



Water-Data Report 2009

**01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHALE, NJ**

HUDSON RIVER BASIN

LOCATION.--Lat 40°59'23", long 73°56'07" referenced to North American Datum of 1983, Norwood Borough, Bergen County, NJ, Hydrologic Unit 02030101, at culvert on Piermont Road, 0.1 mi north of intersection with Broadway, 1.5 mi southeast of Northvale, 2.1 mi upstream from mouth, and 2.8 mi northeast from Oradell Reservoir.

DRAINAGE AREA.--0.50 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 2005-09.

GAGE.--Reference point only.

**DISCHARGE MEASUREMENTS  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Date	Discharge, in ft <sup>3</sup> /s
Nov 20, 2008	0.52
Mar 4, 2009	0.46
Jun 4, 2009	0.35
Sep 1, 2009	0.20

**01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHALE, NJ—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 2007 to current year.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 5.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
Part 1 of 5

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

Date	Time	Baro-metric pressure, mm Hg (00025)	Temper-ature, air, deg C (00020)	UV absorb-ance, 254 nm, wat flt units (50624)	UV absorb-ance, 280 nm, wat flt units (61726)	Instan-taneous dis-charge, ft³/s (00061)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, μS/cm @ 25 degC (00095)	Turbdty white light, wat unf 25 degC (00010)	Temper-ature, water, deg C (00010)	Turbdty white light, 90+/-30 corctd NTRU (63676)	Dis-solved solids dried @ 180degC wat flt mg/L (70300)
Nov 20...	0900	760	13.0	.081	.061	.52	10.9	84	7.7	265	4.3	.5	180	
Mar 04...	0915	773	-1.0	.049	.038	.46	12.7	88	7.7	289	.5	1.1	184	
Jun 04...	0930	764	17.0	.166	.126	.35	8.5	82	7.8	296	13.5	1.3	225	
Sep 01...	1045	769	20.5	.093	.071	.20	8.8	87	7.9	358	15.1	1.0	222	

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 5

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

Date	Dis-solved solids, sum of constituents, mg/L (70301)	Hard-ness, water, mg/L CaCO <sub>3</sub> (00900)	Sus-pended solids, water, unfltrd mg/L (00530)	Calcium water, fltrd, mg/L (00915)	Magnes-iun, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L CaCO <sub>3</sub> (90410)	Total carbon, suspnd sedimnt mg/L (00694)	Chlor-ide, water, filtrd, mg/L (00940)	Fluor-ide, water, filtrd, mg/L (00950)	Inor-ganic carbon, suspnd sedimnt total, mg/L (00688)	Silica, water, filtrd, mg/L SiO <sub>2</sub> (00955)
Nov 20...	165	110	<1	30.8	8.69	.90	8.85	89	.4	14.7	<.08	<.04	23.2
Mar 04...	E176	120	3	32.2	9.24	.74	12.7	87	.2	21.0	E.05	<.04	21.2
Jun 04...	E181	130	1	34.7	9.38	1.36	12.8	102	.3	17.8	E.05	<.04	20.2
Sep 01...	E213	150	<1	42.7	11.0	1.18	12.7	120	<.2	23.8	E.07	<.04	26.0

## 01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHALE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 5

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

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, fltrd, mg/L (00623)	Ammonia water, fltrd, mg/L (00608)	Nitrate nitrite water, fltrd, mg/L (00631)	Ortho-phosphate, water, fltrd, mg/L (00671)	Particulate nitro- gen, susp, water, fltrd, mg/L (49570)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, fltrd, mg/L (00665)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, fltrd, mg/L (00600)	Barium, water, unfltrd recover- able, µg/L (01007)	Beryll- ium, water, unfltrd recover- able, µg/L (01012)	Cadmium water, unfltrd µg/L (01027)
Nov 20...	23.3	.14	.010	.38	.013	.03	.011	.013	.52	.55	--	--	--
Mar 04...	24.5	.13	<.010	.37	E.008	.03	E.004	E.006	.50	.52	25.8	<.02	<.06
Jun 04...	21.5	.28	.020	.33	.020	.04	.022	.030	.61	.65	--	--	--
Sep 01...	22.2	.19	<.010	.46	.026	<.02	.028	.031	.65	--	34.1	<.02	<.06

