



Water-Data Report 2009

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°40'41", long 74°55'05" referenced to North American Datum of 1983, Union Township, Hunterdon County, NJ, Hydrologic Unit 02030105, 800 ft downstream from Rocky Run, 0.3 mi upstream from bridge on Van Syckel Road, and 1.6 mi southeast of Glen Gardner.

DRAINAGE AREA.--15.3 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1979, 1981-83, 1985-93, 1995-97, 1999, and 2003 to current year.

GAGE.--None.

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

Date	Discharge, in ft ³ /s
Nov 20, 2008	16.1
Mar 9, 2009	37.5
May 14, 2009	20.0
Aug 12, 2009	21.7

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1979-97, 2003 to current year.

REMARKS.--NJ Department of Environmental Protection Watershed Management Area 08.

COOPERATION.--Samples were collected in cooperation with the NJ Water Supply Authority.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
 Part 1 of 5
 [Remark codes: <, 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 /cm (50624)	UV absorb-ance, 280 nm, wat flt /cm (61726)	Instan-taneous dis-charge, ft³/s (00061)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, wat unf µS/cm @ 25 degC (00095)	Temper-ature, water, deg C (00010)	Turbdty white light, det ang 90+/-30 NTRU (63676)	Dis-solved solids dried @ 180degC wat flt mg/L (70300)
Nov 20...	1130	745	5.0	.063	.048	16	13.9	106	7.5	208	3.9	.8	132
Mar 09...	1305	751	11.0	.075	.057	37	13.5	112	7.9	366	7.0	14	210
May 14...	1115	--	17.0	.043	.032	20	10.5	99	7.5	240	12.3	1.1	181
Aug 12...	0900	751	24.0	.071	.054	22	9.4	102	7.5	227	19.2	1.3	135

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
 Part 2 of 5
 [Remark codes: <, less than; E, estimated.]

Date	Dis-solved solids, sum of constituents, mg/L (70301)	Hard-ness, water, mg/L as CaCO ₃ (00900)	Cal-cium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf end pt, lab, mg/L as CaCO ₃ (90410)	Total fixed carbon, suspnd sedimnt total, mg/L (00694)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Inor-ganic carbon, suspnd sediment total, mg/L (00688)	Silica, water, fltrd, mg/L as SiO ₂ (00955)	Sulfate water, fltrd, mg/L (00945)
Nov 20...	E126	66	16.0	6.33	1.31	13.2	39	E.1	25.1	E.08	<.04	17.1	18.1
Mar 09...	E185	62	15.4	5.76	1.36	38.8	30	1.3	73.9	E.08	<.04	13.2	14.5
May 14...	E138	66	16.3	6.13	1.25	17.2	37	.3	34.9	E.06	<.04	17.5	17.9
Aug 12...	E131	65	16.2	5.95	1.58	14.6	43	E.1	27.7	E.07	<.04	17.4	16.8

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 3 of 5

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

Date	Ammonia + org-N, water, filtrd, mg/L as N (00623)	Ammonia water, filtrd, mg/L as N (00608)	Nitrate + nitrite water, filtrd, mg/L as N (00631)	Ortho-phosphate, water, filtrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, filtrd, mg/L as P (00666)	Phos- phorus, water, unfiltrd, mg/L as P (00665)	Total nitro- gen, water, filtrd, mg/L (00602)	Total nitro- gen, water, unfiltrd, mg/L (00600)	Barium, water, unfiltrd, recover- able, μg/L (01007)	Beryll- ium, water, unfiltrd, recover- able, μg/L (01012)	Chrom- ium, water, unfiltrd, recover- able, μg/L (01034)	
Nov 20...	.14	<.040	1.22	.009	<.02	E.006	.011	1.4	--	--	--	--	--
Mar 09...	.21	<.040	.96	E.006	.12	.008	.027	1.2	1.3	29.4	E.02	E.03	.55
May 14...	.13	<.040	1.08	.013	.03	.015	.012	1.2	1.2	--	--	--	--
Aug 12...	.13	<.040	1.11	.014	E.02	.016	.017	1.2	E1.3	25.2	<.02	E.03	E.25

