

Water-Data Report 2006

01467066 NORTH BRANCH PENNSAUKEN CREEK AT GAITHER DRIVE, AT FELLOWSHIP, NJ

DELAWARE RIVER BASIN

LOCATION.--Lat 39°56'15", long 74°56'58" referenced to North American Datum of 1983, Mount Laurel Township, Burlington County, NJ, Hydrologic Unit 02040202, at bridge on Gaither Drive, 0.7 mi northwest of Ramblewood, 0.9 mi northeast of Fellowship, and 2.0 mi south of Moorestown.

DRAINAGE AREA.--6.61 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2005 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of filtered ammonia plus organic nitrogen (00623), filtered nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570). Bacteria samples were collected synoptically over a 30-day period during the summer.

COOPERATIVE NETWORK SITE DESCRIPTOR: Statewide Status and Low-Level Mercury Assessment special study site, New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area 18. Samples on Oct. 13 and Nov. 4 were for the low-level mercury assessment.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJDEP. Bacteria samples were provided by the local county health department under the direction of the NJDEP through the County Environmental Health Act. Determinations of filtered ammonia, filtered orthophosphorus, BOD, total suspended residue, ammonia+organic nitrogen in bed sediment, phosphorous in bed sediment, fecal coliform, E. coli, and enterococcus bacteria were performed by the NJ Department of Health and Senior Services.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 5

[Remark codes: <, less than; E, estimated.]

Date	Time	Sample type	Turbidity white light, det ang 90+/-30 corctd	UV absorb- ance, 254 nm, wat flt units	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduct- tance, wat unf uS/cm (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)
Oct												
13...	0940	Field Blank	--	--	--	--	--	--	--	--	--	--
13...	1000	Environmental	16	--	--	760	7.3	75	6.8	189	15.4	16.4
Nov												
04...	0830	Field Blank	--	--	--	--	--	--	--	--	--	--
04...	0900	Environmental	8.6	--	--	763	8.0	73	6.6	300	13.6	11.2
22...	1100	Environmental	28	.323	.263	740	8.7	77	6.9	189	9.9	8.7
Mar												
07...	1015	Field Blank	--	--	--	--	--	--	--	--	--	--
07...	1030	Environmental	6.8	.057	.050	766	11.3	86	6.8	521	9.1	3.9
May												
11...	1000	Environmental	13	.047	.035	760	6.6	66	6.5	354	15.6	15.1
Aug												
14...	1000	Environmental	14	.120	.093	760	6.7	74	6.4	275	21.2	19.7

01467066 NORTH BRANCH PENNSAUKEN CREEK AT GAITHER DRIVE, AT FELLOWSHIP, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

[Remark codes: <, less than; E, estimated.]

Date	Hard- ness, water, mg/L as CaCO ₃ (00900)	ANC, wat unf						Residue water, fltrd, sum of consti- tuents water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70301)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	
		Calcium water, mg/L (00915)	Magnes- ium, water, mg/L (00925)	Potas- sium, water, mg/L (00935)	Sodium, water, mg/L (00930)	fixed end pt, lab, mg/L as CaCO ₃ (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)			
Oct											
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
Nov											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
22...	50	14.4	3.39	5.27	11.7	19	20.5	.12	8.1	25.1	101
Mar											
07...	--	--	--	--	--	--	--	--	--	--	--
07...	96	28.5	5.98	4.60	51.8	16	101	.25	15.6	59.8	279
May											
11...	96	28.9	5.92	4.97	21.9	22	45.9	.34	16.2	59.9	198
Aug											
14...	83	24.7	5.28	6.27	13.9	27	31.2	.22	15.3	46.0	161
											9

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

[Remark codes: <, less than; E, estimated.]