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 5

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

Date	Chrom- ium, water, unfltrd recover- able, µg/L (01034)	Copper, water, unfltrd recover- able, µg/L (01042)	Iron, water, unfltrd recover- able, µg/L (01045)	Lead, water, unfltrd recover- able, µg/L (01051)	Mangan- ese, water, unfltrd recover- able, µg/L (01055)	Mercury, water, unfltrd recover- able, µg/L (71900)	Nickel, water, unfltrd recover- able, µg/L (01067)	Silver, water, unfltrd recover- able, µg/L (01077)	Zinc, water, unfltrd recover- able, µg/L (01092)	Arsenic, water, fltrd, µg/L (01000)	Arsenic, water, unfltrd recover- able, µg/L (01002)	Boron, water, unfltrd recover- able, µg/L (01022)	Selen- ium, water, unfltrd µg/L (01147)
Nov 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
Mar 04...	.45	<4.0	144	E.08	43.5	<.010	.33	<.06	E1.1	.22	.21	63	E.08
Jun 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
Sep 01...	E.20	<4.0	215	<.10	26.4	<.010	.37	<.06	<2.0	.51	.75	91	E.09

## 01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHALE, NJ—Continued

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008  
TO SEPTEMBER 2009**

Part 5 of 5

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

Date	Organic carbon, Organic suspnd carbon, sedimnt water, total, fltrd, mg/L (00689)	Organic carbon, Organic suspnd carbon, sedimnt water, total, fltrd, mg/L (00681)
<b>Nov</b>		
20...	.34	2.8
<b>Mar</b>		
04...	.24	4.0
<b>Jun</b>		
04...	.29	4.8
<b>Sep</b>		
01...	<.12	2.9

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 1 of 7

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

Date	1-Naph-thol, water, fltrd 0.7µ GF	2,6-Di-ethyl-aniline water, fltrd 0.7µ GF	2Chloro-diethyl-acet-anilide water, fltrd wat flt	CIAT, water, fltrd, wat flt	2-Ethyl-6-methyl-aniline water, fltrd, wat flt	3,4-Di-chloro-aniline water, fltrd, wat flt	3,5-Di-chloro-aniline water, fltrd, wat flt	4-Chloro-2-methyl-phenol water, fltrd, wat flt	Aceto-chlor, water, fltrd, wat flt	Ala-chlor, water, fltrd, wat flt	alpha-Endo-sulfan, water, fltrd, wat flt	Atra-zine, water, fltrd, wat flt	Azin-phos-methyl oxon, water, fltrd, wat flt
	µg/L (49295)	µg/L (82660)	µg/L (61618)	µg/L (04040)	µg/L (61620)	µg/L (61625)	µg/L (61627)	µg/L (61633)	µg/L (49260)	µg/L (46342)	µg/L (34362)	µg/L (39632)	µg/L (61635)
Jun													
04...	<.04	<.006	<.010	E.009	<.010	<.004	<.004	<.005	<.010	<.008	<.006	.011	<.04

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 7

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

Date	Azin-phos-methyl, water, fltrd 0.7µ GF	Ben-flur-alin, water, fltrd 0.7µ GF	Car-baryl, water, fltrd 0.7µ GF	Carbo-furan, water, fltrd 0.7µ GF	Chlor-pyrifos oxon, water, fltrd 0.7µ GF	Chlor-pyrifos water, fltrd 0.7µ GF	Per-methrin water, fltrd 0.7µ GF	cis-Methrin water, fltrd 0.7µ GF	cis-Propi-conazole, water, fltrd 0.7µ GF	Cyana-zine, water, fltrd 0.7µ GF	Cyflu-thrin, water, fltrd 0.7µ GF	Cyper-methrin water, fltrd 0.7µ GF	DCPA, water, fltrd 0.7µ GF	Desulf-inyl-fipro-nil amide, wat flt 0.7µ GF wat flt (62169)
	µg/L (82686)	µg/L (82673)	µg/L (82680)	µg/L (82674)	µg/L (61636)	µg/L (38933)	µg/L (82687)	µg/L (79846)	µg/L (04041)	µg/L (61585)	µg/L (61586)	µg/L (82682)	µg/L (62169)	
Jun														
04...	<.120	<.014	E.007	<.060	<.05	<.010	<.014	<.006	<.040	<.016	<.020	<.006	<.029	