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 4 of 5

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

Date	Mangan-												Boron, water, unfiltrd, recover- able, μg/L (01022)	Selen- ium, water, unfiltrd, recover- able, μg/L (01147)
	Copper, water, unfiltrd recover- able, μg/L (01042)	Iron, water, unfiltrd recover- able, μg/L (01045)	Lead, water, unfiltrd recover- able, μg/L (01051)	Mercu- ry, water, unfiltrd recover- able, μg/L (01055)	Nickel, water, unfiltrd recover- able, μg/L (01067)	Silver, water, unfiltrd recover- able, μg/L (01077)	Zinc, water, unfiltrd recover- able, μg/L (01092)	Arsenic, water, filtrd, unfiltrd μg/L (01000)	Arsenic, water, unfiltrd μg/L (01002)	Boron, water, filtrd, unfiltrd μg/L (01020)				
Nov 20...	--	--	--	--	--	--	--	--	--	--	--	--	--	
Mar 09...	<4.0	334	.90	12.5	<.010	.51	<.06	5.0	.16	.24	--	<14	.13	
May 14...	--	--	--	--	--	--	--	--	--	--	9.3	--	--	
Aug 12...	<4.0	92	E.10	10.1	<.010	.36	<.06	2.2	.20	.40	--	E12	.20	

01396588 SPRUCE RUN NEAR GLEN GARDNER, 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, suspnd sedimnt total,	Sus- pended water, filtrd,	Sus- pended sediment concen- tration	
	mg/L (00689)	mg/L (00681)	mg/L (80154)	tons/d (80155)
Nov 20...	<.12	2.0	1	.04
Mar 09...	1.29	2.4	6	.61
May 14...	.32	1.4	1	.05
Aug 12...	<.12	2.4	1	.06

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 7

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

Date	2,6-Di- ethyl- aniline water, filtrd	2-Chloro '-2',6'- diethyl acet- anilide water, filtrd	2- Ethyl- CIAT, water, filtrd	3,4-Di- methyl- aniline water, filtrd	3,5-Di- chloro- aniline water, filtrd	4- Chloro- methyl- phenol, wat flt	Aceto- chlor, water, filtrd	Ala- chlor, water, filtrd	alpha- Endo- sulfan, water, filtrd	Atra- zine, water, filtrd	Azin- phos- methyl oxon, water, filtrd,		
	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)
May 14...	<.04	<.006	<.010	E.025	<.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: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Azin- phos- methyl, water, filtrd	Ben- flur- alin, water, filtrd	Car- baryl, water, filtrd	Carbo- furan, water, filtrd	Chlor- pyrifos oxon, water, filtrd	Chlor- pyrifos water, filtrd	cis- Per- methrin water	cis- Propi- conazole, water	Cyana- zine, water	Cyflu- thrin, water	Cyper- methrin water, filtrd	DCPA, water, filtrd	Desulf- inyl- fipro- nil amide, wat flt	
	μg/L (82686)	μg/L (82673)	μg/L (82680)	μg/L (82674)	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)
May 14...	<.120	<.014	<.200	<.060	<.05	<.010	<.014	<.006	<.040	<.016	<.020	<.006	<.029	

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 3 of 7

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

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 μg/L	Endo- sulfan sulfate water, fltrd 0.7μ GF	EPTC, water, fltrd μg/L	Ethion monoxon water, fltrd μg/L	Ethion, water, fltrd μg/L	Etho- prop, water, fltrd 0.7μ GF
May 14...	<.012	<.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: <, less than; E, estimated; M, presence verified but not quantified.]

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- phos, water, fltrd, μg/L (61595)	Mala- xon, water, fltrd, μg/L (61652)	Mala- thion, water, fltrd, μg/L (39532)
May 14...	<.053	<.08	<.03	E.003	<.024	E.003	<.010	E.011	<.014	<.006	<.010	<.080	<.020

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 5 of 7

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

Date	Meta- laxyl, water, fltrd, μg/L (61596)	Methid- athion, water, fltrd, μg/L (61598)	Methyl para- oxon, water, fltrd, μg/L (61664)	Methyl para- thion, water, fltrd, 0.7μ GF (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)
May 14...	<.007	<.006	<.01	<.008	E.006	<.016	<.002	<.010	<.006	<.012	<.03	<.020	<.05

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 6 of 7

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

Date	Phosmet	Promo-ton, water, fltrd, μg/L (61601)	Promo-ton, water, fltrd, μg/L (04037)	Prometryn, water, fltrd, μg/L (04036)	Propanil, water, fltrd, 0.7μ GF μg/L (82679)	Propar-gite, water, fltrd 0.7μ GF μg/L (82685)	Propy-zamide, water, fltrd 0.7μ GF μg/L (82676)	Tebu-simazine, water, fltrd 0.7μ GF μg/L (04035)	Teflu-thiuron, water, fltrd 0.7μ GF μg/L (82670)	Ter-bufos oxon sulfone water, fltrd 0.7μ GF μg/L (61606)	Terbu-fos, water, fltrd 0.7μ GF μg/L (61674)	Ter-buthyl-azine, water, fltrd μg/L (82675)	Thio-bencarb water, fltrd 0.7μ GF μg/L (04022)
May 14...	<.200	M	<.006	<.014	<.02	<.004	.038	<.02	<.010	<.04	<.02	<.01	<.016

