

Water-Data Report 2007

01411208 GRAVELLY RUN AT ROUTE 559, AT GRAVELLY RUN, NJ

GREAT EGG HARBOR RIVER BASIN

LOCATION.--Lat 39°25'38", long 74°42'06" referenced to North American Datum of 1983, Hamilton Township, Atlantic County, NJ, Hydrologic Unit 02040302, on Gravelly Run at County Route 559 (Somers Point Road), 400 ft north from Gravelly Run, 600 ft upstream from mouth, and 700 ft southeast from Gravelly Run Road.

DRAINAGE AREA.--8.63 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 2006 to August 2007.

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). Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 15.

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, ammonia-plus-organic nitrogen in bed sediment, and phosphorus in bed sediment were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 5

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

Date	Time	Turbidity white light, det ang 90+/-30 corrctd	UV absorb- ance, 254 nm, wat flt units	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg	Dis- solved oxygen, mg/L (00025)	Dis- solved oxygen, percent of sat- uration (00300)	pH, water, unfltrd field, std units	Specif- ic conduc- tance, μS/cm (00400)	Temper- ature, wat unf wat air, deg C (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)
Nov 20...	0900	.7	.974	.751	765	7.6	68	4.0	93	6.5	10.9	5	.77	
Feb 22...	0900	1.1	.332	.253	758	10.0	79	4.3	83	.0	5.0	6	.87	
May 10...	0900	.5	.318	.247	765	7.8	80	4.3	69	18.0	14.5	6	.95	
Aug 09...	0800	.5	.078	.064	760	6.8	74	4.7	65	27.0	19.1	6	.97	

01411208 GRAVELLY RUN AT ROUTE 559, AT GRAVELLY RUN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 5

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

Date	Magnes-	Potas-	ANC,			Residue			Ammonia		Nitrate		
	ium, water, fltrd, mg/L (00925)	sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Sodium, lab, CaCO ₃ mg/L as (90410)	Chlor- end pt, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	on evap. 180degC wat flt mg/L (70300)	Residue at non- filter- able, mg/L (00530)	+ org-N, water, fltrd, mg/L (00623)	Ammonia water, fltrd, mg/L (00608)	+ nitrite water fltrd, mg/L (00631)
Nov 20...	.708	.81	4.75	--	9.12	<.10	6.2	5.28	64	3	.43	.015	.06
Feb 22...	.849	.62	5.52	--	9.68	<.10	6.8	5.39	45	1	2.6	.019	.20
May 10...	.868	.83	6.22	--	10.7	<.10	5.3	4.87	37	<1	.65	.024	.13
Aug 09...	.980	.88	7.17	<1.7	13.2	<.10	7.7	5.69	42	2	.27	.032	.20

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 5

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

Date	Partic- ulate nitro- gen, susp, water, fltrd, mg/L (49570)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phosphate, water, fltrd, mg/L (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)	Arsenic water, fltrd, μg/L (01000)	Arsenic water, unfltrd μg/L (01002)	Barium, water, unfltrd recover -able, μg/L (01007)	
Nov 20...	.03	.49	.52	E.004	E.007	<.008	.6	<.1	.6	19.0	--	--	--	
Feb 22...	.02	2.8	2.8	<.010	E.004	E.006	.6	<.1	.6	6.8	.19	.29	28.0	
May 10...	<.02	.78	--	E.004	E.006	E.004	.3	<.1	.3	6.3	--	--	--	
Aug 09...	.03	.46	.50	<.010	.009	.009	.2	<.1	.2	1.3	E.11	E.13	34.4	

01411208 GRAVELLY RUN AT ROUTE 559, AT GRAVELLY RUN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 5

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

Date	Beryllium, water, unfltrd recover -able, µg/L (01012)	Boron, water, unfltrd recover -able, µg/L (01020)	Boron, water, unfltrd recover -able, µg/L (01022)	Cadmium water, unfltrd recover -able, µg/L (01027)	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)	Selen- ium, water, unfltrd recover -able, µg/L (01147)	Silver, water, unfltrd recover -able, µg/L (01077)
Nov 20...	--	16	--	--	--	--	--	--	--	--	--	--	--
Feb 22...	.11	8.9	10	.04	E.30	<1.2	117	.42	10.8	.018	1.24	.10	<.02
May 10...	--	12	--	--	--	--	--	--	--	--	--	--	--
Aug 09...	E.05	9.7	E7	.04	<.60	<1.2	101	.19	14.3	.019	1.1	E.07	<.02

WATER-QUALITY
DATA
WATER YEAR
OCTOBER 2006 TO
SEPTEMBER 2007

Part 5 of 5

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

Date	Zinc, water, unfltrd recover -able, µg/L (01092)
Nov 20...	--
Feb 22...	7
May 10...	--
Aug 09...	3.4

