently operated by the Department of Environmental Protection (PaDEP), Bureau of Water Supply and Wastewater Management in cooperation with the United States Geological Survey (USGS). It is designed to assess both the quality of Pennsylvania's surface waters and the effectiveness of the water quality management program by accomplishing three basic objectives:

* Monitor temporal water-quality trends in major surface streams throughout the Commonwealth of Pennsylvania.

* Monitor temporal water-quality trends in selected reference waters.

* Monitor temporal water-quality trends in selected Pennsylvania lakes.

Major streams are defined as interstate waters and intrastate streams with drainage areas of roughly 200 mi^2 or greater. These waters are sampled at or near their mouths to measure overall quality before flows enter the next higher order stream or before exiting the Commonwealth. In this way, trends can be established and the effectiveness of water-quality management programs can be assessed by watershed. Samples are collected on fixed time intervals resulting in coverage of a range of flow regimes. All samples collected from April 1, 2002 through September 30, 2003 were collected by the USGS and analyzed by the PaDEP laboratory in Harrisburg.

Most of the current WQN standard sites are co-located with USGS gage stations and others are equipped with a wire-weight gage. Currently the network consists of 120 standard stream sites, 26 reference stream sites, and 27 lakes distributed across the Commonwealth. This report contains only those sites in the Delaware River basin. The locations of these sites can be found in figures 6-9. Other data for the WQN can be found in the annual Water Data Reports PA-03-2 and PA-03-3.

Standard stations are sampled bimonthly (6 times per year) for physical and chemical parameters and stream discharge or a stage reading. Reference stations are sampled monthly at 25-30 day intervals for physical and chemical parameters and stream discharge or a stage reading. Benthic macroinvertebrates are also collected annually at all WQN stations.

Ninety lakes are part of the WQN. Of these 90 lakes, approximately 15-20 are sampled annually during mid-summer stratification for 5 years; and then a different set of 15-20 lakes is sampled for 5 years. Using this schedule, all 90 lakes are sampled over a 30-year period. However, 27 lakes are scheduled for sampling in the current 5-year sampling period. Lakes are sampled for physical and chemical parameters. Two samples are collected from the deepest point of the lake with the first sample being collected 1-meter below the surface and the second sample collected 1-meter from the bottom. Each sample is analyzed separately. A temperature and dissolved oxygen profile is collected at the site through the water column. This report contains only data for lakes in the Delaware River basin. The locations of these sites can be found in figures 6-9.

For additional information, contact Andrew Reif at the U.S. Geological Survey, 111 Great Valley Parkway, Malvern, PA 19355; 610-647-9008, (email: agreif@usgs.gov).

TABLE 3.--Pennsylvania Water-Quality Network (WQN) station list.

Station number	WQN No.	Location	Latitude	Longitude	Drainage area (mi^2)
01426500	104	West Branch Delaware River at Hale Eddy, NY	42° 00’ 11”	75° 23’ 02”	595
[a]01427510	185	Delaware River at Callicoon, NY	41° 45’ 24”	75° 03’ 28”	1,820
01429301	336	Dyberry Creek at Tanners Falls near Dyberry, PA	41° 39’ 11”	75° 16’ 55”	46.4
01431600	141	Wallenpaupack Creek at East Sterling, PA	41° 20’ 10”	75° 20’ 25”	69.5
01432119	147	Lackawaxen River at mouth at Lackawaxen, PA	41° 29’ 12”	74° 59’ 31”	597
[a]01434000	103	Delaware River at Port Jervis, NY	41° 22’ 14”	74° 41’ 52”	3,070
01438760	192	Adams Creek near Dingmans Ferry, PA	41° 14’ 22”	74° 52’ 02”	8.20
[a]01439500	139	Bush Kill at Shoemakers, PA	41° 05’ 17”	75° 02’ 17”	117
01440650	138	Brodhead Creek near East Stroudsburg, PA	41° 02’ 10”	75° 12’ 34”	121
[a]01442500	137	Brodhead Creek at Minisink Hills, PA	40° 59’ 55”	75° 08’ 35”	259
01444800	194	Delaware River at Richmond, NJ	40° 49’ 44”	75° 05’ 06”	4,378
01447300	190	Choke Creek near Thornhurst, PA	41° 09’ 40”	75° 36’ 10”	8.06
[a]01447500	126	Lehigh River at Stoddartsville, PA	41° 07’ 49”	75° 37’ 33”	91.7
[a]01447720	142	Tobyhanna Creek near Blakeslee, PA	41° 05’ 05”	75° 36’ 21”	118
01449375	191	Wild Creek above Penn Forest Reservoir near Kresgeville, PA	40° 56’ 24”	75° 35’ 04”	5.4
01451070	125	Lehigh River at Treichlers, PA	40° 44’ 03”	75° 32’ 28”	928
01452040	130	Jordan Creek at mouth at Allentown, PA	40° 36’ 06”	75° 27’ 43”	82.3
[a]01454700	123	Lehigh River at Glendon, PA	40° 40’ 09”	75° 14’ 12”	1,359
01457790	187	Cooks Creek at Durham Furnace, PA	40° 34’ 56”	75° 12’ 20”	29.4
01458900	186	Tinicum Creek near Ottsville, PA	40° 28’ 14”	75° 08’ 13”	14.7
[a]01463500	101	Delaware River at Trenton, NJ	40° 13’ 18”	74° 46’ 42”	6,780
[a]01465500	121	Neshaminy Creek near Langhorne, PA	40° 10’ 26”	74° 57’ 26”	210
[a]01470500	113	Schuylkill River at Berne, PA	40° 31’ 21”	75° 59’ 55”	355
[a]01471000	117	Tulpehocken Creek near Reading, PA	40° 22’ 08”	75° 58’ 46”	211
[a]01472000	111	Schuylkill River at Pottstown, PA	40° 14’ 30”	75° 39’ 07”	1,147
01472150	156	French Creek at Coventryville, PA	40° 10’ 16”	75° 41’ 26”	36.9
01473030	116	Perkiomen Creek at Arcola near Collegeville, PA	40° 09’ 11”	75° 27’ 21”	300
01473170	154	Valley Creek at Wilson Road near Valley Forge, PA	40° 04’ 53”	75° 27’ 25”	22.0
[a]01473900	193	Wissahickon Creek at Fort Washington, PA	40° 07’ 26”	75° 13’ 13”	40.8
[a]01474000	115	Wissahickon Creek at mouth at Philadelphia, PA	40° 00’ 55”	75° 12’ 26”	64.0
01474010	110	Schuylkill River at Falls Bridge at Philadelphia, PA	40° 00’ 30”	75° 11’ 52”	1,893
[a]01478245	149	White Clay Creek near Strickersville, PA	39° 44’ 51”	75° 46’ 15”	59.2
[a]01479820	150	Red Clay Creek near Kennett Square, PA	39° 49’ 00”	75° 41’ 31”	28.3
[a]01481000	105	Brandywine Creek at Chadds Ford, PA	39° 52’ 11”	75° 35’ 37”	287
01494990	256	Big Elk Creek near Lewisville, PA	39° 43’ 48”	75° 50’ 54”	41.0

[a]Other data for this station can be found in the continuous station records section of this report.

TABLE 4.--List of lakes sampled as part of the Pennsylvania Water-Quality Network.

Station number	WQN No.	Location	Latitude	Longitude	Drainage area (mi^2)
01427252	L114	Duck Harbor Pond near Lookout, PA	41° 45’ 11”	75° 12’ 01”	3.59
01446590	L112	Minsi Lake near Roseto, PA	40° 54’ 43”	75° 10’ 15”	3.22
01447100	L113	Gouldsboro Lake at Gouldsboro, PA	41° 14’ 07”	75° 27’ 09”	
01459350	L111	Nockamixon Reservoir near Ottsville, PA	40° 28’ 13”	75° 11’ 10”	73.3
01464640	L115	Lake Galena near Chalfont, PA	40° 19’ 01”	75° 12’ 15”	
[a]01480684	L110	Marsh Creek Lake near Downingtown, PA	40° 03’ 24”	75° 43’ 06”	20.1

[a]Other data for this station can be found in the continuous station records section of this report.

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

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)	Specif. conductance, wat unf µS/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 recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
01426500 West Banch Delaware River at Hale Eddy, NY (LAT 42 00 11N LONG 075 23 02W)													
NOV 2002													
04...	1200	1028	9813	--	40	13.2	7.5	90	4.6	25	6.54	6.8	1.79
JAN 2003													
07...	1215	1028	9813	--	40	14.2	7.5	90	.2	21	5.85	5.7	1.63
MAR													
20...	0915	1028	9813	--	40	13.2	7.5	127	1.9	23	6.37	6.4	1.54
MAY													
06...	1100	1028	9813	--	40	12.0	7.4	76	8.3	21	5.62	5.8	1.53
JUL													
08...	1045	1028	9813	--	40	9.9	7.5	99	14.9	26	7.03	7.2	1.80
SEP													
10...	1200	1028	9813	--	40	9.8	7.3	91	16.1	25	6.79	6.9	1.81
01429301 Dyberry Creek at Tanners Falls near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2002													
08...	1330	1028	9813	7.3	30	11.2	7.5	87	12.6	37	--	12.9	--
NOV													
21...	1300	1028	9813	137	30	13.2	7.4	56	4.1	21	--	7.1	--
DEC													
10...	1300	1028	9813	--	30	--	7.7	68	.0	27	--	9.4	--
APR 2003													
08...	1245	1028	9813	146	30	13.7	7.5	49	1.7	18	--	6.3	--
MAY													
22...	1230	1028	9813	44	30	11.5	7.6	66	11.6	25	--	8.5	--
JUN													
10...	1215	1028	9813	92	30	9.9	7.1	55	14.6	20	--	7.1	--
JUL													
08...	1330	1028	9813	15	30	10.1	8.0	75	21.4	27	--	9.6	--
AUG													
11...	1245	1028	9813	55	30	9.2	7.5	68	20.1	25	--	8.8	--
SEP													
11...	0830	1028	9813	60	30	9.9	7.4	61	13.5	22	--	7.7	--
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
NOV 2002													
06...	1415	1028	9813	176	30	12.3	7.3	69	6.2	20	6.05	6.5	.90
JAN 2003													
08...	1530	1028	9813	254	30	12.4	6.8	66	2.0	15	5.06	4.7	.74
MAR													
19...	1200	1028	9813	544	30	12.3	6.8	69	2.8	17	5.40	5.5	.81
MAY													
07...	1500	1028	9813	77	30	11.5	7.5	83	13.8	23	7.09	7.2	1.11
JUL													
16...	1600	1028	9813	59	30	11.4	7.8	78	21.5	22	7.16	7.3	1.02
SEP													
10...	1320	1028	9813	104	30	10.2	7.5	69	16.6	20	6.35	6.5	.97

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Magnes-ium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, 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-phos-phate, water, unfltrd mg/L as P (70507)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)
01426500 West Branch Delaware River at Hale Eddy, NY (LAT 42 00 11N LONG 075 23 02W)													
NOV 2002													
04...	1.9	15	--	--	8.7	274	6	<.020	.26	<.040	<.01	.011	.48
JAN 2003													
07...	1.6	11	--	--	7.8	84	4	<.020	.37	<.040	<.01	<.010	.43
MAR													
20...	1.6	11	--	--	7.3	98	12	<.020	.45	<.040	.02	.019	.65
MAY													
06...	1.6	12	--	--	6.9	44	8	<.020	.23	<.040	.01	.010	.43
JUL													
08...	1.9	17	--	--	6.5	76	<2	<.020	.36	<.040	<.01	.016	.47
SEP													
10...	1.9	18	--	--	6.2	94	<2	<.020	.30	<.040	.01	.017	.52
01429301 Dyberry Creek at Tanners Falls near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2002													
08...	1.1	28	4.5	<.2	8.2	56	8	.110	.04	<.040	<.01	.012	.18
NOV													
21...	.7	13	3.2	<.2	7.4	26	2	<.020	.11	<.040	<.01	<.010	.57
DEC													
10...	.9	17	3.8	<.2	8.1	52	2	<.020	.17	<.040	<.01	<.010	.42
APR 2003													
08...	.6	11	4.2	<.2	6.4	60	<2	<.020	.20	<.040	<.01	.012	.33
MAY													
22...	.8	19	3.4	<.2	6.2	80	<2	<.020	.08	<.040	<.01	.018	.17
JUN													
10...	.7	17	2.8	<.2	6.0	50	4	<.020	.10	<.040	<.01	.022	.28
JUL													
08...	.8	25	3.2	<.2	6.0	66	<2	<.020	.10	<.040	.01	.018	.82
AUG													
11...	.8	26	3.0	<.2	5.2	52	<2	<.020	.11	<.040	.01	.017	.32
SEP													
11...	.7	20	2.4	<.2	5.6	72	2	<.020	.13	<.040	.01	.020	.39
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
NOV 2002													
06...	1.0	11	--	--	7.7	32	<2	.060	.23	<.040	<.01	<.010	.46
JAN 2003													
08...	.7	8	--	--	6.8	84	<2	<.020	.33	<.040	<.01	<.010	.40
MAR													
19...	.8	15	--	--	6.7	114	6	<.020	.42	<.040	<.01	.010	--
MAY													
07...	1.1	13	--	--	7.0	70	2	<.020	.19	<.040	.01	.020	.39
JUL													
16...	1.0	16	--	--	6.2	84	6	<.020	.24	<.040	.01	.014	.41
SEP													
10...	1.0	13	--	--	5.6	94	<2	<.020	.16	<.040	.01	.018	.12

