SELECTED DATA ON WATER QUALITY AND BOTTOM MATERIAL OF NEW YORK STREAMS, 1987-88

By Jay F. Weigel

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	*By*	*To obtain*
	Length	
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
	Area	
square mile (mi^2)	259.0	hectare
square mile (mi^2)	2.590	square kilometer
	Volume	
quart (qt)	0.9464	liter
gallon (gal)	3.785	liter
	Flow	
cubic foot per second (ft^3/s)	0.02832	cubic meter per second
gallon per minute (gal/min)	0.06308	liter per second
	Mass	
ton, short	0.9072	megagram
	Temperature	
degree Celsius (°C)	°F = (1.8 x °C) + 32	degree Fahrenheit (°F)

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea level datum of 1929.

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ABSTRACT

Growing concern about the availability of clean water has given rise to a need for a water-quality data base that will enable Federal, State, and local agencies to evaluate the current water-quality conditions of New York streams. In 1987, the U.S. Geological Survey began a continuing study in cooperation with the New York State Department of Environmental Conservation to provide a data base on the present water quality of New York streams.

This report presents the data collected during 1987-88 and describes the data-collection network, the field procedures, and the laboratory methods used to collect and analyze the data. During 1987, eight water samples and one bottom-material sample were collected at each of 25 sites that together represent four drainage basins. During 1988, 10 water samples and 1 bottom-material sample were collected at each of those 25 sites, and a set of five water samples was collected at each of 23 other sites in 10 other basins. Water samples were analyzed for physical characteristics and concentrations of total recoverable and dissolved heavy metals, major ions, nutrients, volatile organic compounds, sediment, and solids. Bottom-material samples were analyzed for grain size and concentrations of total recoverable heavy metals and organic compounds.

INTRODUCTION

New York State's abundant surface-water resources have been an attraction for recreation, transportation, and industry since the 17th century. The increased use of streams for disposal of municipal and industrial wastes with the growth of population and industry has increased the potential for water pollution. Water-quality deterioration in many streams has caused fish kills, unpleasant odors, and excessive plant growth (New York State Department of Environmental Conservation, 1990, p. 7). As a result, fishing and recreational activities have been restricted in some streams and lakes.

The State of New York has done much to protect and improve the quality of its surface waters by regulating municipal and industrial discharges to streams and lakes; yet several sources of contamination persist, including chemical spills, landfills, septic systems, and deposits of contaminants left in streambeds from past activities.

Today's concerns about the availability of clean water have prompted awareness of a need for a water-quality data base that will enable Federal, State, and local agencies to evaluate the present water quality of streams. Long-term data are needed to identify trends in water quality; regional water-quality assessments are developed from data collected in large drainage basins, and localized assessments are developed from data from small drainage basins. Both require monitoring and an extensive data-collection network.

In 1987, the U.S. Geological Survey (USGS) began a continous study, in cooperation with the New York State Department of Environmental Conservation (NYSDEC), to provide a data base on water quality and bottom material of New York streams. Both agencies are taking part in the data collection and laboratory analyses. The first 2 years of study entailed sampling at a total of 59 sites that together represent 13 major drainage basins in New York.

Purpose and Scope

This report describes the hydrologic characteristics of New York, explains the data-collection network, field procedures, and laboratory methods, and presents tables of water-quality, bottom-material, and quality-assurance data collected during the first 2 years of the study (calendar years 1987-88).

Drainage Basins

The study area encompasses 16 drainage basins that together cover the entire State of New York. These basins are the Erie-Niagara, Allegheny, Genesee, Oswego, Susquehanna, Lake Ontario, Black, St. Lawrence, Lake Champlain, upper Hudson, Mohawk, lower Hudson, Delaware, Housatonic, Passaic, and Atlantic drainages (fig. 1). Most basins have areas outside New York State that are not considered part of the study area.

Topography ranges from flat and rolling plains to mountains. Lake Erie, Lake Ontario and Lake Champlain, and the St. Lawrence and Mohawk River valleys are bordered by extensive areas of level and rolling plans. Long Island is relatively flat. The Adirondack Mountains rise to more than 5,000 feet above sea level, and the Catskill Mountains rise to about 4,200 feet above sea level. The area that extends west from the Catskill Mountains along the Southern Tier (fig. 1) is fairly rugged terrain.

Precipitation and Runoff During 1987-88

Mean annual precipitation ranges from about 30 inches in the northwestern and northeastern parts of the State to about 52 inches on the western slopes of the Adirondack and Catskill Mountains (U.S. Geological Survey, 1986, p. 347). Precipitation during 1987 was variable, but the annual total was near normal; precipitation during 1988 was below normal. Precipitation during the winter and spring of 1987 was variable; January, April, and June precipitation was above normal, and precipitation in February, March, and May was below normal. Precipitation in the summer was near normal and, in the fall, was above normal. Precipitation was below normal from November 1987 through June 1988, above normal during the summer, and below normal from September through the rest of the year (Firda and others, 1988, 1989, and 1990; Spinello and others, 1988, 1989, 1990; Coon and others, 1987; Campbell and others, 1988 and 1990).

Mean annual runoff ranges from about 10 to 40 inches per year, and its distribution is similar to that of precipitation. Almost half the annual runoff occurs from mid-February through mid-May (U.S. Geological Survey, 1986, p. 347).

Streamflow During 1987-88

The following is paraphrased from annual reports presenting New York stream data for calendar years 1987-88 (Firda and others, 1988, 1989, and 1990; Spinello and others, 1988, 1989, and 1990; Coon and others, 1987; Campbell and others, 1988 and 1990).

Streamflows during 1987 were generally near normal except on Long Island, where they were below normal. Streamflows during 1988 were generally below normal except in the mid-Hudson and lower-Hudson River valley, where they were near normal.

Monthly streamflows were variable during most of 1987; monthly streamflows for January and March were near normal, and February and May were below normal. April streamflows were near normal in the western part of the State, above normal in the most of the eastern part, and below normal in the northern and western Adirondack Mountains. June streamflows were near normal in the west, above normal in the northeast, and below normal in the southeast. July streamflows were above normal except in the northeast, where they were near normal. August streamflows were near normal in the west, below normal in the northeast, and above normal in the southeast. September streamflows were above normal except in the extreme northeastern part of the State, where they were below normal.

Streamflows during October 1987 were near normal and remained so through February 1988, then dropped below normal in March and continued below normal through September with few exceptions. May streamflows approached normal in the west and were near normal to above normal in the east. July and August streamflows were above normal in the southeast, and September streamflows were near normal in the east. October and November streamflows were normal in the west, and normal to above-normal in most of the east. Streamflows in the southeast were below normal, and those on Long Island ranged from normal to below normal. Streamflows across the State were below normal in December.

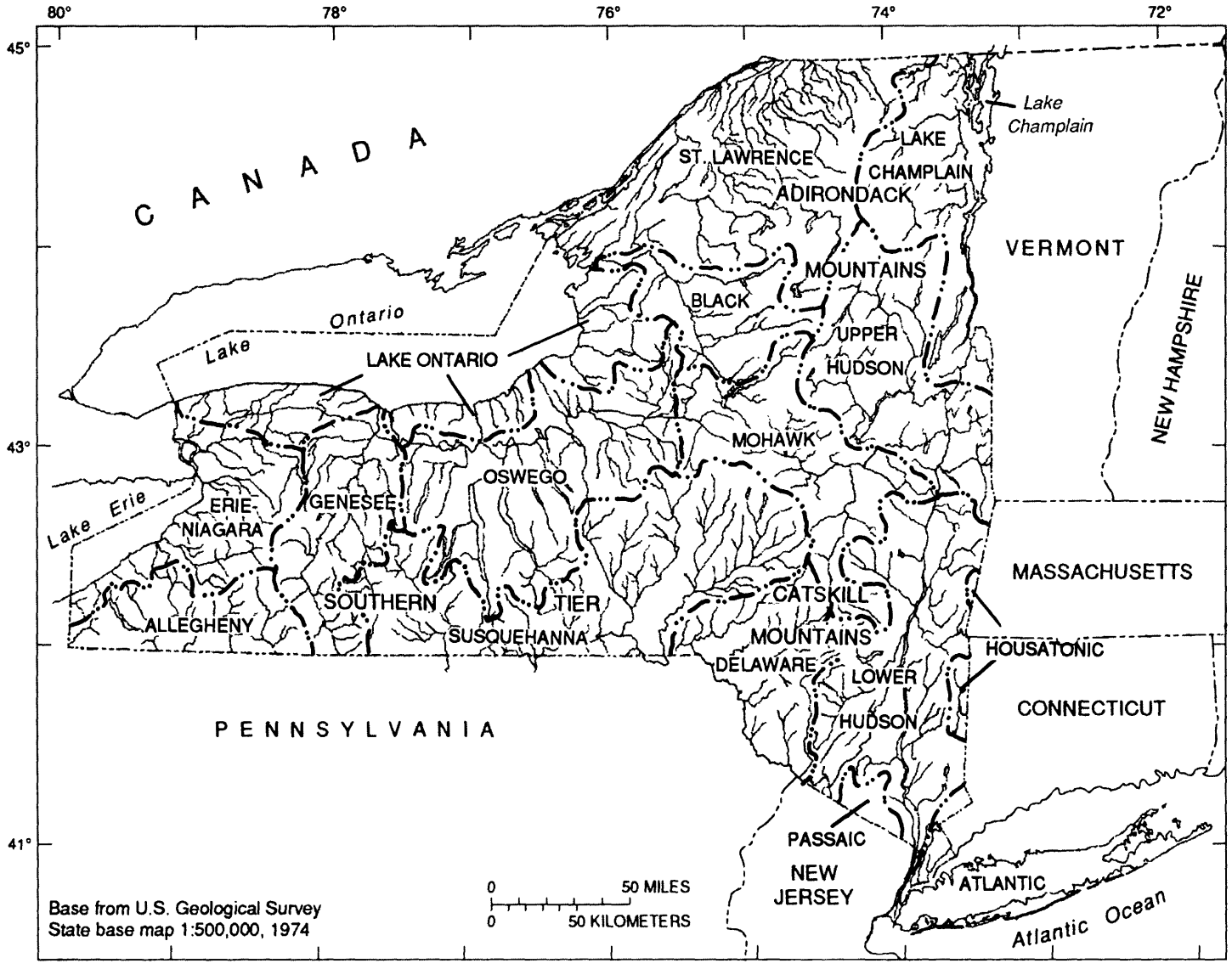

Figure 1.-Major drainage basins in New York.

DATA COLLECTION AND ANALYSIS

Data were collected at 32 permanent sites and 25 intermittently operated sites. The permanent sites represent 13 of the 16 drainage basins in the study. In 1987, data were collected at only nine permanent sites—three in the Erie-Niagara basin, three in the upper Hudson basin, one in the Lake Champlain basin, and two in the Delaware basin. Data collection at the other 23 permanent sites started in 1988. The 25 intermittently operated sites were distributed among four drainage basins—10 in the Erie-Niagara basin, 8 in the upper Hudson basin, 3 in the Lake Champlain basin, and 4 in the Delaware basin.

The USGS maintains a network of streamflow gages for continuous discharge; this network was used to provide discharge data for the water-quality samples. The USGS collected all discharge data, and the NYSDEC collected most of the water samples and all of the bottom-material samples.

Both agencies conducted field reviews of sampling procedures to ensure consistent sampling methods. Initially, USGS personnel trained the NYSDEC staff in USGS sampling methods and conducted followup field reviews. Thereafter, USGS and NYSDEC headquarters office staff conducted annual field reviews to ensure consistent sampling procedures.

Data-Collection Network

The data-collection network in 1987-88 consisted of 57 sites—32 permanent sites listed in table 1a, and 34 intermittently operated sites listed in table 1b. Nine sites are on both lists. The network was designed to provide continuous representation of 13 large drainage basins and intermittent representation of many small drainage basins. The permanent sites were selected to provide annual data from the entire State and are on the main stem of rivers and large tributaries; the intermittently operated sites were selected to provide additional detail within the major drainage basins.

The 32 permanent sites were selected in 13 large drainage basins to provide broad representation of water quality in the State (fig. 2). Five water samples were collected each year at 23 of these sites between late March and early December; none were collected during the winter. The other nine sites were sampled according to a schedule explained below. All samples were analyzed for physical characteristics and concentrations of total recoverable heavy metals, major ions, nutrients, volatile organic compounds, suspended-sediment, and solids.

Intermittently operated sites were used for Rotating Intensive Basin Studies (RIBS) and were sampled on a rotating schedule that has a 6-year cycle. The 16 drainage basins in the State were divided into three groups, and sampling sites were selected within each group for 2 years of sampling, followed by 4 years of inactivity before resampling. These sites were selected to provide more detailed water-quality information than the permanent sites (fig. 3). During each year of RIBS sampling, 10 water samples and 1 bottom-material sample were collected between late March and early December at each site and analyzed for the analytes mentioned above; in addition, three of these samples were analyzed each year for dissolved heavy-metals concentration, and the bottom-material sample was analyzed for concentrations of total recoverable heavy metals and organic compounds and for grain size. During RIBS sampling in a basin, the permanent sites in each basin were sampled according to the RIBS sampling schedule, whereby 8 water samples were collected at each site in 1987, and 10 were collected in 1988.

In 1988, duplicate samples and field blanks were collected for quality assurance. About 5 percent of the samples were collected in duplicate, and both samples were submitted to the same laboratory for analysis to verify analytical consistency. Deionized water was taken to the field periodically for field blanks, processed as a stream sample, and submitted for analysis to verify that field processing procedures were not introducing contamination.

Discharge Data

Sampling sites were established at streamflow gages wherever feasible so that each water-quality sample would have a corresponding discharge. Discharges at sampling sites without streamflow gages were obtained by one of several methods—multiplying data from nearby streamflow gages by a drainage-area-correction factor, making discharge measurements, or obtaining

Table 1A.—Permanent sampling sites.

[Locations are shown in fig. 2.]

Site Number	Site Name
01304000	Nissequogue River near Smithtown
01305000	Carmans River at Yaphank
01325420	Hudson River at Corinth*
01334805	Hoosic River at Eagle Bridge*
01335770	Hudson River at Waterford*
01342602	Mohawk River near Utica
01349530	Mohawk River at Fonda
01351500	Schoharie Creek at Burtonsville
01357500	Mohawk River at Cohoes
01359560	Hudson River at Glenmont
01367500	Rondout Creek at Rosendale
01372043	Hudson River at Poughkeepsie
01434000	Delaware River at Port Jervis*
01437500	Neversink River at Godeffroy*
01502701	Susquehanna River at Afton
01512850	Chenango River at Binghamton
01514937	Susquehanna River at Smithboro
01531000	Chemung River at Chemung
03011020	Allegheny River at Salamanca
04213500	Cattaraugus Creek at Gowanda*
04215790	Buffalo River at Ohio Street at Buffalo*
04219640	Niagara River (Lake Ontario) at Fort Niagara*
04227510	Genesee River at Geneseo
04232006	Genesee River at Charlotte Docks at Rochester
04237410	Seneca River at Jacks Reef, near Baldwinsville
04248250	Oswego River at Lock 5 at Minetto
04260500	Black River at Watertown
04260712	St. Lawrence River at Cape Vincent
04263000	Oswegatchie River near Heuvelton
04264331	St. Lawrence River at Cornwall, Ontario--near Massena
04266500	Raquette River at Piercefield
04295000	Richelieu River at Rouses Point*

* 1987-88 Rotating Intensive Basin Study site

Table 1B.—Rotating Intensive Basin Study sampling sites, 1987-88.

[Locations are shown in fig. 3.]

Site	Site Name
01315500	Hudson River at North Creek
01317395	Schroon River, State Highway 418 at Warrensburg
01325420	Hudson River at Corinth*
01327755	Hudson River at Rogers Island at Fort Edward
01329500	Batten Kill at Battenville
01329650	Hudson River at Schuylerville
01329907	Clover Mill Brook on Shaw Hill Rd near Rock City Falls
01330907	Fish Creek near Grangerville
0133335001	Hoosic River below NY-VT State line, near North Pownal, VT
01334805	Hoosic River at Eagle Bridge*
01335770	Hudson River at Waterford*
01420500	Beaver Kill at Cooks Falls
01421000	East Branch Delaware River at Fishs Eddy (1988 only)
01421500	East Branch Delaware River at Hancock (1987 only)
01422642	West Branch Delaware River at De Lancey
01426500	West Branch Delaware River at Hale Eddy (1988 only)
01427000	West Branch Delaware River at Hancock (1987 only)
01434000	Delaware River at Port Jervis*
01437500	Neversink River at Godeffroy*
04213320	Chautauqua Creek at Barcelona
04213378	Canadaway Creek at Dunkirk
04213500	Cattaraugus Creek at Gowanda*
04214020	Cattaraugus Creek at Irving
04214240	Eighteenmile Creek at Highland-On-The-Lake
04214480	Buffalo Creek near Blossom (1987 only)
04214500	Buffalo Creek at Gardenville (1988 only)
04214740	Cayuga Creek near Alden (1987 only)
04215000	Cayuga Creek near Lancaster (1988 only)
04215790	Buffalo River at Ohio Street at Buffalo*
04216060	Niagara River at Anderson Park, Buffalo
04217122	Tonawanda Creek near East Pembroke
04218054	Tonawanda Creek at Pendleton
04218090	Ransom Creek near Clarance Center
04219640	Niagara River (Lake Ontario) at Fort Niagara*
04273500	Saranac River at Plattsburgh
04276500	Bouquet River at Willsboro
04279015	La Chute at State Highway 22 at Ticonderoga
04295000	Richelieu River at Rouses Point*

* Permanent site

data from dam operators. Several sampling sites had no discharge data because discharge measurements were not feasible.

Streamflow gages in the USGS network record the water-surface stage (gage height) of the stream continuously. Discharge measurements are made through the range of gage heights, and discharge ratings are established that relate gage height to discharge at each site. This rating is used with gage-height data to compute instantaneous discharge for each water sample.

For sampling sites that are near streamflow gages but not close enough for direct use of the gage data, a correction factor can be applied to discharge at the gage to compute the discharge for each water sample. This correction factor, obtained by dividing the drainage area at the sampling site by the drainage area at the gage, is multiplied by the concurrent gaged discharge to obtain the discharge value for each water sample.

Discharge ratings for sampling sites that are not close to a gage were developed as part of the project. At these sites, stream-stage and discharge measurements were made together to establish a stage-discharge relation. When water samples were collected, stream-stage measurements were made, and the discharge rating was used to compute the instantaneous discharge for each water sample.

Several sampling sites are on streams that are highly regulated, in backwater from a lake, or affected by tidal conditions, all of which make discharge measurements difficult to obtain. Records for streams that are highly regulated are generally maintained by the regulating authority. Where necessary, these records were used to obtain discharges for water samples. No discharge data were obtainable from sites in backwater areas of lakes or in tidal areas.

Water and Bottom-Material Sampling

Streams are dynamic systems in which the flow and water quality can vary vertically and horizontally within a given cross section (Horowitz and others, 1989, p. 57-66). To obtain water samples that reflect these variations, samples are collected with depth-integrating samplers and by the Equal-Width-Increment (EWI) sampling method. Depth-integrating samplers are designed to collect water samples that reflect vertical differences in water quality in a water column, and the EWI method collects water samples that reflect horizontal differences across a stream.

When depth-integrating samplers are moved vertically at constant rate through the water column, more water enters the sampler where the velocity is high than where it is low, and thus gives a discharge-weighted sample of suspended sediment and water (Edwards and Glysson, 1988, p. 6-20). With the EWI sampling method, a series of water columns are sampled at equal intervals in the stream cross section by moving the sampler at a uniform rate through each water column. These samples are composited to provide a water sample that is discharge weighted vertically and horizontally in the cross section and that is representative of the stream (Edwards and Glysson, 1988, p. 61-64).

Water collected at each water column is poured into a churn-splitter and, when sample collection is completed, the water in the churn-splitter is mixed to obtain a homogeneous sample. During mixing, aliquots are drawn off for laboratory analysis; this allows identical water samples to be sent to different laboratories.

Water temperature, specific conductance, pH, dissolved oxygen concentration, barometric pressure, and gage height are measured at the time of sampling. When possible, water temperature, specific conductance, pH, and dissolved oxygen concentration are measured in the stream; otherwise the measurements are made from the sample immediately after collection. Specific conductance and pH are also measured in the laboratory.

Bottom-material samples are collected at one or more places in the stream cross section. Because streambed conditions differ widely from place to place, bottom material was collected wherever it could be obtained with Teflon[1] scoops and buckets. Care is taken to avoid disturbing the material during sample collection to minimize the washing away of fine material. After collection, the bottom material is mixed to produce a homogeneous sample, which is then split for the various analyses.

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[1] Use of trade names is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey.

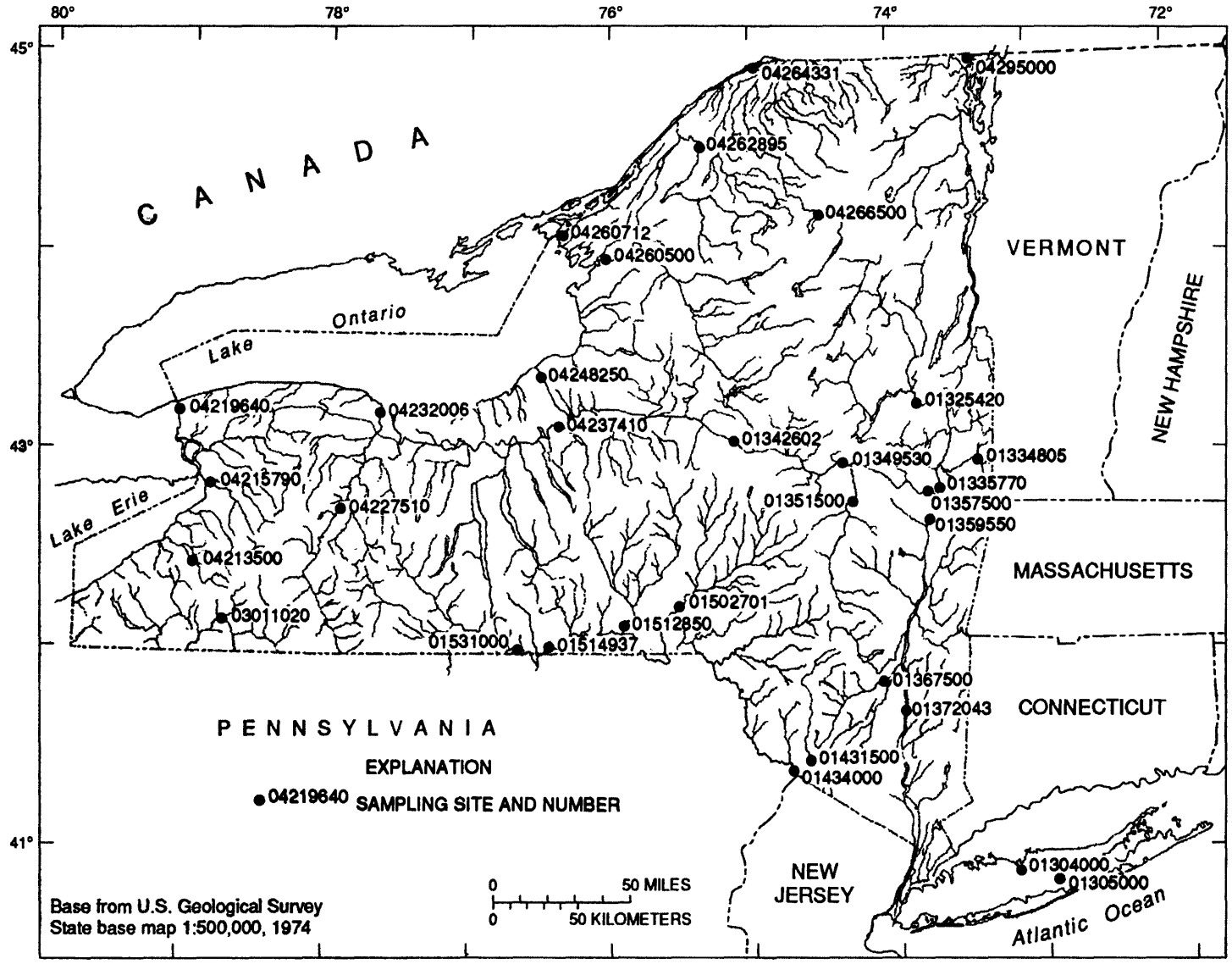

Figure 2.-Locations of permanent water-quality-sampling sites.

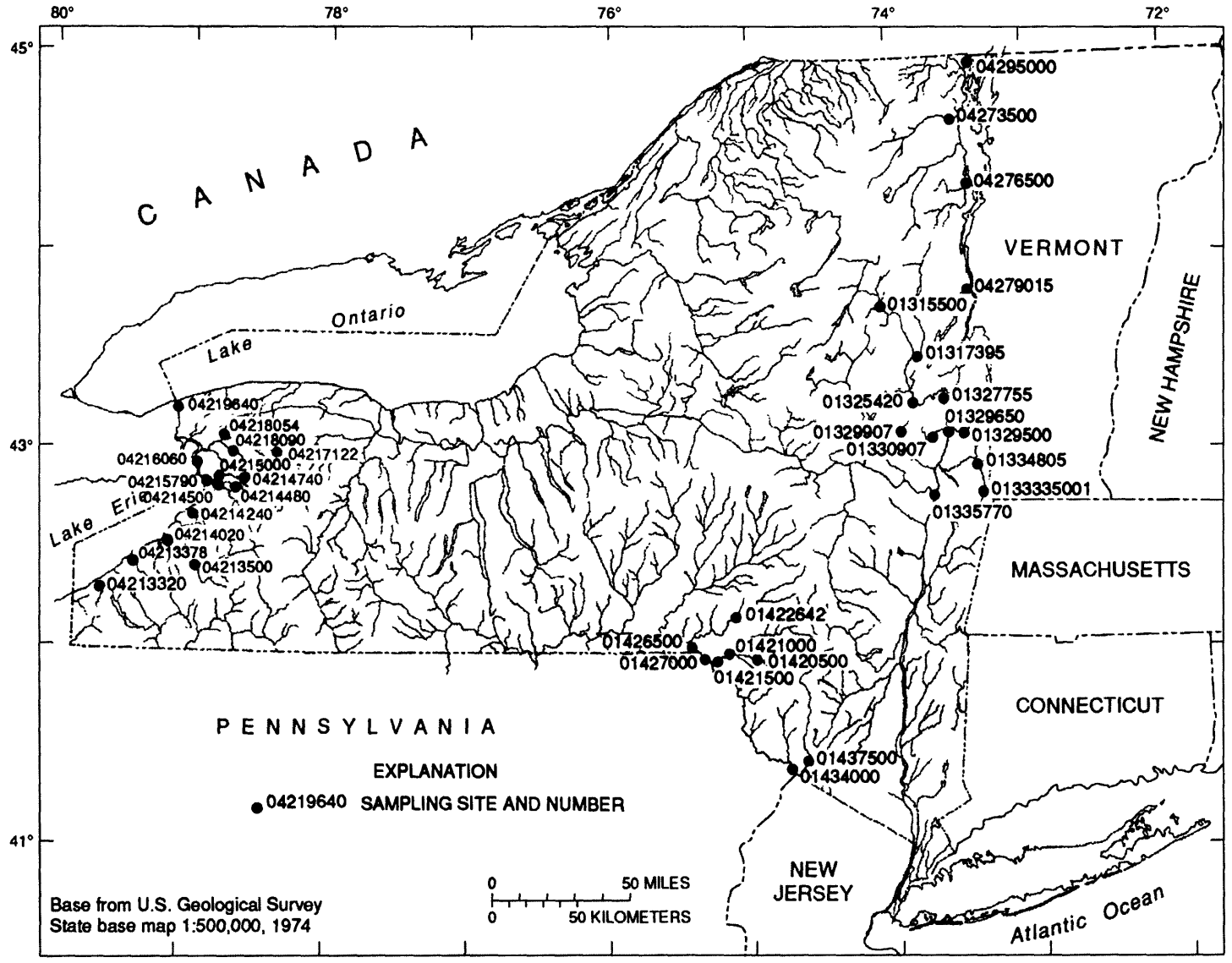

Figure 3.-Locations of rotating intensive basin study sites sampled in 1987-88.