01411208 GRAVELLY RUN AT ROUTE 559, AT GRAVELLY RUN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 4

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

Date	Time	Ammonia			Inor-			Chrom-					
		pH bed sedimnt std	+ org-N, bed sed total, mg/kg (00626)	Phos- phorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inor- ganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt recover -able, ug/g (64847)	Cadmium bed sedimnt recover -able, 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 09...	0800	4.93	40	60	.6	<.2	.1	<.001	1.6	<.1	<2	160	4.4

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 4

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

Date	Mangan- ese, bed sedimnt recover -able, ug/g (01053)			Sele- nium, bed sedimnt recover -able, ug/g (71921)			1,2-Di- methyl- naphth- alene, ug/g (01068)			1,6-Di- methyl- naphth- alene, ug/g (64848)			1Methyl -9H- fluor- ene, ug/kg (01093)			1- Methyl- pyrene, bed sed bed sed <2 mm, ug/kg (49404)			236Tri- methyl- naphth- alene, ug/kg (49398)			2,6-Di- methyl- naphth- alene, ug/kg (49405)			2-Ethyl naphth- alene, ug/kg (49448)		
	Mercury bed sedimnt recover -able, ug/g (01053)	Nickel, bed sedimnt recover -able, ug/g (01068)	Zinc, bed sedimnt recover -able, ug/g (64848)	methyl- naphth- alene, ug/g (01093)	methyl- naphth- alene, ug/g (49403)	methyl- naphth- alene, ug/g (49404)	1,2-Di- methyl- naphth- alene, ug/kg (49403)	1,6-Di- methyl- naphth- alene, ug/kg (49404)	1Methyl -9H- fluor- ene, ug/kg (49398)	1- Methyl- pyrene, bed sed bed sed <2 mm, ug/kg (49410)	236Tri- methyl- naphth- alene, ug/kg (49388)	2,6-Di- methyl- naphth- alene, ug/kg (49405)	2-Ethyl naphth- alene, ug/kg (49406)	2-Ethyl naphth- alene, ug/kg (49448)													
Aug 09...	2.0	<.007	.3	<.1	<3.1	<50	<50	<50	<50	<50	<50	<50	E7	<50													

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 4

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

Date	2-Methyl- anthra- cene, bed sedimnt <2 mm, ug/kg (49435)	4H-Cyc- lopenta- phenan- threne, <2 mm, ug/kg (49411)	9H- Fluor- ene, <2 mm, ug/kg (49399)	Ace- naphth- ene, <2 mm, ug/kg (49429)	Ace- naphth- ene, <2 mm, ug/kg (49428)	Anthra- cene, bed sedimnt field, ug/kg (49434)	Benzo- [a]- anthra- cene, bed sedimnt field, ug/kg (49436)	Benzo- [a]- pyrene, bed sedimnt field, ug/kg (49389)	Benzo- [b]- fluor- ene, bed sedimnt field, ug/kg (49458)	Benzo- [ghi]- peryl- ene, bed sedimnt field, ug/kg (49408)	Benzo- [k]- fluor- ene, bed sedimnt field, ug/kg (49397)	Chry- sene, bed sedimnt field, ug/kg (49450)	Dibenzo- -[a,h]- anthra- cene, bed sedimnt field, ug/kg (49461)	
	Methyl- anthra- cene, bed sedimnt bs <2mm wsv nat	Fluor- ene, <2 mm, ug/kg (49429)	Ace- naphth- ene, <2 mm, ug/kg (49428)	Ace- naphth- ene, <2 mm, ug/kg (49428)	Anthra- cene, bed sedimnt field, ug/kg (49434)	Benzo- [a]- anthra- cene, bed sedimnt field, ug/kg (49436)	Benzo- [a]- pyrene, bed sedimnt field, ug/kg (49389)	Benzo- [b]- fluor- ene, bed sedimnt field, ug/kg (49458)	Benzo- [ghi]- peryl- ene, bed sedimnt field, ug/kg (49408)	Benzo- [k]- fluor- ene, bed sedimnt field, ug/kg (49397)	Chry- sene, bed sedimnt field, ug/kg (49450)	Dibenzo- -[a,h]- anthra- cene, bed sedimnt field, ug/kg (49461)		
Aug 09...	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50

01411208 GRAVELLY RUN AT ROUTE 559, AT GRAVELLY RUN, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 4

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

Date	Fluor-anthene <2 mm wsv nat field, ug/kg (49466)	Indeno-[1,2,- 3-cd]- bed sed bed sed pyrene, <2 mm, wsv nat bed sed field, ug/kg (49390)	Iso-phorone bed sed bed sed wsv nat field, ug/kg (49400)	Naphth-alene, bed sed <2 mm wsv nat wsv nat bed sed ug/kg (49402)	p-Cresol, PCBs, sedimnt ug/kg (39519)	Phenan-threne, <2 mm, wsv nat field, ug/kg (49451)	Phenan-threne, <2 mm, wsv nat field, ug/kg (49409)	Pyrene, bed sed wsv nat wsv nat ug/kg (49393)	Bed sediment, dry svd sve dia percent <.063mm .0
Aug 09...	<50	<50	<50	<50	<5.00	<50	<50	<50	<50