## 01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHLAKE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 7

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

Date	Desulf- inyl- fipro- nil, water, fltrd,  μg/L (62170)	Diazi- non, water, fltrd,  μg/L (39572)	Di- chlor- vos, water, fltrd,  μg/L (38775)	Dicro- tophos, water, fltrd,  μg/L (38454)	Diel- drin, water, fltrd,  μg/L (39381)	Dimeth- oate, water, fltrd 0.7μ GF	Disulf- oton sulfone water, fltrd 0.7μ GF	Disul- foton, water, fltrd 0.7μ GF	Endo- sulfan sulfate water, fltrd 0.7μ GF	EPTC, water, fltrd 0.7μ GF	Ethion monoxon water, fltrd μg/L (82668)	Ethion Ethion, water, fltrd μg/L (61644)	Etho- prop, water, fltrd 0.7μ GF μg/L (82346)
Jun 04...	E.005	<.005	<.02	<.08	<.009	<.006	<.01	<.04	<.022	<.002	<.02	<.012	<.016

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 7

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

Date	Fenami- phos sulfone water, fltrd,  μg/L (61645)	Fenami- phos oxide, water, fltrd,  μg/L (61646)	Fenami- phos, water, fltrd,  μg/L (61591)	Fipro- nil sulfide water, fltrd,  μg/L (62167)	Fipro- nil sulfone water, fltrd,  μg/L (62168)	Fipro- nil water, fltrd,  μg/L (62166)	Fonofos water, fltrd,  μg/L (04095)	Hexa- zinone, water, fltrd,  μg/L (04025)	Ipro- dione, water, fltrd,  μg/L (61593)	Isofen- phos, water, fltrd,  μg/L (61594)	lambda- Cyhalo- thrin, water, fltrd,  μg/L (61595)	Mala- xon, water, fltrd,  μg/L (61652)	Mala- thion, water, fltrd,  μg/L (39532)
Jun 04...	<.053	<.08	<.03	E.006	E.005	E.010	<.010	<.008	<.014	<.006	<.010	<.080	<.020

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 5 of 7

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

Date	Meta- laxyl, water, fltrd,  μg/L (61596)	Methid- athion, water, fltrd,  μg/L (61598)	Methyl para- thion, water, fltrd,  μg/L (61664)	Methyl para- oxon, water, fltrd,  μg/L (82667)	Metola- chlor, water, fltrd,  μg/L (39415)	Metri- buzin, water, fltrd,  μg/L (82630)	Moli- nate, water, fltrd 0.7μ GF	Myclo- butanil water, fltrd,  μg/L (82671)	Oxy- fluor- fen, water, fltrd 0.7μ GF	Pendi- meth- alin, water, fltrd 0.7μ GF	Phorate oxon, water, fltrd μg/L (82683)	Phorate water, fltrd μg/L (61666)	Phosmet oxon, water, fltrd μg/L (82664)
Jun 04...	<.007	<.006	<.01	<.008	<.014	<.016	<.002	<.010	<.006	<.012	<.03	<.020	<.05

## 01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHLAVER, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 6 of 7

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

Date	Phosmet	Prome-ton,	Prome-tryn,	Propanil,	Propar-gite,	Propy-zamide,	Tebu-sima-zine,	Teflu-thiuron	Ter-bufos	Terbu-oxon	Ter-buthyl-	Thio-bencarb	
	water, fltrd,	water, fltrd,	water, fltrd,	water, fltrd	sulfone	fos, water,	azine, water,	water, fltrd					
	µg/L (61601)	µg/L (04037)	µg/L (04036)	µg/L (82679)	µg/L (82685)	µg/L (82676)	µg/L (04035)	µg/L (82670)	µg/L (61606)	µg/L (61674)	µg/L (82675)	µg/L (04022)	µg/L (82681)
<b>Jun 04...</b>	<.200	<.01	<.006	<.014	<.02	<.004	E.008	<.02	<.010	<.04	<.02	<.01	<.016

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 7 of 7

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

Date	trans- Propi- ccona- zole,	Tribu- phos, water,	Tri- flur- alin,
	µg/L (79847)	µg/L (61610)	µg/L (82661)
<b>Jun 04...</b>	<.02	<.035	<.012