Laboratory Analysis

Heavy-metal and major-ion analyses were run in the USGS Central Laboratory in Arvada, Colo.; analytical procedures are documented in Fishman and Friedman (1985). Sediment samples were analyzed in the USGS sediment laboratory in Harrisburg, Pa.; analytical procedures are documented in Guy (1969). Analytes, analytical methods, detection limits, and reporting limits are listed in table 2.

Analyses for nutrients, bacteria, solids, and organic compounds were run in the New York State Department Health laboratories in Albany, Syracuse, or Buffalo. Analyses for volatile halogenated organic compounds were run in the NYSDEC laboratory in Albany. Analytical procedures used by these laboratories are documented in American Public Health Association, American Water Works Association and Water Pollution Control Federation (1980), U.S. Environmental Protection Agency (1983), U.S. Environmental Protection Agency (1982), and Wadsworth Center for Labs and Research, New York State Department of Health (1988). Analytes, analytical methods, detection limits, and reporting limits are listed in table 3.

Table 2.—Analytical methods, detection limits, and reporting limits for analytes measured by U.S. Geological Survey laboratories.

[Method codes are referenced from Fishman and Friedman (1989). If more than one method was used, the starting date (month and year) of the new method is given in parentheses. Method codes for sediment analyses are by page numbers references in Guy (1969).greater than. ≥ equal to or greater than.]

Analyte	Method codes	Detection limit (lowest reported value)	Reporting limit	
			Number of significant digits	Concentration range
		Heavy Metals		
		Total Recoverable (in micrograms per liter)		
Aluminum	I-3054-85	10	1	< 100
			2	≥ 100
Cadmium	I-3135-85	10	1	< 100
			2	≥ 100
	I-3136-85 (09-87)	1	1	< 10
			2	≥ 10
Copper	I-3270-85	10	1	< 100
			2	≥ 100
	I-3271-85 (09-87)	1	1	< 10
			2	≥ 10
Iron	I-3381-85	10	1	< 100
			2	≥ 100
Lead	I-3399-85	10	1	< 100
			2	≥ 100
	I-3400-85 (05-87)	5	1	< 10
			2	≥ 10
Manganese	I-3454-85	10	1	< 100
			2	≥ 100
Mercury	I-3462-85	0.1	1	< 10
			2	≥ 10
Nickel	I-3499-85	100	1	< 1,000
			2	≥ 1,000
	I-3500-85 (05-87)	1	1	< 10
			2	≥ 10
Zinc	I-3900-85	10	1	< 100
			2	≥ 100

Table 2.—Analytical methods, detection limits, and reporting limits for analytes measured by U.S. Geological Survey laboratories (continued).

Analyte	Method codes	Detection limit (lowest reported value)	Reporting limit	
			Number of significant digits	Concentration range
		Heavy Metals		
		Dissolved (in micrograms per liter)		
Aluminum	I-1054-85	10	1	< 100
			2	≥ 100
Cadmium	I-1135-85	1	1	< 10
			2	≥ 10
Copper	I-1271-85	1	1	< 10
			2	≥ 10
Iron	I-1381-85	10	1	< 100
			2	≥ 100
Lead	I-1400-85	5	1	< 10
			2	≥ 10
Manganese	I-1454-85	10	1	< 100
			2	≥ 100
Nickel	I-1500-85	1	1	< 10
			2	≥ 10
Zinc	I-1900-85	10	1	< 100
			2	≥ 100
		Total recoverable from bottom material (in micrograms per gram)		
Aluminum	I-5054-85	10	1	< 100
			2	≥ 100
Cadmium	I-5135-85	1	1	< 10
			2	≥ 10
Copper	I-5270-85	1	1	< 10
			2	≥ 10
Iron	I-5381-85	1	1	< 10
			2	≥ 10
Lead	I-5399-85	10	1	< 100
			2	≥ 100
Manganese	I-5454-85	1	1	< 10
			2	≥ 10
Nickel	I-5499-85	10	1	< 100
			2	≥ 100
Zinc	I-5900-85	1	1	< 10
			2	≥ 10
		Major ions, dissolved (in milligrams per liter)		
Alkalinity	I-2030-85	1	1	< 10
			2	≥ 10
Calcium	I-1152-85	0.1	1	< 1.0
			2	≥ 1.0
Chloride	I-2187-85	0.1	1	< 1.0
			2	≥ 1.0
Fluoride	I-2327-85	0.1	1	< 1.0
			2	≥ 1.0
Magnesium	I-1447-85	0.1	1	< 1.0
			2	≥ 1.0
Potassium	I-1630-85	0.1	1	< 1.0
			2	≥ 1.0

Table 2.—Analytical methods, detection limits, and reporting limits for analytes measured by U.S. Geological Survey laboratories (continued).

Analyte	Method codes	Detection limit (lowest reported value)	Reporting limit: Number of significant digits	Reporting limit: Concentration range
Major ions, dissolved (in milligrams per liter) (continued)				
Sodium	I-1735-85	0.1	1	< 1.0
			2	≥ 1.0
Sulfate	I-2823-85	0.2	1	< 1.0
			2	≥ 1.0
Solids				
Volatile on ignition, total in bottom material	I-5753-85	1 mg/kg	1	< 10 mg/kg
			2	< 100 & ≥ 10 mg/kg
Residue on evaporation at 105° C, total, gravimetic	I-3750-85	1 mg/L	1	< 10 mg/L
			2	< 100 & ≥ 10 mg/L
			3	≥ 100 mg/L
Sediment				
Concentration	(12-13)	1 mg/L	1	< 10 mg/L
			2	< 100 & ≥ 10 mg/L
Grain size, bottom material	(23-38)	1 percent	1	< 10 percent
			2	≥ 10 percent

Table 3.—Analytical methods, detection limits, and reporting limits for analytes measured by New York State laboratories (continued).

[Method codes for nutrients and phenols are referenced from U.S. Environmental Protection Agency (1983). Method codes for bacteria, solids, and turbidity are referenced from American Public Health Association, American Water Works Association, and Water Pollution Control Federation (1981). Method codes for volatile halogenated organic compounds are referenced from U.S. Environmental Protection Agency (1982). Method codes for organochlorine pesticides, PCBs, and pesticides containing nitrogen or phosphorus are referenced from Wadsworth Center for Labs and Research, New York State Department of Health (1988). < less than. > greater than. ≥ equal to or greater than. NTU Nephelometric turbidity unit.]

Analyte	Method codes	Detection limit (lowest reported value)	Reporting limit: Number of significant digits	Reporting limit: Concentration Range
Nutrients (in milligrams per liter)				
Nitrogen				
Total organic	351.2	0.1	1	< 1.0
			2	≥ 1.0
Total ammonia	350.1	0.01	1	< 0.1
			2	≥ 0.1
Total nitrite	353.2	0.05	1	< 0.1
			2	≥ 0.1
Total nitrate + nitrite	353.2	0.05	1	< 0.1
			2	≥ 0.1
Phosphorus				
Total	365.2	0.01	1	< 0.1
			2	≥ 0.1
Ortho, dissolved	365.2	0.01	1	< 0.1
			2	≥ 0.1

Table 3.—Analytical methods, detection limits, and reporting limits for analytes measured by New York State laboratories (continued).

Analyte	Method codes	Detection limit (lowest reported value)	Reporting limit: Number of significant digits	Reporting limit: Concentration Range
Solids (in milligrams per liter)				
Total residue at 105°C	209 A	1	1	< 10
			2	> 10 &< 100
Volatile in ignition	209 E	1	1	< 10
			2	> 10 & < 100
Total residue fixed	209 E	1	1	< 10
			2	> 10 & < 100
Dissolved residue at 108°C	209 E	1	1	< 10
			2	> 10 & < 100
Bacteria (colonies per 100 milliliters)				
Fecal Coliform	909 A	1	1	< 10
			2	≥ 10
Total Coliform	909 C	1	1	< 10
			2	≥ 10
Total Volatile Halogenated Organic Compounds (in micrograms per liter)				
1,1,1-Trichloroethane	601	0.03	1	< 1.0
			2	≥ 1.0
1,1,2,2-Tetrachloroethane	601	0.03	1	< 1.0
			2	≥ 1.0
1,1,2-Trichloroethane	601	0.02	1	< 1.0
			2	≥ 1.0
1,1-Dichloroethane	601	0.1	1	< 1.0
			2	≥ 1.0
1,1-Dichloroethylene	601	0.1	1	> 1.0
			2	≥ 1.0
1,2-Dichlorobenzene	601	0.1	1	> 1.0
			2	≥ 1.0
1,2-Dichloroethane	601	0.03	1	> 1.0
			2	≥ 1.0
1,2-Dichloropropane	601	0.04	1	> 1.0
			2	≥ 1.0
1,2-Transdichloroethene	601	0.1	1	> 1.0
			2	≥ 1.0
1,3-Dichlorobenzene	601	0.3	1	> 1.0
			2	≥ 1.0
1,4-Dichlorobenzene	601	0.2	1	> 1.0
			2	≥ 1.0
2-Chloroethylvinyl ether	601	0.1	1	> 1.0
			2	≥ 1.0
Bromoform	601	0.2	1	> 1.0
			2	≥ 1.0
Carbon tetrachloride	601	0.1	1	> 1.0
			2	≥ 1.0
Chlorobenzene	601	0.2	1	> 1.0
			2	≥ 1.0
Chlorodibromomethane	601	0.1	1	> 1.0
			2	≥ 1.0
Chloroethane	601	0.5	1	> 1.0
			2	≥ 1.0

Table 3.—Analytical methods, detection limits, and reporting limits for analytes measured by New York State laboratories (continued).

Analyte	Method codes	Detection limit (lowest reported value)	Reporting limit: Number of significant digits	Reporting limit: Concentration Range
Total Volatile Halogenated Organic Compounds (in micrograms per liter)				
Chloroform	601	0.1	1	> 1.0
			2	≥ 1.0
Cis-1,3-Dichloropropene	601	0.2	1	> 1.0
			2	≥ 1.0
Dichlorobromomethane	601	0.1	1	> 1.0
			2	≥ 1.0
Methylbromide	601	0.1	1	> 1.0
			2	≥ 1.0
Methylchloride	601	0.1	1	> 1.0
			2	≥ 1.0
Methylene chloride	601	0.2	1	> 1.0
			2	≥ 1.0
Tetrachloroethylene	601	0.03	1	> 1.0
			2	≥ 1.0
Trans-1,3-Dichloropropene	601	0.3	1	> 1.0
			2	≥ 1.0
Trichloroethylene	601	0.1	1	> 1.0
			2	≥ 1.0
Vinyl chloride	601	0.2	1	> 1.0
			2	≥ 1.0
		Other Analytes		
Phenols (in micrograms per liter)	214 A	1	1	< 10
			2	≥ 10
Turbidity [in Nephelometric Turbidity Units (NTU)]	205	0.1	a	
Organochlorine Pesticides total in bottom material (in micrograms per kilogram)				
			2	< 1,000
Aldrin	312.2	20	3	≥ 1,000
Alpha BHC	312.2	10	2	< 100
			3	≥ 100
Beta-Benzene hexachloride	312.2	10	2	< 100
			3	≥ 100
Chlordane	312.2	30	2	< 1,000
			3	≥ 1,000
DDD-para, para	312.2	10	2	< 10,000
			4	≥ 10,000
DDE-para, para	312.2	10	2	< 10,000
			4	≥ 10,000
DDT-para, para	312.2	10	2	< 10,000
			4	≥ 10,000
Delta Benzene hexachloride	312.2	10	2	< 100
			3	≥ 100

[a] Report 0.0 to 0.1 NTU to the nearest 0.05; 1 to 10 NTU to the nearest 0.1; 11 to 40 NTU to the nearest 1;
41 to 100 NTU to the nearest 5; 101 to 400 NTU to the nearest 10; 401 to 1,000 NTU to the nearest 50;
over 1,000 NTU to the nearest 100.

Table 3.—Analytical methods, detection limits, and reporting limits for analytes measured by New York State laboratories (continued).

Analyte	Method codes	Detection limit (lowest reported value)	Reporting limit: Number of significant digits	Reporting limit: Concentration Range
Organochlorine Pesticides total in bottom material (in micrograms per kilogram) (cont'd)				
Dieldrin	312.2	10	2	< 1,000
			3	≥ 1,000
Endosulfan alpha	312.2	20	2	< 100
			3	≥ 100
Endosulfan beta	312.2	20	2	< 100
			3	≥ 100
Endosulfan sulfate	312.2	10	2	< 100
			3	≥ 100
Endrin	312.2	10	2	< 1,000
			3	≥ 1,000
Endrin aldehyde	312.2	20	2	< 100
			3	≥ 100
Heptachlor	312.2	20	2	< 1,000
			3	≥ 1,000
Heptachlor epoxide	312.2	20	2	< 1,000
			3	≥ 1,000
Lindane	312.2	10	2	< 1,000
			3	≥ 1,000
Methoxychlor	312.2	30	2	< 1,000
			3	≥ 1,000
Mirex	312.2	10	2	< 1,000
			3	≥ 1,000
Toxaphene	312.2	30	2	< 1,000
			3	≥ 1,000
Total PCB's in bottom material (in micrograms per kilogram)				
PCB, Aroclor 1221	312.2	1	1	< 10
			2	≥ 10 to < 10
			3	≥ 100
PCB, Aroclor 1248	312.2	1	1	< 10
			2	≥ 10 to < 10
			3	≥ 100
PCB, Aroclor 1254	312.2	1	1	< 10
			2	≥ 10 to < 100
			3	≥ 100
PCB, Aroclor 1260	312.2	1	1	< 10
			2	≥ 10 to < 100
			3	≥ 100
Pesticides containing Nitrogen/Phosphorus total in bottom material (in micrograms per kilogram)				
Atrazine	312.2	30	2	< 1,000
			3	≥ 1,000
Diazinon	312.2	30	2	< 1,000
			3	≥ 1,000
Parathion	312.2	30	2	< 1,000
			3	≥ 1,000
Chlorpyrifos	312.2	30	2	≥ 30
Malathion	312.2	30	2	< 1,000
			3	≥ 1,000
Ethion	312.2	30	2	< 1,000
			3	≥ 1,000

ARRANGEMENT OF SELECTED DATA ON WATER QUALITY AND BOTTOM MATERIAL

The data for each of the 59 sites in table 4 (at end of report) begins with a site description that gives site location, drainage area, period of record, types of data available from the USGS, and other remarks pertinent to the data. The water-quality and bottom-material data include discharge, field measurements, and results of laboratory analyses.

Results of quality-assurance samples are presented in table 5 (at end of report). These data include the analytical results of paired duplicate samples and give the site, date, and time to which they correspond in table 4. Analytical results of field blanks are identified by date and time.

Sites listed in table 4 are grouped by drainage basin and presented in downstream order. Since October 1, 1950, the listing order of hydrologic-station records in USGS reports, by convention, is in downstream order along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station, and a station on a tributary that enters between two mainstream stations is listed between them. This downstream-order system shows which stations are on tributaries between any two stations.

In assigning station numbers, no distinction is made between types of stations (stream-flow-gaging stations, water-quality-sampling sites, permanent sites, RIBS sites, etc); therefore, the station number indicates only the downstream order. Gaps are left in the series of numbers to allow for new stations; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 01335770, comprises the 2-digit basin number (01) plus the 6-digit downstream-order number (335770). The basin number designates the major river basin. The downstream-order numbers for sites in the headwaters of a basin are small and increase downstream. In the few instances where no gaps were left in the 8-digit numbering sequence, one or two digits are added to give a 9- or 10-digit station number.

The site descriptions contain the following headings. Not all headings are used for every site.

LOCATION.—Information on locations is obtained from the most accurate maps available and includes latitude, longitude, county, and hydrologic-unit number. The location of the site is given in terms of the cultural or physical features in the vicinity and the place mentioned in the station name.

DRAINAGE AREA.—Drainage areas are measured from the most accurate maps available and are reported in square miles. Because the type of maps available differ from one drainage basin to another, the accuracy of drainage areas also varies. Drainage areas are updated as improved maps become available.

PERIOD OF RECORD.—Period of record indicates periods for which water-quality data are available from the USGS. First, the water years for which data are available are listed, followed by a list of categories of water-quality data with years and frequency-of-sampling codes. The years refer to water years (October through September), and the frequency-of-sampling codes indicate the amount of data available and are defined as follows:

(a) 1 or 2 samples per year
(b) 3 to 5 samples per year
(c) 6 to 9 samples per year
(d) 10 to 20 samples per year
(e) more than 20 samples per year

The many types of water-quality analyses available are grouped into eight categories in the "Period of Record" section, as explained below:

Chemical Data: Most of the major ions and some or all of the following physical properties: specific conductance, pH, temperature, color, turbidity, and dissolved oxygen concentration.

Minor Element Data: The "heavy metals" and some of the "alkaline earth metal" groups. Determinations may include some but not all of the following: aluminum, arsenic, barium, cadmium, chromium, cobalt, copper, lithium, mercury, nickel, selenium, strontium, and zinc.

Radiochemical Data: Concentrations of individual radioactive elements, such as radium 226, cobalt 60, strontium 90, and tritium; also included are gross measurements of radioactivity (alpha, beta, gamma) without regard to the radiochemical species that produce the radioactivity.

Pesticide Data: Organic compounds (insecticides and herbicides) for control of insects and plants. Routinely, the analyses search for traces

of 12 to 22 compounds.

Organic Data: Organic compounds other than pesticides, such as organic carbon, PCB's, and PCN's.

Nutrient Data: Analytes containing nitrogen or phosphorus. Results commonly include the following: nitrate plus nitrite, phosphorus, ammonia nitrogen, organic nitrogen, ammonia nitrogen plus organic nitrogen (Kjeldahl nitrogen).

Biological Data: The identification and concentration of microscopic plant organisms (phytoplankton, periphyton) or enteric bacteria (total coliform, fecal coliform, or fecal streptococcal) living in aquatic habitats.

Sediment Data: Suspended-sediment concentration, suspended-sediment discharge, and particle-size data for discrete samples.

REMARKS.—Additional information pertinent to the collection or analysis of data. Such information could include the method of computing discharge, type of site (RIBS or permanent), or any information that explains departures from procedures described previously.

COOPERATION.—Acknowledgment of any government agencies other than NYSDEC or private companies that provided data for a site.

SOURCES OF DATA

Access to data in this report and additional data is available through the USGS and the NYSDEC. All data that the USGS has collected are available to the public in published reports and(or) computer retrievals. NYSDEC has additional data that are available in published reports and(or) computer retrievals.

U.S. Geological Survey

The USGS is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water-data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As a part of the USGS program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the USGS and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses, can be produced using WATSTORE. The system resides on the central computer facilities of the USGS at its National Center in Reston, Va., and consists of related files and data bases.

- **Station Header File**.—Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the USGS collects or has collected data.
- **Daily Values File**.—Contains more than 220 million daily values of streamflow, stage, reservoir content, water temperature, specific conductance, sediment concentration, sediment discharge, and ground-water level.
- **Peak Flow File**.—Contains about 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- **Water-Quality File**.—Contains about 2 million analyses of water samples that describe the chemical, physical, biological, and radiochemical characteristics of both surface and ground water.
- **Ground-Water-Site Inventory Data Base**.—Contains inventory data from more than 900,000 wells, springs, and other sources of ground water. The data include site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the USGS opened WATSTORE to the public for direct access. A signed Memorandum of Agreement with the USGS is needed for direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs incurred. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, VA 22092

In addition to providing direct access to WATSTORE, the USGS can provide data in various machine-readable formats on magnetic tape or 51/4 -inch floppy disk, and on CD-ROM disks. Information about the availability of specific types of data or products and user charges can be obtained locally from each of the USGS District offices. (See address on page ii.)

New York State Department of Environmental Conservation

STOrage and RETrieval (STORET) is a computer data system maintained by the U.S. Environmental Protection Agency and used by the NYSDEC for data storage. Water-quality data in WATSTORE are also stored in STORET. Inquiries about STORET data can be directed to:

Chief, Quality Assessment Section
New York State Department of Environmental Conservation
Bureau of Monitoring and Assessment
50 Wolf Road, Room 328
Albany, NY 12233-3503

REFERENCES CITED

American Public Health Association, American Water Works Association, and Water Pollution Control Federation, 1981, Standard methods for the examination of water and wastewater: Springfield, Va., Byrd PrePress, 1,134 p.

Campbell, J.B., Coon, W.H., Sherwood, D.A., and Deloff, D.D., 1988, Water resources data—New York, water year 1988. Volume 3, western New York: U.S. Geological Survey Water-Data Report NY-88-3, 198 p.

____ 1990, Water resources data—New York, water year 1989. Volume 3, western New York: U.S. Geological Survey Water-Data Report NY-89-3, 198 p.

Coon, W.F., Johnston, W.H., Sherwood, D.A., and Deloff, D.D., 1987, Water resources data—New York, water year 1987. Volume 3, western New York: U.S. Geological Survey Water-Data Report NY-87-3, 178 p.

Edwards, T.K., and Glysson, G.D., 1988, Field methods for measurement of fluvial sediment: U.S. Geological Survey Open-File Report 86-531, 118 p.

Fishman, M.J., and Friedman, L.C., 1989, Methods for determination of inorganic substances in water and fluvial sediments: Techniques of Water-Resources Investigations of the United States Geological Survey, Book 5, Chapter A1, 545 p.

Firda, G.D., Lumia, Richard, and Burke, P.M., 1988, Water resources data—New York, water year 1987. Volume 1, eastern New York excluding Long Island: U.S. Geological Survey Water-Data Report NY-87-1, 267 p.

____ 1989, Water resources data—New York, water year 1988. Volume 1, eastern New York excluding Long Island: U.S. Geological Survey Water-Data Report NY-88-1, 259 p.

Firda, G.D., Lumia, Richard, and Murray, P.M., 1990, Water resources data—New York, water year 1989. Volume 1, eastern New York excluding Long Island: U.S. Geological Survey Water-Data Report NY-89-1, 258 p.

Guy, H.P., 1969, Laboratory theory and methods for sediment analysis: Techniques of Water-Resources Investigations of the United States Geological Survey, Book 5, Chapter C1, 58 p.

Horowitz, A.J., Rinella, F.A., Lamothe, Paul, Miller, T.L., Edwards, T.K., Roche, R.L., and Rickert, D.A., 1989, Cross-sectional variability in suspended sediment and associated trace element concentrations in selected rivers in the US: Sediment and the Environment, no. 181, p. 57-66.

New York State Department of Environmental Conservation, 1990, Biennial report rotating intensive basin studies water quality assessment program 1987-1988, 160 p.

Spinello, A.G., Nakao, J.H., Winowitch, R.B., and Simmons, D.L., 1988, Water resources data—New York, water year 1987. Volume 2, Long Island: U.S. Geological Survey Water-Data Report NY-87-2, 218 p.

Spinello, A.G., Nakao, J.H., Busciolano, Ronald, and Winowitch, R.B., 1989, Water resources data—New York, water year 1988. Volume 2, Long Island: U.S. Geological Survey Water-Data Report NY-88-2, 230 p.

Spinello, A.G., Nakao, J.H., Busciolano, Ronald, Winowitch, R.B.and Eagen, V.K., 1990, Water resources data—New York, water year 1989.

REFERENCES CITED (Continued)

Volume 2, Long Island: U.S. Geological Survey Water-Data Report NY-89-2, 196 p.
U.S. Environmental Protection Agency, 1982, Methods for organic chemical analysis of municipal and industrial wastewater: Cincinnati, Ohio, U.S. Environmental Protection Agency, EPA-600/ 4-82-057, 87 p.
____ 1983, Methods for chemical analysis of water and wastes: Cincinnati, Ohio, U.S. Environmental Protection Agency, EPA-600/4-79-020, 356 p.
U.S. Geological Survey, 1986, National water summary 1985—hydrologic events and surface-water resources: U.S. Geological Survey Water-Supply Paper 2300, 506 p.
Wadsworth Center for Labs and Research, New York State Department of Health, 1988, Analytic handbook—laboratory of organic analytical chemistry: Albany, N.Y., New York State Department of Health, 364 p.

GLOSSARY

Terms and abbreviations related to streamflow, water quality, and other hydrologic data, as used herein, are defined below.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike, often clumped into colonies. Some bacteria cause disease; others perform an essential role in nature in the recycling of materials, such as decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose and cause gas formation within 48 hours at 35 °C. In the laboratory these bacteria are defined as the organisms that produce colonies within 24 hours when incubated at 35 °C ±1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C ±0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all organisms that produce red or pink colonies within 48 hours at 35 °C ±1.0 °C on KF medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material. See Bottom material.

Bottom material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed. Also known as bottom or bed sediment.

Recoverable from bottom material is the amount of a given analyte that is in solution after a representative sample of bottom material has been digested by a method (usually an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment; thus, the determination represents less than the total amount (that is, less than 95 percent) of the analyte in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories that perform such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given analyte in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the analyte determined. A knowledge of the expected form of the analyte in the sample, as well as the analytical methods used, is required for judgment as to when the results should be reported as "total in bottom material."

Cells/volume refers to the number of cells of

any organism that are counted through a microscope and grid or counting cell. Many planktonic organisms are multicellular and are counted according to the number of contained cells per sample (usually milliliters or liters).

Cubic foot per second (FT^3/S, ft^3/s) is the rate at which 1 cubic foot of water passes a given point during 1 second and is equivalent to about 7.48 gallons per second or 448.8 gallons per minute.

Detection limit. The lowest concentration of an analyte that a laboratory procedure can detect in a sample.

Discharge is the volume of water (or volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant, expressed in ft^3/s.

Dissolved refers to the material, in a representative water sample, that passes through a 0.45-µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" analytes are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically as the total of the concentrations of individual analytes reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change to carbonate on the assumption that half the bicarbonate is volatized to carbon dioxide and water.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted. All values are in square miles.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water, together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic measurements of hydrologic data are obtained.

Grain size. See particle size.

Grain-size classification used in this report agrees with recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of Analysis
Clay	0.00024 - 0.004	Sedimentation
Silt	.004 - 062	Sedimentation
Sand	.062 - 2.0	Sedimentation or sieve
Gravel	2.0 - 64.0	Sieve

The grain-size distributions given in this report are not necessarily representative of all particles in transport in the stream because the sample is subjected to mechanical and chemical dispersion in distilled water before analysis.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earth metals (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the USGS on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Micrograms per gram (µg/g) is a unit express-

ing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per kilogram (µg/kg) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of sediment.

Micrograms per liter (µG/L, µg/L) is a unit expressing the concentration of chemical analytes in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per kilogram (mg/kg) is a unit expressing the concentration of a chemical element as the mass (milligrams) of the element sorbed per unit mass (kilogram) of sediment.

Milligrams per liter (MG/L, mg/L) is a unit expressing the concentration of chemical analytes in solution. Milligrams per liter represent the mass (milligrams) of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of sediment per liter of water-sediment mixture.

Organic carbon (OC) is a measure of the organic matter present in aqueous solution and(or) suspension. May be reported in any of three categories (DOC, dissolved organic carbon; SOC, suspended organic carbon; TOC, total organic carbon).

Organism is any living entity, such as an insect, phytoplankton, or zooplankton.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in distilled water (chemically dispersed).

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants, respectively, are the two categories reported.

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCN's) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to those of PCB's and have been identified in commercial PCB preparations.

Reporting limit is the number of significant digits reported for a given range of values for an analyte.

Runoff is that part of the precipitation that appears in streams. It is the same as streamflow unaffected by artificial diversions, storage, or other works of man in or on the stream channels.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from, water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and causes of sediment in streams are influenced by environmental factors, some of which are degree of slope, length of slope, soil characteristics, land use, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension in the water column by the upward components of turbulent currents or that remains in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point about 0.3 feet above the bed) expressed as milligrams of dry sediment per liter of water and sediment mixture (mg/L).