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	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)
01426500 West Branch Delaware River at Hale Eddy NY (LAT 42 00 11N LONG 075 23 02W)													
NOV 2002													
04...	--	.8	--	--	--	<4	<4	30	120	<1.0	<1.0	20	30
JAN 2003													
07...	--	1.5	--	--	--	<4	<4	30	130	<1.0	<1.0	20	50
MAR													
20...	--	.9	--	--	--	<4	<4	40	420	<1.0	<1.0	30	100
MAY													
06...	--	1.5	--	--	--	<4	<4	<20	110	<1.0	<1.0	30	40
JUL													
08...	--	.9	--	--	--	<4	<4	30	60	<1.0	<1.0	30	40
SEP													
10...	--	1.4	--	--	--	<4	<4	40	170	<1.0	<1.0	30	70
01429301 Dyberry Creek at Tanners Falls near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2002													
08...	--	2.0	20	<4.0	<.20	<4	<4	30	100	<1.0	<1.0	40	50
NOV													
21...	--	1.1	40	<4.0	<.20	<4	<4	40	90	<1.0	<1.0	9.1	10
DEC													
10...	--	1.4	<20	<4.0	<.20	<4	<4	40	90	<1.0	<1.0	20	40
APR 2003													
08...	--	1.3	40	<4.0	<.20	<4	<4	30	70	<1.0	<1.0	10	20
MAY													
22...	--	1.3	<20	<4.0	<.20	<4	<4	50	80	<1.0	<1.0	20	30
JUN													
10...	--	1.1	60	<4.0	<.20	<4	<4	60	140	<1.0	<1.0	20	30
JUL													
08...	--	1.2	140	<4.0	<.20	<4	<4	70	150	<1.0	<1.0	20	40
AUG													
11...	--	1.1	60	<4.0	<.20	<4	<4	100	160	<1.0	<1.0	20	40
SEP													
11...	--	.8	20	<4.0	<.20	<4	<4	50	120	<1.0	<1.0	30	40
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
NOV 2002													
06...	--	2.4	--	--	--	<4	<4	40	110	<1.0	<1.0	20	30
JAN 2003													
08...	--	1.0	--	--	--	<4	<4	40	130	<1.0	<1.0	20	30
MAR													
19...	--	.7	--	--	--	<4	<4	60	210	<1.0	<1.0	40	60
MAY													
07...	--	1.7	--	--	--	<4	<4	50	90	<1.0	<1.0	20	30
JUL													
16...	--	1.0	--	--	--	<4	<4	60	100	<1.0	<1.0	20	30
SEP													
10...	--	.9	--	--	--	<4	<4	70	130	<1.0	<1.0	20	30

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen-olic com-pounds, water, unfltrd µg/L (32730)
01426500 West Branch Delaware River at Hale Eddy, NY (LAT 42 00 11N LONG 075 23 02W)					
NOV 2002					
04...	<4.0	<4.0	<5.0	<5.0	--
JAN 2003					
07...	<4.0	<4.0	<5.0	<5.0	--
MAR					
20...	<4.0	<4.0	<5.0	<5.0	--
MAY					
06...	<4.0	<4.0	<5.0	<5.0	--
JUL					
08...	<4.0	<4.0	<5.0	<5.0	--
SEP					
10...	<4.0	<4.0	<5.0	<5.0	--
01429301 Dyberry Creek at Tanners Falls near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)					
OCT 2002					
08...	<4.0	<4.0	<5.0	<5.0	<5
NOV					
21...	<4.0	<4.0	<5.0	<5.0	<5
DEC					
10...	<4.0	<4.0	<5.0	<5.0	<5
APR 2003					
08...	<4.0	<4.0	<5.0	<5.0	<5
MAY					
22...	<4.0	<4.0	<5.0	<5.0	<5
JUN					
10...	<4.0	<4.0	<5.0	<5.0	<5
JUL					
08...	<4.0	<4.0	<5.0	<5.0	<5
AUG					
11...	<4.0	<4.0	<5.0	<5.0	<5
SEP					
11...	<4.0	<4.0	<5.0	<5.0	<5
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)					
NOV 2002					
06...	<4.0	<4.0	<5.0	<5.0	--
JAN 2003					
08...	<4.0	<4.0	6.4	<5.0	--
MAR					
19...	<4.0	<4.0	5.6	7.2	--
MAY					
07...	<4.0	<4.0	<5.0	<5.0	--
JUL					
16...	<4.0	<4.0	<5.0	6.3	--
SEP					
10...	<4.0	<4.0	<5.0	<5.0	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

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)	Specif. conductance, wat unf µS/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 recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
01432119 Lackawaxen River at mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
NOV 2002													
06...	1200	1028	9813	586	40	13.1	7.5	80	6.2	25	--	7.9	--
JAN 2003													
08...	1300	1028	9813	2020	40	13.1	6.7	88	1.1	23	--	7.5	--
MAR													
19...	1400	1028	9813	5080	40	15.0	6.9	69	2.0	19	--	6.0	--
MAY													
07...	1300	1028	9813	586	40	12.6	8.9	87	14.4	25	--	7.9	--
JUL													
16...	1430	1028	9813	1090	40	12.4	8.1	86	21.6	22	--	7.0	--
SEP													
11...	0820	1028	9813	49	40	10.0	7.5	81	16.4	22	--	7.0	--
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2002													
08...	1500	1028	9813	.78	30	10.9	7.2	87	11.7	25	--	6.4	--
NOV													
04...	1240	1028	9813	7.5	30	12.8	7.5	74	5.0	17	--	4.3	--
DEC													
09...	1400	1028	9813	8.0	30	14.7	5.8	72	.0	17	--	4.2	--
JAN 2003													
09...	1000	1028	9813	22	30	12.6	6.3	70	3.0	16	--	3.8	--
MAR													
06...	0930	1028	9813	16	30	14.1	6.3	92	.5	18	--	4.4	--
APR													
03...	1400	1028	9813	25	30	12.4	6.3	79	6.6	16	--	3.9	--
MAY													
08...	1000	1028	9813	4.9	30	10.6	6.6	90	12.5	21	--	5.2	--
JUN													
03...	1300	1028	9813	49	30	11.2	6.7	73	13.0	14	--	3.4	--
JUL													
01...	1200	1028	9813	14	30	11.3	7.0	68	17.0	16	--	3.8	--
AUG													
13...	1430	1028	9813	8.8	30	10.4	7.2	79	21.2	18	--	4.5	--
SEP													
09...	0930	1028	9813	4.9	30	10.4	7.2	79	15.4	19	--	4.7	--
01440650 Brodhead Creek near East Stroudsburg, PA (LAT 41 02 10N LONG 075 12 34W)													
NOV 2002													
04...	1550	1028	9813	191	30	12.4	7.1	82	6.5	22	5.74	6.0	1.54
JAN 2003													
07...	1600	1028	9813	404	30	13.2	6.6	79	2.0	20	5.46	5.4	1.46
MAR													
04...	1630	1028	9813	312	30	14.7	7.2	107	.9	24	6.76	6.5	1.79
MAY													
06...	1440	1028	9813	145	30	11.9	7.0	105	10.8	23	6.52	6.4	1.73
JUL													
01...	1430	1028	9813	272	30	11.2	7.4	88	18.2	22	5.46	6.0	1.52
SEP													
09...	1350	1028	9813	99	30	10.4	8.2	103	18.2	23	6.30	6.4	1.63

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Magnes-ium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, 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-phos-phate, water, unfltrd mg/L as P (70507)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)
01432119 Lackawaxen River at mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
NOV 2002													
06...	1.2	15	--	--	9.1	40	<2	.050	.20	<.040	.01	.015	.45
JAN 2003													
08...	1.1	12	--	--	8.1	86	2	<.020	.25	<.040	<.01	.016	.48
MAR													
19...	1.0	17	--	--	6.8	78	24	.030	.43	<.040	.02	.055	.84
MAY													
07...	1.2	19	--	--	7.2	70	2	<.020	<.04	<.040	.01	.016	.32
JUL													
16...	1.1	16	--	--	7.1	62	<2	<.020	.15	<.040	.01	.027	.43
SEP													
11...	1.0	16	--	--	6.0	94	<2	<.020	.14	<.040	.01	.028	.18
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2002													
08...	2.2	15	10.3	<.2	9.7	64	8	.100	.08	<.040	.02	<.010	.17
NOV													
04...	1.6	8	12.1	<.2	9.5	68	8	<.020	<.04	<.040	<.01	<.010	.22
DEC													
09...	1.6	8	10.9	<.2	9.4	132	<2	<.020	.06	<.040	<.01	<.010	.17
JAN 2003													
09...	1.5	6	12.2	<.2	8.1	38	<2	<.020	.07	<.040	<.01	<.010	<.06
MAR													
06...	1.7	7	16.9	<.2	8.2	20	<2	<.020	.16	<.040	<.01	<.010	.12
APR													
03...	1.5	--	15.0	<.2	7.7	--	--	<.020	.05	<.040	<.01	<.010	.58
MAY													
08...	1.8	9	16.4	<.2	7.7	68	6	<.020	.09	<.040	<.01	.010	.22
JUN													
03...	1.3	6	12.7	<.2	7.2	48	2	<.020	<.04	<.040	.01	.010	.18
JUL													
01...	1.5	10	10.7	<.2	7.1	54	8	<.020	.10	<.040	<.01	.017	.17
AUG													
13...	1.6	9	13.5	<.2	6.2	70	<2	<.020	.09	<.040	.01	.014	.34
SEP													
09...	1.7	11	12.3	<.2	6.7	60	4	<.020	.12	<.040	<.01	.019	.12
01440650 Brodhead Creek near East Stroudsburg, PA (LAT 41 02 10N LONG 075 12 34W)													
NOV 2002													
04...	1.6	12	--	--	8.7	80	4	<.020	.20	<.040	<.01	<.010	.36
JAN 2003													
07...	1.4	8	--	--	8.0	50	<2	<.020	.23	<.040	<.01	<.010	.23
MAR													
04...	1.8	9	--	--	8.2	30	<2	<.020	.30	<.040	.01	.010	.34
MAY													
06...	1.7	--	--	--	7.5	38	<2	<.020	.17	<.040	<.01	.010	.33
JUL													
01...	1.7	12	--	--	7.3	78	6	<.020	.17	<.040	<.01	.021	.24
SEP													
09...	1.7	17	--	--	7.0	54	6	<.020	.19	<.040	.01	.021	.15