Date	Ammonia + org-N, water, fltrd, mg/L as N (00623)		Nitrite Ammonia water, fltrd, mg/L as N (00608)	Partic- ulate nitro- gen, susp, water, mg/L (00631)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phosphate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
Oct													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
Nov													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	.73	.093	.19	.22	.93	1.1	.030	.136	.74	2.0	<.1	2.0	9.2
Mar													
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	.31	.118	.29	.17	.60	.77	E.006	.007	.050	1.0	<.1	1.0	1.7
May													
11...	.38	.203	.22	.34	.60	.94	E.005	.005	.070	2.0	<.1	2.0	1.9
Aug													
14...	.40	.126	.28	.26	.68	.94	E.008	.004	.169	1.7	<.1	1.7	3.6

01467066 NORTH BRANCH PENNSAUKEN CREEK AT GAITHER DRIVE, AT FELLOWSHIP, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

[Remark codes: <, less than; E, estimated.]

Date	BOD, water, unfltrd 5 day, 20 degC	Arsenic water, fltrd, (01000)	Arsenic water, unfltrd (01002)	Barium, water, recover -able, (01007)	Boron, water, recover -able, (01012)	Boron, water, fltrd, (01020)	Cadmium water, unfltrd (01022)	Chrom- ium, water, unfltrd (01027)	Copper, water, unfltrd (01034)	Copper, water, fltrd, (01040)	Iron, water, unfltrd (01042)	Lead, water, fltrd, (01045)
	mg/L (00310)	ug/L (01000)	ug/L (01002)	ug/L (01007)	ug/L (01012)	ug/L (01020)	ug/L (01022)	ug/L (01027)	ug/L (01034)	ug/L (01040)	ug/L (01042)	ug/L (01045)
Oct												
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
Nov												
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
22...	E2.0	--	--	--	--	21	--	--	--	--	--	--
Mar												
07...	--	<.12	--	--	--	--	--	--	--	.8	--	--
07...	<1.0	.42	.74	50.4	.13	27	28	.12	.24	--	--	3,460
May												
11...	<1.0	--	--	--	--	34	--	--	--	--	--	--
Aug												
14...	E1.4	.59	1.3	41.4	.13	40	41	E.03	.23	--	1.2	3,420

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

[Remark codes: <, less than; E, estimated.]

Date	Mangan- ese, water, unfltrd recover -able, ug/L (01051)	Lead, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd, low level, ng/L (50287)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, unfltrd recover -able, ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01090)
	ug/L (01051)	ug/L (01055)	ug/L (71890)	ug/L (50287)	ug/L (71900)	ug/L (01065)	ug/L (01067)	ug/L (01147)	ug/L (01077)	ug/L (01090)
Oct										
13...	--	--	--	<.04	--	--	--	--	--	--
13...	--	--	--	1.49	--	--	--	--	--	--
Nov										
04...	--	--	--	<.04	--	--	--	--	--	--
04...	--	--	--	.21	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
Mar										
07...	--	--	<.010	--	--	E.04	--	--	--	E.5
07...	--	194	--	--	<.010	--	21.6	E.06	<.16	--
May										
11...	--	--	--	--	--	--	--	--	--	--
Aug										
14...	.27	105	--	--	<.010	--	9.38	.10	<.16	--
										15

01467066 NORTH BRANCH PENNSAUKEN CREEK AT GAITHER DRIVE, AT FELLOWSHIP, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Ammonia				Inor-				Chrom-					
		pH bed sedimnt std	+ org-N, bed sedimnt total, mg/kg (70310)	Phos- phorus, bed sedimnt total, mg/kg (00626)	Total carbon, bed sedimnt total, g/kg (00668)	Inor- ganic carbon, bed sedimnt total, g/kg (00693)	Arsenic bed sedimnt total, ug/g (64847)	Cadmium bed sedimnt total, ug/g (01028)	ium, bed sedimnt recover -able, ug/g (01029)	Cobalt bed sedimnt recover -able, ug/g (01038)	Copper, bed sedimnt recover -able, ug/g (01043)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)		
Aug 14...	1000	6.18	200	12,000	4.9	.6	12.6	.170	19	4.1	<50	52,000	14		

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 4

[Remark codes: <, less than; E, estimated.]