Suspended-sediment discharge (tons per day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed

as a product of discharge multiplied by suspended-sediment concentrations, in mg/L, by the factor 0.0027.

Total sediment discharge (tons per day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter (µS/cm) at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used to approximate the dissolved-solids concentration of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance value (µS/cm). This relation is not constant from stream to stream, and it may vary within the same stream with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" because streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual analyte, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed as a product of discharge multiplied by the analyte concentration, in mg/L, by the factor 0.0027, by the number of days.

Total (as used in tables of chemical analyses): *Total* is the total amount of a given analyte in a representative water and suspended-sediment sample, regardless of the analyte's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the analyte present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the analyte in the sample and of the analytical method used is required for judgment as to when the results should be reported as "total." (The word "total" indicates both that the sample consists of a water and suspended-sediment mixture and that the analytical method detects all of the analyte in the sample.)

Total, recoverable is the amount of a given analyte that is in solution after a representative water and suspended-sediment sample has been digested by a method (usually a dilute acid solution is used) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment; thus, the determination represents less than the "total" amount (that is, less than 95 percent) of the analyte present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year is the 12-month period from October 1 through September 30. The water year is designated by the calendar year in which it ends. Thus, the year ending September 30, 1980, is called the "1980 water year."

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88.

[Abbreviations used in table: AL - Aluminum, BOT. - bottom, C6H5OH - Phenol, CA - Calcium, CACO3 - Calcium carbonate, CD - Cadmium, CL - Chloride, COLS. - colonies, CU - Copper, DEG. C. - Degree Celsius, DIAM. - diameter, E - estimated, F - Fluoride, FE - Iron, FM - from, HG - Mercury, IMMED. - immediate M-EDOC medium, INST. - instantaneous, K - Potassium, LAB - laboratory, MAT. - material, MATL. - material, MEM.FIL - membrane filter, MG - Magnesium, MG/KG - milligram per kilogram, MG/L - milligram per liter, ML - milliliter, MM - millimeter, MN - Manganese, N - Nitrogen, NA - Sodium, ND - not detected, NH4 - Ammonia, NI - Nickel, NO2 - Nitrite, NO3 - Nitrate, NTU - nephelometric turbidity unit, P - Phosphorus, PB - Lead, PCB - Polychlorinated biphenyls, PO4 - Orthophosphate, RECOV. - recover, SO4 - Sulfate, T/DAY - tons per day, TOT. - total, UG/G - microgram per gram, UG/KG - microgram per kilogram, UG/L - microgram per liter, US/CM - microsiemens per centimeter, ZN - Zinc.]

STREAMS ON LONG ISLAND

01304000 NISSEQUOGUE RIVER NEAR SMITHTOWN, NY

LOCATION.-- Lat 40 50'58", long 73 13'29", Suffolk County, Hydrologic Unit 02030201, on left bank 0.5 mi downstream from New Mill Pond, 1.0 mi southwest of village of Smithtown Branch. Water-quality sampling sit at discharge station.

DRAINAGE AREA.--27 mi2.

PERIOD OF RECORD--Water years 1967 to 1989.
CHEMICAL DATA: 1967-68 (b), 1969-70 (a), 1971-77 (b), 1978-84 (d), 1985-86 (e), 1987 (d), 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1967 (a), 1971-77 (b), 1978 (d), 1979 (c), 1980 (d), 1981-82 (c), 1983-85 (d), 1986 (e), 1987 (d), 1988 (c), 1989 (a).
RADIOCHEMICAL DATA: 1981 (c).
ORGANIC DATA: OC--1972 (a), 1977 (b), 1978-81 (d).
NUTRIENT DATA: 1967-68 (b), 1969-70 (a), 1971-77 (b), 1978-85 (d), 1986 (e), 1987 (d), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1978 (c), 1979-81 (d), 1982 (b), 1983-84 (c), 1985-88 (b), 1989 (a).
Phytoplankton--1978-81 (d).
Periphyton--1978-80 (b).
SEDIMENT DATA: 1978 (c), 1979-81 (d), 1982-86 (c), 1987-88 (b), 1989 (a).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1978 to September 1981.
WATER TEMPERATURES: January 1978 to September 1981.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAY 1988												
31...	1845	36	121	124	6.8	21.5	2.0	762	8.6	97	27	6.6
JUN												
30...	1530	30	107	123	6.8	19.0	0.30	752	8.7	95	28	6.9
AUG												
04...	1445	31	121	119	5.9	24.5	0.60	764	7.5	89	26	6.4
25...	1130	32	118	120	6.5	18.0	1.0	761	8.6	91	28	6.8
OCT												
13...	0800	29	111	120	7.1	10.0	--	766	10.1	89	28	6.6

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
MAY 1988												
31...	2.6	12	1.1	18	10	17	0.30	56	60	88	46	--
JUN												
30...	2.6	12	0.90	18	10	16	<0.10	73	74	91	42	49
AUG												
04...	2.5	11	0.90	17	10	14	0.10	91	55	99	37	62
25...	2.6	12	0.80	19	10	15	0.10	75	72	94	51	43
OCT												
13...	2.7	11	1.5	16	11	14	0.10	54	56	70	19	51

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS ON LONG ISLAND

01304000 NISSEQUOGUE RIVER NEAR SMITHTOWN, NY - continued

WATER-QUALITY DATA (continued)

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
MAY 1988												
31...	1.51	0.010	1.52	0.050	0.06	--	0.76	0.81	2.3	10	0.020	--
JUN												
30...	1.45	0.00	1.45	0.030	0.04	0.04	0.47	0.50	2.0	8.6	0.010	<0.010
AUG												
04...	1.24	0.010	1.25	0.070	0.09	--	0.69	0.76	2.0	8.9	0.060	0.040
25...	--	ND	1.06	0.040	0.05	0.04	0.26	0.30	1.4	6.0	<0.010	<0.010
OCT												
13...	--	ND	1.57	0.010	0.01	--	0.18	0.19	1.8	7.8	0.020	ND

DATE	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
MAY 1988												
31...	--	40	--	1	--	--	--	5	--	260	--	<5
JUN												
30...	--	<10	<10	<1	<1.0	--	1	10	1	120	37	<5
AUG												
04...	0.12	10	--	1	--	--	--	8	--	180	--	5
25...	--	40	<10	<1	1.0	2	1	2	2	120	40	<5
OCT												
13...	--	10	--	1	--	--	--	3	--	120	--	<5

DATE	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)
MAY 1988												
31...	--	130	--	--	4	--	--	<10	--	--	--	--
JUN												
30...	<5	80	35	<0.10	43	<1	1.0	70	88	ND	ND	ND
AUG												
04...	--	70	--	<0.10	3	--	--	10	--	--	--	--
25...	<5	50	30	<0.10	2	1	<1.0	60	12	ND	ND	ND
OCT												
13...	--	50	--	--	3	--	--	<10	--	ND	ND	ND

DATE	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)
MAY 1988												
31...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS ON LONG ISLAND

01304000 NISSEQUOGUE RIVER NEAR SMITHTOWN, NY - continued

WATER-QUALITY DATA (continued)

DATE	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAY 1988												
31...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
30...	1530	30	1	0.10
AUG				
25...	1130	32	3	0.25

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS ON LONG ISLAND

01305000 CARMANS RIVER AT YAPHANK, NY

LOCATION.--Lat 40 49'49", long 72 54'24", Suffolk County, Hydrologic Unit 02030202, on left bank 50 ft upstream from Long Island Railroad bridge, 0.6 mi northeast of Yaphank Station, and 0.7 mi southeast of Yaphank.

DRAINAGE AREA.--About 71 mi2.

PERIOD OF RECORD.--Water years 1966 to current year.
CHEMICAL DATA: 1966 (a), 1967-69 (b), 1970 (a), 1971 (d), 1972 (c), 1973-76 (d), 1977 (b), 1978 (c), 1979-82 (d), 1983-86 (c), 1987 (d), 1988 (c), 1989 (a).
MINOR ELEMENT DATA. 1966 (a), 1967-69 (b), 1970 (a), 1971 (d), 1972 (c), 1973-76 (d), 1977 (b), 1978-79 (c), 1980 (d), 1981-86 (c), 1987 (d), 1988 (c), 1989 (a).
RADIOCHEMICAL DATA: 1981 (b), 1986 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
ORGANIC DATA: OC--1972 (a), 1977-78 (b), 1979 (c), 1980 (d), 1981 (b), 1986 (a).
NUTRIENT DATA: 1966 (a), 1967-69 (b), 1970 (a), 1971 (d), 1972 (c), 1973-76 (d), 1977 (b), 1978 (c), 1979-82 (d), 1983-88 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1978 (a), 1979 (b), 1980 (d), 1981-82 (c), 1983-87 (b), 1989 (a).
Phytoplankton--1979-81 (d).
Periphyton--1979 (a), 1980 (b).
SEDIMENT DATA: 1979 (b), 1980 (d), 1981-82 (c), 1983-88 (b), 1989 (a).

PERIOD OF DAILY RECORD.
SPECIFIC CONDUCTANCE.--December 1979 to September 1981.
WATER TEMPERATURES.--December 1979 to September 1981.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAY 1988												
31...	1415	17	122	123	6.5	24.0	2.0	763	9.7	115	32	7.6
JUN												
30...	1200	15	218	131	6.9	22.0	0.60	752	10.1	117	34	8.2
AUG												
04...	1130	13	123	132	7.2	26.0	0.90	764	10.5	129	--	--
25...	1430	15	--	132	--	--	0.90	--	--	--	35	8.2
OCT												
12...	1300	13	118	132	6.4	13.0	0.70	761	10.3	98	33	7.9

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
MAY 1988												
31...	3.2	10	1.0	18	14	15	0.30	66	62	100	54	--
JUN												
30...	3.3	11	0.80	18	15	16	<0.10	72	84	113	58	55
AUG												
04...	--	--	--	18	15	15	0.10	51	--	89	24	65
25...	3.4	11	0.90	17	14	15	0.10	91	79	83	51	32
OCT												
12...	3.3	11	1.2	16	15	15	0.10	74	63	90	42	48

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
MAY 1988												
31...	1.02	0.00	1.02	0.010	0.01	--	0.61	0.62	1.6	7.3	0.020	--
JUN												
30...	0.960	0.00	0.960	0.030	0.04	0.04	1.4	1.4	2.4	10	0.020	0.050
AUG												
04...	---	ND	0.730	0.010	0.01	--	0.30	0.31	1.0	4.6	0.010	0.00
25...	1.10	0.00	1.10	0.040	0.05	0.03	0.26	0.30	1.4	6.2	0.010	<0.010
OCT												
12...	--	ND	1.32	0.020	0.03	--	0.15	0.17	1.5	6.6	0.010	0.00

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS ON LONG ISLAND

01305000 CARMANS RIVER AT YAPHANK, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
MAY 1988												
31...	--	20	--	<1	--	--	--	3	--	410	--	<5
JUN												
30...	0.15	40	<10	1	2.0	--	1	4	2	280	170	<5
AUG												
04...	0.0	<10	--	2	--	--	--	12	--	310	--	<5
25...	--	30	<10	<1	<1.0	2	1	2	1	340	140	34
OCT												
12...	0.0	<10	--	1	--	--	--	3	--	270	--	<5

DATE	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)
MAY 1988												
31...	--	80	--	<0.10	4	--	--	<10	--	--	--	--
JUN												
30...	<5	70	59	<0.10	1	<1	<1.0	<10	86	ND	ND	ND
AUG												
04...	--	40	--	<0.10	3	--	--	10	--	ND	ND	ND
25...	5	70	53	<0.10	1	2	<1.0	20	6	ND	ND	ND
OCT												
12...	--	70	--	--	2	--	--	10	--	ND	ND	ND

DATE	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)
MAY 1988												
31...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
MAY 1988												
31...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS ON LONG ISLAND

01305000 CARMANS RIVER AT YAPHANK, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
30...	1200	15	3	0.10
AUG				
25...	1430	15	2	0.08

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY

LOCATION.--Lat 43 42'03", long 73 59'02", Warren County, Hydrologic Unit 02020001, on left bank 125 ft upstream from bridge on State Highway 28N in village of North Creek, 500 ft upstream from North Creek, and 26 mi downstream from Indian Lake.

DRAINAGE AREA.--792 mi 2 .

PERIOD OF RECORD.--Water years 1969-75, 1987 to 1989.
CHEMICAL DATA: 1969 (c), 1970-74 (d), 1975 (c), 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1969 (c), 1970-74 (d), 1975 (c), 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
BIOLOGICAL DATA:
Bacteria--1987 (a), 1988 (c), 1989 (a).
NUTRIENT DATA: 1969 (c), 1970-74 (d), 1975 (c), 1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from gage at this location. Appreciable regulation of flow by Indian Lake and other reservoirs upstream from station.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
23...	1130	1670	--	--	7.3	12.5	0.90	--	14.2	--	--	--
MAY												
13...	1045	652	--	52	7.8	14.5	0.30	--	10.2	--	--	--
JUN												
22...	1100	549	--	51	7.2	20.0	0.30	--	8.1	--	--	--
JUL												
27...	1045	814	--	--	7.5	23.0	0.40	--	9.2	--	ND	ND
SEP												
23...	1030	2430	--	46	7.5	14.0	1.1	--	10.6	--	20	10.0
OCT												
29...	1100	4800	--	46	7.0	6.0	1.9	--	12.4	--	480	40.0
DEC												
10...	1130	1340	--	57	7.2	2.0	0.80	--	18.0	--	200	ND
MAR 1988												
30...	1045	3210	49	47	8.0	2.0	1.2	768	14.0	101	110	ND
APR												
14...	1045	1970	42	44	6.3	7.5	0.60	763	11.8	98	80	ND
27...	1100	1110	47	47	8.0	8.0	0.50	760	11.2	95	40	ND
MAY												
12...	1045	1220	47	44	6.6	12.5	0.50	760	10.6	100	ND	ND
25...	1030	1800	41	44	7.6	15.5	1.1	749	9.2	94	140	ND
JUN												
15...	1040	312	54	54	7.8	22.5	0.50	766	6.6	76	60	ND
AUG												
18...	1100	330	48	48	7.1	22.0	0.50	--	8.8	--	--	--
OCT												
05...	1030	457	49	46	7.5	11.5	0.30	765	10.6	97	80	10.0
NOV												
03...	1000	2070	47	45	6.6	2.5	0.60	--	13.1	--	100	10.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
23...	14	4.5	0.70	--	--	--	--	--	--	13	--	31
MAY												
13...	20	6.7	0.90	--	--	--	--	--	--	25	--	39
JUN												
22...	19	6.2	0.90	--	--	--	--	--	--	24	--	58
JUL												
27...	17	5.3	0.80	--	--	--	--	--	--	40	--	57
SEP												
23...	16	5.1	0.80	--	--	--	--	--	--	39	--	49
OCT												
29...	16	5.1	0.70	--	--	--	--	--	--	39	--	60
DEC												
10...	17	5.2	0.90	--	--	--	--	--	--	37	--	54
MAR 1988												
30...	16	4.9	0.80	1.7	0.40	7.0	11	1.9	0.10	42	25	50
APR												
14...	14	4.4	0.69	1.5	0.40	7.0	11	1.8	0.10	38	24	44
27...	16	5.0	0.84	1.8	0.40	8.0	10	2.3	0.10	37	25	40
MAY												
12...	15	4.8	0.73	1.6	0.30	9.0	9.4	1.8	0.20	58	24	63
25...	15	4.9	0.77	1.6	0.40	9.0	11	2.1	0.20	37	27	43
JUN												
15...	19	6.1	0.99	2.1	0.40	13	8.7	2.5	0.10	43	29	45
AUG												
18...	18	5.4	1.0	2.2	0.40	11	8.4	2.4	0.10	42	26	43
OCT												
05...	17	5.1	0.97	1.9	0.50	10	8.8	2.3	0.10	43	26	45
NOV												
03...	16	4.8	0.87	1.8	0.40	8.0	11	2.2	0.10	31	26	36

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
APR 1987												
23...	8	22	ND	0.420	ND	--	--	0.16	0.58	2.6	0.00	0.00
MAY												
13...	18	23	ND	0.210	0.020	0.03	0.10	0.12	0.33	1.5	0.00	ND
JUN												
22...	23	37	ND	0.170	0.010	0.01	0.11	0.12	0.29	1.3	0.00	0.00
JUL												
27...	20	37	ND	0.170	0.010	0.01	0.12	0.13	0.30	1.3	0.00	0.00
SEP												
23...	39	6	ND	0.160	ND	--	--	0.32	0.48	2.1	0.00	ND
OCT												
29...	30	28	ND	0.260	0.00	0.0	0.18	0.18	0.44	1.9	0.010	0.00
DEC												
10...	26	28	ND	0.390	0.010	0.01	0.25	0.26	0.65	2.9	0.00	0.00
MAR 1988												
30...	8	42	ND	0.750	0.020	0.03	0.28	0.30	1.0	4.6	0.010	0.00
APR												
14...	17	27	ND	0.630	0.00	0.0	0.14	0.14	0.77	3.4	0.020	ND
27...	12	28	ND	0.480	ND	--	--	0.35	0.83	3.7	0.00	ND
MAY												
12...	31	32	ND	0.080	0.00	0.0	0.14	0.14	0.22	0.97	0.00	0.00
25...	8	35	ND	0.260	0.010	0.01	0.23	0.24	0.50	2.2	0.010	ND
JUN												
15...	34	11	ND	0.200	0.00	0.0	0.22	0.22	0.42	1.9	0.00	ND
AUG												
18...	32	11	ND	0.170	0.010	0.01	0.21	0.22	0.39	1.7	ND	ND
OCT												
05...	20	25	ND	0.130	0.020	0.03	0.27	0.29	0.42	1.9	0.00	ND
NOV												
03...	17	19	ND	0.200	0.010	0.01	0.26	0.27	0.47	2.1	0.00	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987												
23...	0.0	--	--	<10	--	<10	--	130	--	<100	--	<10
MAY												
13...	--	--	--	<10	--	<10	--	120	--	<5	--	<10
JUN												
22...	0.0	--	--	<10	--	20	--	200	--	6	--	<10
JUL												
27...	0.0	--	--	<10	1.0	30	3	270	--	<5	<5	20
SEP												
23...	--	--	--	<1	--	1	--	<10	--	<5	--	<10
OCT												
29...	0.0	--	--	<1	1.0	4	6	460	--	<5	<5	40
DEC												
10...	0.0	--	--	<1	--	5	--	170	--	<5	--	<10
MAR 1988												
30...	0.0	180	100	1	<1.0	53	1	280	90	56	<5	30
APR												
14...	--	290	--	<1	--	1	--	330	--	5	--	20
27...	--	200	70	1	<1.0	4	1	230	59	800	<5	20
MAY												
12...	0.0	130	--	2	--	3	--	150	--	<5	--	20
25...	--	120	60	1	<1.0	14	2	140	65	6	<5	20
JUN												
15...	--	80	--	1	--	21	--	130	--	<5	--	10
AUG												
18...	--	50	--	1	--	5	--	100	--	<5	--	20
OCT												
05...	--	50	--	<1	--	5	--	150	--	<5	--	<10
NOV												
03...	--	90	60	<1	1.0	5	2	180	100	<5	<5	30

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987												
23...	--	<0.10	<100	--	10	--	--	ND	ND	ND	ND	ND
MAY												
13...	--	<0.10	<1	--	20	--	--	ND	ND	ND	ND	ND
JUN												
22...	--	<0.10	1	--	20	--	--	ND	ND	ND	ND	ND
JUL												
27...	--	<0.10	6	3	10	10	--	ND	ND	ND	ND	ND
SEP												
23...	--	0.10	1	--	<10	--	--	ND	ND	ND	ND	ND
OCT												
29...	--	<0.10	<1	1	10	10	--	--	--	--	--	--
DEC												
10...	--	<0.10	<1	--	<10	--	--	ND	ND	ND	ND	ND
MAR 1988												
30...	20	<0.10	22	2	870	<10	1.0	ND	ND	ND	ND	ND
APR												
14...	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND	ND
27...	4	<0.10	3	<1	70	<3	ND	--	--	--	--	--
MAY												
12...	--	<0.10	9	--	<10	--	ND	ND	ND	ND	ND	ND
25...	6	<0.10	6	5	10	18	ND	ND	ND	ND	ND	ND
JUN												
15...	--	<0.10	6	--	20	--	1.0	ND	ND	ND	ND	ND
AUG												
18...	--	0.10	2	--	<10	--	--	ND	ND	ND	ND	ND
OCT												
05...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND	ND
NOV												
03...	6	<0.10	5	1	<10	11	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND	ND
JUL											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
29...	--	--	--	--	--	--	--	--	--	--	--
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	--	--	--	--	--	--	--	--	--	--	--
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
18...	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	9.0	ND	10
JUL											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
29...	--	--	--	--	--	--	--	--	--	--	--
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	--	--	--	--	--	--	--	--	--	--	--
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01315500 HUDSON RIVER AT NORTH CREEK, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAY 1988				
12...	1045	1220	<1	--
25...	1030	1800	1	4.9
JUN				
15...	1040	312	1	0.84
AUG				
18...	1100	330	<1	--
OCT				
05...	1030	457	7	8.6
NOV				
03...	1000	2070	1	5.6

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
AUG 1988											
18...	1100	73000	3800	<10	2	5200	<100	90	0.20	<100	50

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
AUG 1988											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 1988											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM
AUG 1988										
18...	ND	ND	ND	ND	ND	ND	ND	0	3	100

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01317395 SCHROON RIVER, STATE HIGHWAY 418, AT WARRENSBURG, NY

LOCATION.--Lat 43°29'28", long 73°34'16", Warren County, Hydrologic Unit 02020001, at Route 418 bridge in Warrensburg.

DRAINAGE AREA:-----

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1987 (a),1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site. Some diurnal fluctuation of flow caused by powerplant on Schroon River.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
23...	1405	--	--	--	7.4	11.0	0.80	--	14.5	--	--	--
MAY												
13...	1230	--	--	86	7.6	15.5	0.40	--	9.8	--	--	--
JUN												
22...	1300	--	--	90	7.4	19.5	0.80	--	8.3	--	--	--
JUL												
27...	1300	--	--	--	7.2	27.5	0.50	--	8.9	--	500	330
SEP												
23...	1300	--	--	73	7.1	15.5	0.80	--	10.0	--	190	40.0
OCT												
29...	1330	--	--	--	7.0	7.0	1.2	--	11.6	--	340	50.0
DEC												
10...	1300	--	--	71	7.2	4.0	0.60	--	17.6	--	120	10.0
MAR 1988												
30...	1200	1330	63	62	6.6	3.0	1.5	768	13.4	98	60	ND
APR												
14...	1315	1560	67	67	6.4	6.5	0.40	763	11.7	95	100	10.0
27...	1300	838	70	74	6.7	9.0	0.50	760	10.7	92	240	30.0
MAY												
12...	1200	1060	74	72	6.5	10.0	0.80	760	11.1	99	60	40.0
25...	1200	1000	63	71	6.6	15.0	0.60	749	9.0	91	--	--
JUN												
15...	1145	261	97	101	6.6	22.5	0.40	766	5.8	67	3900	500
AUG												
18...	1300	--	132	129	6.6	34.5	0.70	--	7.7	--	--	--
OCT												
05...	1220	390	108	106	6.5	14.5	0.50	765	9.2	90	>3300	430
NOV												
03...	1200	1040	75	74	7.2	4.5	0.50	--	12.6	--	600	20.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01317395 SCHROON RIVER, STATE HIGHWAY 418, AT WARRENSBURG, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
23...	21	6.7	1.0	--	--	--	--	--	--	25	--	44
MAY												
13...	28	9.0	1.3	--	--	--	--	--	--	49	--	58
JUN												
22...	29	9.5	1.4	--	--	--	--	--	--	58	--	76
JUL												
27...	31	9.9	1.5	--	--	--	--	--	--	66	--	76
SEP												
23...	27	8.7	1.3	--	--	--	--	--	--	43	--	58
OCT												
29...	52	16	3.0	--	--	--	--	--	--	33	--	71
DEC												
10...	24	7.5	1.2	--	--	--	--	--	--	62	--	64
MAR 1988												
30...	20	6.4	1.0	2.6	0.40	13	10	4.5	0.10	57	33	65
APR												
14...	22	6.8	1.1	3.4	0.40	15	10	5.9	0.10	56	37	58
27...	24	7.6	1.3	3.8	0.40	17	8.9	6.7	0.10	53	39	54
MAY												
12...	23	7.3	1.2	3.7	0.30	18	9.0	6.4	0.10	--	39	44
25...	23	7.4	1.2	3.5	0.30	16	10	6.1	0.20	47	38	48
JUN												
15...	33	10	1.9	5.6	0.40	22	8.4	10	0.10	67	50	83
AUG												
18...	45	14	2.4	7.1	0.60	31	8.7	15	0.10	83	66	90
OCT												
05...	33	10	2.0	5.6	0.60	26	8.5	11	<0.10	82	53	85
NOV												
03...	24	7.6	1.3	3.9	0.40	16	9.8	6.6	<0.10	50	39	53

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
APR 1987												
23...	10	34	ND	0.170	0.00	0.0	0.16	0.16	0.33	1.5	0.00	0.00
MAY												
13...	18	44	ND	0.160	0.030	0.04	0.09	0.12	0.28	1.2	0.00	ND
JUN												
22...	32	50	ND	0.180	0.020	0.03	0.22	0.24	0.42	1.9	0.030	0.00
JUL												
27...	38	38	ND	0.080	0.010	0.01	0.10	0.11	0.19	0.84	0.00	0.00
SEP												
23...	39	21	ND	0.060	ND	--	--	0.18	0.24	1.1	0.010	ND
OCT												
29...	31	19	ND	0.090	0.010	0.01	0.13	0.14	0.23	1.0	0.010	ND
DEC												
10...	31	33	ND	0.170	ND	--	--	0.14	0.31	1.4	0.00	ND
MAR 1988												
30...	13	52	ND	0.420	0.030	0.04	0.20	0.23	0.65	2.9	0.040	ND
APR												
14...	22	36	ND	0.190	0.020	0.03	0.18	0.20	0.39	1.7	0.00	ND
27...	16	38	ND	0.180	0.00	0.0	0.17	0.17	0.35	1.5	0.00	ND
MAY												
12...	26	18	ND	0.450	0.010	0.01	0.23	0.24	0.69	3.1	0.00	ND
25...	10	38	ND	0.140	0.00	0.0	0.21	0.21	0.35	1.5	0.010	ND
JUN												
15...	55	28	ND	0.130	0.010	0.01	0.17	0.18	0.31	1.4	0.00	0.00
AUG												
18...	57	33	ND	ND	0.010	0.01	0.18	0.19	--	--	0.020	0.00
OCT												
05...	33	52	ND	ND	0.010	0.01	0.17	0.18	--	--	0.00	ND
NOV												
03...	29	24	ND	0.090	0.010	0.01	0.26	0.27	0.36	1.6	0.00	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01317395 SCHROON RIVER, STATE HIGHWAY 418, AT WARRENSBURG, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
APR 1987												
23...	0.0	--	--	<10	--	<10	--	160	--	<100	--	10
MAY												
13...	--	--	--	<10	--	<10	--	160	--	7	--	<10
JUN												
22...	0.0	--	--	<10	--	10	--	540	--	19	--	50
JUL												
27...	0.0	--	--	<10	--	20	--	260	--	<5	--	20
SEP												
23...	--	--	--	<1	--	5	--	120	--	5	--	10
OCT												
29...	--	--	--	1	<1.0	5	3	200	--	<5	<5	20
DEC												
10...	--	--	--	<1	--	6	--	90	--	<5	--	<10
MAR 1988												
30...	--	830	40	<1	<1.0	5	1	1300	50	<5	<5	40
APR												
14...	--	70	--	<1	--	4	--	140	--	<5	--	<10
27...	--	40	20	1	<1.0	6	2	90	50	<5	<5	10
MAY												
12...	--	50	--	1	--	2	--	110	--	<5	--	10
25...	--	40	10	6	<1.0	13	1	130	67	<5	<5	10
JUN												
15...	0.0	50	--	1	--	3	--	210	--	<5	--	30
AUG												
18...	0.0	40	--	1	--	7	--	300	--	<5	--	30
OCT												
05...	--	30	--	<1	--	13	--	200	--	<5	--	<10
NOV												
03...	--	60	20	<1	1.0	2	1	120	59	<5	<5	20

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
23...	--	<0.10	<100	--	10	--	ND	ND	ND	ND	ND
MAY											
13...	--	<0.10	2	--	160	--	ND	ND	ND	ND	ND
JUN											
22...	--	<0.10	3	--	20	--	ND	ND	ND	ND	ND
JUL											
27...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
SEP											
23...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
OCT											
29...	--	<0.10	2	1	<10	20	--	--	--	--	--
DEC											
10...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAR 1988											
30...	10	<0.10	4	4	10	<10	ND	ND	ND	ND	ND
APR											
14...	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
27...	8	<0.10	6	<1	<10	<3	ND	ND	ND	ND	ND
MAY											
12...	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND
25...	7	<0.10	6	<1	10	3	ND	ND	ND	ND	ND
JUN											
15...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
AUG											
18...	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
OCT											
05...	--	<0.10	5	--	10	--	ND	ND	ND	ND	ND
NOV											
03...	4	<0.10	1	2	<10	11	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01317395 SCHROON RIVER, STATE HIGHWAY 418, AT WARRENSBURG, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
29...	--	--	--	--	--	--	--	--	--	--	--
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
18...	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
29...	--	--	--	--	--	--	--	--	--	--	--
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01317395 SCHROON RIVER, STATE HIGHWAY 418, AT WARRENSBURG, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAY 1988				
12...	1200	1060	2	5.7
25...	1200	1000	1	2.7
JUN				
15...	1145	261	1	0.70
AUG				
18...	1300	--	<1	--
OCT				
05...	1220	390	1	1.1
NOV				
03...	1200	1040	1	2.8

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
AUG 1988											
18...	1300	10500	3700	<10	5	4000	40	28	0.02	<100	40

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
AUG 1988											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 1988											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM
AUG 1988										
18...	ND	ND	ND	ND	ND	ND	ND	2	5	100

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01325420 HUDSON RIVER AT CORINTH, NY

LOCATION.--Lat 43 14'55", long 73 49'57", Saratoga County, Hydrologic Unit 0202003, at River Street bridge.