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	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)
01432119 Lackawaxen River at mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
NOV 2002													
06...	3.7	--	--	--	--	--	<10	--	120	--	<1.0	--	20
JAN 2003													
08...	3.3	--	--	--	--	--	<10	--	80	--	<1.0	--	30
MAR													
19...	3.8	--	--	--	--	--	<10	--	810	--	1.2	--	220
MAY													
07...	3.6	--	--	--	--	--	<10	--	120	--	<1.0	--	30
JUL													
16...	3.8	--	--	--	--	--	<10	--	160	--	<1.0	--	90
SEP													
11...	4.3	--	--	--	--	--	<10	--	320	--	<1.0	--	130
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2002													
08...	--	1.5	<20	<4.0	<.20	<4	<4	<20	<20	<1.0	<1.0	<2.0	2.3
NOV													
04...	--	.8	<20	<4.0	<.20	<4	<4	<20	<20	<1.0	<1.0	<2.0	2.7
DEC													
09...	--	.6	<20	<4.0	<.20	<4	<4	30	30	<1.0	<1.0	<2.0	3.1
JAN 2003													
09...	--	1.1	<20	<4.0	<.20	<4	<4	40	60	<1.0	<1.0	<2.0	4.7
MAR													
06...	--	.8	120	<4.0	<.20	<4	<4	40	90	<1.0	<1.0	2.8	6.9
APR													
03...	--	.6	<10	<4.0	<.20	<4	<4	20	50	<1.0	<1.0	2.2	7.9
MAY													
08...	--	1.3	20	<4.0	<.20	<4	<4	40	30	<1.0	<1.0	<2.0	6.2
JUN													
03...	--	.5	10	<4.0	<.20	<4	<4	110	150	<1.0	<1.0	3.8	20
JUL													
01...	--	1.0	<20	<4.0	<.20	<4	<4	60	100	<1.0	<1.0	<2.0	10
AUG													
13...	--	.9	20	<4.0	<.20	<4	<4	60	130	<1.0	<1.0	<2.0	20
SEP													
09...	--	.8	60	<4.0	<.20	<4	<4	<20	30	<1.0	<1.0	<2.0	3.0
01440650 Brodhead Creek near East Stroudsburg, PA (LAT 41 02 10N LONG 075 12 34W)													
NOV 2002													
04...	--	1.0	--	--	--	<4	<4	<20	30	<1.0	<1.0	3.7	5.3
JAN 2003													
07...	--	1.7	--	--	--	<4	<4	<20	30	<1.0	<1.0	4.9	7.3
MAR													
04...	--	1.0	--	--	--	<4	<4	30	50	<1.0	<1.0	5.1	10
MAY													
06...	--	1.3	--	--	--	<4	<4	<20	30	<1.0	<1.0	4.3	8.0
JUL													
01...	--	1.0	--	--	--	<4	<4	20	40	<1.0	<1.0	5.0	8.3
SEP													
09...	--	1.0	--	--	--	<4	<4	30	140	<1.0	<1.0	2.8	7.6

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen-olic com-pounds, water, unfltrd µg/L (32730)
01432119 Lackawaxen River at mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)					
NOV 2002					
06...	--	<50	--	<10	--
JAN 2003					
08...	--	<50	--	10	--
MAR					
19...	--	<50	--	10	--
MAY					
07...	--	<50	--	30	--
JUL					
16...	--	<50	--	<10	--
SEP					
11...	--	<50	--	10	--
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)					
OCT 2002					
08...	<4.0	<4.0	<5.0	<5.0	<5
NOV					
04...	<4.0	<4.0	<5.0	<5.0	<5
DEC					
09...	<4.0	<4.0	<5.0	<5.0	<5
JAN 2003					
09...	<4.0	<4.0	<5.0	<5.0	<5
MAR					
06...	<4.0	<4.0	<5.0	<5.0	<5
APR					
03...	<4.0	<4.0	<5.0	5.5	<5
MAY					
08...	<4.0	<4.0	<5.0	<5.0	<5
JUN					
03...	<4.0	<4.0	20	6.2	<5
JUL					
01...	<4.0	<4.0	<5.0	<5.0	<5
AUG					
13...	<4.0	<4.0	<5.0	<5.0	<5
SEP					
09...	<4.0	<4.0	<5.0	7.7	<5
01440650 Brodhead Creek near East Stroudsburg, PA (LAT 41 02 10N LONG 075 12 34W)					
NOV 2002					
04...	<4.0	<4.0	6.3	<5.0	--
JAN 2003					
07...	<4.0	<4.0	<5.0	<5.0	--
MAR					
04...	<4.0	<4.0	<5.0	6.6	--
MAY					
06...	<4.0	<4.0	<5.0	<5.0	--
JUL					
01...	<4.0	<4.0	5.0	5.0	--
SEP					
09...	<4.0	<4.0	<5.0	10	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

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)	Specif. conductance, wat unf µS/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 recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)													
JAN 2003													
22...	1530	1028	9813	--	40	15.6	7.4	143	1.1	43	--	12.1	--
MAR													
05...	1510	1028	9813	--	40	14.4	7.5	135	1.7	37	--	10.7	--
MAY													
08...	1310	1028	9813	--	40	10.4	7.0	99	13.7	32	--	9.3	--
JUL													
01...	1630	1028	9813	--	40	10.9	7.8	118	22.7	36	--	10.3	--
SEP													
24...	1445	1028	9813	--	40	9.4	7.1	74	17.9	22	--	6.2	--
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)													
OCT 2002													
08...	1230	1028	9813	1.1	30	10.3	5.3	28	12.8	8	1.59	1.7	.88
NOV													
05...	1040	1028	9813	8.0	30	13.1	4.7	27	3.8	6	1.27	1.3	.76
DEC													
04...	1100	1028	9813	12	30	14.0	4.3	24	.1	6	1.22	1.2	.71
JAN 2003													
07...	1300	1028	9813	18	30	13.2	4.8	29	.3	6	1.14	1.1	.65
FEB													
05...	1245	1028	9813	20	30	18.7	5.1	28	.1	7	1.42	1.4	.77
MAR													
05...	1010	1028	9813	13	30	13.3	4.7	38	.8	7	1.44	1.4	.78
APR													
02...	1530	1028	9813	53	30	11.3	4.2	33	8.3	5	.99	1.0	.53
MAY													
06...	1200	1028	9813	7.6	30	11.6	4.5	24	8.9	5	1.05	1.0	.58
JUN													
25...	1500	1028	9813	32	30	10.1	4.4	24	17.5	4	.88	.9	.47
JUL													
22...	1200	1028	9813	14	30	9.4	4.2	19	17.8	6	1.14	1.2	.66
AUG													
26...	0630	1028	9813	5.0	30	9.8	4.8	17	16.1	4	.96	.9	.52
SEP													
10...	0900	1028	9813	7.4	30	10.3	5.1	20	12.2	4	.89	.9	.49
01449375 Wild Creek above Penn Forest Reservoir near Kresgeville PA (LAT 40 56 24N LONG 075 35 04W)													
OCT 2002													
08...	0930	1028	9813	1.4	30	10.5	6.5	67	11.8	9	2.27	2.3	.90
NOV													
04...	1100	1028	9813	6.6	30	12.3	6.8	66	5.2	8	2.04	2.0	.82
DEC													
04...	1330	1028	9813	9.0	30	13.7	6.0	62	1.6	9	2.03	2.1	.80
JAN 2003													
06...	1230	1028	9813	17	30	12.6	5.8	98	4.0	10	2.39	2.5	.85
FEB													
05...	0930	1028	9813	8.0	30	10.9	6.4	61	1.7	8	2.08	2.0	.82
MAR													
04...	1120	1028	9813	12	30	15.1	7.4	70	.1	9	2.18	2.2	.88
APR													
02...	1230	1028	9813	25	30	12.0	6.4	92	7.2	8	2.11	2.1	.75
MAY													
05...	1500	1028	9813	8.0	30	13.3	6.8	70	9.1	9	2.03	2.1	.84
JUN													
25...	1200	1028	9813	40	30	12.1	6.3	65	13.0	7	1.81	1.8	.73
JUL													
29...	1400	1028	9813	4.5	30	10.3	6.8	65	18.0	9	2.09	2.2	.81
AUG													
13...	1700	1028	9813	8.8	30	11.0	6.9	75	18.5	9	2.14	2.2	.77
SEP													
08...	1200	1028	9813	4.3	30	10.9	7.1	71	14.4	9	2.23	2.1	.90

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Magnes-ium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, 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-phos-phate, water, unfltrd mg/L as P (70507)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)													
JAN 2003													
22...	3.0	28	--	--	11.2	56	28	.040	.57	<.040	<.01	<.010	.64
MAR													
05...	2.5	19	--	--	9.6	94	<2	<.020	.43	<.040	.01	.011	.43
MAY													
08...	2.1	20	--	--	7.9	64	14	<.020	.24	<.040	.01	.022	.50
JUL													
01...	2.5	26	--	--	8.8	82	<2	<.020	.21	<.040	.01	.025	.34
SEP													
24...	1.5	15	--	--	5.9	68	60	<.020	.17	<.040	.04	.098	.62
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)													
OCT 2002													
08...	.9	2	2.1	<.2	6.9	26	2	.050	<.04	<.040	<.01	<.010	.09
NOV													
05...	.8	2	2.3	<.2	5.7	<2	<2	<.020	<.04	<.040	.03	<.010	.21
DEC													
04...	.7	2	2.0	<.2	5.1	38	<2	<.020	<.04	<.040	<.01	<.010	.34
JAN 2003													
07...	.7	1	3.9	<.2	4.9	16	<2	<.020	<.04	<.040	<.01	<.010	<.06
FEB													
05...	.8	--	4.4	<.2	5.3	30	4	<.020	.07	<.040	<.01	<.010	<.06
MAR													
05...	.8	2	5.6	<.2	5.1	12	<2	<.020	<.04	<.040	<.01	<.010	<.06
APR													
02...	.6	--	3.2	<.2	5.9	24	4	<.020	<.04	<.040	<.01	.013	.14
MAY													
06...	.6	2	2.5	<.2	4.4	22	8	<.020	<.04	<.040	<.01	<.010	.13
JUN													
25...	.5	2	1.3	<.2	4.4	38	<2	<.020	<.04	<.040	.01	.010	.12
JUL													
22...	.7	2	1.2	<.2	3.5	14	<2	<.020	<.04	<.040	.01	.012	.10
AUG													
26...	.5	3	1.2	<.2	3.5	24	<2	<.020	<.04	<.040	<.01	<.010	.14
SEP													
10...	.5	2	1.8	<.2	3.5	92	<2	<.020	<.04	<.040	<.01	<.010	<.06
01449375 Wild Creek above Penn Forest Reservoir near Kresgeville PA (LAT 40 56 24N LONG 075 35 04W)													
OCT 2002													
08...	.9	5	16.5	<.2	1.9	48	8	.090	<.04	<.040	<.01	<.010	.10
NOV													
04...	.8	5	17.2	<.2	2.3	56	2	<.020	<.04	<.040	<.01	<.010	.14
DEC													
04...	.8	4	16.5	<.2	1.9	66	<2	<.020	<.04	<.040	<.01	<.010	.09
JAN 2003													
06...	.9	3	29.1	<.2	2.3	80	8	<.020	.04	<.040	<.01	<.010	<.06
FEB													
05...	.8	4	14.6	<.2	2.6	42	14	<.020	.06	<.040	<.01	<.010	.56
MAR													
04...	.9	--	16.7	<.2	2.4	26	<2	<.020	.05	<.040	<.01	<.010	<.06
APR													
02...	.8	--	24.5	<.2	2.7	84	<2	<.020	.04	<.040	<.01	<.010	.27
MAY													
05...	.9	5	17.6	<.2	1.9	76	2	<.020	<.04	<.040	<.01	<.010	<.06
JUN													
25...	.7	5	17.0	<.2	2.5	48	8	<.020	.04	<.040	.01	.012	.08
JUL													
29...	.9	6	16.4	<.2	1.4	60	<2	<.020	<.04	<.040	<.01	<.010	<.06
AUG													
13...	.8	4	19.6	<.2	1.8	72	<2	<.020	<.04	<.040	<.01	.012	.13
SEP													
08...	.8	6	17.5	<.2	1.3	50	<2	<.020	<.04	<.040	<.01	<.010	<.06

