

01409030 LONG BRANCH NEAR WELLS MILLS, NJ

LOCATION.--Lat 39°49'02", long 74°17'35", Ocean County, Hydrologic Unit 02040301, at bridge on Bryant Road, 0.7 mi upstream of mouth, 1.8 mi northwest of Wells Mills, and 2.6 mi north of Brookville.

DRAINAGE AREA.-- 1.69 mi².

PERIOD OF RECORD.--December 2002 to September 2003.

REMARKS.--Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570).

COOPERATION.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection. Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, fecal coliform, E. coli, and enterococcus bacteria was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. Determination of chlorophyll a was performed by the New Jersey Department of Environmental Protection, Bureau of Freshwater and Biological Monitoring Laboratory.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 13.

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

Date	Time	Turbidity, water, unfltrd field, NTU (61028)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, unfltrd, mg/L (00915)
DEC 17...	1045	0.8	0.454	0.349	768	10.1	74	4.0	78	2.0	3.0	7	0.93
MAR 11...	1100	0.6	0.317	0.242	767	11.3	80	4.2	63	6.5	1.5	5	0.66
JUN 03...	1100	0.3	0.408	0.313	761	7.0	68	4.3	75	20.5	13.8	6	0.90
SEP 03...	1115	0.7	0.306	0.234	763	3.9	43	4.0	122	20.5	19.9	11	1.78

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

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water fltrd, mg/L as N (00631)
DEC 17...	1.03	0.50	4.68	6.32	<0.17	4.7	11.3	49	<1	0.29	<0.030	<0.030	0.07
MAR 11...	0.726	0.52	3.64	5.70	<0.17	3.8	10.6	31	<1	0.20	<0.030	<0.030	0.18
JUN 03...	0.844	0.60	5.62	7.74	<0.17	2.3	11.2	41	<1	0.49	<0.030	0.056	<0.05
SEP 03...	1.47	1.03	10.7	13.0	<0.17	4.4	27.9	68	3	0.32	0.088	0.087	E.03

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

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Chlorophyll a fluorometric method, corrctd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
DEC 17...	<0.003	<0.020	<0.02	E.003	E.004	0.35	0.1	<0.1	0.1	11.2	E1.2	--	26
MAR 11...	<0.003	<0.020	<0.02	E.002	E.003	0.38	<0.1	<0.1	<0.1	7.4	<1.0	--	20
JUN 03...	<0.003	<0.020	<0.02	E.002	0.005	--	0.1	<0.1	0.1	9.0	<1.0	1.50	59
SEP 03...	<0.003	<0.020	<0.02	E.003	0.006	--	0.3	<0.1	0.3	7.4	3.0	0.900	192

Remark codes used in this table:
 < -- Less than
 E -- Estimated value

01409030 LONG BRANCH NEAR WELLS MILLS, NJ—Continued

WATER-COLUMN TRACE-ELEMENT ANALYSES

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

Date	Time	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryll- ium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, unfltrd recover -able, ug/L (01034)	Copper, water, unfltrd recover -able, ug/L (01042)	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01067)
SEP 03...	1115	<2	44.2	0.14	223	0.08	<0.8	0.9	430	0.77	15.0	<0.02	2.50

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

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
SEP 03...	E.5	<0.16	10

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

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

Date	Time	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di- chloro- ethane, water unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,2-Di- chloro- benzene water unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo- di- chloro- methane water unfltrd ug/L (32101)	Chloro- benzene water unfltrd ug/L (34301)
MAR 11...	1100	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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

Date	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	Di- chloro- di- fluoro- methane wat unf ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Di- ethyl ether, water, unfltrd ug/L (81576)	Diiso- propyl ether, water, unfltrd ug/L (81577)	Ethyl- benzene water unfltrd ug/L (34371)	Methyl tert- pentyl ether, water, unfltrd ug/L (50005)	meta- + para- Xylene, water, unfltrd ug/L (85795)	o- Xylene, water, unfltrd ug/L (77135)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)
MAR 11...	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2

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

Date	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	Tri- bromo- methane water unfltrd ug/L (32104)	Tri- chloro- ethene, water, unfltrd ug/L (39180)	Tri- chloro- fluoro- methane water unfltrd ug/L (34488)	Tri- chloro- methane water unfltrd ug/L (32106)	Vinyl chlor- ide, water, unfltrd ug/L (39175)
MAR 11...	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2	0.6	<0.2

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< -- Less than

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WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2001 (listed in its entirety, with laboratory reporting levels, in "Laboratory Measurements" in the Explanation of Water-Quality Records section of this report). Only pesticides detected in one or more surface-water samples are listed in the following table.

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

Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF (82686)	Ben-flur-alin, water, fltrd 0.7u GF (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	cis-Per-methrin water fltrd 0.7u GF (82687)
JUN 03...	1100	<0.006	<0.006	<0.006	<0.004	<0.005	<0.007	<0.050	<0.010	<0.002	<0.041	<0.020	<0.006

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

Date	Time	DCPA, water fltrd 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	EPTC, water, fltrd 0.7u GF (82668)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Mala-thion, water, fltrd, ug/L (39532)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water, fltrd 0.7u GF (82684)
JUN 03...		<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	<0.007	<0.027	<0.013	<0.006	<0.007

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

Date	Pendi-meth-alin, water, fltrd 0.7u GF (82683)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water, fltrd 0.7u GF (82670)	Terba-cil, water, fltrd 0.7u GF (82665)	Tri-flur-alin, water, fltrd 0.7u GF (82661)
JUN 03...	<0.022	<0.01	<0.005	<0.02	<0.034	<0.009

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WATER-COLUMN BACTERIA ANALYSES

Samples were collected synoptically over a 30-day period during the summer.

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

Date	Time	Entero-cocci, m-E MF, water, col/100 mL (31649)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coli-form, ECbroth MPN/100 mL (31615)	Date	Time	Entero-cocci, m-E MF, water, col/100 mL (31649)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coli-form, ECbroth water, MPN/100 mL (31615)
MAY 07...	0815	<10	<100	<20	JUN 04...	0825	170	11,000	500
MAY 14...	0830	<10	<100	<20					
MAY 21...	0820	<10	<100	<20					
MAY 28...	0820	<10	<100	<20					

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< -- Less than