DRAINAGE AREA.--2,755 mi 2 .

PERIOD OF RECORD.--Water years 1969-75, 1986 to current year.
CHEMICAL DATA: 1969 (c), 1970-74 (d), 1975 (c), 1986 (b), 1987 (e), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1969 (c), 1970-74 (d), 1975 (c), 1986 (b), 1987 (e), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: OC--1988 (b), 1989 (a), PCB--1988 (a).
NUTRIENT DATA: 1969 (c), 1970-74 (d), 1975 (c), 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria-- 1987 (b), 1988 (c), 1989 (a)
SEDIMENT DATA: 1988 (b), 1989 (a).
REMARKS.--Water-discharge data based on records obtained from 01318500 Hudson River at Hadley and 01325000 Sacandaga River at Stewarts Bridge, near Hadley. Flow regulated appreciably by Great Sacandaga Lake and Indian Lake. Diurnal fluctuation caused by powerplants upstream from station.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
23...	1500	5660	--	--	7.5	14.0	0.70	--	9.6	--	--	--
MAY												
13...	1430	2880	--	68	7.5	21.0	0.40	--	10.9	--	--	--
JUN												
19...	1045	2550	--	53	7.4	23.0	0.10	--	8.6	--	100	6.00
JUL												
28...	1145	2830	--	--	7.4	26.5	0.32	--	8.2	--	130	18.0
SEP												
22...	1115	5310	--	55	7.1	14.5	0.70	--	9.8	--	720	44.0
MAR 1988												
31...	1000	6940	55	51	6.8	2.5	2.2	772	14.5	104	170	46.0
APR												
12...	1130	5750	69	53	6.4	7.5	0.70	--	12.7	--	540	50.0
MAY												
04...	1030	5740	53	54	6.5	10.0	0.60	756	12.2	109	250	24.0
09...	1230	3550	64	60	6.6	15.0	0.50	766	10.7	106	570	32.0
26...	1115	3120	52	56	6.5	15.5	0.50	--	9.8	--	840	78.0
JUN												
16...	1000	4440	61	61	6.7	21.5	0.30	--	5.0	--	20	6.00
AUG												
17...	1015	495	66	59	7.6	25.5	0.60	760	7.7	94	>30	8.00
OCT												
06...	1045	767	58	58	6.5	15.5	0.50	--	9.7	--	120	16.0
NOV												
07...	1000	12400	45	42	7.2	6.5	3.0	754	13.7	112	>670	64.0

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
23...	17	5.3	1.0	--	--	--	--	--	--	18	--	40
MAY												
13...	22	7.0	1.2	--	--	--	--	--	--	50	--	53
JUN												
19...	16	4.9	1.0	--	--	--	--	--	--	34	--	44
JUL												
28...	18	5.3	1.1	--	--	--	--	--	--	36	--	50
SEP												
22...	20	6.2	1.1	--	--	--	--	--	--	45	--	59
MAR 1988												
31...	16	5.1	0.90	1.9	0.40	10	10	2.7	0.10	53	27	55
APR												
12...	18	5.5	0.99	2.2	0.40	10	11	3.5	0.10	40	30	48
MAY												
04...	18	5.7	0.91	2.4	0.40	11	8.9	3.6	0.10	45	29	54
09...	21	6.4	1.1	2.8	0.40	12	9.3	4.3	0.20	58	32	60
26...	20	6.1	1.1	2.5	0.40	13	10	3.9	0.20	37	32	46
JUN												
16...	20	6.1	1.2	2.9	0.40	13	8.0	4.4	0.10	46	31	52
AUG												
17...	22	6.5	1.3	2.9	0.40	14	7.5	4.0	0.10	32	31	33
OCT												
06...	20	5.7	1.4	2.6	0.50	14	7.4	4.0	0.10	43	30	51
NOV												
07...	16	4.7	0.92	1.7	0.60	7.0	13	2.4	0.10	--	28	75

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01325420 HUDSON RIVER AT CORINTH, NY - continued

WATER-QUALITY DATA (continued)

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
23...	5	33	--	ND	0.300	0.010	0.01	0.17	0.18	0.48	2.1	0.010
MAY												
13...	16	37	--	ND	0.260	0.020	0.03	0.07	0.09	0.35	1.5	0.010
JUN												
19...	18	26	--	ND	0.300	0.020	0.03	0.10	0.12	0.42	1.9	0.00
JUL												
28...	20	50	--	ND	0.220	0.010	0.01	0.17	0.18	0.40	1.8	0.00
SEP												
22...	50	9	--	ND	0.140	0.010	0.01	0.19	0.20	0.34	1.5	0.010
MAR 1988												
31...	12	43	0.550	0.010	0.560	0.010	0.01	0.30	0.31	0.87	3.9	0.010
APR												
12...	8	40	--	ND	0.470	0.00	0.0	0.22	0.22	0.69	3.1	0.010
MAY												
04...	18	36	--	ND	ND	0.020	0.03	0.07	0.09	--	--	ND
09...	27	33	--	ND	0.290	0.010	0.01	0.23	0.24	0.53	2.3	0.00
26...	18	28	--	ND	0.210	0.010	0.01	0.24	0.25	0.46	2.0	0.010
JUN												
16...	26	26	--	ND	0.230	0.010	0.01	0.14	0.15	0.38	1.7	0.00
AUG												
17...	15	18	--	ND	0.140	0.260	0.33	0.34	0.60	0.74	3.3	0.00
OCT												
06...	15	36	--	ND	0.090	0.010	0.01	0.19	0.20	0.29	1.3	0.00
NOV												
07...	37	38	0.260	0.010	0.270	0.010	0.01	0.48	0.49	0.76	3.4	0.050

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987												
23...	ND	--	--	--	<10	--	<10	--	150	--	<100	--
MAY												
13...	ND	--	--	--	<10	--	<10	--	140	--	<5	--
JUN												
19...	ND	--	--	--	<10	--	<10	--	160	--	<5	--
JUL												
28...	ND	--	--	--	<10	<1.0	30	3	120	--	<5	<5
SEP												
22...	ND	--	--	--	<1	1.0	5	2	240	--	<5	<5
MAR 1988												
31...	0.00	0.0	160	90	<1	1.0	4	<1	300	120	<5	<5
APR												
12...	ND	--	100	--	1	--	2	--	120	--	30	--
MAY												
04...	0.00	0.0	100	50	<1	<1.0	7	2	100	45	<5	<5
09...	ND	--	80	--	2	--	3	--	120	--	<5	--
26...	ND	--	70	40	6	<1.0	8	1	110	68	<5	<5
JUN												
16...	ND	--	40	--	1	--	4	--	120	--	6	--
AUG												
17...	ND	--	30	--	<1	--	5	--	150	--	<5	--
OCT												
06...	ND	--	30	--	<1	--	10	--	130	--	<5	--
NOV												
07...	ND	--	670	130	<1	2.0	4	4	980	120	<5	<5

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01325420 HUDSON RIVER AT CORINTH, NY - continued

WATER-QUALITY DATA (continued)

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)
APR 1987												
23...	10	--	<0.10	<100	--	<10	--	--	ND	ND	ND	ND
MAY												
13...	10	--	<0.10	<1	--	30	--	--	ND	ND	ND	ND
JUN												
19...	10	--	<0.10	1	--	<10	--	--	ND	ND	ND	ND
JUL												
28...	30	--	<0.10	2	<1	20	10	--	ND	ND	ND	ND
SEP												
22...	20	--	<0.10	<1	1	10	10	--	ND	ND	ND	ND
MAR 1988												
31...	30	20	<0.10	2	4	40	<10	2.0	ND	ND	ND	ND
APR												
12...	10	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
MAY												
04...	20	6	<0.10	5	1	<10	11	ND	ND	ND	ND	ND
09...	20	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
26...	20	10	<0.10	6	<1	20	13	ND	ND	ND	ND	ND
JUN												
16...	20	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND
AUG												
17...	40	--	<0.10	2	--	20	--	--	ND	ND	ND	ND
OCT												
06...	20	--	<0.10	2	--	<10	--	0.0	ND	ND	ND	ND
NOV												
07...	160	15	<0.10	4	1	20	13	1.0	ND	ND	ND	ND

DATE	CHLOROETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
APR 1987												
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL												
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988												
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR												
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
07...	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01325420 HUDSON RIVER AT CORINTH, NY - continued

WATER-QUALITY DATA (continued)

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 1988				
09...	1230	3550	1	9.6
26...	1115	3120	1	8.4
JUN				
16...	1000	4440	2	24
AUG				
17...	1015	495	3	4.0
OCT				
06...	1045	767	1	2.1
NOV				
07...	1000	12400	28	937

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	ALUM-INUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
AUG 1988											
17...	1015	55000	5300	<10	7	8200	20	100	0.02	<100	60

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALPHA BHC TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ATRA-ZINE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BETA BENZENE HEXA-CHLOR-IDE BOT.MAT (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-PYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXA-CHLOR-IDE BOT.MAT (UG/KG)
AUG 1988											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01325420 HUDSON RIVER AT CORINTH, NY - continued

BED MATERIAL ANALYSES (continued)

DATE	DI-AZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 1988 17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM
AUG 1988 17...	ND	ND	ND	ND	ND	ND	ND	1	7	100

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01327755 HUDSON RIVER AT ROGERS ISLAND AT FORT EDWARD, NY

LOCATION.--Lat 43 15'52", long 73 35'28", Saratoga-Washington Counties, Hydrologic Unit 02020003, at bridges on State Highway 197 over Rogers Island in Fort Edward, 0.4 mi downstream from discharge station (01327750, Hudson River at Fort Edward), and 0.6 mi upstream from Champlain Canal.

DRAINAGE AREA.--2,817 mi 2 , at gage.

PERIOD OF RECORD.--Water years 1975 to current year.
CHEMICAL DATA: 1975-76 (a), 1980 (b), 1981 (d), 1982-84 (e), 1985 (d), 1986-87 (e), 1988 (a).
MINOR ELEMENT DATA: 1975 (b), 1976-77 (a), 1978-79 (e), 1980 (d), 1986 (b), 1987 (e), 1988 (a).
PESTICIDE DATA: 1975, 1977 (a), 1978-79 (e), 1980 (a), 1987 (b), 1988 (a).
ORGANIC DATA: OC--1975 (a).
PCB--1975, 1977 (a), 1978-84 (e), 1985 (d), 1986 (e), 1987 (d), 1988 (e), 1989 (b).
PCN--1977 (a), 1978-79 (e), 1980 (a).
NUTRIENT DATA: 1975-77 (a), 1978 (e), 1987 (b), 1988 (a).
SEDIMENT DATA: 1975 (b), 1980-84 (e), 1985 (d), 1986-88 (e), 1989 (a).

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: March 1978 to September 1979.

REMARKS.--Water-discharge data is that from 01327750 Hudson River at Fort Edward. Samples for PCB analysis are collected at this site but are not included in this report. Flow regulated appreciably by Great Sacandaga Lake and Indian Lake. Diurnal fluctuation caused by powerplants upstream from station. Water is diverted into St. Lawrence River basin through Glens Falls feeder, Bond Creek, and Champlain (Barge) Canal, and occasionally may be received from that basin through summit level of Champlain (Barge) Canal at Dunham Basin.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 1987												
30...	1030	4620	--	7.6	11.0	1.0	10.7	--	--	35	12	1.3
MAY												
14...	1130	2970	147	7.8	17.0	0.80	10.4	22000	1800	41	14	1.5
JUN												
19...	1200	3390	97	7.6	25.5	0.70	10.0	15000	210	30	10	1.1
JUL												
28...	1315	4000	--	7.6	26.0	0.55	8.0	7400	3200	39	13	1.4
SEP												
22...	1000	4220	79	7.3	15.0	1.7	10.0	35000	1420	25	8.0	1.1
DEC												
08...	1100	5510	--	7.5	--	1.0	--	6200	1200	20	6.2	1.1

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
APR 1987												
30...	78	80	34	46	0.390	0.010	0.400	0.240	0.31	0.07	0.31	0.71
MAY												
14...	87	94	24	72	0.460	0.050	0.510	0.600	0.77	0.40	1.0	1.5
JUN												
19...	--	85	33	59	0.320	0.030	0.350	0.290	0.37	0.15	0.44	0.79
JUL												
28...	83	103	33	70	0.440	0.00	0.440	0.040	0.05	0.31	0.35	0.79
SEP												
22...	51	65	62	20	--	ND	0.250	0.020	0.03	0.31	0.33	0.58
DEC												
08...	40	62	8	54	--	ND	0.660	0.070	0.09	0.24	0.31	0.97

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01327755 HUDSON RIVER AT ROGERS ISLAND AT FORT EDWARD, NY - continued

WATER-QUALITY DATA (continued)

DATE	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987											
30...	3.1	0.030	0.010	0.03	<10	--	<10	--	170	<100	--
MAY											
14...	6.7	0.040	0.010	0.03	<10	--	<10	--	170	8	--
JUN											
19...	3.5	0.020	0.00	0.0	<10	--	<10	--	200	10	--
JUL											
28...	3.5	0.030	0.00	0.0	<10	1.0	20	2	220	<5	<5
SEP											
22...	2.6	0.020	0.00	0.0	<1	1.0	5	2	300	<5	<5
DEC											
08...	4.3	0.010	0.00	0.0	<1	--	9	--	150	<5	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
30...	30	<0.10	<100	--	10	--	ND	ND	ND	ND	ND
MAY											
14...	30	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
JUN											
19...	30	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUL											
28...	40	<0.10	4	<1	30	10	ND	ND	ND	ND	ND
SEP											
22...	30	<0.10	4	<1	<10	30	ND	ND	ND	ND	ND
DEC											
08...	10	<0.10	7	--	<10	--	ND	ND	ND	ND	ND

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
APR 1987											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
APR 1987											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329500 BATTEN KILL AT BATTENVILLE, NY

LOCATION.--Lat 43°06'05", long 73°25'55", Washington County, Hydrologic Unit 02020003, at Niagara Mohawk forebay near Route 29 bridge in Middle Falls.

DRAINAGE AREA.--394 mi2.

PERIOD OF RECORD.--Water years 1987-89.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
30...	1145	--	--	--	8.0	--	0.40	--	11.8	--	--	--
MAY												
12...	1215	--	--	233	8.0	14.5	0.70	--	9.9	--	3300	120
JUN												
11...	1250	--	--	142	8.0	17.5	1.3	--	11.6	--	500	200
JUL												
30...	1300	--	--	--	8.3	21.0	0.55	--	10.8	--	>100	80.0
SEP												
21...	1030	--	--	153	7.5	14.0	1.9	--	10.7	--	--	--
OCT												
27...	1030	--	--	187	7.7	6.0	0.80	--	12.6	--	--	--
DEC												
09...	1030	--	--	197	7.5	3.0	1.0	--	17.7	--	240	60.0
MAR 1988												
29...	1050	2140	130	134	7.6	3.5	4.0	772	13.6	101	110	12.0
APR												
11...	1100	760	163	160	7.7	7.5	--	760	12.5	104	110	20.0
26...	1300	699	188	188	6.7	8.0	0.80	--	12.8	--	100	5.00
MAY												
16...	1100	617	192	194	8.1	14.5	0.70	758	10.8	107	240	35.0
23...	1030	612	193	189	7.9	16.0	1.2	760	11.0	111	160	55.0
JUN												
14...	1030	258	224	236	7.6	19.5	0.30	--	7.5	--	100	90.0
AUG												
16...	1030	377	237	238	8.1	21.5	1.9	--	8.8	--	>850	490
OCT												
03...	1030	185	252	257	8.3	15.5	0.40	763	9.6	96	500	200
NOV												
01...	1100	304	198	202	7.4	4.5	0.50	764	13.7	105	200	55.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329500 BATTEN KILL AT BATTENVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
30...	98	28	6.7	--	--	--	--	--	--	122	--	122
MAY												
12...	110	30	7.4	--	--	--	--	--	--	118	--	128
JUN												
11...	63	18	4.4	--	--	--	--	--	--	84	--	102
JUL												
30...	110	30	7.4	--	--	--	--	--	--	132	--	167
SEP												
21...	80	24	4.9	--	--	--	--	--	--	84	--	115
OCT												
27...	90	26	6.2	--	--	--	--	--	--	80	--	90
DEC												
09...	84	24	5.9	--	--	--	--	--	--	122	--	125
MAR 1988												
29...	61	18	4.0	3.0	0.70	49	11	4.4	0.10	83	71	105
APR												
11...	71	20	5.2	3.1	0.70	63	11	5.4	0.10	93	83	116
26...	88	24	6.7	4.2	0.70	76	9.9	6.6	0.10	113	98	119
MAY												
16...	87	24	6.5	3.8	0.70	79	10	6.0	0.20	132	99	141
23...	85	24	6.2	3.8	0.70	75	11	6.0	0.20	--	97	116
JUN												
14...	110	29	8.5	4.9	0.80	97	10	8.0	0.10	133	119	151
AUG												
16...	110	30	9.6	5.3	0.90	103	8.9	7.9	<0.10	--	124	135
OCT												
03...	120	32	9.7	5.7	1.2	109	9.9	9.1	<0.10	156	133	173
NOV												
01...	94	25	7.7	4.2	0.90	83	10	6.6	<0.10	119	104	129

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
30...	48	74	--	ND	0.850	0.020	0.03	0.04	0.06	0.91	4.0	0.00
MAY												
12...	42	111	0.780	0.00	0.780	0.030	0.04	0.09	0.12	0.90	4.0	0.010
JUN												
11...	45	57	--	ND	0.400	0.010	0.01	0.13	0.14	0.54	2.4	0.010
JUL												
30...	70	97	--	ND	0.760	0.010	0.01	0.18	0.19	0.95	4.2	0.00
SEP												
21...	74	41	--	ND	0.480	0.010	0.01	0.21	0.22	0.70	3.1	0.020
OCT												
27...	50	73	--	ND	0.740	0.00	0.0	0.09	0.09	0.83	3.7	0.00
DEC												
09...	50	75	--	ND	0.930	ND	--	--	0.09	1.0	4.5	0.010
MAR 1988												
29...	26	79	--	ND	0.730	0.010	0.01	0.22	0.23	0.96	4.2	0.020
APR												
11...	22	94	--	ND	0.720	ND	--	--	0.14	0.86	3.8	0.010
26...	56	63	--	ND	0.640	0.00	0.0	0.30	0.30	0.94	4.2	0.00
MAY												
16...	81	60	--	ND	0.600	0.030	0.04	0.13	0.16	0.76	3.4	0.010
23...	39	77	0.540	0.00	0.540	0.010	0.01	0.18	0.19	0.73	3.2	0.010
JUN												
14...	72	79	0.780	0.00	0.780	0.010	0.01	0.13	0.14	0.92	4.1	0.00
AUG												
16...	41	94	0.300	0.00	0.300	0.030	0.04	0.27	0.30	0.60	2.7	0.010
OCT												
03...	44	129	--	ND	0.600	ND	--	--	0.22	0.82	3.6	0.00
NOV												
01...	59	70	--	ND	0.590	0.010	0.01	0.16	0.17	0.76	3.4	0.010

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329500 BATTEN KILL AT BATTENVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
APR 1987												
30...	ND	--	--	--	<10	--	<10	--	90	--	<100	--
MAY												
12...	ND	--	--	--	<10	--	<10	--	90	--	<5	--
JUN												
11...	0.00	0.0	--	--	<10	--	10	--	300	--	<5	--
JUL												
30...	--	--	--	--	<10	--	20	--	100	--	12	--
SEP												
21...	0.00	0.0	--	--	<1	<1.0	5	3	320	--	<5	<5
OCT												
27...	ND	--	--	--	<1	--	5	--	90	--	<5	--
DEC												
09...	0.00	0.0	--	--	<1	--	4	--	120	--	<5	--
MAR 1988												
29...	0.00	0.0	700	50	1	<1.0	4	1	1200	30	<5	<5
APR												
11...	0.00	0.0	140	--	<1	--	4	--	180	--	<5	--
26...	ND	--	90	40	<1	<1.0	14	4	100	35	<5	<5
MAY												
16...	ND	--	70	--	1	--	2	--	130	--	<5	--
23...	0.00	0.0	70	20	7	<1.0	10	1	110	24	<5	<5
JUN												
14...	ND	--	50	--	1	--	5	--	120	--	6	--
AUG												
16...	ND	--	110	--	<1	--	4	--	960	--	<5	--
OCT												
03...	ND	--	50	--	<1	--	3	--	100	--	<5	--
NOV												
01...	ND	--	40	20	<1	<1.0	3	3	100	36	<5	<5

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
APR 1987												
30...	10	--	<0.10	<100	--	30	--	ND	ND	ND	ND	ND
MAY												
12...	<10	--	<0.10	<1	--	30	--	ND	ND	ND	ND	ND
JUN												
11...	30	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUL												
30...	20	--	0.20	<1	--	70	--	ND	ND	ND	ND	ND
SEP												
21...	20	--	<0.10	2	<1	<10	10	ND	ND	ND	ND	ND
OCT												
27...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
DEC												
09...	<10	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAR 1988												
29...	50	<10	<0.10	3	3	20	<10	ND	ND	ND	ND	ND
APR												
11...	20	--	<0.10	7	--	<10	--	ND	ND	ND	ND	ND
26...	20	12	<0.10	7	<1	50	38	ND	ND	ND	ND	ND
MAY												
16...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
23...	20	11	<0.10	7	1	10	6	ND	ND	ND	ND	ND
JUN												
14...	20	--	<0.10	5	--	<10	--	ND	ND	ND	ND	ND
AUG												
16...	40	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
OCT												
03...	10	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
NOV												
01...	10	4	<0.10	4	1	<10	4	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329500 BATTEN KILL AT BATTENVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329500 BATTEN KILL AT BATTENVILLE, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 1988				
16...	1100	617	2	3.3
23...	1030	612	3	5.0
JUN				
14...	1030	258	2	1.4
AUG				
16...	1030	377	7	7.1
OCT				
03...	1030	185	1	0.50
NOV				
01...	1100	304	<1	--

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	ALUM-INUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
OCT 1987												
14...	1330	25700	--	<1	<10	10	14000	30	260	<0.10	20	60
AUG 1988												
16...	1030	29000	7200	<10	--	10	12000	<100	240	0.03	20	60

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALPHA BHC TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ATRA-ZINE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BETA BENZENE HEXA-CHLOR-IDE BOT.MAT (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-PYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXA-CHLOR-IDE BOT.MAT (UG/KG)
OCT 1987											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN ALPHA BOT.MAT (UG/KG)	ENDO-SULFAN BETA BOT.MAT (UG/KG)	ENDO-SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN ALDE-HYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 1987											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987											
14...	--	--	--	--	--	--	--	1	17	33	99
AUG 1988											
16...	ND	ND	ND	ND	ND	ND	ND	1	10	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329650 HUDSON RIVER AT SCHUYLERVILLE, NY

LOCATION.--Lat 43 05'54", long 73 34'25", at Saratoga-Washington County line, Hydrologic Unit 02020003, at bridge on State Highway 29, 0.2 mi east of Schuylerville, 0.8 mi downstream from Batten Kill, and 1.0 mi downstream from Champlain (Barge) Canal lock 5.

DRAINAGE AREA.--3,440 mi 2 , approximately.

PERIOD OF RECORD.--Water years 1976 to current year.
CHEMICAL DATA: 1976 (a), 1980 (b), 1981 (c), 1982-84 (e), 1985-87 (d), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1976 (a), 1977 (e), 1978-79 (d), 1980, 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1977 (e), 1978-79 (d), 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1977 (e), 1978-80 (d), 1981-84 (e), 1985-88 (d), 1989 (c).
PCN--1977 (e), 1978-79 (d).
NUTRIENT DATA: 1977 (e), 1978 (d), 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1976 (b), 1977 (e), 1978-80 (d), 1981-84 (e), 1985 (d), 1986 (e), 1987 (d), 1988 (e), 1989 (c).

PERIOD OF DAILY RECORD.-- SUSPENDED-SEDIMENT DISCHARGE: March 1977 to September 1979.