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	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)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)													
JAN 2003													
22...	3.0	--	--	--	--	--	<10	--	80	--	<1.0	--	20
MAR													
05...	2.5	--	--	--	--	--	<10	--	140	--	<1.0	--	20
MAY													
08...	2.3	--	--	--	--	--	<10	--	130	--	<1.0	--	30
JUL													
01...	3.3	--	--	--	--	--	<10	--	150	--	<1.0	--	30
SEP													
24...	5.8	--	--	--	--	--	<10	--	1730	--	3.0	--	300
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)													
OCT 2002													
08...	--	1.8	<20	<4.0	<.20	<4	<4	60	80	<1.0	<1.0	40	40
NOV													
05...	--	1.4	20	<4.0	<.20	<4	<4	60	80	<1.0	<1.0	100	100
DEC													
04...	--	.8	<10	<4.0	<.20	<4	<4	60	80	<1.0	<1.0	80	80
JAN 2003													
07...	--	1.0	<20	<4.0	<.20	<4	<4	50	70	<1.0	<1.0	70	80
FEB													
05...	--	.9	20	<4.0	<.20	<4	<4	50	70	<1.0	<1.0	90	90
MAR													
05...	--	1.1	<20	<4.0	<.20	<4	<4	60	80	<1.0	<1.0	80	90
APR													
02...	--	<.2	<20	<4.0	<.20	<4	<4	50	80	<1.0	<1.0	70	80
MAY													
06...	--	1.1	<20	<4.0	<.20	<4	<4	60	70	<1.0	<1.0	40	40
JUN													
25...	--	1.0	20	<4.0	<.20	<4	<4	80	130	<1.0	<1.0	70	80
JUL													
22...	--	.8	550	<4.0	<.20	<4	<4	190	220	<1.0	<1.0	60	70
AUG													
26...	--	1.5	20	<4.0	<.20	<4	<4	140	180	<1.0	<1.0	40	40
SEP													
10...	--	.8	<20	<4.0	<.20	<4	<4	140	180	<1.0	<1.0	50	60
01449375 Wild Creek above Penn Forest Reservoir near Kresgeville PA (LAT 40 56 24N LONG 075 35 04W)													
OCT 2002													
08...	--	1.3	60	<4.0	<.20	<4	<4	20	60	<1.0	<1.0	2.3	4.6
NOV													
04...	--	1.0	<20	<4.0	<.20	<4	<4	<20	<20	<1.0	<1.0	4.8	6.4
DEC													
04...	--	1.1	20	<4.0	<.20	<4	<4	<20	<20	<1.0	<1.0	4.0	5.1
JAN 2003													
06...	--	<.2	<20	<4.0	<.20	<4	<4	<20	20	<1.0	<1.0	9.5	10
FEB													
05...	--	1.0	<20	<4.0	<.20	<4	<4	<20	40	<1.0	<1.0	7.3	9.0
MAR													
04...	--	1.0	20	<4.0	<.20	<4	<4	20	70	<1.0	<1.0	8.7	20
APR													
02...	--	<.2	10	<4.0	.20	<4	<4	<20	20	<1.0	<1.0	10	10
MAY													
05...	--	1.4	<20	<4.0	<.20	<4	<4	<20	50	<1.0	<1.0	3.7	10
JUN													
25...	--	.8	20	<4.0	<.20	<4	<4	20	60	<1.0	<1.0	10	20
JUL													
29...	--	.5	<10	<4.0	<.20	<4	<4	40	80	<1.0	<1.0	2.8	8.4
AUG													
13...	--	.4	<20	<4.0	<.20	<4	<4	40	70	<1.0	<1.0	4.7	10
SEP													
08	--	.7	<10	<4.0	<.20	<4	<4	<20	60	<1.0	<1.0	2.2	7.6

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen-olic com-pounds, water, unfltrd µg/L (32730)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)					
JAN 2003					
22...	--	<50	--	90	--
MAR					
05...	--	<50	--	<10	--
MAY					
08...	--	<50	--	<10	--
JUL					
01...	--	<50	--	110	--
SEP					
24...	--	<50	--	<10	--
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)					
OCT 2002					
08...	<4.0	<4.0	10	10	<5
NOV					
05...	<4.0	<4.0	20	20	<5
DEC					
04...	<4.0	<4.0	20	20	<5
JAN 2003					
07...	<4.0	<4.0	20	20	<5
FEB					
05...	<4.0	<4.0	20	20	<5
MAR					
05...	<4.0	<4.0	20	20	<5
APR					
02...	<4.0	<4.0	20	30	<5
MAY					
06...	<4.0	<4.0	20	10	<5
JUN					
25...	<4.0	<4.0	20	20	<5
JUL					
22...	<4.0	<4.0	10	20	<5
AUG					
26...	<4.0	<4.0	10	9.0	<5
SEP					
10...	<4.0	<4.0	10	10	<5
01449375 Wild Creek above Penn Forest Reservoir near Kresgeville PA (LAT 40 56 24N LONG 075 35 04W)					
OCT 2002					
08...	<4.0	<4.0	20	10	<5
NOV					
04...	<4.0	<4.0	30	30	<5
DEC					
04...	<4.0	<4.0	20	20	<5
JAN 2003					
06...	<4.0	<4.0	30	30	<5
FEB					
05...	<4.0	<4.0	30	30	<5
MAR					
04...	<4.0	<4.0	30	30	<5
APR					
02...	<4.0	<4.0	30	30	<5
MAY					
05...	<4.0	<4.0	20	20	<5
JUN					
25...	<4.0	<4.0	20	20	<5
JUL					
29...	<4.0	<4.0	10	10	<5
AUG					
13...	<4.0	<4.0	20	20	<5
SEP					
08...	<4.0	<4.0	10	10	<5

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

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)	Specif. conductance, wat unf µS/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 recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)													
NOV 2002													
19...	0940	1028	9813	2520	30	12.4	6.6	94	6.6	25	--	6.3	--
JAN 2003													
27...	0950	1028	9813	E1400	30	15.2	6.6	132	.0	37	--	9.2	--
MAR													
19...	1150	1028	9813	1960	30	14.1	7.7	112	5.2	22	--	5.7	--
MAY													
28...	0900	1028	9813	3250	30	10.5	7.3	117	12.9	30	--	7.8	--
JUL													
10...	1000	1028	9813	1520	30	8.7	7.2	120	19.6	40	--	9.7	--
SEP													
24...	1640	1028	9813	9770	30	12.0	7.1	87	16.0	26	--	7.0	--
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)													
NOV 2002													
19...	1050	1028	9813	578	30	12.4	7.3	221	7.1	83	--	22.4	--
JAN 2003													
27...	1100	1028	9813	E48	30	15.9	7.8	480	1.0	160	--	42.3	--
MAR													
19...	0910	1028	9813	348	30	12.5	7.5	214	7.8	73	--	19.6	--
MAY													
28...	1000	1028	9813	133	30	10.3	7.7	309	14.1	110	--	28.5	--
JUL													
10...	1040	1028	9813	62	30	7.6	7.8	445	19.8	160	--	41.4	--
SEP													
24...	1730	1028	9813	1090	30	12.1	7.6	205	15.3	81	--	22.2	--
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)													
OCT 2002													
22...	0910	1028	9813	18	30	10.9	7.6	273	7.9	120	--	27.3	--
NOV													
25...	1110	1028	9813	35	30	12.4	7.9	240	5.8	110	--	25.9	--
DEC													
17...	1130	1028	9813	60	30	14.6	7.8	226	2.6	92	--	21.1	--
JAN 2003													
30...	0950	1028	9813	23	30	15.7	8.0	285	1.0	130	--	28.3	--
FEB													
26...	1030	1028	9813	56	30	15.9	7.6	247	.6	96	--	21.5	--
MAR													
25...	1010	1028	9813	66	30	13.4	8.2	217	8.4	93	--	22.5	--
APR													
16...	1020	1028	9813	65	30	13.4	8.6	233	12.2	97	--	22.1	--
MAY													
21...	1030	1028	9813	33	30	10.5	7.9	272	13.6	130	--	28.2	--
JUN													
10...	1040	1028	9813	69	30	9.8	7.8	227	14.5	99	--	23.1	--
JUL													
09...	1100	1028	9813	31	30	9.8	8.3	278	18.8	130	--	28.7	--
AUG													
14...	1130	1028	9813	42	30	9.7	8.2	263	19.4	120	--	26.1	--
SEP													
11...	1500	1028	9813	19	30	11.3	8.4	286	16.9	140	--	30.3	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Magnes-ium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, 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-phos-phate, water, unfltrd mg/L as P (70507)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)													
NOV 2002													
19...	2.1	10	--	--	11.7	82	12	<.020	.97	<.040	<.01	.019	1.5
JAN 2003													
27...	3.4	12	--	--	19.3	112	<2	.030	.80	<.040	<.01	.011	.89
MAR													
19...	1.9	7	--	--	9.2	94	24	<.020	.72	<.040	.02	.024	.95
MAY													
28...	2.6	15	--	--	12.4	86	<2	<.020	.64	<.040	.02	.017	.82
JUL													
10...	3.7	15	--	--	18.4	62	<2	<.020	.49	<.040	<.01	.014	.63
SEP													
24...	2.1	12	--	--	11.5	92	10	<.020	1.08	<.040	.02	.032	1.2
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)													
NOV 2002													
19...	6.6	36	--	--	23.5	136	14	<.020	6.43	<.040	.02	.034	7.0
JAN 2003													
27...	13.1	103	--	--	69.2	354	<2	.040	5.58	<.040	.01	.024	5.7
MAR													
19...	5.7	36	--	--	19.8	150	24	<.020	3.51	<.040	.01	.021	3.9
MAY													
28...	8.7	69	--	--	31.4	212	10	.060	2.90	<.040	.03	.048	3.4
JUL													
10...	14.7	116	--	--	58.6	298	<2	<.020	3.34	<.040	.04	.054	3.6
SEP													
24...	6.2	41	--	--	19.2	170	46	<.020	6.05	<.040	.07	.080	6.3
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)													
OCT 2002													
22...	12.3	92	9.8	<.2	19.6	202	<2	<.020	2.69	<.040	.01	.018	3.0
NOV													
25...	11.3	78	10.6	<.2	18.1	174	2	<.020	2.72	<.040	.01	.014	3.0
DEC													
17...	9.5	64	13.2	<.2	17.2	166	2	<.020	2.92	<.040	.01	.018	3.4
JAN 2003													
30...	14.5	100	12.3	<.2	18.6	380	8	<.020	2.54	<.040	<.01	.011	2.7
FEB													
26...	10.2	64	22.9	<.2	15.3	182	16	<.020	2.04	<.040	.02	.033	2.4
MAR													
25...	9.0	67	14.3	<.2	16.7	158	<2	<.020	1.88	<.040	<.01	.015	2.0
APR													
16...	10.1	75	13.2	<.2	16.2	188	<2	<.020	1.54	<.040	.01	<.010	1.6
MAY													
21...	13.4	102	10.8	<.2	16.0	212	4	<.020	1.65	<.040	.01	.015	2.0
JUN													
10...	10.0	73	11.7	<.2	15.6	174	16	<.020	2.32	<.040	.03	.034	2.8
JUL													
09...	13.8	105	10.9	<.2	15.9	154	24	<.020	1.84	<.040	.01	.020	2.0
AUG													
14...	12.6	94	10.9	<.2	14.0	166	4	<.020	2.05	<.040	.02	.025	2.3
SEP													
11...	14.8	114	10.9	<.2	15.5	--	--	<.020	2.06	<.040	.02	.024	1.6