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO
SEPTEMBER 2009

Part 7 of 7

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

Date	trans- Propi- con- zole, water, fltrd, μg/L (79847)	Tri- flur- alin, water, fltrd, 0.7μ GF μg/L (61610)	Tri- flur- alin, water, fltrd, 0.7μ GF μg/L (82661)
May 14...	<.02	<.035	<.012

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 4

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

Date	Mois-ture, bed sed <2 mm, wsv nat fld dry percent (49282)	Total carbon, bed sedimnt total, mg/kg (00693)	Inor-ganic carbon, bed sedimnt total, as P (00686)	Phos-phorus, bed sedimnt total, mg/kg (00668)	Cadmium bed sedimnt recover -able, μg/g (01028)	Chrom-ium, bed sedimnt recover -able, μg/g (01029)	Cobalt bed sedimnt recover -able, μg/g (01038)	Copper, bed sedimnt recover -able, μg/g (01043)	Iron, bed sedimnt digest, -able, μg/g (01170)	Lead, bed sedimnt recover -able, μg/g (01052)	Mangan-ese, bed sedimnt recover -able, μg/g (01053)	Mercury bed sedimnt recover -able, μg/g (71921)	Nickel, bed sedimnt recover -able, μg/g (01068)
Aug 12...	26	2.9	<.2	E230	.120	11	3.6	12	9,000	9.3	160	<.007	5.2

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 4

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

Date	Zinc, bed sediment -able, µg/g (01093)	Arsenic, bed sediment -able, µg/g (64847)	Selenium, bed sediment -able, µg/g (64848)	p-Cresol, PCBs, field, sedimnt bed sed (49451) <2 mm, µg/kg (39519)	1,2-Dimethyl-naphthalene, bed sed bed sed <2 mm, µg/kg (49403)	1,6-Dimethyl-naphthalene, bed sed bed sed <2 mm, µg/kg (49404)	1-Methyl-naphthalene, bed sed bed sed <2 mm, µg/kg (49398)	1-Pheophytin, bed sed bed sed <2 mm, µg/kg (49410)	1-Methyl-pyrene, bed sed bed sed <2 mm, µg/kg (49388)	236Triphenylmethane, bed sed bed sed <2 mm, µg/kg (49405)	2,6-Dimethyl-naphthalene, bed sed bed sed <2 mm, µg/kg (49406)	2-Ethyl-naphthalene, bed sed bed sed <2 mm, µg/kg (49948)	
Aug 12...	40	.9	.1	<51	E3.27	<51	E2	E9	E7	E2	E2	E2	E1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 3 of 4

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

Date	2-Methyl-anthra-cene, bed sed -2 mm, bs <2mm µg/kg (49435)	4H-Cyclo-lopenta-phenan-threne, bed sed -2 mm, wsv nat µg/kg (49411)	9H-Fluor-naphth-ene, bed sed -2 mm, wsv nat µg/kg (49399)	Ace-naphth-ylene, bed sed -2 mm, wsv nat µg/kg (49429)	Ace-naphth-ylene, bed sed -2 mm, wsv nat µg/kg (49428)	Anthra-cene, bed sed -2 mm, wsv nat µg/kg (49434)	Benzene, [a]-anthra-cene, bed sed -2 mm, wsv nat µg/kg (49436)	Benzene, [a]-pyrene, bed sed -2 mm, wsv nat µg/kg (49389)	Benzene, [b]-fluor-pyrene, bed sed -2 mm, wsv nat µg/kg (49458)	Benzene, [ghi]-peryl-fluor-ene, bed sed -2 mm, wsv nat µg/kg (49408)	Benzene, [k]-fluor-anthene, bed sed -2 mm, wsv nat µg/kg (49397)	Chrysene, bed sed -2 mm, wsv nat µg/kg (49450)	Dibenzo-[a,h]-anthra-cene, bed sed -2 mm, wsv nat µg/kg (49461)
Aug 12...	E1	E14	E6	E3	E11	E26	76	86	130	E39	68	74	E14

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 4 of 4

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

Date	Fluor-anthene, bed sed -2 mm, wsv nat µg/kg (49466)	Indeno-[1,2,-3-cd]-pyrene, bed sed -2 mm, wsv nat µg/kg (49390)	Iso-phorone, bed sed -2 mm, wsv nat µg/kg (49400)	Naphth-alene, bed sed -2 mm, wsv nat µg/kg (49402)	Phenanthrene, bed sed -2 mm, wsv nat µg/kg (49409)	Phenanthrene, bed sed -2 mm, wsv nat µg/kg (49393)	Pyrene, bed sed -2 mm, wsv nat µg/kg (49387)	Bed sediment, dry svd -sve dia percent field, <0.0625 mm (80164)
Aug 12...	190	E44	<51	E2	63	<51	170	2.0