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site. Streamflow affected by regulation for power generation and diversion for canal operations. Samples for PCB analysis are collected at this site but are not included in this report.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
22...	1200	--	87	--	--	--	2.0	--	--	--	--	--
MAY												
14...	1330	--	--	127	7.5	20.0	1.0	--	9.9	--	4000	1000
JUN												
15...	1105	--	--	115	7.4	23.0	1.2	--	8.7	--	>6800	>500
JUL												
29...	0945	--	--	--	7.4	23.5	0.50	--	7.7	--	7000	800
SEP												
24...	1200	--	--	--	7.6	16.0	1.9	--	10.5	--	14000	1300
OCT												
26...	1330	--	--	113	7.2	19.0	1.3	--	11.9	--	170000	>2000
DEC												
07...	1330	--	--	--	7.2	2.0	3.0	--	18.8	--	9000	1000
MAR 1988												
31...	1200	9100	82	117	6.2	4.0	2.9	772	14.0	105	5900	660
APR												
13...	1330	6800	80	104	6.6	9.5	1.6	765	12.1	105	36000	800
25...	1130	3000	146	160	6.4	9.0	1.2	755	11.7	102	7000	>800
MAY												
10...	1230	4300	98	139	6.8	14.5	7.5	--	10.6	--	5600	500
JUN												
01...	1130	2700	139	141	6.7	20.5	2.0	--	8.0	--	2000	200
13...	1245	1400	149	164	6.8	22.5	1.0	765	7.6	87	10000	700
AUG												
15...	1230	3700	130	125	6.7	29.0	1.6	757	7.5	98	400	ND
OCT												
04...	1230	770	129	130	7.6	17.5	1.2	763	9.2	96	19000	>1200
NOV												
07...	1200	14000	76	77	6.6	7.0	6.4	754	14.2	118	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329650 HUDSON RIVER AT SCHUYLERVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
22...	27	8.3	1.5	--	--	--	--	--	--	43	--	68
MAY												
14...	--	--	--	--	--	--	--	--	--	67	--	79
JUN												
15...	40	13	1.9	--	--	--	--	--	--	96	--	96
JUL												
29...	44	14	2.3	--	--	--	--	--	--	87	--	117
SEP												
24...	34	11	1.9	--	--	--	--	--	--	62	--	73
OCT												
26...	44	14	2.3	--	--	--	--	--	--	60	--	71
DEC												
07...	30	9.0	1.9	--	--	--	--	--	--	61	--	73
MAR 1988												
31...	49	15	2.7	4.1	0.60	34	13	5.8	0.10	88	62	90
APR												
13...	37	11	2.3	4.0	0.60	27	15	6.2	0.10	74	55	80
25...	59	18	3.3	7.2	0.70	39	20	10	0.10	112	83	124
MAY												
10...	50	15	3.1	5.3	0.60	37	14	7.9	0.20	91	68	135
JUN												
01...	51	16	2.7	6.4	0.70	35	19	10	0.30	84	76	108
13...	59	18	3.5	7.3	0.70	40	15	10	0.10	111	79	123
AUG												
15...	40	13	1.9	7.8	0.70	23	16	9.7	0.10	78	63	81
OCT												
04...	42	13	2.2	6.7	0.80	22	23	8.6	0.10	95	68	99
NOV												
07...	27	8.2	1.6	3.5	0.60	15	14	5.1	0.10	54	42	93

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
22...	28	38	0.430	0.00	0.430	0.080	0.10	0.32	0.40	0.83	3.7	0.020
MAY												
14...	22	53	0.590	0.020	0.610	0.190	0.24	0.41	0.60	1.2	5.4	0.020
JUN												
15...	43	53	0.420	0.010	0.430	0.050	0.06	0.25	0.30	0.73	3.2	0.020
JUL												
29...	36	81	--	ND	0.270	0.010	0.01	0.25	0.26	0.53	2.3	0.020
SEP												
24...	47	33	0.330	0.00	0.330	0.040	0.05	0.27	0.31	0.64	2.8	0.020
OCT												
26...	68	32	0.320	0.00	0.320	0.010	0.01	0.14	0.15	0.47	2.1	0.020
DEC												
07...	35	39	0.360	0.00	0.360	0.050	0.06	0.38	0.43	0.79	3.5	0.010
MAR 1988												
31...	28	62	--	ND	0.640	0.050	0.06	0.25	0.30	0.94	4.2	0.040
APR												
13...	31	49	--	ND	0.670	0.060	0.08	0.19	0.25	0.92	4.1	0.060
25...	48	76	0.720	0.020	0.740	0.080	0.10	0.13	0.21	0.95	4.2	0.030
MAY												
10...	50	85	0.490	0.010	0.500	0.030	0.04	0.31	0.34	0.84	3.7	0.070
JUN												
01...	35	54	0.400	0.010	0.410	0.040	0.05	0.35	0.39	0.80	3.5	0.020
13...	47	76	0.540	0.020	0.560	0.050	0.06	0.37	0.42	0.98	4.3	0.020
AUG												
15...	27	54	0.340	0.040	0.380	0.030	0.04	0.48	0.51	0.89	3.9	0.040
OCT												
04...	22	77	0.460	0.050	0.510	0.210	0.27	0.59	0.80	1.3	5.8	0.030
NOV												
07...	39	54	--	ND	0.230	0.070	0.09	0.37	0.44	0.67	3.0	0.090

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329650 HUDSON RIVER AT SCHUYLERVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987												
22...	0.00	0.0	--	--	<10	--	<10	--	230	--	<100	--
MAY												
14...	0.00	0.0	--	--	<10	--	<10	--	210	--	10	--
JUN												
15...	0.00	0.0	--	--	<10	--	10	--	230	--	<5	--
JUL												
29...	0.00	0.0	--	--	<10	<1.0	20	5	210	--	<5	5
SEP												
24...	0.00	0.0	--	--	<1	--	5	--	320	--	<5	--
OCT												
26...	0.00	0.0	--	--	<1	<1.0	6	3	230	--	<5	<5
DEC												
07...	0.00	0.0	--	--	<1	--	5	--	200	--	<5	--
MAR 1988												
31...	0.00	0.0	470	40	<1	<1.0	3	<1	780	60	<5	<5
APR												
13...	0.00	0.0	400	--	1	--	3	--	630	--	<5	--
25...	0.00	0.0	100	40	1	<1.0	7	2	180	68	<5	<5
MAY												
10...	0.00	0.0	1000	--	1	--	5	--	2000	--	6	--
JUN												
01...	0.00	0.0	110	40	1	<1.0	7	3	240	93	<5	<5
13...	0.00	0.0	80	--	<1	--	3	--	200	--	<5	--
AUG												
15...	0.00	0.0	60	--	<1	--	6	--	30	--	<5	--
OCT												
04...	0.00	0.0	70	--	<1	--	5	--	170	--	<5	--
NOV												
07...	ND	--	910	40	<1	2.0	7	5	960	93	<5	<5

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)
APR 1987												
22...	30	--	<0.10	<100	--	<10	--	--	ND	ND	ND	ND
MAY												
14...	30	--	<0.10	<1	--	20	--	--	ND	ND	ND	ND
JUN												
15...	30	--	<0.10	1	--	<10	--	--	ND	ND	ND	ND
JUL												
29...	30	--	0.20	1	1	10	20	--	ND	ND	ND	ND
SEP												
24...	30	--	<0.10	<1	--	<10	--	--	ND	ND	ND	ND
OCT												
26...	30	--	<0.10	1	<1	<10	<10	--	ND	ND	ND	ND
DEC												
07...	10	--	<0.10	<1	--	<10	--	--	ND	ND	ND	ND
MAR 1988												
31...	50	10	<0.10	2	4	<10	<10	1.0	ND	ND	ND	ND
APR												
13...	50	--	<0.10	7	--	<10	--	ND	ND	ND	ND	ND
25...	40	34	<0.10	5	2	<10	<3	ND	ND	ND	ND	ND
MAY												
10...	120	--	<0.10	3	--	10	--	ND	ND	ND	ND	ND
JUN												
01...	50	34	<0.10	8	2	<10	18	2.0	ND	ND	ND	ND
13...	40	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
AUG												
15...	50	--	<0.10	16	--	<10	--	--	ND	ND	ND	ND
OCT												
04...	30	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
NOV												
07...	130	14	0.10	4	1	20	10	2.0	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329650 HUDSON RIVER AT SCHUYLERVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987												
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL												
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988												
31...	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR												
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
15...	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
04...	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
07...	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329650 HUDSON RIVER AT SCHUYLERVILLE, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUN 1988				
01...	1130	2700	2	15
13...	1245	1400	3	11
AUG				
15...	1230	3700	2	20
NOV				
07...	1200	14000	38	1440

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
OCT 1987												
26...	1330	69800	--	2	20	10	6700	30	100	0.21	10	70
AUG 1988												
15...	1230	34100	5300	1	--	20	7400	50	94	0.21	10	90

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
OCT 1987											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1987											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987											
26...	--	--	--	--	--	--	--	1	16	40	100
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	3	9	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329907 CLOVER MILL BROOK ON SHAW HILL ROAD NEAR ROCK CITY FALLS, NY

LOCATION.--Lat 43°04'09", long 73°56'20", Saratoga County, Hydrologic Unit 0202003, at bridge on Shaw Hill Road, 600 ft west of Route 29, approx 1.5 mi northwest of Rock City Falls.

DRAINAGE AREA.--2.51mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria-- 1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (a), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
30...	1310	--	--	--	7.8	8.5	1.2	--	11.1	--	--	--
MAY												
14...	1015	--	--	332	8.0	13.5	1.1	--	10.4	--	100	ND
JUN												
11...	0955	--	--	328	8.0	16.0	1.5	--	9.9	--	200	35.0
JUL												
28...	1020	--	--	--	8.0	18.5	1.3	--	9.0	--	650	140
SEP												
24...	0945	--	--	310	7.8	13.0	1.6	--	10.4	--	250	25.0
OCT												
26...	1100	--	--	315	7.9	5.0	1.3	--	12.1	--	650	ND
DEC												
07...	1030	--	--	289	8.0	2.0	1.5	--	19.0	--	--	--
MAR 1988												
28...	1100	5.2	170	174	7.9	2.5	3.0	768	13.8	101	140	ND
APR												
13...	1045	3.2	290	284	7.3	7.5	0.80	765	11.9	98	30	5.00
25...	1030	3.2	299	300	7.9	7.5	1.4	755	11.7	99	40	ND
MAY												
10...	1000	3.7	295	333	7.7	10.0	1.5	--	10.7	--	100	90.0
24...	0900	--	279	275	7.9	14.0	4.7	--	9.4	--	300	10.0
JUN												
13...	1015	--	358	366	8.1	15.5	2.0	765	8.0	80	50	25.0
AUG												
15...	1000	--	362	363	7.9	20.0	1.4	757	8.1	90	900	150
OCT												
04...	1000	2.9	367	385	7.7	11.0	1.1	763	10.9	98	>90	10.0
NOV												
02...	1100	4.5	198	204	7.6	5.5	6.3	764	14.0	110	500	190

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329907 CLOVER MILL BROOK ON SHAW HILL ROAD NEAR ROCK CITY FALLS, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
30...	110	28	9.6	--	--	--	--	--	--	141	--	160
MAY												
14...	130	32	11	--	--	--	--	--	--	177	--	193
JUN												
11...	140	35	12	--	--	--	--	--	--	--	--	244
JUL												
28...	140	35	12	--	--	--	--	--	--	109	--	222
SEP												
24...	120	30	11	--	--	--	--	--	--	192	--	228
OCT												
26...	120	30	12	--	--	--	--	--	--	170	--	205
DEC												
07...	100	24	9.7	--	--	--	--	--	--	138	--	180
MAR 1988												
28...	64	16	5.8	9.4	1.2	54	12	13	0.10	98	90	117
APR												
13...	100	24	9.9	15	2.3	100	14	22	0.10	165	147	174
25...	110	26	11	16	2.3	100	12	22	0.10	180	150	191
MAY												
10...	120	28	11	17	2.6	111	12	24	0.20	205	161	214
24...	99	24	9.6	14	2.0	90	12	19	0.20	140	135	177
JUN												
13...	130	32	13	18	3.9	123	9.9	24	0.10	207	175	220
AUG												
15...	150	35	14	17	4.2	131	10	23	0.10	--	182	204
OCT												
04...	150	35	14	18	3.8	141	11	25	0.10	222	191	235
NOV												
02...	76	18	7.6	11	1.5	59	22	15	<0.10	--	111	138

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
30...	58	106	0.570	0.00	0.570	0.780	1.0	0.20	0.98	1.6	6.9	0.030
MAY												
14...	46	147	0.900	0.020	0.920	0.470	0.61	0.93	1.4	2.3	10	0.00
JUN												
11...	77	123	1.28	0.040	1.32	1.00	1.3	1.3	2.3	3.6	16	0.00
JUL												
28...	74	168	1.66	0.180	1.84	0.630	0.81	0.57	1.2	3.0	13	0.010
SEP												
24...	66	162	0.840	0.030	0.870	0.850	1.1	0.55	1.4	2.3	10	0.010
OCT												
26...	86	119	0.620	0.00	0.620	0.720	0.93	0.98	1.7	2.3	10	0.00
DEC												
07...	61	119	--	ND	0.470	1.00	1.3	5.6	6.6	7.1	31	0.00
MAR 1988												
28...	29	88	0.220	0.00	0.220	0.340	0.44	0.32	0.66	0.88	3.9	0.020
APR												
13...	54	120	--	ND	0.660	0.660	0.85	0.33	0.99	1.7	7.3	0.00
25...	69	122	0.640	0.00	0.640	0.620	0.80	1.4	2.0	2.6	12	0.010
MAY												
10...	72	142	0.560	0.010	0.570	0.610	0.79	0.39	1.0	1.6	6.9	0.010
24...	59	118	0.700	0.020	0.720	0.390	0.50	0.81	1.2	1.9	8.5	0.020
JUN												
13...	79	141	1.45	0.060	1.51	0.720	0.93	0.38	1.1	2.6	12	0.010
AUG												
15...	140	64	2.15	0.360	2.51	0.190	0.24	0.18	0.37	2.9	13	0.010
OCT												
04...	72	163	1.52	0.030	1.55	0.640	0.82	1.2	1.8	3.4	15	0.00
NOV												
02...	51	87	0.290	0.00	0.290	0.320	0.41	0.58	0.90	1.2	5.3	0.020

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329907 CLOVER MILL BROOK ON SHAW HILL ROAD NEAR ROCK CITY FALLS, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987												
30...	0.00	0.0	--	--	<10	--	<10	--	560	--	<100	--
MAY												
14...	0.00	0.0	--	--	<10	--	<10	--	470	--	<100	--
JUN												
11...	0.00	0.0	--	--	<10	--	<10	--	640	--	8	--
JUL												
28...	0.00	0.0	--	--	<10	--	20	--	840	--	<5	--
SEP												
24...	0.00	0.0	--	--	<1	<1.0	7	1	640	--	<5	5
OCT												
26...	ND	--	--	--	<1	--	2	--	450	--	<5	--
DEC												
07...	ND	--	--	--	<1	--	4	--	540	--	<5	--
MAR 1988												
28...	0.00	0.0	160	20	1	<1.0	6	<1	990	270	<5	<5
APR												
13...	ND	--	40	--	<1	--	1	--	540	--	<5	--
25...	ND	--	50	<10	1	<1.0	2	1	620	270	<5	<5
MAY												
10...	0.00	0.0	60	--	<1	--	1	--	690	--	<5	--
24...	0.00	0.0	170	10	8	<1.0	16	5	1100	230	<5	6
JUN												
13...	ND	--	70	--	<1	--	5	--	520	--	<5	--
AUG												
15...	ND	--	60	--	1	--	5	--	740	--	<5	--
OCT												
04...	ND	--	30	--	<1	--	7	--	530	--	<5	--
NOV												
02...	ND	--	210	30	1	<1.0	2	3	1100	270	<5	<5

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987												
30...	20	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
MAY												
14...	<10	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
JUN												
11...	30	--	<0.10	1	--	20	--	ND	ND	ND	ND	ND
JUL												
28...	30	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
SEP												
24...	20	--	0.10	2	<1	<10	20	ND	ND	ND	ND	ND
OCT												
26...	10	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
DEC												
07...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAR 1988												
28...	50	20	<0.10	5	2	90	<10	ND	ND	ND	ND	ND
APR												
13...	20	--	<0.10	4	--	10	--	ND	ND	ND	ND	ND
25...	30	9	<0.10	5	<1	<10	<3	ND	ND	ND	ND	ND
MAY												
10...	20	--	<0.10	5	--	<10	--	ND	ND	ND	ND	ND
24...	70	6	<0.10	8	4	30	11	ND	ND	ND	ND	ND
JUN												
13...	30	--	<0.10	8	--	<10	--	ND	ND	ND	ND	ND
AUG												
15...	30	--	<0.10	3	--	10	--	ND	ND	ND	ND	ND
OCT												
04...	<10	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND
NOV												
02...	60	15	<0.10	3	3	10	25	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329907 CLOVER MILL BROOK ON SHAW HILL ROAD NEAR ROCK CITY FALLS, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	1.0	ND	2.0	ND	ND	ND	3.0	ND	ND	ND	ND
MAR 1988											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
02...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	ND	ND	ND	ND	ND	ND	1.0	ND	2.0	ND	ND
MAR 1988											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01329907 CLOVER MILL BROOK ON SHAW HILL ROAD NEAR ROCK CITY FALLS, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAY 1988				
10...	1000	3.7	4	0.04
24...	0900	--	21	--
JUN				
13...	1015	--	4	--
AUG				
15...	1000	--	4	--
OCT				
04...	1000	2.9	2	0.02
NOV				
02...	1100	4.5	13	0.16

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
OCT 1987												
26...	1100	8360	--	<1	<10	1	3500	<10	100	<0.10	<10	20
AUG 1988												
15...	1000	10800	2100	<10	--	<1	4900	<100	180	0.02	<100	20

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
OCT 1987											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1987											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987											
26...	--	--	--	--	--	--	--	0	3	15	98
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	1	4	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01330907 FISH CREEK NEAR GRANGERVILLE, NY

LOCATION.--Lat 43°05'42", long 73°36'47", Saratoga County, Hydrologic Unit 02020003, at unnamed road bridge off Haas Road near Victory Mills, 1 mi south of Schuylerville.

DRAINAGE AREA.--247mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1987 (a), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
22...	1445	--	--	--	7.8	20.0	3.9	--	21.9	--	--	--
MAY												
12...	1315	--	--	275	7.9	17.5	3.8	--	9.3	--	830	80.0
JUN												
11...	1115	--	--	273	8.1	21.0	3.0	--	9.2	--	--	--
JUL												
29...	1045	--	--	--	7.8	23.5	2.0	--	7.8	--	>200	200
SEP												
24...	1100	--	--	--	7.6	16.0	3.0	--	8.6	--	300	30.0
OCT												
26...	1200	--	--	275	7.8	9.0	2.5	--	12.5	--	3000	20.0
DEC												
07...	1130	--	--	--	7.8	2.0	2.0	--	17.5	--	2000	40.0
MAR 1988												
28...	1300	720	268	275	6.7	3.5	4.5	768	13.1	98	800	20.0
APR												
13...	1150	654	270	266	7.3	7.5	1.6	765	11.8	98	200	20.0
25...	1300	226	275	272	7.1	8.5	1.2	755	11.7	101	12000	40.0
MAY												
10...	1045	200	239	271	7.1	14.5	2.0	--	10.2	--	>1200	260
24...	1030	526	273	268	7.1	19.0	5.7	--	9.2	--	2000	>180
JUN												
13...	1115	93	--	277	8.1	22.0	3.8	765	7.6	--	800	240
AUG												
15...	1100	62	280	280	7.7	28.5	2.9	757	6.9	90	1100	360
OCT												
04...	1100	62	289	293	7.7	16.5	1.2	763	8.1	83	2400	200
NOV												
02...	1300	407	269	278	7.3	4.0	26	764	11.3	86	19000	>4000

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01330907 FISH CREEK NEAR GRANGERVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
22...	110	31	6.9	--	--	--	--	--	--	135	--	170
MAY												
12...	110	31	6.9	--	--	--	--	--	--	155	--	178
JUN												
11...	110	31	7.1	--	--	--	--	--	--	173	--	178
JUL												
29...	110	31	7.0	--	--	--	--	--	--	161	--	180
SEP												
24...	39	12	2.1	--	--	--	--	--	--	141	--	223
OCT												
26...	120	33	8.2	--	--	--	--	--	--	164	--	183
DEC												
07...	99	28	7.0	--	--	--	--	--	--	133	--	157
MAR 1988												
28...	100	29	7.0	13	1.3	85	18	21	0.20	--	141	187
APR												
13...	95	26	7.4	14	1.3	88	16	20	0.10	154	138	163
25...	100	29	7.5	13	1.2	88	14	20	0.10	158	138	170
MAY												
10...	100	29	7.4	13	1.1	82	15	20	0.20	162	135	178
24...	100	28	7.5	13	1.1	85	17	20	0.30	144	138	174
JUN												
13...	100	28	7.7	14	1.0	88	16	21	0.30	160	141	174
AUG												
15...	110	31	8.4	15	1.1	91	15	22	0.10	155	147	160
OCT												
04...	110	31	8.3	14	1.5	97	15	22	0.10	186	150	213
NOV												
02...	110	30	8.2	13	2.5	85	19	20	0.10	149	144	185

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
22...	47	123	0.310	0.00	0.310	0.070	0.09	0.11	0.18	0.49	2.2	0.030
MAY												
12...	38	140	--	ND	0.160	0.030	0.04	0.13	0.16	0.32	1.4	0.030
JUN												
11...	74	104	0.110	0.00	0.110	0.030	0.04	0.10	0.13	0.24	1.1	0.020
JUL												
29...	68	112	--	ND	ND	0.020	0.03	0.20	0.22	--	--	0.020
SEP												
24...	54	169	--	ND	0.110	0.030	0.04	0.36	0.39	0.50	2.2	0.030
OCT												
26...	87	96	--	ND	0.080	0.00	0.0	0.32	0.32	0.40	1.8	0.010
DEC												
07...	73	105	0.180	0.00	0.180	0.050	0.06	0.26	0.31	0.49	2.2	0.010
MAR 1988												
28...	48	139	0.360	0.00	0.360	0.040	0.05	0.32	0.36	0.72	3.2	0.030
APR												
13...	38	125	--	ND	0.310	0.070	0.09	0.23	0.30	0.61	2.7	0.010
25...	68	102	0.270	0.00	0.270	0.030	0.04	0.21	0.24	0.51	2.3	0.020
MAY												
10...	70	108	--	ND	0.260	0.030	0.04	0.30	0.33	0.59	2.6	0.020
24...	60	114	--	ND	0.200	0.040	0.05	0.28	0.32	0.52	2.3	0.040
JUN												
13...	55	119	0.080	0.00	0.080	0.020	0.03	0.15	0.17	0.25	1.1	0.020
AUG												
15...	61	99	--	ND	0.070	0.010	0.01	0.32	0.33	0.40	1.8	0.030
OCT												
04...	56	157	--	ND	0.070	0.020	0.03	0.27	0.29	0.36	1.6	0.020
NOV												
02...	61	124	--	ND	0.350	0.060	0.08	0.42	0.48	0.83	3.7	0.120

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01330907 FISH CREEK NEAR GRANGERVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987												
22...	0.00	0.0	--	--	<10	--	<10	--	490	--	<100	--
MAY												
12...	0.00	0.0	--	--	<10	--	<10	--	310	--	20	--
JUN												
11...	0.00	0.0	--	--	<10	--	<10	--	340	--	<5	--
JUL												
29...	0.00	0.0	--	--	<10	--	20	--	270	--	<5	--
SEP												
24...	0.00	0.0	--	--	<1	--	5	--	280	--	<5	--
OCT												
26...	ND	--	--	--	<1	1.0	5	2	140	--	<5	<5
DEC												
07...	0.00	0.0	--	--	<1	--	5	--	200	--	<5	--
MAR 1988												
28...	0.00	0.0	200	<10	<1	<1.0	4	1	520	50	<5	<5
APR												
13...	0.00	0.0	70	--	1	--	3	--	290	--	<5	--
25...	ND	--	460	<10	1	<1.0	6	1	1100	21	<5	<5
MAY												
10...	0.00	0.0	130	--	1	--	2	--	300	--	<5	--
24...	ND	--	350	<10	5	<1.0	14	1	640	26	<5	<5
JUN												
13...	ND	--	160	--	<1	--	3	--	320	--	<5	--
AUG												
15...	0.00	0.0	160	--	<1	--	5	--	90	--	<5	--
OCT												
04...	ND	--	60	--	<1	--	3	--	200	--	<5	--
NOV												
02...	0.020	0.06	970	20	1	<1.0	11	3	1100	61	7	<5

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987												
22...	50	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
MAY												
12...	40	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN												
11...	50	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUL												
29...	50	--	0.20	2	--	<10	--	ND	ND	ND	ND	ND
SEP												
24...	30	--	<0.10	5	--	<10	--	ND	ND	ND	ND	ND
OCT												
26...	20	--	<0.10	<1	1	<10	<10	ND	ND	ND	ND	ND
DEC												
07...	60	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
MAR 1988												
28...	80	50	<0.10	3	3	10	<10	ND	ND	ND	ND	ND
APR												
13...	70	--	<0.10	9	--	10	--	ND	ND	ND	ND	ND
25...	60	23	<0.10	6	1	20	<3	--	--	--	--	--
MAY												
10...	50	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
24...	60	11	<0.10	5	<1	20	9	ND	ND	ND	ND	ND
JUN												
13...	60	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
AUG												
15...	50	--	<0.10	10	--	<10	--	ND	ND	ND	ND	ND
OCT												
04...	30	--	<0.10	2	--	<10	--	--	--	--	--	--
NOV												
02...	90	35	<0.10	7	1	20	5	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01330907 FISH CREEK NEAR GRANGERVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
28...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	--	--	--	--	--	--	--	--	--	--	--
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	--	--	--	--	--	--	--	--	--	--	--
NOV											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25...	--	--	--	--	--	--	--	--	--	--	--
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	--	--	--	--	--	--	--	--	--	--	--
NOV											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01330907 FISH CREEK NEAR GRANGERVILLE, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAY 1988				
10...	1045	200	9	4.9
JUN				
13...	1115	93	9	2.3
AUG				
15...	1100	62	7	1.2
OCT				
04...	1100	62	3	0.50
NOV				
02...	1300	407	40	44

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
OCT 1987												
26...	1200	15000	--	<1	<10	5	4300	<10	120	<0.10	<10	20
AUG 1988												
15...	1100	18700	2600	<10	--	4	4400	30	110	0.02	<100	20

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
OCT 1987											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1987											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987											
26...	--		--	--	--	--	--	0	7	42	100
AUG 1988											
15...	ND		ND	ND	ND	ND	ND	2	7	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

0133335001 HOOSIC RIVER BELOW NY-VT STATELINE, NEAR NORTH POWNAL, VT

LOCATION.--Lat 42°48'34", long 73°17'13", Rensselaer County, Hydrologic Unit 02020003, at Route 346 bridge on NY-VT border, 1.5 mi northwest of North Pownal,VT, and 4 mi southeast of North Petersburg, NY.