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	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)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)													
NOV 2002													
19...	3.3	--	--	--	--	--	<10	--	450	--	1.1	--	140
JAN 2003													
27...	1.1	--	--	--	--	--	<10	--	120	--	<1.0	--	110
MAR													
19...	2.5	--	--	--	--	--	<10	--	1100	--	2.7	--	190
MAY													
28...	2.5	--	--	--	--	--	<10	--	370	--	1.0	--	120
JUL													
10...	2.4	--	--	--	--	--	<10	--	120	--	<1.0	--	50
SEP													
24...	4.5	--	--	--	--	--	<10	--	700	--	2.6	--	130
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)													
NOV 2002													
19...	1.9	--	--	--	--	--	<10	--	460	--	1.2	--	20
JAN 2003													
27...	1.4	--	--	--	--	--	<10	--	150	--	<1.0	--	10
MAR													
19...	1.6	--	--	--	--	--	<10	--	400	--	<1.0	--	20
MAY													
28...	3.0	--	--	--	--	--	<10	--	350	--	1.3	--	20
JUL													
10...	2.7	--	--	--	--	--	<10	--	110	--	1.0	--	10
SEP													
24...	2.1	--	--	--	--	--	<10	--	2000	--	2.8	--	80
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)													
OCT 2002													
22...	--	.7	20	<4.0	<.20	<4	<4	<20	50	<1.0	<1.0	2.1	3.1
NOV													
25...	--	.7	80	<4.0	<.20	<4	<4	<20	40	<1.0	<1.0	2.9	3.6
DEC													
17...	--	1.5	100	<4.0	<.20	<4	<4	<20	70	<1.0	<1.0	3.0	5.0
JAN 2003													
30...	--	1.0	140	<4.0	<.20	<4	<4	<20	50	<1.0	<1.0	2.4	3.1
FEB													
26...	--	1.1	140	<4.0	<.20	<4	<4	50	300	<1.0	<1.0	6.9	10
MAR													
25...	--	1.4	<20	<4.0	<.20	<4	<4	<20	60	<1.0	<1.0	3.1	5.2
APR													
16...	--	1.3	40	<4.0	<.20	<4	<4	<20	60	<1.0	<1.0	4.6	6.7
MAY													
21...	--	1.4	480	<4.0	<.20	<4	<4	<20	100	<1.0	<1.0	4.9	10
JUN													
10...	--	1.2	210	<4.0	<.20	<4	<4	20	190	<1.0	<1.0	4.2	10
JUL													
09...	--	1.5	500	<4.0	<.20	<4	<4	<20	110	<1.0	<1.0	2.7	8.9
AUG													
14...	--	.7	80	<4.0	<.20	<4	<4	<20	70	<1.0	<1.0	<2.0	3.7
SEP													
11...	--	.8	100	<4.0	<.20	<4	<4	20	20	<1.0	<1.0	2.1	3.7

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen-olic com-pounds, water, unfltrd µg/L (32730)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)					
NOV 2002					
19...	--	<50	--	70	--
JAN 2003					
27...	--	<50	--	100	--
MAR					
19...	--	<50	--	80	--
MAY					
28...	--	<50	--	150	--
JUL					
10...	--	<50	--	140	--
SEP					
24...	--	<50	--	120	--
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)					
NOV 2002					
19...	--	<50	--	<10	--
JAN 2003					
27...	--	<50	--	<10	--
MAR					
19...	--	<50	--	<10	--
MAY					
28...	--	<50	--	70	--
JUL					
10...	--	<50	--	20	--
SEP					
24...	--	<50	--	20	--
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)					
OCT 2002					
22...	<4.0	<4.0	<5.0	6.8	<5
NOV					
25...	<4.0	<4.0	<5.0	9.7	<5
DEC					
17...	<4.0	<4.0	<5.0	<5.0	<5
JAN 2003					
30...	<4.0	<4.0	<5.0	<5.0	<5
FEB					
26...	<4.0	<4.0	<5.0	<5.0	6
MAR					
25...	<4.0	<4.0	<5.0	8.7	<5
APR					
16...	<4.0	<4.0	7.1	5.8	<5
MAY					
21...	<4.0	<4.0	<5.0	<5.0	<5
JUN					
10...	<4.0	<4.0	<5.0	<5.0	<5
JUL					
09...	<4.0	<4.0	<5.0	<5.0	<5
AUG					
14...	<4.0	<4.0	<5.0	<5.0	<5
SEP					
11...	<4.0	<4.0	<5.0	<5.0	<5

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

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)	Specif. conductance, wat unf µS/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 recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)													
OCT 2002													
22...	1125	1028	9813	3.8	30	11.7	8.0	293	8.8	120	--	30.4	--
NOV													
12...	0910	1028	9813	6.1	30	10.7	7.4	261	15.5	110	--	27.6	--
DEC													
17...	1330	1028	9813	22	30	14.4	7.7	162	2.2	61	--	13.7	--
JAN 2003													
30...	0910	1028	9813	16	30	15.2	7.3	282	.1	120	--	27.1	--
FEB													
26...	0830	1028	9813	40	30	15.6	6.9	161	.0	53	--	11.5	--
MAR													
25...	0840	1028	9813	19	30	13.4	7.6	144	6.9	54	--	13.1	--
APR													
16...	0830	1028	9813	19	30	12.1	8.0	159	11.3	59	--	13.3	--
MAY													
21...	0840	1028	9813	3.0	30	9.3	7.4	324	13.7	130	--	31.4	--
JUN													
10...	0830	1028	9813	24	30	9.7	7.3	148	14.4	58	--	12.9	--
JUL													
09...	0850	1028	9813	1.4	30	8.2	7.8	388	22.0	170	--	42.0	--
AUG													
14...	0940	1028	9813	14	30	9.2	7.8	189	21.1	79	--	18.3	--
SEP													
11...	1700	1028	9813	1.4	30	12.8	8.9	336	19.7	150	--	36.6	--
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)													
OCT 2002													
01...	0940	1028	9813	8.4	30	9.4	7.4	192	15.1	68	--	17.5	--
NOV													
14...	1100	1028	9813	44	30	11.8	7.3	141	7.8	55	--	13.6	--
DEC													
10...	1230	1028	9813	34	30	14.3	7.6	167	.1	64	--	15.6	--
JAN 2003													
14...	1130	1028	9813	59	30	14.9	7.3	154	.1	51	--	12.8	--
FEB													
12...	0900	1028	9813	42	30	15.3	7.0	162	.0	55	--	14.0	--
MAR													
11...	1230	1028	9813	90	30	13.9	7.3	130	1.6	41	--	10.0	--
APR													
15...	0950	1028	9813	76	30	11.8	7.3	129	10.3	44	--	11.1	--
MAY													
13...	1200	1028	9813	35	30	10.1	7.5	144	13.2	51	--	12.9	--
JUN													
12...	1050	1028	9813	81	30	9.2	7.2	126	17.5	46	--	11.2	--
JUL													
14...	1300	1028	9813	43	30	9.8	7.8	145	19.8	55	--	14.1	--
AUG													
18...	0940	1028	9813	32	30	8.9	7.6	163	19.9	62	--	15.9	--
SEP													
30...	1000	1028	9813	60	30	10.8	7.2	135	13.3	54	--	13.8	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Magnes-ium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, 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-phos-phate, water, unfltrd mg/L as P (70507)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)													
OCT 2002													
22...	11.8	60	9.2	<.2	66.2	234	<2	<.020	1.16	<.040	.01	.014	1.5
NOV													
12...	10.7	60	11.7	<.2	51.2	208	<2	<.020	.72	<.040	<.01	<.010	1.2
DEC													
17...	6.6	32	10.0	<.2	27.1	140	4	<.020	.62	<.040	.01	--	.86
JAN 2003													
30...	12.8	67	16.2	<.2	46.0	670	16	<.020	.62	<.040	<.01	.013	.69
FEB													
26...	6.0	25	21.0	<.2	15.5	158	6	.080	.62	<.040	.02	.025	1.3
MAR													
25...	5.2	32	11.6	<.2	20.0	98	<2	<.020	.36	<.040	<.01	.018	.48
APR													
16...	6.2	37	10.8	<.2	20.6	128	<2	<.020	.15	<.040	.01	<.010	.19
MAY													
21...	13.4	81	15.5	<.2	54.8	246	2	<.020	.78	<.040	.01	.012	1.0
JUN													
10...	6.2	44	7.2	<.2	17.2	136	<2	<.020	.35	<.040	.02	.020	.70
JUL													
09...	16.2	95	12.3	<.2	78.3	284	2	<.020	.98	<.040	<.01	<.010	1.1
AUG													
14...	8.1	56	6.9	<.2	22.5	152	4	<.020	.46	<.040	.01	.028	.73
SEP													
11...	14.1	85	12.0	<.2	67.4	276	<2	.020	.96	<.040	.01	.018	1.2
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)													
OCT 2002													
01...	6.0	42	13.9	<.2	24.4	170	<2	.050	.72	<.040	.02	.030	1.0
NOV													
14...	5.0	32	10.6	<.2	15.7	120	<2	.090	.85	<.040	.01	.026	1.4
DEC													
10...	6.1	36	13.6	<.2	15.0	62	4	<.020	1.73	<.040	<.01	.014	2.2
JAN 2003													
14...	4.7	28	13.4	<.2	13.6	130	<2	<.020	1.98	<.040	<.01	.013	2.2
FEB													
12...	4.8	32	15.6	<.2	13.5	96	<2	<.020	1.73	<.040	.01	<.010	--
MAR													
11...	3.8	--	13.9	<.2	11.4	302	10	<.020	1.14	<.040	.02	.024	1.7
APR													
15...	4.0	29	11.8	<.2	11.4	126	<2	<.020	1.02	<.040	<.01	.013	1.1
MAY													
13...	4.5	38	11.8	<.2	10.9	110	<2	<.020	1.17	<.040	.02	.026	1.8
JUN													
12...	4.4	30	9.8	<.2	10.9	<2	<2	<.020	1.17	<.040	.03	.026	1.5
JUL													
14...	4.7	38	11.2	<.2	10.5	136	2	<.020	1.45	<.040	.02	.028	1.6
AUG													
18...	5.4	46	12.3	<.2	10.3	132	<2	<.020	1.29	<.040	.02	.033	1.5
SEP													
30...	4.8	38	10.4	<.2	10.2	116	<2	<.020	1.27	<.040	.02	.021	1.3

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	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)
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)													
OCT 2002													
22...	--	.5	20	<4.0	<.20	<4	<4	<20	30	<1.0	<1.0	8.0	7.8
NOV													
12...	--	2.2	20	<4.0	<.20	<4	<4	20	40	<1.0	<1.0	5.1	6.0
DEC													
17...	--	1.7	20	<4.0	<.20	<4	<4	<20	240	<1.0	<1.0	<2.0	3.0
JAN 2003													
30...	--	.9	<10	<4.0	<.20	<4	<4	<20	40	<1.0	<1.0	<2.0	<2.0
FEB													
26...	--	1.1	140	<4.0	<.20	<4	<4	140	390	<1.0	<1.0	20	20
MAR													
25...	--	--	<20	<4.0	<.20	<4	<4	40	150	<1.0	<1.0	<2.0	2.1
APR													
16...	--	1.4	<10	<4.0	<.20	<4	<4	50	160	<1.0	<1.0	<2.0	2.4
MAY													
21...	--	1.2	60	<4.0	<.20	<4	<4	<20	40	<1.0	<1.0	7.5	9.6
JUN													
10...	--	1.1	240	<4.0	<.20	<4	<4	120	300	<1.0	<1.0	<2.0	5.0
JUL													
09...	--	1.0	140	<4.0	<.20	<4	<4	<20	<20	<1.0	<1.0	5.4	6.7
AUG													
14...	--	.9	220	<4.0	<.20	<4	4	160	240	<1.0	1.2	2.8	5.4
SEP													
11...	--	.8	20	<4.0	<.20	<4	<4	<20	<20	<1.0	<1.0	4.8	6.1
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)													
OCT 2002													
01...	--	1.1	220	<4.0	<.20	<4	<4	50	170	<1.0	<1.0	10	20
NOV													
14...	--	1.9	240	<4.0	<.20	<4	<4	160	400	<1.0	<1.0	10	20
DEC													
10...	--	2.0	40	<4.0	<.20	<4	<4	100	320	<1.0	<1.0	20	30
JAN 2003													
14...	--	1.6	20	<4.0	<.20	<4	<4	60	180	<1.0	<1.0	20	20
FEB													
12...	--	1.1	40	<4.0	<.20	<4	<4	80	130	<1.0	<1.0	20	20
MAR													
11...	--	1.2	20	<4.0	<.20	<4	<4	220	330	<1.0	<1.0	20	20
APR													
15...	--	1.3	20	<4.0	<.20	<4	<4	70	190	<1.0	<1.0	20	20
MAY													
13...	--	1.8	40	<4.0	<.20	<4	<4	120	360	<1.0	<1.0	30	40
JUN													
12...	--	1.3	120	<4.0	<.20	<4	<4	110	440	<1.0	<1.0	10	30
JUL													
14...	--	.8	260	<4.0	<.20	<4	<4	160	410	<1.0	<1.0	10	20
AUG													
18...	--	1.3	260	<4.0	<.20	<4	7	210	460	<1.0	1.0	20	20
SEP													
30...	--	1.1	140	<4.0	<.20	<4	<4	280	450	<1.0	<1.0	20	20