Date	Mangan- ese, bed sedimnt recover -able, ug/g (01053)	Mercury bed sedimnt recover -able, ug/g (71921)	Nickel, bed sedimnt recover -able, ug/g (01068)	Sele- nium, bed sedimnt recover -able, ug/g (64848)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Di- methyl- naphth- alene, <2 mm, ug/kg (49403)	1,6-Di- methyl- naphth- alene, <2 mm, ug/kg (49404)	1Methyl -9H- fluor- ene, <2 mm, ug/kg (49398)	1-Methyl- phenan- threne, <2 mm, ug/kg (49410)	1- Methyl- pyrene, wsv nat ug/kg (49388)	236Tri- methyl- naphth- alene, <2 mm, ug/kg (49405)	2,6-Di- methyl- naphth- alene, <2 mm, ug/kg (49406)	2-Ethyl naphth- alene bed sed bed sed	
Aug 14...	110	.015	9.3	.3	97	E16	E27	92	590	E710	E36	E28	E18	

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 4

[Remark codes: <, less than; E, estimated.]

Date	2- Methyl- anthra- cene, bed sed threne, <2 mm, <2 mm, bs <2mm ug/kg (49435)	4H-Cyc- lopenta- ene, bed sed wsv nat wsv nat wsv nat ug/kg (49411)	9H- Fluor- ene, bed sed wsv nat wsv nat wsv nat ug/kg (49399)	Ace- naphth- ene, bed sed wsv nat wsv nat wsv nat ug/kg (49429)	Ace- naphth- ylene, bed sed wsv nat wsv nat wsv nat ug/kg (49428)	Anthra- cene, bed sed field, <2 mm, ug/kg (49434)	Benzo- [a]- anthra- cene, bed sed bed sed bed sed bed sed ug/kg (49436)	Benzo- [a]- pyrene, bed sed wsv nat wsv nat wsv nat ug/kg (49389)	Benzo- [b]- fluor- ene, bed sed bed sed bed sed bed sed ug/kg (49458)	Benzo- [ghi]- peryl- ene, bed sed bed sed bed sed bed sed ug/kg (49408)	Benzo- [k]- fluor- ene, bed sed bed sed bed sed bed sed ug/kg (49397)	Benzo- [l]- anthene, bed sed bed sed bed sed bed sed ug/kg (49450)	Chry- sene, bed sed wsv nat field, <2 mm, ug/kg (49461)	Dibenzo- -[a,h]- anthra- cene, bed sed bed sed bed sed bed sed ug/kg (49461)
Aug 14...	210	1,400	570	380	67	1,200	5,900	6,900	9,900	E4,400	3,800	8,200	E1,500	

01467066 NORTH BRANCH PENNSAUKEN CREEK AT GAITHER DRIVE, AT FELLOWSHIP, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 4

[Remark codes: <, less than; E, estimated.]

Date	Fluor-anthene bed sed <2 mm wsv nat field, ug/kg (49466)	Indeno-[1,2,- 3-cd]- pyrene, bed sed ug/kg (49390)	Iso-phrone bed sed <2 mm wsv nat field, ug/kg (49400)	Naphth-alene, bed sed <2 mm wsv nat field, ug/kg (49402)	p-PCBs, bed sed sedimnt ug/kg (39519)	Phenan-Cresol, bed sed <2 mm, wsv nat field, ug/kg (49451)	Phenan-threne, bed sed <2 mm, wsv nat field, ug/kg (49409)	Phenan-thrione, bed sed <2 mm, wsv nat field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed dry svd sediment, sve dia percent <.063mm (80164)	Bed falldia sediment, dst wat percent <.004mm (80157)
Aug 14...	19,000	E4,500	<54	E28	E2.58	<54	8,800	220	14,000	1	.8

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 5

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-DB water, water, fltrd, ug/L (39732)	CIAT, 0.7u GF ug/L (38746)	CEAT, water, fltrd, ug/L (04040)	OIET, water, fltrd, ug/L (04038)	Hydroxy carbo-furan, wat flt ug/L (50355)	3-Hydroxy carbo-furan, wat flt ug/L (49308)	Aci-fluor-fen, water, fltrd ug/L (49315)	Aldi-carb sulfone, water, fltrd ug/L (49313)	Aldi-carb sulfone, water, fltrd ug/L (49314)	Aldi-carb sulfone, water, fltrd ug/L (49312)	Atra-zine, water, fltrd, ug/L (39632)	
May 11...		1000	<.016	E.07	<.02	<.03	<.08	E.014	<.008	<.028	<.02	<.022	<.04	<.008