DRAINAGE AREA.--302 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA :
Bacteria--1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site. Diurnal fluctuation at medium and low flow caused by powerplants upstream from station.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
24...	1030	--	--	--	8.0	11.0	8.0	--	9.9	--	--	--
MAY												
12...	0945	--	--	287	8.0	15.5	2.6	--	9.3	--	4800	180
JUN												
12...	1000	--	--	312	8.0	16.5	0.50	--	8.3	--	>860	140
JUL												
30...	1020	--	--	--	8.2	22.0	0.50	--	10.0	--	100	20.0
SEP												
21...	1315	--	--	170	7.6	14.0	7.0	--	--	--	--	--
OCT												
27...	1330	--	--	232	8.0	7.0	1.3	--	13.2	--	--	--
DEC												
09...	1330	--	--	210	7.9	4.0	1.0	--	19.3	--	--	--
MAR 1988												
29...	1315	1050	142	148	7.1	3.5	8.8	772	13.4	100	--	--
APR												
11...	1300	565	180	182	6.9	7.5	1.4	760	12.2	102	480	30.0
26...	1000	423	185	185	7.8	6.5	1.5	--	13.6	--	1300	220
MAY												
11...	1130	774	212	219	8.0	15.0	0.90	760	9.0	90	2000	300
23...	1300	684	167	161	6.9	15.5	80	760	9.5	96	>7200	4500
JUN												
14...	1400	--	286	295	8.7	22.0	1.3	--	8.2	--	600	20.0
AUG												
16...	1330	479	240	241	7.6	22.5	7.0	--	8.9	--	>5800	1500
OCT												
03...	1300	166	310	318	8.7	17.5	1.0	763	11.9	124	1300	200
NOV												
01...	1300	239	232	239	7.7	4.5	1.9	764	14.0	108	940	180

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

0133335001 HOOSIC RIVER BELOW NY-VT STATELINE, NEAR NORTH POWNAL, VT - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
24...	100	29	6.8	--	--	--	--	--	--	112	--	148
MAY												
12...	120	34	8.4	--	--	--	--	--	--	154	--	178
JUN												
12...	120	34	9.1	--	--	--	--	--	--	--	--	194
JUL												
30...	140	39	10	--	--	--	--	--	--	206	--	210
SEP												
21...	65	18	4.9	--	--	--	--	--	--	124	--	130
OCT												
27...	99	27	7.6	--	--	--	--	--	--	118	--	127
DEC												
09...	83	23	6.1	--	--	--	--	--	--	122	--	130
MAR 1988												
29...	56	16	3.9	5.3	0.80	45	11	8.7	0.10	92	73	102
APR												
11...	72	20	5.4	6.3	0.90	61	12	11	0.10	97	92	103
26...	73	20	5.5	7.2	1.0	61	12	11	0.10	114	94	121
MAY												
11...	87	24	6.6	8.1	1.0	79	13	11	0.20	144	111	151
23...	71	21	4.4	4.1	1.4	60	14	6.5	0.20	--	88	160
JUN												
14...	120	32	9.4	14	1.3	107	13	16	0.10	157	150	172
AUG												
16...	100	29	7.5	8.2	1.8	83	16	12	<0.10	142	124	152
OCT												
03...	130	34	11	14	1.9	116	17	17	0.10	191	165	262
NOV												
01...	100	27	7.9	8.8	1.2	84	17	12	0.10	137	125	139

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
24...	38	109	0.540	0.010	0.550	0.100	0.13	0.06	0.16	0.71	3.1	0.180
MAY												
12...	39	139	0.530	0.020	0.550	0.090	0.12	0.06	0.15	0.70	3.1	0.070
JUN												
12...	66	133	0.620	0.030	0.650	0.180	0.23	0.05	0.23	0.88	3.9	0.100
JUL												
30...	72	138	0.630	0.010	0.640	0.050	0.06	0.15	0.20	0.84	3.7	0.110
SEP												
21...	75	55	0.350	0.00	0.350	0.050	0.06	0.17	0.22	0.57	2.5	0.050
OCT												
27...	50	87	0.490	0.00	0.490	0.030	0.04	0.11	0.14	0.63	2.8	0.040
DEC												
09...	51	79	0.570	0.00	0.570	0.030	0.04	0.09	0.12	0.69	3.1	0.320
MAR 1988												
29...	18	84	0.580	0.00	0.580	0.020	0.03	0.07	0.09	0.67	3.0	0.130
APR												
11...	23	80	--	ND	0.630	0.040	0.05	0.52	0.56	1.2	5.3	0.070
26...	57	64	--	ND	0.390	0.010	0.01	0.22	0.23	0.62	2.7	0.030
MAY												
11...	57	94	0.490	0.030	0.520	0.020	0.03	0.14	0.16	0.68	3.0	0.020
23...	28	132	0.380	0.00	0.380	0.140	0.18	0.65	0.79	1.2	5.2	0.250
JUN												
14...	72	100	0.540	0.020	0.560	0.010	0.01	0.19	0.20	0.76	3.4	0.030
AUG												
16...	53	99	0.530	0.010	0.540	0.040	0.05	0.43	0.47	1.0	4.5	0.100
OCT												
03...	47	215	0.700	0.00	0.700	0.020	0.03	0.32	0.34	1.0	4.6	0.040
NOV												
01...	58	81	0.690	0.00	0.690	0.040	0.05	0.20	0.24	0.93	4.1	0.190

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

0133335001 HOOSIC RIVER BELOW NY-VT STATELINE, NEAR NORTH POWNAL, VT - continued

WATER-QUALITY DATA (continued)

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
APR 1987												
24...	0.160	0.49	--	--	<10	--	<10	--	560	--	11	--
MAY												
12...	0.020	0.06	--	--	<10	--	<10	--	200	--	6	--
JUN												
12...	0.070	0.21	--	--	<10	--	10	--	230	--	<5	--
JUL												
30...	0.080	0.25	--	--	<10	--	20	--	190	--	<5	--
SEP												
21...	0.010	0.03	--	--	<1	1.0	8	5	700	--	<5	5
OCT												
27...	0.020	0.06	--	--	1	--	5	--	140	--	<5	--
DEC												
09...	0.280	0.86	--	--	<1	--	5	--	140	--	<5	--
MAR 1988												
29...	0.090	0.28	470	40	1	<1.0	11	<1	930	20	<5	<5
APR												
11...	0.020	0.06	110	--	1	--	3	--	180	--	<5	--
26...	0.010	0.03	110	60	1	<1.0	5	4	120	17	<5	<5
MAY												
11...	0.00	0.0	70	--	1	--	3	--	170	--	<5	--
23...	0.00	0.0	2500	90	1	<1.0	13	2	4700	120	9	<5
JUN												
14...	0.00	0.0	80	--	<1	--	4	--	190	--	6	--
AUG												
16...	0.040	0.12	400	--	<1	--	6	--	230	--	<5	--
OCT												
03...	0.010	0.03	90	--	<1	--	14	--	200	--	<5	--
NOV												
01...	0.160	0.49	100	30	1	<1.0	11	4	180	34	<5	<5

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
APR 1987												
24...	50	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAY												
12...	30	--	<0.10	<1	--	20	--	ND	ND	ND	ND	ND
JUN												
12...	60	--	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
JUL												
30...	50	--	0.20	<1	--	<10	--	ND	ND	ND	ND	ND
SEP												
21...	40	--	<0.10	<1	1	<10	20	ND	ND	ND	ND	ND
OCT												
27...	30	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
DEC												
09...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAR 1988												
29...	50	<10	<0.10	2	2	50	<10	ND	ND	ND	ND	ND
APR												
11...	30	--	<0.10	7	--	<10	--	ND	ND	ND	ND	ND
26...	30	21	<0.10	4	1	<10	<3	ND	ND	ND	ND	ND
MAY												
11...	30	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
23...	200	16	<0.10	5	4	30	8	ND	ND	ND	ND	ND
JUN												
14...	60	--	<0.10	7	--	<10	--	ND	ND	ND	ND	ND
AUG												
16...	80	--	<0.10	1	--	<10	--	ND	ND	ND	ND	ND
OCT												
03...	40	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
NOV												
01...	30	25	<0.10	2	3	10	5	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

0133335001 HOOSIC RIVER BELOW NY-VT STATELINE, NEAR NORTH POWNAL, VT - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
29...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
01...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
24...	ND	ND	ND	ND	ND	ND	ND	ND	2.0	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
21...	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND
OCT											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	2.0	ND	ND
MAR 1988											
29...	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND
APR											
11...	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND
MAY											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
16...	ND	ND	ND	ND	ND	ND	ND	ND	0.3	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	0.3	ND	ND
NOV											
01...	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

0133335001 HOOSIC RIVER BELOW NY-VT STATELINE, NEAR NORTH POWNAL, VT - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 1988				
11...	1130	774	3	6.3
23...	1300	684	93	172
JUN				
14...	1400	--	4	--
AUG				
16...	1330	479	14	18
OCT				
03...	1300	166	2	0.90
NOV				
01...	1300	239	2	1.3

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	ALUM-INUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)
OCT 1987								
14...	1200	27800	--	1	20	20	7700	20
AUG 1988								
16...	1330	60100	9400	2	--	10	15000	40

DATE	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987								
14...	280	<0.10	10	60	2	35	60	100
AUG 1988								
16...	560	0.16	20	120	6	47	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01334805 HOOSIC RIVER AT EAGLE BRIDGE, NY

LOCATION.--Lat 42 57'05", long 73 23'28", Rensselaer County, Hydrologic Unit 02020003, at Route 67 bridge in Eagle Bridge, 2 mi east of Buskirk.

DRAINAGE AREA.--571 mi 2 .

PERIOD OF RECORD.--Water years 1987 to current year.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data based on records obtained from 01334500 Hoosic River near Eagle Bridge. Diurnal fluctuation at medium and low flow caused by powerplants upstream from station.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
24...	1200	756	--	--	7.8	10.5	3.2	--	10.5	--	--	--
MAY												
12...	1100	366	--	269	8.0	15.0	1.6	--	9.5	--	2000	ND
JUN												
12...	1130	292	--	268	7.8	17.5	0.60	--	8.9	--	500	110
JUL												
30...	1130	178	--	--	8.4	22.0	0.15	--	10.0	--	ND	40.0
SEP												
21...	1145	876	--	176	7.6	14.0	21	--	--	--	--	--
OCT												
27...	1145	1010	--	213	8.0	7.0	1.8	--	12.9	--	--	--
DEC												
09...	1200	864	--	198	8.0	4.0	2.1	--	20.5	--	3500	620
MAR 1988												
29...	1215	3040	134	144	7.3	3.0	14	772	13.9	102	2100	860
APR												
11...	1200	1200	186	177	7.2	7.5	--	760	12.6	105	2900	260
26...	1130	892	208	191	7.2	8.0	1.4	--	13.2	--	900	240
MAY												
11...	1230	2770	190	204	7.7	12.0	1.6	760	11.3	105	2400	360
23...	1145	1370	206	203	7.2	17.0	39	760	9.5	99	>4400	2600
JUN												
14...	1200	291	266	274	8.5	22.0	0.60	--	7.8	--	300	90.0
AUG												
16...	1200	702	232	232	8.1	22.5	12	--	8.9	--	>2000	740
OCT												
03...	1130	222	303	311	8.7	17.0	0.80	763	10.8	112	6200	740
NOV												
01...	1200	345	224	235	7.6	4.5	1.3	764	13.6	105	920	280

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01334805 HOOSIC RIVER AT EAGLE BRIDGE, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
24...	94	27	6.4	--	--	--	--	--	--	107	--	136
MAY												
12...	110	31	7.4	--	--	--	--	--	--	155	--	170
JUN												
12...	110	31	7.9	--	--	--	--	--	--	--	--	171
JUL												
30...	130	35	9.2	--	--	--	--	--	--	172	--	188
SEP												
21...	67	19	4.8	--	--	--	--	--	--	94	--	170
OCT												
27...	93	26	6.7	--	--	--	--	--	--	97	--	118
DEC												
09...	76	21	5.8	--	--	--	--	--	--	120	--	119
MAR 1988												
29...	61	18	4.0	5.2	0.80	44	11	9.2	0.10	90	75	108
APR												
11...	68	19	5.1	6.3	0.90	59	12	11	0.10	97	90	107
26...	74	20	5.9	3.8	0.90	63	12	11	0.10	112	92	123
MAY												
11...	79	22	5.9	7.1	1.0	70	16	11	0.20	126	105	149
23...	82	23	6.0	6.9	1.0	71	13	10	0.20	110	103	143
JUN												
14...	110	29	8.8	12	1.4	94	15	16	0.10	153	139	170
AUG												
16...	97	26	7.7	9.0	1.5	80	15	13	<0.10	130	120	151
OCT												
03...	130	33	11	14	1.8	112	15	19	0.10	192	161	207
NOV												
01...	98	26	8.1	9.5	1.3	81	15	13	0.10	128	122	140

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
24...	30	101	0.840	0.010	0.850	0.030	0.04	0.12	0.15	1.0	4.4	0.110
MAY												
12...	49	121	0.690	0.010	0.700	0.020	0.03	0.07	0.09	0.79	3.5	0.030
JUN												
12...	60	111	0.800	0.020	0.820	0.050	0.06	0.08	0.13	0.95	4.2	0.070
JUL												
30...	63	125	0.370	0.010	0.380	0.020	0.03	0.14	0.16	0.54	2.4	0.090
SEP												
21...	77	93	0.450	0.010	0.460	0.050	0.06	0.28	0.33	0.79	3.5	0.080
OCT												
27...	48	81	0.710	0.00	0.710	0.00	0.0	0.10	0.10	0.81	3.6	0.020
DEC												
09...	60	66	0.810	0.00	0.810	0.020	0.03	0.19	0.21	1.0	4.5	0.240
MAR 1988												
29...	21	87	--	ND	ND	0.020	0.03	0.19	0.21	--	--	0.070
APR												
11...	20	87	--	ND	0.660	0.010	0.01	0.15	0.16	0.82	3.6	0.030
26...	51	72	--	ND	0.390	0.00	0.0	0.20	0.20	0.59	2.6	0.020
MAY												
11...	89	60	0.550	0.030	0.580	0.010	0.01	0.15	0.16	0.74	3.3	0.020
23...	44	99	0.370	0.00	0.370	0.060	0.08	0.46	0.52	0.89	3.9	0.140
JUN												
14...	67	103	0.440	0.010	0.450	0.010	0.01	0.18	0.19	0.64	2.8	0.030
AUG												
16...	42	109	0.470	0.010	0.480	0.030	0.04	0.49	0.52	1.0	4.4	0.120
OCT												
03...	34	173	0.360	0.00	0.360	0.00	0.0	0.30	0.30	0.66	2.9	0.040
NOV												
01...	59	81	0.540	0.010	0.550	0.020	0.03	0.22	0.24	0.79	3.5	0.150

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01334805 HOOSIC RIVER AT EAGLE BRIDGE, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987												
24...	0.090	0.28	--	--	<10	--	<10	--	460	--	7	--
MAY												
12...	0.010	0.03	--	--	<10	--	<10	--	140	--	6	--
JUN												
12...	0.040	0.12	--	--	<10	--	10	--	600	--	7	--
JUL												
30...	0.070	0.21	--	--	<10	--	20	--	180	--	<5	--
SEP												
21...	0.020	0.06	--	--	<1	1.0	8	1	1600	--	<5	<5
OCT												
27...	0.010	0.03	--	--	<1	--	8	--	190	--	<5	--
DEC												
09...	0.210	0.64	--	--	<1	--	28	--	180	--	<5	--
MAR 1988												
29...	0.030	0.09	730	30	<1	<1.0	7	1	1300	20	<5	<5
APR												
11...	0.020	0.06	170	--	1	--	4	--	270	--	<5	--
26...	0.00	0.0	90	40	1	<1.0	6	2	120	15	<5	<5
MAY												
11...	0.00	0.0	80	--	1	--	4	--	170	--	5	--
23...	0.00	0.0	1700	50	6	<1.0	14	2	3000	30	6	<5
JUN												
14...	0.00	0.0	100	--	1	--	7	--	170	--	<5	--
AUG												
16...	0.030	0.09	510	--	<1	--	8	--	260	--	<5	--
OCT												
03...	0.00	0.0	70	--	<1	--	7	--	230	--	<5	--
NOV												
01...	0.130	0.40	70	20	<1	1.0	13	7	120	22	<5	<5

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987												
24...	30	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAY												
12...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN												
12...	50	--	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
JUL												
30...	40	--	0.20	2	--	<10	--	ND	ND	ND	ND	ND
SEP												
21...	60	--	<0.10	3	1	<10	10	ND	ND	ND	ND	ND
OCT												
27...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
DEC												
09...	20	--	<0.10	9	--	20	--	ND	ND	ND	ND	ND
MAR 1988												
29...	60	<10	<0.10	2	5	10	10	ND	ND	ND	ND	ND
APR												
11...	30	--	<0.10	7	--	10	--	ND	ND	ND	ND	ND
26...	20	15	<0.10	6	<1	<10	<3	ND	ND	ND	ND	ND
MAY												
11...	30	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
23...	150	10	<0.10	6	6	20	17	ND	ND	ND	ND	ND
JUN												
14...	40	--	<0.10	8	--	<10	--	ND	ND	ND	ND	ND
AUG												
16...	90	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
OCT												
03...	30	--	<0.10	3	--	30	--	ND	ND	ND	ND	ND
NOV												
01...	20	8	<0.10	6	2	<10	11	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01334805 HOOSIC RIVER AT EAGLE BRIDGE, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
29...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
01...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND
JUN											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
29...	ND	ND	ND	ND	ND	ND	ND	ND	0.4	ND	ND
APR											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
01...	ND	ND	ND	ND	ND	ND	ND	ND	0.1	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01334805 HOOSIC RIVER AT EAGLE BRIDGE, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 1988				
11...	1230	2770	4	30
23...	1145	1370	124	459
JUN				
14...	1200	291	4	3.1
AUG				
16...	1200	702	27	51
OCT				
03...	1130	222	1	0.60
NOV				
01...	1200	345	1	0.93

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	ALUM-INUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
OCT 1987												
14...	1230	17800	--	<1	10	20	13000	20	180	<0.10	20	80
AUG 1988												
16...	1200	25600	5500	<10	--	10	9700	10	260	0.04	10	60

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALPHA BHC TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ATRA-ZINE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BETA BENZENE HEXA-CHLOR-IDE BOT.MAT (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-PYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXA-CHLOR-IDE BOT.MAT (UG/KG)
OCT 1987											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
16...	ND	3.0	4.0	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN ALPHA BOT.MAT (UG/KG)	ENDO-SULFAN BETA BOT.MAT (UG/KG)	ENDO-SULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN ALDE-HYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
OCT 1987											
14...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987											
14...	--	--	--	--	--	--	--	0	3	15	100
AUG 1988											
16...	ND	ND	ND	ND	ND	ND	ND	2	6	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY

LOCATION.--Lat 42 47'19", long 73 40'28", at Saratoga-Rensselaer County line, Hydrologic Unit 02020003, at bridge on U.S. Highway 4 in Waterford, 0.4 mi upstream from first branch of Mohawk River, and 2.8 mi downstream from dam at lock 1 of the Champlain (Barge) Canal.

DRAINAGE AREA.--4,620 mi 2 .

PERIOD OF RECORD.--Water years 1952, 1969 to current year.
CHEMICAL DATA: 1952 (a), 1969 (d), 1970-71 (e), 1972-76 (d), 1977 (c), 1978-79 (d), 1980-84 (e), 1985 (c), 1986 (e), 1987 (b), 1988(c), 1989 (a).
MINOR ELEMENTS DATA: 1952 (a), 1969 (d), 1970-71 (e), 1972-76 (d), 1977-79 (e), 1980-81 (d), 1982 (a), 1983 (b), 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1975 (b), 1976 (d), 1977-79 (e), 1980, 1982 (a), 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: OC--1975-77 (c), 1978 (d), 1979 (c), 1988 (c), 1989 (a).
PCB--1975 (b), 1976 (d), 1977-84 (e), 1985 (c), 1986-87 (e), 1988 (d), 1989 (c).
PCN--1977-79 (e), 1980, 1982 (a).
NUTRIENT DATA: 1952 (a), 1969 (d), 1970-71 (e), 1972-76 (d), 1977-78 (e), 1979-81 (d), 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA: Bacteria--1977 (c), 1978 (d), 1979 (e), 1980-81 (d), 1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1975 (b), 1976-77 (e), 1978 (a), 1979 (b), 1980 (c), 1981-88 (e), 1989 (c).

PERIOD OF DAILY RECORD.--SUSPENDED-SEDIMENT DISCHARGE: October 1976 to current year.

REMARKS.--Water-discharge data based on records obtained 01335754 Hudson River above Lock 1 near Waterford, upstream. Streamflow affected by regulation for power generation and diversion for canal operations.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean (water years 1977-89), 810 mg/L March 14, 1977; minimum daily mean, 1 mg/L on many days.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily (water years 1977-89), 119,000 tons March 14, 1977; minimum daily, 3.9 tons Sept. 7, 1981.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
22...	1000	9600	--	--	--	--	3.8	--	--	--	3900	190
MAY												
15...	1000	3500	--	198	7.6	16.5	1.4	--	9.2	--	1200	40.0
JUN												
15...	0930	4140	--	142	7.6	22.0	1.3	--	8.4	--	1000	180
JUL												
29...	1315	2090	--	--	7.7	25.5	1.5	--	8.4	--	500	160
SEP												
25...	1030	6650	--	--	7.4	14.0	4.5	--	10.2	--	2000	480
NOV												
02...	0930	12700	--	125	7.3	7.0	4.5	--	--	--	7600	600
DEC												
11...	0930	9480	--	124	7.5	2.0	2.9	--	--	--	7000	760
APR 1988												
01...	1000	12900	191	131	--	5.5	6.0	771	12.0	94	2800	210
12...	1000	8450	280	116	6.6	9.0	3.0	--	11.7	--	6000	380
28...	0900	4420	280	185	6.2	10.5	4.0	--	10.6	--	1500	40.0
MAY												
09...	1000	5470	148	157	8.0	15.0	1.4	766	8.2	81	900	120
26...	0930	7710	157	149	7.0	17.0	7.2	--	9.0	--	2200	180
JUN												
16...	1200	2730	194	192	8.5	24.5	2.2	--	5.0	--	800	ND
AUG												
19...	0845	2630	189	184	7.1	25.5	0.30	--	7.7	--	0	120
OCT												
06...	1300	E3350	240	192	7.2	16.0	1.3	--	9.4	--	--	--
NOV												
09...	1000	12200	163	99	7.2	8.0	4.4	--	11.8	--	5500	150

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
22...	46	14	2.8	--	--	--	--	--	--	64	--	94
MAY												
15...	65	20	3.6	--	--	--	--	--	--	109	--	126
JUN												
15...	48	15	2.5	--	--	--	--	--	--	--	--	104
JUL												
29...	66	22	2.7	--	--	--	--	--	--	120	--	127
SEP												
25...	54	17	2.9	--	--	--	--	--	--	102	--	156
NOV												
02...	47	14	2.9	--	--	--	--	--	--	--	--	94
DEC												
11...	45	13	3.0	--	--	--	--	--	--	81	--	86
APR 1988												
01...	50	15	3.0	5.2	0.70	35	14	9.6	0.20	95	69	106
12...	44	13	2.7	4.7	0.70	29	15	9.4	0.10	72	63	90
28...	66	20	3.9	8.3	0.90	45	18	14	0.10	110	92	129
MAY												
09...	59	18	3.5	6.7	0.70	39	14	12	0.20	110	78	116
26...	57	17	3.5	6.1	0.70	41	15	9.5	0.20	81	77	114
JUN												
16...	65	20	3.6	9.2	0.90	42	17	16	0.10	126	92	134
AUG												
19...	65	20	3.6	9.9	1.1	40	18	16	0.10	124	93	130
OCT												
06...	65	20	3.6	8.8	1.4	38	20	17	0.10	112	94	116
NOV												
09...	37	11	2.2	4.2	0.70	23	15	7.2	0.10	68	54	84

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
22...	40	53	0.500	0.010	0.510	0.020	0.03	0.35	0.37	0.88	3.9	0.030
MAY												
15...	33	92	0.620	0.050	0.670	0.190	0.24	0.01	0.20	0.87	3.9	0.030
JUN												
15...	48	65	0.420	0.010	0.430	0.060	0.08	0.32	0.38	0.81	3.6	0.030
JUL												
29...	56	90	0.620	0.010	0.630	0.020	0.03	0.25	0.27	0.90	4.0	0.030
SEP												
25...	48	108	0.340	0.00	0.340	0.040	0.05	0.27	0.31	0.65	2.9	0.030
NOV												
02...	--	--	0.350	0.00	0.350	0.020	0.03	0.16	0.18	0.53	2.3	0.030
DEC												
11...	43	55	0.380	0.00	0.380	0.070	0.09	0.30	0.37	0.75	3.3	0.030
APR 1988												
01...	24	82	0.550	0.010	0.560	0.040	0.05	0.28	0.32	0.88	3.9	0.050
12...	14	76	0.630	0.00	0.630	0.030	0.04	0.21	0.24	0.87	3.9	0.030
28...	40	89	0.380	0.010	0.390	0.050	0.06	0.35	0.40	0.79	3.5	0.030
MAY												
09...	53	63	0.350	0.010	0.360	0.030	0.04	0.29	0.32	0.68	3.0	0.030
26...	31	83	0.370	0.010	0.380	0.050	0.06	0.37	0.42	0.80	3.5	0.040
JUN												
16...	51	83	0.400	0.020	0.420	0.010	0.01	0.37	0.38	0.80	3.5	0.040
AUG												
19...	84	46	0.420	0.030	0.450	0.030	0.04	0.48	0.51	0.96	4.2	0.040
OCT												
06...	39	77	0.440	0.020	0.460	0.080	0.10	0.32	0.40	0.86	3.8	0.030
NOV												
09...	37	47	--	ND	0.280	0.040	0.05	0.36	0.40	0.68	3.0	0.040

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987												
22...	0.00	0.0	--	--	<10	--	<10	--	370	--	<100	--
MAY												
15...	--	--	--	--	<10	--	20	--	240	--	41	--
JUN												
15...	0.010	0.03	--	--	<10	--	<10	--	260	--	13	--
JUL												
29...	0.00	0.0	--	--	<10	<1.0	20	3	220	--	<5	<5
SEP												
25...	0.00	0.0	--	--	<1	--	6	--	380	--	<5	--
NOV												
02...	0.00	0.0	--	--	<1	1.0	5	2	370	--	<5	<5
DEC												
11...	0.00	0.0	--	--	<1	--	7	--	320	--	<5	--
APR 1988												
01...	0.010	0.03	210	40	1	<1.0	4	2	420	60	<5	<5
12...	0.00	0.0	170	--	<1	--	3	--	230	--	10	--
28...	0.00	0.0	190	40	2	<1.0	16	3	360	68	<5	<5
MAY												
09...	0.00	0.0	140	--	1	--	5	--	260	--	<5	--
26...	0.00	0.0	280	30	2	<1.0	13	1	530	74	6	<5
JUN												
16...	ND	--	140	--	<1	--	7	--	300	--	<5	--
AUG												
19...	0.010	0.03	80	--	2	--	8	--	130	--	<5	--
OCT												
06...	0.00	0.0	150	--	<1	--	10	--	280	--	<5	--
NOV												
09...	ND	--	370	50	<1	1.0	7	3	580	84	<5	<5

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)
APR 1987												
22...	40	--	<0.10	<100	--	20	--	--	ND	ND	ND	ND
MAY												
15...	40	--	<0.10	<1	--	20	--	--	ND	ND	ND	ND
JUN												
15...	30	--	<0.10	<1	--	20	--	--	ND	ND	ND	ND
JUL												
29...	50	--	0.20	2	<1	<10	10	--	ND	ND	ND	ND
SEP												
25...	40	--	<0.10	1	--	<10	--	--	ND	ND	ND	ND
NOV												
02...	30	--	0.10	<2	2	<10	<10	--	ND	ND	ND	ND
DEC												
11...	30	--	<0.10	<1	--	<10	--	--	ND	ND	ND	ND
APR 1988												
01...	40	20	<0.10	2	3	10	<10	4.0	ND	ND	ND	ND
12...	40	--	<0.10	6	--	<10	--	2.0	ND	ND	ND	ND
28...	50	33	<0.10	7	1	10	10	2.0	ND	ND	ND	ND
MAY												
09...	50	--	<0.10	3	--	<10	--	ND	--	--	--	--
26...	60	21	<0.10	7	<1	10	6	ND	ND	ND	ND	ND
JUN												
16...	60	--	<0.10	3	--	<10	--	1.0	ND	ND	ND	ND
AUG												
19...	40	--	0.10	3	--	<10	--	ND	--	--	--	--
OCT												
06...	40	--	<0.10	2	--	<10	--	ND	--	--	--	--
NOV												
09...	80	9	<0.10	4	2	10	10	1.0	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987												
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL												
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC												
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
09...	--	--	ND	--	--	--	--	--	--	--	--	--
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
19...	--	--	--	--	--	--	--	--	--	--	--	--
OCT												
06...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
15...	ND	ND	ND	ND	ND	ND	3.0	ND	ND	ND	ND
JUL											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
09...	--	--	--	--	--	--	--	ND	ND	--	ND
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
19...	--	--	--	--	--	--	--	--	--	--	--
OCT											
06...	--	--	--	--	--	--	--	--	--	--	--
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01335770 HUDSON RIVER AT WATERFORD, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR 1987				
22...	1000	9600	24	622
MAY 1988				
09...	1000	5470	3	44
26...	0930	7710	8	167
JUN				
16...	1200	2730	6	44
AUG				
19...	0845	2630	6	43
OCT				
06...	1300	E3350	3	--
NOV				
09...	1000	12200	14	461

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01342602 MOHAWK RIVER NEAR UTICA, NY

LOCATION.--Lat 43 05'26", long 75 09'27", Herkimer County, Hydrologic Unit 02020004, at bridge on Upper Dyke Road, 2.0 mi east of city line of Utica.