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen-olic com-pounds, water, unfltrd µg/L (32730)
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)					
OCT 2002					
22...	<4.0	<4.0	<5.0	<5.0	<5
NOV					
12...	<4.0	<4.0	<5.0	<5.0	<5
DEC					
17...	<4.0	<4.0	<5.0	<5.0	<5
JAN 2003					
30...	<4.0	<4.0	<5.0	<5.0	<5
FEB					
26...	<4.0	<4.0	<5.0	<5.0	<5
MAR					
25...	<4.0	<4.0	8.7	9.1	<5
APR					
16...	<4.0	<4.0	5.3	30	<5
MAY					
21...	<4.0	<4.0	<5.0	<5.0	<5
JUN					
10...	<4.0	<4.0	<5.0	<5.0	<5
JUL					
09...	<4.0	<4.0	<5.0	<5.0	<5
AUG					
14...	<4.0	<4.0	<5.0	10	<5
SEP					
11...	<4.0	<4.0	<5.0	<5.0	<5
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)					
OCT 2002					
01...	<4.0	<4.0	<5.0	7.2	<5
NOV					
14...	<4.0	<4.0	<5.0	5.7	--
DEC					
10...	<4.0	<4.0	<5.0	<5.0	<5
JAN 2003					
14...	<4.0	<4.0	<5.0	<5.0	<5
FEB					
12...	<4.0	<4.0	<5.0	<5.0	<5
MAR					
11...	<4.0	<4.0	<5.0	<5.0	<5
APR					
15...	<4.0	<4.0	8.6	7.4	<5
MAY					
13...	<4.0	<4.0	7.4	5.3	<5
JUN					
12...	<4.0	<4.0	<5.0	<5.0	<5
JUL					
14...	<4.0	<4.0	<5.0	<5.0	<5
AUG					
18...	<4.0	<4.0	<5.0	10	<5
SEP					
30...	<4.0	<4.0	<5.0	<5.0	<5

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

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)	Specif. conductance, wat unf µS/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 recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)													
NOV 2002													
26...	1050	1028	9813	304	40	13.0	7.9	297	6.3	97	--	24.5	--
JAN 2003													
15...	0940	1028	9813	E240	40	15.6	7.8	305	.0	110	--	26.9	--
MAR													
31...	0940	1028	9813	1290	40	12.7	7.7	251	6.8	72	--	17.5	--
MAY													
12...	1020	1028	9813	230	40	8.0	7.6	336	17.6	100	--	26.6	--
JUL													
01...	1010	1028	9813	280	40	8.1	8.1	256	23.5	82	--	20.5	--
SEP													
09...	1000	1028	9813	185	40	8.7	7.8	313	20.6	96	--	24.7	--
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)													
NOV 2002													
18...	1240	1028	9813	48	30	11.6	8.0	475	8.9	180	--	41.1	--
JAN 2003													
28...	0930	1028	9813	23	30	15.4	8.1	709	.5	270	--	59.3	--
MAR													
26...	1220	1028	9813	42	30	15.6	8.5	702	12.6	260	--	56.5	--
MAY													
20...	1300	1028	9813	24	30	12.0	8.3	704	15.1	260	--	56.5	--
JUL													
01...	1120	1028	9813	37	30	10.1	8.3	674	17.3	260	--	54.1	--
SEP													
08...	1530	1028	9813	21	30	11.2	8.4	663	18.0	260	--	55.1	--
01474010 Schuylkill River at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)													
NOV 2002													
21...	1220	1028	9813	5520	40	12.2	7.7	294	8.1	110	--	27.8	--
JAN 2003													
16...	1300	1028	9813	2630	40	13.8	7.5	352	3.1	133	--	32.3	--
MAR													
13...	1210	1028	9813	5330	40	14.2	7.7	360	5.4	122	--	31.3	--
MAY													
22...	1040	1028	9813	1770	40	9.5	7.7	436	16.9	160	--	37.3	--
JUL													
15...	1230	1028	9813	1770	40	9.9	8.3	428	25.6	170	--	39.6	--
SEP													
03...	1220	1028	9813	3550	40	9.1	7.8	405	21.2	130	--	30.9	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Magnes-ium, water, unfltrd recover-able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, 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-phos-phate, water, unfltrd mg/L as P (70507)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)													
NOV 2002													
26...	8.6	58	--	--	29.3	212	6	<.020	2.63	<.040	.05	.067	2.8
JAN 2003													
15...	9.7	52	--	--	26.2	200	8	.040	2.76	<.200	.05	.060	3.1
MAR													
31...	6.9	43	--	--	16.8	194	20	<.020	1.24	<.040	.04	.057	1.8
MAY													
12...	8.6	62	--	--	27.6	216	<2	.040	1.31	<.040	.05	.074	1.9
JUL													
01...	7.6	60	--	--	20.1	180	8	<.020	1.17	<.040	.03	.055	1.5
SEP													
09...	8.4	72	--	--	25.3	252	6	<.020	1.58	<.040	.08	.110	1.7
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)													
NOV 2002													
18...	18.4	148	47.0	--	22.1	344	10	<.020	1.31	<.010	--	.048	1.9
JAN 2003													
28...	30.6	--	86.3	--	29.9	--	--	<.020	2.45	.010	--	<.010	2.6
MAR													
26...	29.0	193	--	<.2	28.4	466	6	<.020	1.98	<.200	<.01	<.010	2.0
MAY													
20...	27.6	210	--	<.2	27.5	430	<2	<.020	2.02	<.200	.02	.022	2.2
JUL													
01...	29.2	199	--	<.2	26.9	444	4	<.020	2.20	<.040	.01	.365	2.4
SEP													
08...	29.0	205	--	<.2	25.8	466	2	<.020	2.02	<.200	.01	.018	1.9
01474010 Schuylkill River at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)													
NOV 2002													
21...	9.6	64	--	<.2	32.4	218	2	.100	3.61	<.040	.06	.076	4.3
JAN 2003													
16...	12.7	69	--	<.2	43.5	306	<2	.330	3.95	.180	.10	.133	4.6
MAR													
13...	10.5	65	--	<.2	32.2	280	10	.230	3.09	.140	.10	.139	3.9
MAY													
22...	15.1	81	--	<.2	58.0	342	2	.100	2.97	<.200	.20	.269	3.8
JUL													
15...	16.7	81	--	<.2	58.1	282	<2	.030	3.49	<.040	.14	.231	4.0
SEP													
03...	12.9	73	--	<.2	60.9	5880	18	.100	2.50	<.040	.19	.222	2.9

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	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)
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)													
NOV 2002													
26...	4.2	--	--	--	--	--	<10	--	180	--	<1.0	--	20
JAN 2003													
15...	2.8	--	--	--	--	--	<10	--	130	--	<1.0	--	20
MAR													
31...	5.7	--	--	--	--	--	<10	--	590	--	<1.0	--	30
MAY													
12...	3.7	--	--	--	--	--	<10	--	120	--	<1.0	--	50
JUL													
01...	4.1	--	--	--	--	--	<10	--	110	--	<1.0	--	10
SEP													
09...	4.6	--	--	--	--	--	<10	--	350	--	<1.0	--	20
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)													
NOV 2002													
18...	3.1	.6	--	<4.0	<.20	<4	<4	20	490	<1.0	<1.0	10	20
JAN 2003													
28...	1.1	.8	--	--	--	--	<4	--	40	--	<1.0	--	7.8
MAR													
26...	1.9	--	--	--	--	--	<10	--	170	--	<1.0	--	20
MAY													
20...	1.8	--	--	--	--	--	<10	--	130	--	<1.0	--	20
JUL													
01...	1.6	--	--	--	--	--	<10	--	190	--	<1.0	--	10
SEP													
08...	1.4	--	--	--	--	--	<10	--	80	--	<1.0	--	10
01474010 Schuylkill River at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)													
NOV 2002													
21...	2.9	--	--	--	--	--	<10	--	590	--	<1.0	--	70
JAN 2003													
16...	2.3	--	--	--	--	--	<10	--	170	--	<1.0	--	120
MAR													
13...	3.3	--	--	--	--	--	<10	--	460	--	<1.0	--	200
MAY													
22...	3.6	--	--	--	--	--	<10	--	400	--	1.3	--	150
JUL													
15...	3.2	--	--	--	--	--	<10	--	130	--	<1.0	--	40
SEP													
03...	3.3	--	--	--	--	--	<10	--	500	--	1.9	--	70

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

Date	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen-olic com-pounds, water, unfltrd µg/L (32730)
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)					
NOV 2002					
26...	--	<50	--	<10	--
JAN 2003					
15...	--	<50	--	<10	--
MAR					
31...	--	<50	--	30	--
MAY					
12...	--	<50	--	20	--
JUL					
01...	--	<50	--	70	--
SEP					
09...	--	<50	--	<10	--
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)					
NOV 2002					
18...	<4.0	<4.0	<5.0	5.4	<5
JAN 2003					
28...	--	<4.0	--	<5.0	<5
MAR					
26...	--	<50	--	110	<5
MAY					
20...	--	<50	--	<10	<5
JUL					
01...	--	<50	--	170	<5
SEP					
08...	--	<50	--	320	<5
01474010 Schuylkill River at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)					
NOV 2002					
21...	--	<50	--	<10	<5
JAN 2003					
16...	--	<50	--	20	<5
MAR					
13...	--	<50	--	10	--
MAY					
22...	--	<50	--	40	<5
JUL					
15...	--	<50	--	20	<5
SEP					
03...	--	<50	--	140	<5

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

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

MISCELLANEOUS STATION ANALYSES

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 unf µS/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 recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)													
NOV 2002													
13...	0950	1028	9813	75.0	30	10.2	7.0	197	11.0	65	--	14.4	--
JAN 2003													
13...	1010	1028	9813	37.3	30	14.4	7.5	194	.1	58	--	13.2	--
MAR													
27...	0810	1028	9813	75.0	30	12.3	7.2	164	8.5	56	--	12.6	--
MAY													
27...	1050	1028	9813	79.0	30	10.7	7.4	159	13.1	53	--	12.0	--
JUL													
07...	0920	1028	9813	57.6	30	8.9	7.5	173	21.0	57	--	12.9	--
SEP													
08...	1020	1028	9813	34.7	30	10.8	7.7	178	17.6	62	--	13.2	--

Date	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, unfltrd mg/L (00951)	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)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)													
NOV 2002													
13...	7.1	38	--	--	15.9	174	10	<.020	2.52	<.040	.08	.112	3.7
JAN 2003													
13...	6.1	24	--	--	13.2	134	8	<.020	4.96	<.040	.02	.019	4.8
MAR													
27...	5.9	24	--	--	12.1	110	8	<.020	3.73	<.040	.01	.013	3.9
MAY													
27...	5.5	31	--	--	12.3	128	14	.070	2.73	.040	.08	.100	3.6
JUL													
07...	5.9	29	--	--	10	138	<2	<.020	3.96	<.040	.02	.024	4.2
SEP													
08...	7.1	31	--	--	9.2	134	2	<.020	4.27	<.040	.02	.024	4.4

Date	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coliform, M-FC 0.45µMF col/ 100 mL (31616)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)													
NOV													
13...	2.9	--	--	--	--	--	<10	--	860	--	<1.0	--	50
JAN 2003													
13...	1.3	--	--	--	--	--	<10	--	200	--	<1.0	--	60
MAR													
27...	1.9	--	--	--	--	--	<10	--	160	--	<1.0	--	50
MAY													
27...	6.1	--	--	--	--	--	<10	--	1160	--	1.1	--	70
JUL													
07...	2.2	--	--	--	--	--	20	--	240	--	<1.0	--	20
SEP													
08...	2.2	--	--	--	--	--	<10	--	140	--	<1.0	--	20