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Bendio-carb, water, fltrd, ug/L (50299)	Benomyl, water, fltrd, ug/L (50300)	Bensulfuron-methyl, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromo-cil, water, fltrd, ug/L (04029)	Bromoxynil, water, fltrd, ug/L (49311)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, ug/L (49310)	Carbo-furan, water, fltrd, ug/L (49309)	Chlor-amben, methyl ester, fltrd, ug/L (61188)	Chlor-muron, water, fltrd, ug/L (50306)	Chlor-di-amino-s-triazine, wat flt ug/L (04039)	Clopyralid, water, fltrd, ug/L (49305)
May 11...	<.02	E.003	<.02	<.01	<.02	<.03	.030	M	<.016	<.02	<.032	<.04	<.02

01467066 NORTH BRANCH PENNSAUKEN CREEK AT GAITHER DRIVE, AT FELLOWSHIP, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Dacthal		Di-chlor-				Fluo-						
	mono-	mono-	prop,	Dinoseb	Diphen-	Diuron,	Fenuron	Flumet-	meturon	Imaza-	Imaze-	Imida-	
	Cyclo-	acid, water,	Dicamba	water,	amid, water,	water,	water,	sulam,	water,	quin,	thapyr,	cloprid	
	ate,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	
	water,	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	fltrd	
	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	
Date	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
	(04031)	(49304)	(38442)	(49302)	(49301)	(49303)	(49300)	(49297)	(61694)	(38811)	(50356)	(50407)	(61695)
May													
11...	<.01	<.03	<.04	<.03	M	<.01	M	<.02	<.04	<.02	<.04	<.04	<.020

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date					Methio-				N-(4-				
	Linuron	MCPA,	MCPB,	Meta-	carb,	Meth-	Metsul-	Chloro-	Neburon	Nico-	Norflur	Ory-	
	water,	water,	water,	laxyl,	water,	omyl,	furon,	-N'	water,	sul-	azon,	zalin,	
	0.7u GF	0.7u GF	0.7u GF	fltrd,	0.7u GF	0.7u GF	fltrd,	methyl-	water,	furon,	water,	water,	
	ug/L	urea,	0.7u GF	fltrd,	0.7u GF	0.7u GF							
Date	(38478)	(38482)	(38487)	(50359)	(38501)	(38501)	(49296)	(61697)	(61692)	(49294)	(50364)	(49293)	(38866)
May													
11...	<.01	<.03	<.01	<.01	<.010	<.020	<.07	<.04	<.01	<.04	<.02	<.01	<.03

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Pic-		Propri-		Pro-		Sulfo-		Tebu-		Tri-	
	Pic-	loram,	Propan-	conazole,	poxur,	Siduron	ruron,	met-	thiuron	Terba-	cil,	clopyr,
	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,
	0.7u GF	0.7u GF	0.7u GF	fltrd,	0.7u GF	fltrd,	0.7u GF	fltrd,	0.7u GF	fltrd,	0.7u GF	0.7u GF
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date	(49291)	(49236)	(50471)	(38538)	(38548)	(50337)	(50337)	(82670)	(04032)	(49235)		
May												
11...	<.03	<.030	<.01	<.008	.03	<.091	<.026	<.016	<.03			

01467066 NORTH BRANCH PENNSAUKEN CREEK AT GAITHER DRIVE, AT FELLOWSHIP, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
[Remark codes: <, less than.]

Date	Time	Enter-		Fecal	
		cocci, m-E	MF, water, water, col/	E coli, m-TEC	coli- form, ECbroth water, MPN/
		100 mL (31649)	100 mL (31633)	100 mL (31615)	
May					
03...	1130	14.9	50	480	40
10...	1110	12.5	250	220	<20
17...	1150	14.6	440	600	2,400
24...	1115	15.1	200	10	300
31...	1135	19.0	340	150	500