DRAINAGE AREA.--553 mi 2 .

PERIOD OF RECORD.--Water years 1972-73, 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (a).
MINOR ELEMENTS DATA: 1972-73, 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
ORGANIC DATA: OC--1988 (b), 1989, (a).
NUTRIENT DATA: 1988 (b), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site. During canal navigation season, water is received from Black River basin through Black River Canal flowing south. Water is diverted into (or may occasionally be received from) Oswego River basin through summit level of Erie (Barge) Canal between New London and Utica. Diurnal fluctuation caused by powerplants and locks and dams on Erie (Barge) Canal. Regulation by Delta Reservoir.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 1988												
11...	1115	1200	343	7.9	6.0	12	10.8	--	--	140	41	8.5
MAY												
03...	1000	1140	327	7.6	7.5	7.0	10.8	9600	900	140	40	8.7
JUN												
01...	0920	275	472	7.4	18.0	12	8.0	4800	500	190	53	13
AUG												
04...	0900	210	401	7.3	25.5	27	4.8	3400	500	150	44	10
OCT												
06...	0900	254	391	7.6	14.0	8.8	11.0	43000	5100	140	43	9.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
APR 1988												
11...	12	1.5	105	29	19	0.10	212	174	244	108	136	1.05
MAY												
03...	12	1.4	99	30	19	0.30	180	171	188	72	116	0.940
JUN												
01...	21	2.2	131	49	32	0.40	284	249	500	92	408	1.36
AUG												
04...	21	2.2	104	41	28	0.50	256	209	384	124	260	1.57
OCT												
06...	18	1.9	107	31	23	0.10	224	191	252	68	184	1.54

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
APR 1988												
11...	0.010	1.06	0.220	0.28	0.32	0.54	1.6	7.1	0.070	0.020	0.06	360
MAY												
03...	0.020	0.960	0.140	0.18	0.23	0.37	1.3	5.9	0.100	0.020	0.06	350
JUN												
01...	0.110	1.47	0.660	0.85	0.34	1.0	2.5	11	0.250	0.070	0.21	350
AUG												
04...	0.030	1.60	0.200	0.26	0.45	0.65	2.3	10	0.190	0.030	0.09	1200
OCT												
06...	0.00	1.54	0.100	0.13	0.39	0.49	2.0	9.0	0.240	0.110	0.34	290

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01342602 MOHAWK RIVER NEAR UTICA, NY - continued

WATER-QUALITY DATA (continued)

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)
APR 1988												
11...	2	13	880	<5	70	<0.10	3	20	ND	ND	ND	ND
MAY												
03...	6	14	860	<5	80	0.10	5	30	ND	0	0	0.0
JUN												
01...	2	20	930	7	160	0.50	6	70	--	--	--	--
AUG												
04...	1	21	2500	13	150	0.30	18	30	ND	ND	ND	ND
OCT												
06...	1	46	800	<5	110	<0.10	3	90	0.0	ND	ND	ND

DATE	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)
APR 1988												
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
03...	0	0	0	0	0	0	0	0	0	0	0	0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	ND	ND	3.4	ND	0.4	ND	ND	ND	ND	ND	ND	ND
OCT												
06...	ND	ND	0.8	ND	ND	ND	ND	0.5	ND	ND	ND	ND

DATE	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988												
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND
MAY												
03...	0	0	0.00	0	0	0	0	0.0	0	0	0	0
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	ND	ND	ND	2.0	ND	ND	ND	ND	ND	0.3	ND	ND
OCT												
06...	ND	ND	ND	ND	0.3	ND	ND	ND	ND	1.0	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01349530 MOHAWK RIVER AT FONDA, NY

LOCATION.--Lat 42 57'01", long 74 22'10", Montgomery County, Hydrologic Unit 02020004, at highway 30A bridge, at Fonda.

DRAINAGE AREA.--2,118 mi 2 .

PERIOD OF RECORD.--1988 to current year.
CHEMICAL DATA: 1988 (a).
MINOR ELEMENTS DATA: 1988 (a).

REMARKS.--Water-discharge data based on records obtained from 01347000 Mohawk River at Little Falls, 1348000 East Canada Creek at East Creek, and 01349000 Otsquaga Creek at Fort Plain. During canal navigation season, water is received from Black River basin through Black River Canal flowing south, and from Chenango River basin through Oriskany Creek feeder. Water is diverted into (or may occasionally be received from) Oswego River basin through summit level of Erie (Barge) Canal between New London and Utica. Diurnal fluctuation caused by powerplants and locks and dams on Erie (Barge) Canal. Regulation by Delta and Hinckley Reservoirs.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAY 1988											
02...	1145	4600	327	140	40	8.7	12	1.4	99	30	19

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
MAY 1988											
02...	0.30	171	350	6	14	860	<5	80	0.10	5	30

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY

LOCATION.--Lat 42 48'00", long 74 15'48", Schenectady County, Hydrologic Unit 02020005, on right bank 0.4 mi south of Burtonsville, 2.7 mi north of Esperance, and 13.5 mi upstream from mouth.

DRAINAGE AREA.--883 mi 2 .

PERIOD OF RECORD.--Water years 1960, 1963-64, 1972, 1988 to current year.
CHEMICAL DATA: 1960 (e), 1963-64, 1972 (a), 1988 (b), 1989 (a).
MINOR ELEMENTS DATA: 1960 (e), 1963 (b), 1964, 1972 (a), 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
NUTRIENT DATA: 1960, 1963-64, 1972 (a), 1988 (b), 1989 (a).
SEDIMENT DATA: 1988-89 (a).

REMARKS.--Water-discharge data obtained form gage at this location. Regulation of flow by Blenheim-Gilboa Pumped Storage Project. Entire flow, runoff from 314 mi 2 , except for periods of spill, diverted from Schoharie Reservoir through Shandaken Tunnel into Esopus Creek upstream from Ashokan Reservoir for water supply of City of New York.

WATER-QUALITY DATA

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)
MAY 1988											
02...	1045	902	191	208	8.1	9.0	3.0	766	12.3	105	720
17...	1100	312	229	230	7.8	17.5	2.4	--	9.8	--	340
31...	1030	1710	140	146	8.1	20.5	11	759	9.2	102	880
AUG											
08...	1100	28	269	260	8.3	26.0	2.5	762	8.3	102	>120
OCT											
12...	1000	29	306	317	8.2	10.0	1.1	--	11.0	--	--

DATE	FECAL COLIFORM 24-HR MEM.FIL (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
MAY 1988											
02...	16.0	86	29	3.3	6.0	1.1	73	15	9.5	3.1	121
17...	40.0	96	32	3.8	6.4	1.2	80	16	9.1	0.20	160
31...	92.0	60	20	2.4	4.4	0.90	51	12	6.1	0.30	91
AUG											
08...	8.00	100	33	4.9	11	2.2	82	24	15	<0.10	157
OCT											
12...	--	120	39	5.4	12	2.3	100	30	19	0.10	195

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
MAY 1988											
02...	111	132	47	85	--	ND	0.290	0.010	0.01	0.19	0.20
17...	117	165	84	81	0.280	0.00	0.280	0.010	0.01	0.23	0.24
31...	77	101	51	50	--	ND	0.350	0.010	0.01	0.23	0.24
AUG											
08...	139	171	40	131	--	ND	0.090	0.120	0.15	0.31	0.43
OCT											
12...	168	197	64	133	--	ND	0.100	0.030	0.04	0.18	0.21

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
MAY 1988											
02...	0.49	2.2	0.010	0.00	0.0	130	1	5	240	<5	20
17...	0.52	2.3	0.020	0.00	0.0	130	<1	5	270	<5	40
31...	0.59	2.6	0.030	0.00	0.0	400	1	7	670	<5	40
AUG											
08...	0.52	2.3	0.020	ND	--	190	<1	11	630	<5	40
OCT											
12...	0.31	1.4	0.010	ND	--	80	1	13	140	<5	20

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01351500 SCHOHARIE CREEK AT BURTONSVILLE, NY - continued

WATER-QUALITY DATA (continued)

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)
MAY 1988										
02...	<0.10	6	<10	ND	ND	ND	ND	ND	ND	ND
17...	<0.10	4	<10	ND	ND	ND	ND	ND	ND	ND
31...	<0.10	4	<10	ND	ND	ND	ND	ND	ND	ND
AUG										
08...	<0.10	3	10	ND	ND	ND	ND	ND	0.1	ND
OCT										
12...	<0.10	2	<10	ND	ND	ND	ND	ND	ND	ND

DATE	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)
MAY 1988										
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT										
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAY 1988										
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT										
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 1988				
31...	1030	1710	16	74
OCT				
12...	1000	29	3	0.23

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY

LOCATION.--Lat 42 47'07", long 73 42'29", Albany County, Hydrologic Unit 02020004, on right bank at Niagara Mohawk Power Corp. School Street powerplant in Cohoes, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--3,456 mi 2 .

PERIOD OF RECORD.--Water years 1951-52, 1955, 1955-59, 1963-64, 1970, 1976-79, June 1988 to current year.
CHEMICAL DATA: 1951-52 (a), 1958-59 (b), 1963-64, 1970, 1976 (a), 1977 (c), 1979 (d), 1988-89 (a).
MINOR ELEMENTS DATA: 1952, 1955 (a), 1958-59 (b), 1963-64, 1970, 1976 (a), 1977 (c), 1979 (d), 1988-89 (a).
PESTICIDE DATA: 1988-89 (a).
ORGANIC DATA: 1976 (a), 1977 (c), 1979 (d).
OC--1988-89 (a).
NUTRIENT DATA: 1951-52, 1955 (a), 1958-59 (b), 1963-64, 1970, 1976 (a), 1977 (c), 1979 (d), 1988-89 (a).
BIOLOGICAL DATA:
Bacteria-- 1979 (d), 1988-89 (a).
SEDIMENT DATA: 1976-77 (e), 1978 (a), 1979 (e), 1988-89 (a).

REMARKS.--Water-discharge data obtained form gage at this location. During canal navigation season, water is received from Black River basin through Black River Canal flowing south, and from Chenango River basin through Oriskany Creek feeder. Water is diverted into (or may occasionally be received from) Oswego River basin through summit level of Erie (Barge) Canal between New London and Utica. Fluctuation caused by powerplants and locks and dams on Erie (Barge) Canal. Regulation and divertions for public water supply by Delta, Hinckley, and Schoharie Reservoirs.

WATER-QUALITY DATA

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)
JUN 1988											
01...	0930	2940	200	212	6.5	19.5	10	--	9.0	--	ND
AUG											
09...	0930	2110	317	318	7.6	27.0	4.0	--	7.4	--	0
OCT											
11...	1100	1780	274	282	8.3	14.0	8.0	741	9.8	98	>60

DATE	FECAL COLIFORM 24-HR MEM.FIL (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
JUN 1988											
01...	20.0	88	28	4.3	7.4	1.2	73	15	10	0.30	114
AUG											
09...	ND	130	40	7.2	13	1.8	96	29	19	0.10	--
OCT											
11...	60.0	110	34	6.1	12	1.4	84	28	17	0.10	161

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)
JUN 1988											
01...	110	129	71	58	0.410	0.010	0.420	0.030	0.04	0.40	0.43
AUG											
09...	168	194	48	146	0.370	0.020	0.390	0.040	0.05	0.62	0.66
OCT											
11...	149	192	72	120	0.390	0.010	0.400	0.070	0.09	0.76	0.83

DATE	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
JUN 1988											
01...	0.85	3.8	0.060	0.00	0.0	440	1	8	760	<5	60
AUG											
09...	1.0	4.6	0.060	ND	--	390	<1	9	680	<5	110
OCT											
11...	1.2	5.4	0.140	0.010	0.03	510	<1	7	910	<5	90

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01357500 MOHAWK RIVER AT COHOES, NY - continued

WATER-QUALITY DATA (continued)

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)
JUN 1988											
01...	<0.10	4	10	1.0	ND	ND	ND	ND	ND	ND	ND
AUG											
09...	<0.10	3	<10	2.0	ND	ND	ND	ND	ND	0.1	ND
OCT											
11...	<0.10	1	<10	2.0	ND	ND	ND	ND	ND	0.1	ND

DATE	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)
JUN 1988										
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT										
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
JUN 1988										
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT										
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
01...	0930	2940	17	135
AUG				
09...	0930	2110	14	80
OCT				
11...	1100	1780	23	111

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01359560 HUDSON RIVER AT GLENMONT, NY

LOCATION.--Lat 42 35'43", long 73 45'43", Albany County, Hydrologic Unit 02020006, at Niagara Mohawk Glenmont Power Station (intake), 0.2 mi downstream from lower mouth of Normans Kill, and 0.8 mi southeast of Glenmont.

DRAINAGE AREA.--8,476 mi 2 , revised.

PERIOD OF RECORD.--Water years 1969-79, 1988 to current year.
CHEMICAL DATA: 1969 (d), 1970-74 (e), 1975 (d), 1976-77 (c), 1978-79 (d), 1988 (b), 1989 (a).
MINOR ELEMENTS DATA: 1969 (d), 1970-74 (e), 1975 (d), 1976-77 (c), 1978-79 (d), 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
NUTRIENT DATA: 1969 (d), 1970-74 (e), 1975 (d), 1976-77 (c), 1978-79 (d), 1988 (b), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1977 (c), 1978-79 (d), 1988 (b).
Phytoplankton--1974 (a), 1975 (b), 1976-77 (c), 1978-79 (d).
SEDIMENT DATA: 1988 (b), 1989 (a).

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLIFORM 24-HR MEM.FIL (COLS./ 100 ML)
MAY 1988											
02...	1245	171	183	6.5	10.5	4.3	766	11.6	104	4000	700
16...	1300	229	229	7.1	17.0	5.4	758	8.0	83	7000	1300
31...	1230	223	233	6.9	21.0	8.0	759	7.5	84	9000	1700
AUG											
09...	1100	251	244	6.7	29.5	1.4	--	5.4	--	>20000	9000
OCT											
11...	1300	240	243	6.9	14.5	4.7	741	9.2	92	--	--

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
MAY 1988											
02...	66	20	4.0	8.3	0.90	49	21	13	0.10	114	97
16...	80	24	4.8	11	1.0	60	18	16	0.20	172	111
31...	88	27	4.9	11	1.2	65	32	17	0.30	143	132
AUG											
09...	88	27	4.9	12	1.2	56	25	21	0.10	--	125
OCT											
11...	83	26	4.5	12	1.3	53	28	20	0.10	144	124

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)
MAY 1988											
02...	130	44	86	0.450	0.010	0.460	0.040	0.05	0.22	0.26	0.72
16...	180	88	92	0.550	0.020	0.570	0.110	0.14	0.22	0.33	0.90
31...	156	66	90	0.410	0.010	0.420	0.130	0.17	0.33	0.46	0.88
AUG											
09...	167	50	117	0.520	0.030	0.550	0.070	0.09	0.46	0.53	1.1
OCT											
11...	169	57	112	0.610	0.030	0.640	0.120	0.15	0.43	0.55	1.2

DATE	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
MAY 1988											
02...	3.2	0.050	0.00	0.0	330	1	9	740	<5	50	<0.10
16...	4.0	0.080	0.020	0.06	200	1	4	420	<5	70	<0.10
31...	3.9	0.070	0.020	0.06	210	1	8	4700	<5	70	<0.10
AUG											
09...	4.8	0.120	0.080	0.25	160	<1	7	290	<5	90	<0.10
OCT											
11...	5.3	0.140	0.040	0.12	490	<1	17	1400	<5	70	<0.10

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01359560 HUDSON RIVER AT GLENMONT, NY - continued

WATER-QUALITY DATA (continued)

DATE	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)
MAY 1988										
02...	4	10	--	ND	ND	ND	ND	ND	2.0	ND
16...	4	<10	--	ND	ND	ND	ND	ND	ND	ND
31...	3	<10	2.0	ND	ND	ND	ND	ND	ND	ND
AUG										
09...	3	40	ND	ND	ND	ND	ND	ND	0.3	ND
OCT										
11...	2	20	2.0	ND	ND	ND	ND	ND	0.2	ND

DATE	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)
MAY 1988										
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT										
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAY 1988										
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT										
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	SEDI-MENT, SUS-PENDED (MG/L)
MAY 1988		
16...	1300	10
31...	1230	8
AUG		
09...	1100	4
OCT		
11...	1300	6

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01367500 RONDOUT CREEK AT ROSENDALE, NY

LOCATION.--Lat 41 50'35", long 74 05'11", Ulster County, Hydrologic Unit 02020007, on left bank 30 ft upstream from bridge on James Street in Rosendale, and 3 mi upstream from Wallkill River.

DRAINAGE AREA.--383 mi 2 (see REMARKS below).

PERIOD OF RECORD.--Water years 1963-64, 1971-72, June 1988 to current year.
CHEMICAL DATA: 1963 (c), 1964, 1971-72, 1988-89 (a).
MINOR ELEMENTS DATA: 1963 (c), 1964, 1988-89 (a).
PESTICIDE DATA: 1988-89 (a).
NUTRIENT DATA: 1963 (c), 1964, 1971-72 (a), 1988-89 (a).
SEDIMENT DATA: 1988-89 (a).

REMARKS.--Water-quality data represents natural flow from 288 mi2, together with spillage during high flow from Roundout Reservoir.
Water-discharge data obtained from gage at this location.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TUR-BID-ITY (NTU)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
JUN 1988												
13...	1000	169	132	7.7	1.0	1700	10.0	46	14	2.8	5.8	0.80
AUG												
22...	1030	56	149	8.1	2.0	200	20.0	56	17	3.4	7.0	1.0
OCT												
18...	0915	56	150	--	1.0	380	50.0	57	17	3.5	6.6	1.1

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
JUN 1988												
13...	33	14	9.0	0.10	--	66	90	46	0.310	0.00	0.310	0.00
AUG												
22...	43	15	10	<0.10	88	79	88	56	--	ND	ND	ND
OCT												
18...	42	15	9.8	<0.10	82	78	100	50	--	ND	0.240	0.00

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN 1988											
13...	0.0	0.24	0.24	0.55	2.4	0.010	0.00	0.0	70	1	5
AUG											
22...	--	--	0.23	--	--	0.010	0.00	0.0	120	<1	12
OCT											
18...	0.0	0.20	0.20	0.44	1.9	0.020	0.00	0.0	30	<1	4

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
JUN 1988											
13...	150	14	30	<0.10	8	10	--	--	--	--	--
AUG											
22...	260	<5	80	0.20	6	<10	ND	ND	ND	ND	ND
OCT											
18...	140	<5	20	<0.10	4	<10	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01367500 RONDOUT CREEK AT ROSENDALE, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
JUN 1988											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
JUN 1988											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND
JUN 1988		
13...	1000	169
AUG		
22...	1030	56
OCT		
18...	0915	56

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01372043 HUDSON RIVER NEAR POUGHKEEPSIE, NY

LOCATION.--Lat 41 43'18", long 73 56'28", Dutchess County, Hydrologic Unit 02020008, at city pumping station on east bank, adjacent (north) to Marist College, 0.5 mi north of Poughkeepsie, and 1.3 mi upstream from Mid-Hudson Bridge.

DRAINAGE AREA.--11,700 mi 2 .

PERIOD OF RECORD.--Water years 1969-75, 1981, 1988 to current year.
CHEMICAL DATA: 1969 (c), 1970-71 (d), 1972 (b), 1973-75 (e), 1988-89 (a).
MINOR ELEMENTS DATA: 1969 (c), 1970-71 (d), 1972 (b), 1973-75 (d), 1988-89 (a).
RADIOCHEMICAL DATA: 1974 (a), 1975 (d).
ORGANIC DATA: 1975 (a), 1981 (b).
OC--1988-89 (a).
NUTRIENT DATA: 1969 (c), 1970-71 (d), 1972 (b), 1973-75 (d), 1988-89 (a).
BIOLOGICAL DATA: 1973-75 (d).
Bacteria--1988-89 (a).
SEDIMENT DATA: 1973 (a), 1974 (b), 1975 (a).

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TURBIDITY (NTU)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLIFORM 24-HR MEM.FIL (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)
JUN 1988												
13...	1200	223	7.6	28	250	100	79	24	4.7	9.7	0.80	64
AUG												
22...	1245	259	7.5	15	200	ND	95	29	5.6	14	1.5	65
OCT												
18...	1250	260	--	17	50	ND	94	28	5.8	14	1.8	66

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)
JUN 1988												
13...	19	15	0.10	110	112	220	78	0.450	0.010	0.460	0.060	0.08
AUG												
22...	25	22	0.10	160	136	200	70	--	ND	0.510	0.030	0.04
OCT												
18...	25	20	0.10	140	134	200	52	0.630	0.00	0.630	0.040	0.05

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
JUN 1988											
13...	0.38	0.44	0.90	4.0	0.170	0.010	0.03	1300	<1	11	2100
AUG											
22...	0.27	0.30	0.81	3.6	0.090	0.030	0.09	1600	1	33	2400
OCT											
18...	0.32	0.36	0.99	4.4	0.120	0.020	0.06	720	<1	12	1100

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
JUN 1988											
13...	5	160	<0.10	7	20	2.0	--	--	--	--	--
AUG											
22...	<5	220	<0.10	5	20	ND	ND	ND	ND	ND	ND
OCT											
18...	<5	100	<0.10	4	10	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

HUDSON RIVER BASIN

01372043 HUDSON RIVER NEAR POUGHKEEPSIE, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
JUN 1988											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
JUN 1988											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY - continued

LOCATION.--Lat 41 56'47", long 74 58'48", Delaware County, Hydrologic Unit 02040102, on left bank 66 ft downstream from road bridge in Cooks Falls, and 5.5 mi downstream from Willowemoc Creek.

DRAINAGE AREA.--241 mi 2 .

PERIOD OF RECORD.--
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (c), 1989 (a).
PESITCIDE DATA: 1987 (b), 1988 (c), 1989 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1987 to current year.

INSTRUMENTATION.--Water-temperature satellite and telephone telemeter since June 1986, provides 15-minute-interval readings.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Minimum, 0.0 C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 27.5 C, Aug. 6, but may have been higher during period of instrument malfunction; minimum, 0.0 C on many days during winter period.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAY 1987												
29...	0930	185	--	108	7.4	19.5	0.60	--	9.5	--	22	7.1
JUN												
29...	1525	132	--	101	8.6	28.5	0.50	--	9.8	--	22	6.8
AUG												
31...	1530	197	--	--	7.5	18.0	0.60	--	10.3	--	21	6.8
OCT												
19...	1515	354	--	64	7.2	11.5	0.50	--	12.4	--	18	5.9
NOV												
09...	1430	417	--	--	7.4	7.0	0.30	--	12.7	--	17	5.3
30...	1630	1770	--	--	7.0	6.0	5.0	--	16.8	--	14	4.4
APR 1988												
04...	1630	1320	58	58	6.5	10.0	1.5	757	11.4	101	15	4.8
20...	1750	340	73	73	6.2	8.5	0.40	755	11.3	98	18	5.7
JUN												
06...	1600	290	73	71	7.2	19.5	0.50	748	9.1	101	19	6.0
22...	1650	109	121	117	9.0	24.0	0.60	759	8.5	101	23	7.2
JUL												
18...	1730	136	94	87	8.0	27.5	1.0	762	7.6	96	21	6.5
AUG												
31...	1630	239	94	89	8.0	19.5	0.81	766	9.2	100	21	6.4
OCT												
17...	1500	60	134	128	8.5	15.5	0.60	768	10.6	106	25	7.8
NOV												
14...	1500	843	58	55	6.8	6.5	1.2	764	12.7	104	16	4.8

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY - continued

WATER-QUALITY DATA (continued)

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
MAY 1987												
29...	1.1	--	--	--	--	--	--	49	--	78	26	52
JUN												
29...	1.1	--	--	--	--	--	--	28	--	74	20	51
AUG												
31...	1.0	--	--	--	--	--	--	46	--	47	20	30
OCT												
19...	0.90	--	--	--	--	--	--	45	--	58	18	40
NOV												
09...	0.90	--	--	--	--	--	--	35	--	45	30	8
30...	0.80	--	--	--	--	--	--	28	--	48	22	28
APR 1988												
04...	0.84	3.2	0.50	6.0	8.3	6.2	0.10	35	28	60	19	41
20...	1.0	5.3	0.50	9.0	8.6	9.5	0.10	41	36	54	14	40
JUN												
06...	1.0	4.8	0.60	11	8.3	8.2	0.30	43	36	96	38	58
22...	1.2	12	0.70	13	9.0	19	0.20	81	57	86	44	42
JUL												
18...	1.1	7.8	0.70	12	9.5	11	0.10	51	44	72	29	43
AUG												
31...	1.1	8.1	0.60	12	9.0	11	0.10	63	43	68	36	32
OCT												
17...	1.4	14	0.80	16	8.8	21	<0.10	63	63	64	8	56
NOV												
14...	0.87	2.8	0.50	7.0	9.5	5.1	<0.10	39	28	49	30	19

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
MAY 1987												
29...	--	ND	0.220	0.010	0.01	0.09	0.10	0.32	1.4	0.010	ND	--
JUN												
29...	--	ND	0.160	0.010	0.01	0.11	0.12	0.28	1.2	0.010	0.00	0.0
AUG												
31...	--	ND	0.230	ND	--	--	0.11	0.34	1.5	0.010	0.00	0.0
OCT												
19...	--	ND	0.160	0.010	0.01	0.20	0.21	0.37	1.6	0.00	ND	--
NOV												
09...	--	ND	0.310	ND	--	--	0.07	0.38	1.7	0.00	ND	--
30...	--	ND	0.280	0.010	0.01	0.16	0.17	0.45	2.0	0.020	0.00	0.0
APR 1988												
04...	--	ND	0.520	0.010	0.01	0.06	0.07	0.59	2.6	0.010	0.00	0.0
20...	--	ND	0.300	0.00	0.0	0.09	0.09	0.39	1.7	0.010	ND	--
JUN												
06...	--	ND	0.170	0.010	0.01	0.13	0.14	0.31	1.4	0.010	0.00	0.0
22...	--	ND	0.170	0.010	0.01	0.11	0.12	0.29	1.3	0.370	ND	--
JUL												
18...	0.380	0.00	0.380	0.020	0.03	0.11	0.13	0.51	2.3	0.040	0.020	0.06
AUG												
31...	0.240	0.00	0.240	0.010	0.01	0.16	0.17	0.41	1.8	0.020	0.00	0.0
OCT												
17...	--	ND	0.130	0.020	0.03	0.16	0.18	0.31	1.4	0.020	0.010	0.03
NOV												
14...	--	ND	0.310	ND	--	--	0.24	0.55	2.4	0.010	0.00	0.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
MAY 1987											
29...	--	--	<10	--	<10	--	60	--	<5	--	20
JUN											
29...	--	--	<10	--	<10	--	20	--	<5	--	<10
AUG											
31...	--	--	<10	--	20	--	60	--	<5	--	20
OCT											
19...	--	--	<1	--	7	--	20	--	<5	--	<10
NOV											
09...	--	--	<1	--	5	--	50	--	<5	--	10
30...	--	--	<1	1.0	6	2	240	--	7	5	40
APR 1988											
04...	--	20	<1	<1.0	4	2	80	12	<5	<5	20
20...	10	--	2	--	2	--	30	--	<5	--	<10
JUN											
06...	50	20	2	<1.0	7	2	50	12	<5	<5	20
22...	50	--	<1	--	4	--	50	--	<5	--	20
JUL											
18...	80	--	<1	--	5	--	180	--	<5	--	50
AUG											
31...	70	--	<1	--	3	--	120	--	<5	--	20
OCT											
17...	40	10	<1	<1.0	3	2	80	9	<5	<5	<10
NOV											
14...	70	--	<1	--	4	--	100	--	<5	--	20

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
MAY 1987											
29...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN											
29...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
AUG											
31...	--	<0.10	5	--	<10	--	ND	ND	ND	ND	ND
OCT											
19...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
NOV											
09...	--	<0.10	<1	--	20	--	ND	ND	ND	ND	ND
30...	--	<0.10	<1	4	<10	10	ND	ND	ND	ND	ND
APR 1988											
04...	9	<0.10	<1	2	<10	4	ND	ND	ND	ND	ND
20...	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND
JUN											
06...	7	<0.10	3	4	<10	8	ND	ND	ND	ND	ND
22...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUL											
18...	--	<0.10	1	--	<10	--	ND	ND	ND	ND	ND
AUG											
31...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
OCT											
17...	5	<0.10	1	<1	<10	4	ND	ND	ND	ND	ND
NOV											
14...	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
MAY 1987											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAY 1987											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01420500 BEAVER KILL AT COOKS FALLS, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
06...	1600	290	2	1.6
22...	1650	109	3	0.88
JUL				
18...	1730	136	5	1.8
AUG				
31...	1630	239	4	2.6
OCT				
17...	1500	60	<1	--
NOV				
14...	1500	843	2	4.6

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT 1987								
19...	1515	9200	<1	<10	5	4800	50	190

DATE	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987							
19...	<0.10	10	30	0	0	1	97

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY

LOCATION.--Lat 41 58'23", long 75 10'28", Delaware County, Hydrologic Unit 02040102, on left bank 3,000 ft upstream from bridge on County Highway 28 at Fishs Eddy, 0.6 mi upstream from Fish Creek, 4.2 mi downstream from Beaver Kill, and 11 mi upstream from the confluence of East and West Branches near Hancock. Water-quality sampling site at discharge station.