Date	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)					
NOV					
13...	--	<50	--	<10	--
JAN 2003					
13...	--	<50	--	<10	--
MAR					
27...	--	<50	--	<10	--
MAY					
27...	--	<50	--	<10	--
JUL					
07...	--	<50	--	<10	--
SEP					
08...	--	<50	--	70	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR SEPTEMBER 2002 TO SEPTEMBER 2003
MISCELLANEOUS LAKE ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling depth, meters (00098)	Transparency Secchi disc, meters (00078)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)
01427252 Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)													
AUG 2003													
13...	1030	1028	9813	1.0	1.4	10.0	7.6	42	25.9	16	5.3	.6	13
13...	1100	1028	9813	18.0	1.4	.1	6.6	66	6.3	18	6.1	.7	24
01446590 Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)													
AUG 2003													
12...	1000	1028	9813	4.0	1.7	.2	6.3	86	19.7	25	7.4	1.5	20
12...	1030	1028	9813	1.0	1.7	9.0	7.7	82	25.9	24	7.1	1.5	19
01447100 Gouldsboro Lake at Gouldsboro, PA (LAT 41 14 07N LONG 075 27 09W)													
AUG 2003													
12...	1400	1028	9813	1.0	1.3	8.0	7.0	91	24.6	14	4.3	.7	13
01459350 Nockamixon Reservoir near Ottsville, PA (LAT 40 28 13N LONG 075 11 10W)													
SEP 2002													
09...	1130	1028	9813	21.0	2.7	.2	9.1	407	9.1	74	17.9	7.0	54
09...	1145	1028	9813	1.0	2.7	9.1	9.0	362	24.0	65	15.6	6.4	44
AUG 2003													
27...	1135	1028	9813	21.0	1.4	.7	6.9	220	8.0	58	14.2	5.5	42
27...	1145	1028	9813	1.0	1.4	11.9	7.4	164	26.8	50	12.2	4.8	38
01464640 Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)													
SEP 2002													
17...	1105	1028	9813	9.0	.8	.5	8.9	412	14.9	77	19.0	7.1	58
17...	1120	1028	9813	1.0	.8	11.1	9.3	359	22.7	74	18.2	6.8	54
AUG 2003													
26...	1140	1028	9813	9.0	.7	.7	6.7	224	12.0	70	17.0	6.6	68
26...	1030	1028	9813	1.0	.7	12.2	7.8	200	25.8	70	17.0	6.7	53

Date	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, fltrd, µg/L (01049)
01427252 Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)													
AUG 2003													
13...	4.2	8	<.02	.02	.40	4.8	<10	18	<4	<4	20	60	<1.0
13...	3.3	2	.71	.12	1.1	5.0	<10	14	<4	<4	2500	2900	<1.0
01446590 Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)													
AUG 2003													
12...	5.8	<2	<.02	.03	.50	7.4	47	59	6	<4	210	380	<1.0
12...	6.0	<2	<.02	.02	.40	6.1	22	27	<4	<4	160	260	<1.0
01447100 Gouldsboro Lake at Gouldsboro, PA (LAT 41 14 07N LONG 075 27 09W)													
AUG 2003													
12...	2.6	<2	.02	.02	.48	6.4	29	41	<4	<4	730	890	<1.0
01459350 Nockamixon Reservoir near Ottsville, PA (LAT 40 28 13N LONG 075 11 10W)													
SEP 2002													
09...	17.4	10	.76	.14	1.2	6.0	16	43	<4	<4	260	880	<1.0
09...	18.6	2	<.02	.02	.46	5.7	17	24	<4	<4	<20	30	<1.0
AUG 2003													
27...	13.6	8	.49	.10	.91	5.7	<10	16	<4	<4	220	960	<1.0
27...	13.1	2	.02	.02	.53	7.6	<10	22	<4	<4	20	70	<1.0
01464640 Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)													
SEP 2002													
17...	17.0	8	.75	.04	.81	3.8	22	54	<4	<4	<20	70	<1.0
17...	17.8	6	.06	.03	.65	4.0	28	100	<4	<4	90	100	<1.0
AUG 2003													
26...	6.3	<2	2.4	.40	2.4	6.7	31	68	<4	<4	1600	1900	<1.0
26...	16.9	4	<.02	.04	.99	6.8	23	85	<4	<4	30	140	<1.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR SEPTEMBER 2002 TO SEPTEMBER 2003
MISCELLANEOUS LAKE ANALYSES

Date	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
01427252 Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)					
AUG 2003					
13...	<1.0	<2	80	<5.0	<5.0
13...	<1.0	2200	2300	<5.0	6.8
01446590 Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)					
AUG 2003					
12...	<1.0	100	110	9.6	10
12...	<1.0	<2	20	<5.0	<5.0
01447100 Gouldsboro Lake at Gouldsboro, PA (LAT 41 14 07N LONG 075 27 09W)					
AUG 2003					
12...	<1.0	20	130	<5.0	6.1
01459350 Nockamixon Reservoir near Ottsville, PA (LAT 40 28 13N LONG 075 11 10W)					
SEP 2002					
09...	<1.0	1200	1200	<5.0	<5.0
09...	<1.0	<2	20	<5.0	<5.0
AUG 2003					
27...	<1.0	1600	1300	<5.0	60
27...	<1.0	10	30	<5.0	<5.0
01464640 Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)					
SEP 2002					
17...	<1.0	600	1100	<5.0	10
17...	<1.0	<2	50	<5.0	<5.0
AUG 2003					
26...	<1.0	1800	1900	<5.0	5.4
26...	<1.0	2	50	<5.0	<5.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR SEPTEMBER 2002 TO SEPTEMBER 2003
MISCELLANEOUS LAKE ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling depth, meters (00098)	Transparency Secchi disc, meters (00078)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)
01480684 Marsh Creek Lake near Downingtown, PA (LAT 40 03 24N LONG 075 43 06W)													
SEP 2002													
05...	1145	1028	9813	17.0	4.5	.9	6.3	354	9.2	68	17.8	5.6	44
05...	1200	1028	9813	1.0	4.5	14.0	8.8	346	24.3	62	15.9	5.5	40
AUG 2003													
25...	1130	1028	9813	19.0	1.9	.7	6.9	205	7.8	57	14.8	4.8	34
25...	1145	1028	9813	1.0	1.9	13.4	7.8	169	26.9	55	19.9	4.9	38

Date	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, fltrd, µg/L (01049)
01480684 Marsh Creek Lake near Downingtown, PA (LAT 40 03 24N LONG 075 43 06W)													
SEP 2002													
05...	12.8	4	.08	<.01	.59	3.2	<10	<10	5	<4	20	240	<1.0
05...	11.6	<2	.06	<.01	.41	3.9	<10	<10	<4	<4	<20	40	<1.0
AUG 2003													
25...	12.1	<2	.11	.07	1.0	3.5	<10	<10	<4	<4	40	150	<1.0
25...	10.1	16	<.02	.02	.50	5.4	<10	14	<4	<4	40	100	<1.0

Date	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
01480684 Marsh Creek Lake near Downingtown, PA (LAT 40 03 24N LONG 075 43 06W)					
SEP 2002					
05...	<1.0	470	520	8.5	<5.0
05...	<1.0	<2.0	10	<5.0	<5.0
AUG 2003					
25...	<1.0	150	280	<5.0	<5.0
25...	<1.0	2.8	12	<5.0	<5.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. A dash (--) indicates there were no observations of the organism in the sample. Samples represent counts per 100 (approximate) subsamples.

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES

Station Number	01426500	01431600	01432119	01440650	01444800	01451070
Date	09/04/02	08/07/02	08/07/02	08/06/02	8/19/02	08/27/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count	Count
Platyhelminthes						
Turbellaria (FLATWORMS)						
Tricladida						
Planariidae	--	--	--	--	--	--
Nemertea (PROBOSAS WORMS)						
Enopla						
Hoplonemertea						
Tetrastemmatidae						
Prostoma sp	--	1	--	--	--	1
Mollusca						
Gastropoda (SNAILS)						
Basommatophora						
Ancylidae						
Ferrissia sp	1	1	--	--	--	--
Lymnaeidae						
Fossaria sp	--	--	--	--	2	--
Physidae						
Physa sp	--	--	2	3	1	--
Valvatidae						
Valvata sp	--	--	2	--	--	--
Bivalvia (CLAMS)						
Veneroida						
Sphaeriidae						
Pisidium sp	--	--	--	--	--	--
Sphaerium sp	4	--	17	1	--	--
Annelida						
Oligochaeta (AQUATIC EARTHWORMS)	25	--	--	--	--	--
Lumbriculida						
Lumbriculidae	--	1	--	11	--	--
Tubificida						
Naididae	--	--	--	--	--	--
Arthropoda						
Acariformes						
Hydrachnidia (WATER MITES)	--	--	--	1	1	1
Crustacea						
Amphipoda (SCUDS)						
Gammaridae						
Gammarus sp	--	--	--	--	--	--
Decapoda						
Cambaridae (CRAYFISH)						
Orconectes sp	--	--	--	--	--	--
Ostracoda	--	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station Number
08/27/02	09/03/02	08/27/02	08/15/02	08/28/02	Date
Count	Count	Count	Count	Count	Benthic Macroinvertebrate
					Platyhelminthes
					Turbellaria (FLATWORMS)
					Tricladida
21	7	2	3	--	Planariidae
					Nemertea (PROBOSAS WORMS)
					Enopla
					Hoplonemertea
					Tetrastemmatidae
--	--	2	1	8	Prostoma sp
					Mollusca
					Gastropoda (SNAILS)
					Basommatophora
					Ancylidae
--	--	--	--	--	Ferrissia sp
					Lymnaeidae
--	5	--	--	--	Fossaria sp
					Physidae
--	--	--	--	--	Physa sp
					Valvatidae
--	--	--	--	--	Valvata sp
					Bivalvia (CLAMS)
					Veneroida
					Sphaeriidae
1	--	--	--	--	Pisidium sp
--	1	--	--	--	Sphaerium sp
					Annelida
--	--	--	--	--	Oligochaeta (AQUATIC EARTHWORMS)
					Lumbriculida
1	--	2	--	--	Lumbriculidae
					Tubificida
--	--	1	--	--	Naididae
					Arthropoda
					Acariformes
2	--	--	--	--	Hydrachnidia (WATER MITES)
					Crustacea
					Amphipoda (SCUDS)
					Gammaridae
4	--	--	2	--	Gammarus sp
					Decapoda
					Cambaridae (CRAYFISH)
--	--	--	--	1	Orconectes sp
17	--	--	--	--	Ostracoda