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 1 of 4

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

Date	Mois-ture, bed sed <2 mm, wsv nat fld dry	Inor-pH bed bed sedimnt std percent (49282)	Total carbon, bed bed sedimnt total, g/kg (00693)	Inor-ganic carbon, bed bed sedimnt total, g/kg (00686)	Phos-phorus, bed sedimnt total, mg/kg as P (00668)	Cadmium bed recover -able, µg/g (01028)	Chrom-ium, bed recover -able, µg/g (01029)	Cobalt bed recover -able, µg/g (01038)	Copper, bed recover -able, µg/g (01043)	Iron, bed total digest, µg/g (01170)	Lead, bed recover -able, µg/g (01052)	Mangan-ese, bed sedimnt recover -able, µg/g (01053)	Mercury bed sedimnt recover -able, µg/g (71921)
<b>Sep 01...</b>	26	7.70	1.0	<.2	E130	.040	7.0	2.4	5	6,000	3.6	100	<.007

## 01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHLAKE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 4

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

Date	Nickel, bed sediment	Zinc, bed sediment	Arsenic, bed sediment	Sele-nium, bed sediment	p-Cresol, bed sed	1,2-Di-methyl-naphth-PCBs, field, sediment	1,6-Di-methyl-naphth-alene, bed sed	1Methyl-naphth-ene, bed sed	1-Methyl-pyrene, bed sed	1-Methyl-naphth-alene, bed sed	236Tri-methyl-naphth-alene, bed sed		
	µg/g (01068)	µg/g (01093)	µg/g (64847)	µg/g (64848)	µg/kg (49451)	µg/kg (39519)	µg/kg (49403)	µg/kg (49404)	µg/kg (49398)	µg/kg (49410)	µg/kg (49388)	µg/kg (49405)	µg/kg (49406)
Sep 01...	4.1	15	.8	<.1	<50	<5.00	<50	<50	<50	<50	<50	<50	<50

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 4

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

Date	2-Ethyl naphth-alene, bed sed <2 mm wsv nat	2-Methyl-anthra-cene, bed sed <2 mm wsv nat	4H-Cyclo-lopenta [def]-phenan-threne, bed sed <2 mm, bs <2mm wsv nat	9H-Fluor-ene, bed sed <2 mm, <2 mm, wsv nat	Ace-naphth-ylene, bed sed <2 mm, <2 mm, wsv nat	Ace-naphth-ylene, bed sed <2 mm, <2 mm, wsv nat	Anthra-cene, bed sed <2 mm, wsv nat	Benzene, [a]-anthra-cene, bed sed <2 mm, wsv nat	Benzene, [a]-pyrene, bed sed <2 mm, wsv nat	Benzene, [b]-fluor-ene, bed sed <2 mm, wsv nat	Benzene, [ghi]-peryl-ene, bed sed <2 mm, wsv nat	Benzene, [k]-fluor-ene, bed sed <2 mm, wsv nat	Chry-sene, bed sed	
	µg/kg (49948)	µg/kg (49435)	µg/kg (49411)	µg/kg (49399)	µg/kg (49429)	µg/kg (49428)	µg/kg (49428)	µg/kg (49434)	µg/kg (49436)	µg/kg (49389)	µg/kg (49458)	µg/kg (49408)	µg/kg (49397)	µg/kg (49450)
Sep 01...	<50	<50	<50	<50	<50	<50	<50	E31	E32	E48	E19	E18	E34	

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 4

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

Date	Dibenzo -[a,h]-anthra-cene, bed sed <2 mm, wsv nat	Fluor-anthene, bed sed <2 mm, wsv nat	Indeno-[1,2,-3-cd]-pyrene, bed sed <2 mm, bed sed wsv nat	Iso-phorone, bed sed <2 mm, bed sed wsv nat	Naphth-alene, bed sed <2 mm, wsv nat	Phenan-threne, bed sed <2 mm, wsv nat	Phenan-threne, bed sed <2 mm, wsv nat	Pyrene, bed sed <2 mm, wsv nat	Bed sediment dry svd
	µg/kg (49461)	µg/kg (49466)	µg/kg (49390)	µg/kg (49400)	µg/kg (49402)	µg/kg (49409)	µg/kg (49393)	µg/kg (49387)	mm (80164)
Sep 01...	<50	89	E19	<50	<50	E41	<50	69	.0