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES

Station Number	01426500	01431600	01432119	01440650	01444800	01451070
Date	09/04/02	08/07/02	08/07/02	08/06/02	8/19/02	08/27/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count	Count
Insecta						
Ephemeroptera (MAYFLIES)						
Baetidae						
Acentrella sp	--	--	--	4	7	15
Baetis sp	7	--	8	1	1	--
Ephemerellidae						
Ephemerella sp	--	--	--	1	--	--
Serratella sp	8	7	18	1	--	--
Heptageniidae	--	--	--	--	--	--
Epeorus sp	2	--	8	32	--	--
Stenonema sp	10	18	23	27	1	3
Isonychiidae						
Isonychia sp	6	9	--	7	10	--
Leptophlebiidae						
Paraleptophlebia sp	3	--	--	--	--	--
Tricorythidae						
Tricorythodes sp	--	--	--	2	22	--
Odonata (DRAGONFLIES AND DAMSELFLIES)						
Coenagrionidae						
Argia sp	--	1	--	--	5	--
Gomphidae						
Ophiogomphus sp	--	4	--	--	--	--
Plecoptera (STONEFLIES)						
Perlidae						
Acroneuria sp	3	--	5	--	1	--
Agnetina sp	--	--	--	2	--	--
Paragnetina sp	--	--	--	1	--	--
Megaloptera						
Corydalidae (FISHFLIES AND DOBSONFLIES)						
Chauliodes sp	--	1	--	--	--	--
Corydalus sp	--	--	3	5	--	--
Nigronia sp	--	--	--	1	--	--
Trichoptera (CADDISFLIES)						
Apataniidae						
Apatania sp	--	--	--	11	--	--
Brachycentridae						
Brachycentrus sp	3	--	10	--	--	--
Glossosomatidae						
Glossosoma sp	--	--	--	3	--	--
Protoptila sp	--	--	5	--	--	10
Hydropsychidae						
Cheumatopsyche sp	10	26	2	5	--	11
Hydropsyche sp	16	10	10	6	17	12
Macrostemum sp	--	--	--	--	2	--
Potamyia sp	--	--	10	--	2	--
Hydroptilidae						
Hydroptila sp	--	--	--	--	--	--
Leucotrichia sp	--	1	--	3	--	1
Lepidostomatidae						
Lepidostoma sp	--	--	2	1	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station Number
08/27/02	09/03/02	08/27/02	08/15/02	08/28/02	Date
Count	Count	Count	Count	Count	Benthic Macroinvertebrate
					Insecta
					Ephemeroptera (MAYFLIES)
					Baetidae
--	3	--	11	--	Acentrella sp
3	12	4	12	1	Baetis sp
					Ephemerellidae
--	--	--	--	--	Ephemerella sp
--	6	--	--	--	Serratella sp
--	--	--	--	2	Heptageniidae
--	--	--	--	--	Epeorus sp
--	3	--	2	11	Stenonema sp
					Isonychiidae
--	--	--	--	6	Isonychia sp
					Leptophlebiidae
--	--	--	--	--	Paraleptophlebia sp
					Tricorythidae
--	--	--	5	--	Tricorythodes sp
					Odonata (DRAGONFLIES AND DAMSELFLIES)
					Coenagrionidae
--	1	--	--	2	Argia sp
					Gomphidae
--	--	--	--	--	Ophiogomphus sp
					Plecoptera (STONEFLIES)
					Perlidae
--	--	--	--	--	Acroneuria sp
--	--	--	--	--	Agnetina sp
--	--	--	--	--	Paragnetina sp
					Megaloptera
					Corydalidae (FISHFLIES AND DOBSONFLIES)
--	--	--	--	--	Chauliodes sp
--	--	--	--	2	Corydalus sp
--	--	--	--	--	Nigronia sp
					Trichoptera (CADDISFLIES)
					Apataniidae
--	--	--	--	--	Apatania sp
					Brachycentridae
--	--	--	--	--	Brachycentrus sp
					Glossosomatidae
--	--	--	--	--	Glossosoma sp
--	--	--	--	--	Protoptila sp
					Hydropsychidae
15	--	21	37	1	Cheumatopsyche sp
15	6	5	2	29	Hydropsyche sp
--	--	--	--	--	Macrostemum sp
--	--	--	--	--	Potamyia sp
					Hydroptilidae
1	2	--	5	--	Hydroptila sp
--	--	--	--	4	Leucotrichia sp
					Lepidostomatidae
--	--	--	--	--	Lepidostoma sp

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES

Station Number	01426500	01431600	01432119	01440650	01444800	01451070
Date	09/04/02	08/07/02	08/07/02	08/06/02	8/19/02	08/27/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count	Count
Trichoptera (CADDISFLIES)						
Leptoceridae						
Oecetis sp	--	--	--	--	--	--
Philopotamidae						
Chimarra sp	--	4	2	7	13	24
Dolophilodes sp	--	--	--	2	--	--
Polycentropodidae						
Polycentropus sp	--	--	2	--	--	--
Rhyacophilidae						
Rhyacophila sp	--	4	--	2	--	--
Uenoidae						
Neophylax sp	20	--	1	--	--	--
Coleoptera (BEETLES)						
Elmidae (RIFFLE BEETLES)						
Optioservus sp	2	10	7	1	--	3
Oulimnius sp	--	--	3	2	--	3
Promoresia sp	--	2	5	--	6	--
Stenelmis sp	--	4	31	15	20	13
Hydrophilidae						
Berosus sp	--	--	--	--	--	--
Psephenidae (WATER PENNIES)						
Psephenus sp	--	--	--	3	--	1
Diptera (TRUE FLIES)						
Chironomidae (MIDGES)	23	20	11	56	5	6
Empididae (DANCE FLIES)						
Hemerodromia sp	--	--	1	--	--	--
Simuliidae (BLACK FLIES)						
Simulium sp	2	--	--	--	--	--
Tipulidae (CRANE FLIES)						
Antocha sp	--	--	2	2	1	--
Hexatoma sp	--	1	--	--	--	--
Total organisms	145	125	190	222	119	104

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station Number
08/27/02	09/03/02	08/27/02	08/15/02	08/28/02	Date
Count	Count	Count	Count	Count	Benthic Macroinvertebrate
					Trichoptera (CADDISFLIES)
					Leptoceridae
--	--	--	--	2	Oecetis sp
					Philopotamidae
--	42	7	--	1	Chimarra sp
--	--	--	--	--	Dolophilodes sp
					Polycentropodidae
--	--	--	--	--	Polycentropus sp
					Rhyacophilidae
--	--	--	--	--	Rhyacophila sp
					Uenoidae
--	--	--	--	--	Neophylax sp
					Coleoptera (BEETLES)
					Elmidae (RIFFLE BEETLES)
3	6	32	--	13	Optioservus sp
--	4	4	--	4	Oulimnius sp
--	--	--	--	--	Promoresia sp
4	13	21	17	--	Stenelmis sp
					Hydrophilidae
--	--	--	--	1	Berosus sp
					Psephenidae (WATER PENNIES)
--	--	3	--	--	Psephenus sp
					Diptera (TRUE FLIES)
18	5	8	21	20	Chironomidae (MIDGES)
					Empididae (DANCE FLIES)
--	--	--	--	--	Hemerodromia sp
					Simuliidae (BLACK FLIES)
--	--	--	--	--	Simulium sp
					Tipulidae (CRANE FLIES)
--	--	4	--	5	Antocha sp
--	--	--	--	--	Hexatoma sp
105	116	116	118	113	Total organisms

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

REMARKS.--Samples were collected using rapid bioassessment protocals for benthic macroinvertebrates using a D-Frame net with a mesh size of 500 µm. A dash (--) indicates there were no observations of the organism in the sample. Samples represent counts per 200 (approximate) subsamples.

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES

Station Number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	3/29/02	4/26/02	4/23/02	4/23/02	4/29/02	4/29/02	4/29/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Platyhelminthes							
Turbellaria (FLATWORMS)							
Tricladida							
Planariidae	--	--	--	--	--	--	1
Nematoda (NEMATODES)	--	2	--	--	--	--	--
Mollusca							
Gastropoda (SNAILS)							
Basommatophora							
Ancylidae							
Ferrissia sp	--	--	--	--	--	--	2
Bivalvia (CLAMS)							
Sphaeriidae							
Pisidium sp	3	--	--	--	--	--	--
Annelida							
Oligochaeta (AQUATIC EARTHWORMS)							
Lumbricina	--	--	1	--	--	--	--
Lumbriculida							
Lumbriculidae	2	--	--	1	1	--	2
Tubificida							
Enchytraeidae	1	--	--	--	--	--	--
Naididae	1	1	4	1	--	7	6
Tubificidae	4	--	--	--	--	--	--
Arthropoda							
Acariformes							
Hydrachnidia (WATER MITES)	--	--	--	--	--	--	1
Crustacea							
Amphipoda (SCUDS)							
Gammaridae							
Gammarus sp	--	--	--	--	85	2	--
Entognatha							
Collembola (SPRINGTAILS)							
Isotomidae							
Isotomurus sp	--	1	--	--	--	--	--
Insecta							
Ephemeroptera (MAYFLIES)							
Baetidae							
Acentrella sp	--	--	--	--	4	--	5
Baetis sp	--	20	1	6	12	3	2
Caenidae							
Caenis sp	11	--	--	--	--	2	3
Ephemerellidae							
Drunella sp	22	11	--	--	--	--	5
Ephemerella sp	8	9	1	28	3	5	12
Eurylophella sp	--	1	5	1	--	--	--
Serratella sp	--	8	--	--	8	--	2
Ephemeridae							
Ephemera sp	5	--	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES

Station Number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	3/29/02	4/26/02	4/23/02	4/23/02	4/29/02	4/29/02	4/29/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Ephemeroptera (MAYFLIES)							
Heptageniidae							
Cinygmula sp	--	6	--	3	--	--	--
Epeorus sp	2	13	--	--	1	--	1
Leucrocuta sp	--	6	--	3	--	--	--
Stenacron sp	2	--	--	--	--	--	--
Stenonema sp	6	--	6	--	--	1	6
Isonychiidae							
Isonychia sp	1	--	--	--	--	--	2
Leptophlebiidae							
Leptophlebia sp	1	--	--	--	1	--	--
Paraleptophlebia sp	6	27	1	2	--	1	--
Odonata (DRAGONFLIES AND DAMSELFLIES)							
Aeshnidae							
Boyeria sp	--	--	1	1	--	--	--
Gomphidae							
Lanthus sp	--	--	--	--	--	--	1
Plecoptera (STONEFLIES)							
Capniidae							
Paracapnia sp	--	--	--	1	--	--	--
Chloroperlidae	--	1	--	--	--	--	--
Leuctridae							
Leuctra sp	--	9	8	--	--	--	1
Nemouridae							
Amphinemura sp	--	2	10	1	1	1	2
Peltoperlidae							
Tallaperla sp	--	--	2	1	--	--	--
Perlidae	--	--	--	--	--	--	1
Acroneuria sp	--	--	5	--	--	--	--
Agnetina sp	--	--	--	--	1	--	--
Paragnetina sp	--	--	--	--	--	--	1
Perlesta sp	--	--	--	--	--	1	--
Perlodidae							
Isoperla sp	1	1	--	4	--	--	--
Megaloptera							
Corydalidae (FISHFLIES AND DOBSONFLIES)							
Nigronia sp	--	--	1	--	--	--	--
Sialidae (ALDERFLIES)							
Sialis sp	1	--	--	--	--	--	--
Trichoptera (CADDISFLIES)							
Apataniidae							
Apatania sp	--	--	--	--	--	--	4
Brachycentridae							
Adicrophleps sp	--	--	--	2	--	--	--
Micrasema sp	--	--	--	1	--	--	--
Glossosomatidae	--	--	--	--	--	--	1
Agapetus sp	--	7	--	1	--	--	--
Protoptila sp	--	--	--	--	1	--	--
Helicopsychidae							
Helicopsyche sp	2	--	--	--	1	--	--
Hydropsychidae							
Cheumatopsyche sp	1	--	--	--	8	1	1
Diplectrona sp	--	5	7	1	--	--	--
Hydropsyche sp	1	5	4	1	2	--	1

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES

Station Number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	3/29/02	4/26/02	4/23/02	4/23/02	4/29/02	4/29/02	4/29/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Trichoptera (CADDISFLIES)							
Hydroptilidae							
Hydroptila sp	--	--	--	--	--	--	1
Lepidostomatidae							
Lepidostoma sp	--	1	--	3	--	--	--
Limnephilidae							
Hydatophylax sp	1	--	--	--	--	--	--
Odontoceridae							
Psilotreta sp	5	--	2	--	--	--	--
Philopotamidae							
Chimarra sp	--	--	1	--	8	3	--
Dolophilodes sp	--	2	1	2	1	--	--
Polycentropodidae							
Polycentropus sp	--	1	--	--	2	--	--
Rhyacophilidae							
Rhyacophila sp	3	--	3	5	--	--	--
Uenoidae							
Neophylax sp	7	--	--	--	--	--	--
Coleoptera (BEETLES)							
Elmidae (RIFFLE BEETLES)							
Optioservus sp	7	--	--	--	13	--	9
Oulimnius sp	--	2	1	1	--	--	1
Promoresia sp	--	3	39	28	--	--	1
Stenelmis sp	--	--	--	--	11	3	1
Psephenidae (WATER PENNIES)							
Psephenus sp	6	8	--	--	6	9	2
Ptilodactylidae							
Anchytarsus sp	--	--	--	1	--	--	--
Diptera (TRUE FLIES)							
Athericidae							
Atherix sp	1	--	--	--	--	--	--
Blephariceridae							
Blepharicera sp	--	7	--	--	--	--	--
Chironomidae (MIDGES)	54	46	97	95	11	30	10
Empididae (DANCE FLIES)							
Hemerodromia sp	--	--	--	--	2	2	1
Muscidae							
Limnophora sp	--	--	--	1	--	--	--
Simuliidae (BLACK FLIES)							
Prosimulium sp	41	1	4	4	--	--	--
Simulium sp	--	--	--	1	--	--	2
Tipulidae (CRANE FLIES)							
Antocha sp	2	3	--	--	--	2	1
Dicranota sp	--	--	--	3	--	--	--
Hexatoma sp	1	2	--	--	--	--	--
Tipula sp	--	--	1	--	--	--	--
Total Organisms	210	211	206	203	183	73	92