DRAINAGE AREA.--784 mi 2 .

PERIOD OF RECORD.--Water years 1958-59, 1968 to current year.
CHEMICAL DATA: 1958-59 (d), 1970 (b), 1971-74 (d), 1975 (c), 1988 (b).
MINOR ELEMENTS DATA: 1971-74 (a), 1988 (b).
PESTICIDE DATA: 1988 (b).
ORGANIC DATA: OC--1974 (a), 1975 (c).
NUTRIENT DATA: 1971-75 (d), 1988 (b).
BIOLOGICAL DATA:
Bacteria--1971 (c), 1973-75 (c).
SEDIMENT DATA: 1988 (b).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1967 to current year.

INSTRUMENTATION.--Water-temperature digital recorder since October 1975, provides one-hour-interval punches. Prior to October 1975, water-temperature recorder provided continuous recordings.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-75, 1978, 1980-82, 1984, 1986-89), 31.5 C, Aug. 2, 1975; minimum (water years 1968-76, 1978-79, 1981-89), 0.0 C on many days during winter periods, except 1978.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR 1988												
04...	1500	2270	61	60	6.6	10.0	6.0	757	11.4	102	17	5.1
JUN												
06...	1450	509	72	68	8.3	20.5	0.70	748	10.0	113	20	6.2
22...	1530	254	92	88	8.7	27.5	1.0	759	9.5	120	24	7.3
JUL												
18...	1600	537	118	114	8.8	28.0	0.70	762	9.3	119	24	7.2

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
APR 1988												
04...	1.0	3.0	0.50	7.0	8.9	5.8	0.10	44	29	52	22	30
JUN												
06...	1.2	3.8	0.50	12	9.1	6.7	0.20	44	35	47	29	18
22...	1.4	6.6	1.0	14	9.4	10	0.20	--	44	43	35	8
JUL												
18...	1.5	11	0.80	14	9.7	17	0.10	77	56	80	32	48

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
APR 1988												
04...	--	ND	0.290	0.010	0.01	0.09	0.10	0.39	1.7	0.010	0.00	0.0
JUN												
06...	--	ND	0.140	ND	--	--	0.17	0.31	1.4	0.010	ND	--
22...	--	ND	0.170	0.010	0.01	0.21	0.22	0.39	1.7	0.320	ND	--
JUL												
18...	0.320	0.00	0.320	0.010	0.01	0.24	0.25	0.57	2.5	0.010	ND	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01421000 EAST BRANCH DELAWARE RIVER AT FISHS EDDY, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1988											
04...	--	10	<1	<1.0	3	1	380	14	<5	<5	30
JUN											
06...	30	30	1	1.0	8	5	70	17	<5	<5	20
22...	40	--	<1	--	4	--	80	--	<5	--	30
JUL											
18...	30	--	<1	--	4	--	80	--	<5	--	40

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1988											
04...	10	<0.10	9	3	<10	4	ND	ND	ND	ND	ND
JUN											
06...	14	<0.10	4	4	<10	16	ND	ND	ND	ND	ND
22...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUL											
18...	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
APR 1988											
04...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
JUN											
06...	ND	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
APR 1988											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUN 1988				
06...	1450	509	2	2.7
22...	1530	254	2	1.4
JUL				
18...	1600	537	2	2.9

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01421500 EAST BRANCH DELAWARE RIVER AT HANCOCK, NY

LOCATION.--Lat 41 57'08", long 75 16'37", Delaware Coutny, Hydrologic Unit 02040102, at bridge on State Highway 97 in Hancock and 1.2 mi (1.9 km) upstream from confluence with West Branch. Gaging Station 1906-1912.

DRAINAGE AREA.--839 mi2.

PERIOD OF RECORD.--May to November 1987 (discontinued).
CHEMICAL DATA: 1987-88 (b).
MINOR ELEMENT DATA: 1987-88 (b).
PESTICIDE DATA: 1987-88 (b).
NUTRIENT DATA: 1987-88 (b).

REMARKS.--Water-discharge data based on records from stream-flow gage 01421000 East Branch Delaware River at Fish Eddy. Sampling site moved to 01421000 East Branch Delaware River at Fish Eddy in 1988.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
MAY 1987											
08...	0930	563	81	7.2	9.5	0.60	10.7	22	6.9	1.2	52
29...	1100	361	86	7.7	22.5	0.50	9.8	23	7.2	1.3	36
JUN											
29...	1420	393	85	8.6	25.0	0.90	10.2	23	7.0	1.3	53
AUG											
31...	1345	444	--	7.4	19.0	0.70	10.1	22	6.8	1.2	40
OCT											
19...	1415	650	66	7.4	12.0	1.1	12.3	22	6.7	1.2	49
NOV											
09...	1245	723	--	7.4	6.5	0.50	13.3	18	5.4	1.2	47
30...	1500	1830	--	7.2	6.0	4.0	M16.4	19	5.8	1.2	40

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
MAY 1987											
08...	58	16	42	ND	0.170	0.010	0.01	0.06	0.07	0.24	1.1
29...	65	24	41	ND	0.270	0.020	0.03	0.07	0.09	0.36	1.6
JUN											
29...	53	20	28	ND	0.190	0.010	0.01	0.12	0.13	0.32	1.4
AUG											
31...	54	20	34	ND	0.260	ND	--	--	0.13	0.39	1.7
OCT											
19...	52	18	34	ND	0.150	0.010	0.01	0.16	0.17	0.32	1.4
NOV											
09...	50	28	28	ND	0.300	ND	--	--	0.16	0.46	2.0
30...	54	23	34	ND	0.360	ND	--	--	0.17	0.53	2.3

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
MAY 1987											
08...	0.00	0.00	0.0	<10	--	<10	--	20	<5	--	20
29...	0.010	ND	--	<10	1.0	<10	<1	60	<5	<5	20
JUN											
29...	0.010	ND	--	<10	--	<10	--	60	<5	--	<10
AUG											
31...	0.00	ND	--	<10	--	30	--	70	<5	--	10
OCT											
19...	ND	ND	--	<1	--	5	--	20	<5	--	<10
NOV											
09...	0.00	0.00	0.0	<1	--	4	--	40	<5	--	10
30...	0.010	ND	--	<1	1.0	6	4	290	<5	<5	50

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01421500 EAST BRANCH DELAWARE RIVER AT HANCOCK, NY - continued

WATER-QUALITY DATA (continued)

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)
MAY 1987											
08...	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND	ND
29...	<0.10	<1	<1	10	<10	ND	ND	ND	ND	ND	ND
JUN											
29...	<0.10	1	--	<10	--	ND	ND	ND	ND	ND	ND
AUG											
31...	<0.10	2	--	<10	--	ND	ND	ND	ND	ND	ND
OCT											
19...	<0.10	<1	--	20	--	ND	ND	ND	ND	ND	ND
NOV											
09...	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND	ND
30...	<0.10	<1	<1	10	10	ND	ND	ND	ND	ND	ND

DATE	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)
MAY 1987											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAY 1987										
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN										
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT										
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV										
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01421500 EAST BRANCH DELAWARE RIVER AT HANCOCK, NY - continued

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 1987								
19...	1415	17300	<1	<10	10	5700	30	680

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987							
19...	<0.10	10	50	1	6	12	99

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01422642 WEST BRANCH DELAWARE RIVER AT DE LANCEY, NY

LOCATION.--Lat 42 12'29", long 74 58'35", Delaware County, Hydrologic Unit 02040101, at bridge on Bagley Brook Road at De Lancey.

DRAINAGE AREA.--241 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria-- 1987-88 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
MAY 1987												
08...	1215	--	--	99	8.6	13.5	0.70	--	14.6	--	>60	ND
29...	1300	--	--	113	8.0	25.0	1.0	--	11.7	--	--	--
JUN												
29...	1150	--	--	112	7.4	25.0	2.2	--	9.2	--	--	--
AUG												
31...	1100	--	--	--	7.4	17.0	1.3	--	10.1	--	--	--
OCT												
19...	1200	--	--	95	7.4	11.0	1.9	--	12.5	--	--	--
NOV												
09...	1030	--	--	--	7.2	8.0	1.0	--	12.3	--	--	--
30...	1200	--	--	--	7.2	7.0	--	--	15.8	--	--	--
APR 1988												
04...	1130	706	83	85	7.8	10.5	4.4	757	10.9	98	--	--
21...	1100	235	92	91	6.1	6.0	1.0	755	12.8	103	340	14.0
JUN												
06...	1100	184	99	96	7.8	15.5	1.5	748	10.5	107	--	--
22...	1200	75	131	130	7.8	20.0	1.6	759	9.2	102	--	--
JUL												
18...	1200	--	146	142	7.9	23.5	6.5	762	9.0	106	--	--
AUG												
31...	1145	141	127	123	7.6	17.5	1.4	766	9.7	101	--	--
OCT												
17...	1200	--	150	150	7.6	13.0	0.80	768	11.4	108	--	--
NOV												
14...	1200	603	89	85	7.5	6.0	5.9	764	13.2	106	--	--

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
MAY 1987												
08...	32	9.4	2.0	--	--	--	--	--	--	57	--	75
29...	34	10	2.2	--	--	--	--	--	--	60	--	77
JUN												
29...	40	12	2.5	--	--	--	--	--	--	37	--	91
AUG												
31...	41	12	2.6	--	--	--	--	--	--	64	--	84
OCT												
19...	36	11	2.0	--	--	--	--	--	--	57	--	70
NOV												
09...	18	5.4	1.2	--	--	--	--	--	--	54	--	68
30...	27	7.7	1.9	--	--	--	--	--	--	48	--	85
APR 1988												
04...	22	6.3	1.5	3.1	1.0	14	8.7	6.2	0.10	56	35	70
21...	30	8.8	1.9	4.4	0.90	19	11	7.4	0.10	62	46	80
JUN												
06...	33	9.6	2.2	4.6	1.0	23	10	7.1	0.20	58	49	63
22...	42	12	2.9	7.0	1.3	30	12	11	0.20	--	64	101
JUL												
18...	42	12	2.9	8.8	1.4	28	12	14	0.10	73	68	101
AUG												
31...	42	12	2.8	6.3	2.0	22	15	11	0.10	82	62	90
OCT												
17...	49	14	3.4	9.3	1.7	31	14	14	<0.10	101	75	109
NOV												
14...	28	8.1	1.9	3.7	1.5	14	14	6.6	<0.10	56	44	69

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01422642 WEST BRANCH DELAWARE RIVER AT DE LANCEY, NY - continued

WATER-QUALITY DATA (continued)

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
MAY 1987												
08...	20	55	0.660	0.00	0.660	0.010	0.01	0.11	0.12	0.78	3.5	0.010
29...	28	52	0.830	0.010	0.840	0.070	0.09	0.13	0.20	1.0	4.6	0.030
JUN												
29...	39	52	0.970	0.00	0.970	0.020	0.03	0.19	0.21	1.2	5.2	0.040
AUG												
31...	30	54	--	ND	0.900	ND	--	--	0.13	1.0	4.6	0.030
OCT												
19...	23	47	--	ND	0.840	0.010	0.01	0.14	0.15	0.99	4.4	0.020
NOV												
09...	37	31	--	ND	1.02	0.010	0.01	0.08	0.09	1.1	4.9	0.020
30...	37	58	--	ND	0.750	0.010	0.01	0.32	0.33	1.1	4.8	0.080
APR 1988												
04...	26	44	--	ND	0.810	0.010	0.01	0.15	0.16	0.97	4.3	0.030
21...	36	44	--	ND	0.770	0.00	0.0	0.12	0.12	0.89	3.9	0.010
JUN												
06...	42	21	--	ND	0.700	0.00	0.0	0.13	0.13	0.83	3.7	0.020
22...	83	18	0.570	0.010	0.580	0.030	0.04	0.16	0.19	0.77	3.4	0.320
JUL												
18...	34	67	1.09	0.010	1.10	0.030	0.04	0.12	0.15	1.2	5.5	0.090
AUG												
31...	39	51	0.990	0.00	0.990	0.010	0.01	0.23	0.24	1.2	5.4	0.060
OCT												
17...	34	75	1.15	0.020	1.17	0.020	0.03	0.14	0.16	1.3	5.9	0.060
NOV												
14...	32	37	--	ND	1.09	0.00	0.0	0.24	0.24	1.3	5.9	0.060

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
MAY 1987												
08...	0.00	0.0	--	--	<10	--	<10	--	120	--	5	--
29...	0.020	0.06	--	--	<10	<1.0	<10	3	80	--	<5	<5
JUN												
29...	0.020	0.06	--	--	<10	--	<10	--	130	--	6	--
AUG												
31...	0.020	0.06	--	--	<10	--	10	--	80	--	13	--
OCT												
19...	0.010	0.03	--	--	<1	--	2	--	40	--	<5	--
NOV												
09...	0.010	0.03	--	--	<1	--	10	--	60	--	<5	--
30...	0.020	0.06	--	--	1	<1.0	8	3	580	--	<5	<5
APR 1988												
04...	0.010	0.03	--	10	<1	7.0	5	2	230	18	<5	<5
21...	ND	--	60	--	2	--	6	--	70	--	<5	--
JUN												
06...	0.00	0.0	50	<10	1	1.0	5	5	110	29	<5	<5
22...	0.020	0.06	110	--	<1	--	6	--	190	--	<5	--
JUL												
18...	0.030	0.09	280	--	<1	--	5	--	430	--	6	--
AUG												
31...	0.030	0.09	150	--	1	--	8	--	190	--	5	--
OCT												
17...	0.030	0.09	50	<10	<1	1.0	5	9	90	12	<5	<5
NOV												
14...	0.020	0.06	160	--	<1	--	11	--	240	--	<5	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01422642 WEST BRANCH DELAWARE RIVER AT DE LANCEY, NY - continued

WATER-QUALITY DATA (continued)

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
MAY 1987												
08...	10	--	<0.10	<1	--	40	--	ND	ND	ND	ND	ND
29...	20	--	<0.10	<1	1	<10	20	ND	ND	ND	ND	ND
JUN												
29...	20	--	<0.10	1	--	10	--	ND	ND	ND	ND	ND
AUG												
31...	30	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
OCT												
19...	20	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
NOV												
09...	10	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
30...	60	--	<0.10	2	3	<10	<10	ND	ND	ND	ND	ND
APR 1988												
04...	30	11	<0.10	<1	5	<10	16	ND	ND	ND	ND	ND
21...	20	--	<0.10	7	--	<10	--	ND	ND	ND	ND	ND
JUN												
06...	30	18	<0.10	2	1	<10	23	ND	ND	ND	ND	ND
22...	60	--	<0.10	3	--	10	--	ND	ND	ND	ND	ND
JUL												
18...	70	--	<0.10	1	--	<10	--	ND	ND	ND	ND	ND
AUG												
31...	30	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
OCT												
17...	10	12	<0.10	2	<1	<10	8	ND	ND	ND	ND	ND
NOV												
14...	30	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
MAY 1987											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01422642 WEST BRANCH DELAWARE RIVER AT DE LANCEY, NY - continued

WATER-QUALITY DATA (continued)

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAY 1987											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
06...	1100	184	4	2.0
22...	1200	75	3	0.61
JUL				
18...	1200	--	12	--
AUG				
31...	1145	141	6	2.3
OCT				
17...	1200	--	2	--
NOV				
14...	1200	603	8	13

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT 1987								
19...	1200	29400	<1	<10	9	7000	10	310

DATE	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987							
19...	<0.10	10	40	1	8	17	97

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY

LOCATION.--Lat 42 00'11", long 75 23'02", Delaware County, Hydrologic Unit 02040101, on left bank at downstream side of bridge on County Highway 56 in Hale Eddy, and 9 mi upstream from confluence of East and West Branches near Hancock. Water-quality sampling site at discharge station.

DRAINAGE AREA.--595 mi 2 .

PERIOD OF RECORD.--April to November 1988.
CHEMICAL DATA: 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1988 (c), 1989 (a).
PESTICIDE DATA: 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1988 (a).
SEDIMENT DATA: 1988 (c), 1989 (a).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-77).

INSTRUMENTATION.--Water-temperature digital recorder since October 1976, provides one-hour-interval punches. Also, water-temperature satellite telemeter since May 1985, provides one-hour-interval readings. Prior to October 1976, water-temperature recorder provided continuous recordings.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-77, 1979-83, 1985, 1988-89), 30.5 C, July 22, 23, 1972, June 16, 1981; minimum (water years 1968, 1978-89), 0.0 C on many days during winter periods.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1988												
04...	1315	1510	84	84	7.3	8.0	1.2	757	13.4	114	--	--
21...	0930	142	104	101	6.0	7.5	--	755	11.6	98	>230	6.00
JUN												
06...	1250	609	84	81	8.2	19.0	1.5	748	10.6	116	--	--
22...	1345	808	82	79	9.2	11.5	0.90	759	13.8	126	--	--
JUL												
18...	1500	441	87	81	8.4	14.5	0.90	762	12.3	121	--	--
AUG												
31...	1400	139	104	101	8.4	17.5	0.75	766	10.5	109	--	--
OCT												
17...	1330	893	--	85	7.6	15.0	8.0	768	11.3	--	--	--
NOV												
14...	1400	389	79	75	7.8	7.5	3.9	764	13.8	115	--	--

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1988												
04...	24	6.8	1.8	4.0	1.1	14	9.5	6.9	0.10	55	39	65
21...	29	7.9	2.2	5.8	1.0	17	12	10	0.10	--	49	--
JUN												
06...	26	7.1	1.9	4.1	1.0	17	19	6.6	0.30	66	50	77
22...	26	7.2	1.9	4.1	1.0	14	10	6.2	0.20	--	39	40
JUL												
18...	26	7.0	2.0	4.4	1.0	15	10	6.9	0.10	62	40	72
AUG												
31...	29	8.0	2.3	6.4	1.2	15	14	9.9	0.10	64	51	96
OCT												
17...	28	7.9	2.1	4.4	1.2	19	10	6.7	<0.10	52	44	77
NOV												
14...	21	5.8	1.7	4.0	1.1	10	13	6.6	0.10	52	38	62

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY - continued

WATER-QUALITY DATA (continued)

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1988												
04...	24	41	--	ND	0.560	0.010	0.01	0.23	0.24	0.80	3.5	0.010
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
06...	53	24	0.460	0.00	0.460	0.020	0.03	0.11	0.13	0.59	2.6	0.010
22...	23	17	--	ND	0.590	0.00	0.0	0.16	0.16	0.75	3.3	0.080
JUL												
18...	27	45	--	ND	0.660	0.00	0.0	0.11	0.11	0.77	3.4	0.010
AUG												
31...	46	50	0.760	0.010	0.770	0.020	0.03	0.25	0.27	1.0	4.6	0.030
OCT												
17...	40	37	0.170	0.00	0.170	0.020	0.03	0.19	0.21	0.38	1.7	0.050
NOV												
14...	21	41	--	ND	0.440	0.010	0.01	0.26	0.27	0.71	3.1	0.020

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1988												
04...	0.00	0.0	--	10	<1	<1.0	3	1	140	12	<5	<5
21...	--	--	<10	--	2	--	4	--	60	--	<5	--
JUN												
06...	ND	--	70	60	1	<1.0	7	3	130	22	<5	<5
22...	ND	--	50	--	<1	--	4	--	80	--	9	--
JUL												
18...	ND	--	20	--	<1	--	6	--	70	--	<5	--
AUG												
31...	0.00	0.0	80	--	1	--	4	--	220	--	<5	--
OCT												
17...	0.00	0.0	250	20	1	<1.0	5	2	590	48	<5	5
NOV												
14...	0.00	0.0	120	--	<1	--	7	--	280	--	<5	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1988												
04...	20	9	<0.10	<1	3	<10	<3	ND	ND	ND	ND	ND
21...	50	--	<0.10	8	--	<10	--	ND	ND	ND	ND	ND
JUN												
06...	50	32	<0.10	4	3	<10	11	ND	ND	ND	ND	ND
22...	30	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
JUL												
18...	40	--	<0.10	1	--	<10	--	ND	ND	ND	ND	ND
AUG												
31...	80	--	<0.10	8	--	<10	--	ND	ND	ND	ND	ND
OCT												
17...	190	130	<0.10	2	3	<10	7	ND	ND	ND	ND	ND
NOV												
14...	50	--	<0.10	9	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01426500 WEST BRANCH DELAWARE RIVER AT HALE EDDY, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1988											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR 1988				
04...	1315	1510	--	--
21...	0930	142	--	--
JUN				
06...	1250	609	5	8.2
22...	1345	808	2	4.4
JUL				
18...	1500	441	<1	--
AUG				
31...	1400	139	4	1.5
OCT				
17...	1330	893	12	29
NOV				
14...	1400	389	4	4.2

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01427000 WEST BRANCH DELAWARE RIVER AT HANCOCK, NY

LOCATION.--Lat 41 57'08", long 75 17'31", Delaware County, Hydrologic Unit 02040101, at bridge at end of Pennsylvania State Highway 191 in Hancock and 1.3 mi (2.1 km) upstream from confluence with East Branch. Gaging Station 1906-1912.

DRAINAGE AREA.--650 mi2.

PERIOD OF RECORD.--Water year May to November 1987 (discontinued).
CHEMICAL DATA: 1987-88 (b).
MINOR ELEMENT DATA: 1987-88 (b).
PESTICIDE DATA: 1987-88 (b).
NUTRIENT DATA: 1987-88 (b).
BIOLOGICAL DATA:
Bacteria--1987 (a).
SEDIMENT DATA: 1987-88 (b).

Remarks.--Water-discharge data based on records from stream-flow gage 01426500 West Branch Delaware River at Hale Eddy, NY. Sampling site moved upstream to 01426500 West Branch Delaware River at Hale Eddy NY in 1988.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAY 1987												
08...	1030	132	96	7.7	13.5	0.80	11.4	>190	2.00	29	8.2	2.0
29...	1030	230	91	8.2	22.0	0.80	10.8	--	--	27	7.8	1.9
JUN												
29...	1345	424	80	7.9	23.5	1.1	11.3	--	--	27	7.7	1.9
AUG												
31...	1245	144	--	7.8	18.0	0.90	10.6	--	--	34	10	2.1
OCT												
19...	1330	162	90	7.6	13.0	1.6	13.0	--	--	28	8.0	2.0
NOV												
09...	1200	201	--	7.0	7.5	1.2	12.8	--	--	24	6.7	1.8
30...	1400	1160	--	7.2	6.0	27	16.2	--	--	19	5.2	1.5

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
MAY 1987												
08...	70	77	22	55	0.400	0.00	0.400	0.010	0.01	0.09	0.10	0.50
29...	48	80	25	55	--	ND	0.210	0.010	0.01	0.07	0.08	0.29
JUN												
29...	27	57	26	29	--	ND	0.200	0.010	0.01	0.12	0.13	0.33
AUG												
31...	55	59	28	31	--	ND	0.550	ND	--	--	0.19	0.74
OCT												
19...	60	64	17	47	--	ND	0.380	0.00	0.0	0.11	0.11	0.49
NOV												
09...	54	56	33	23	--	ND	0.490	ND	--	--	0.12	0.61
30...	50	86	30	58	--	ND	0.350	0.020	0.03	0.32	0.34	0.69

DATE	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
MAY 1987											
08...	2.2	0.010	0.00	0.0	<10	--	<10	--	90	<5	--
29...	1.3	0.010	0.00	0.0	<10	1.0	<10	2	90	6	5
JUN											
29...	1.5	0.010	0.00	0.0	<10	--	<10	--	110	<5	--
AUG											
31...	3.3	0.010	0.00	0.0	<10	--	20	--	80	<5	--
OCT											
19...	2.2	0.010	0.00	0.0	1	<1.0	7	3	90	<5	<5
NOV											
09...	2.7	0.010	0.00	0.0	<1	--	4	--	120	<5	--
30...	3.1	0.090	0.010	0.03	<1	--	6	--	1200	<5	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01427000 WEST BRANCH DELAWARE RIVER AT HANCOCK, NY - continued

WATER-QUALITY DATA (continued)

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
MAY 1987											
08...	50	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
29...	30	<0.10	<1	<1	<10	10	ND	ND	ND	ND	ND
JUN											
29...	20	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
AUG											
31...	20	<0.10	1	--	40	--	ND	ND	ND	ND	ND
OCT											
19...	10	<0.10	<1	<1	10	20	ND	ND	ND	ND	ND
NOV											
09...	20	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
30...	110	<0.10	<1	--	10	--	ND	ND	ND	ND	ND

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
MAY 1987											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
MAY 1987											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
31...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND
MAY 1987		
08...	1030	132
29...	1030	230
JUN		
29...	1345	424
AUG		
31...	1245	144
OCT		
19...	1330	162
NOV		
09...	1200	201
30...	1400	1160

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01427000 WEST BRANCH DELAWARE RIVER AT HANCOCK, NY - continued

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 1987 19...	1330	21700	<1	7	10000	10	530

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987 19...	<0.10	10	60	1	10	17	100

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41 22'14", long 74 41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi 2 .

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.
CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d), 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c), 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1974 (a), 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: OC--1974 (b), 1975 (d).
NUTRIENT DATA: 1968 (a), 1969-76 (d), 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1973-76 (d), 1987 (a), 1988 (c), 1989 (a).
Phytoplankton--1974 (b), 1975-76 (c).
Periphyton--1976 (a).
SEDIMENT DATA: 1959 (c), 1976 (c), 1988 (b), 1989 (a).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Water-temperature digital recorder since January 1973, provides one-hour-interval punches.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983-84, 1988-90), 30.0 C, July 13, 1981; minimum (water years 1958-60, 1973, 1975-90), 0.0 C, on many days during winter periods, except 1984.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
MAY 1987												
07...	1345	3200	--	71	7.9	15.0	0.60	--	11.7	--	--	--
28...	1530	1810	--	79	7.8	24.0	0.70	--	9.7	--	--	--
JUN												
30...	1100	1390	--	82	7.9	25.0	0.70	--	9.4	--	>50	10.0
SEP												
01...	0915	1730	--	--	7.4	17.5	0.90	--	9.2	--	>100	34.0
OCT												
20...	1030	1680	--	75	7.4	10.0	0.60	--	10.8	--	20	8.00
NOV												
10...	0930	2490	--	--	7.0	5.0	0.50	--	11.8	--	70	6.00
DEC												
01...	1000	11000	--	--	7.2	5.0	56	--	16.5	--	>2000	>400
APR 1988												
05...	1000	6630	71	72	6.5	9.5	1.3	760	11.4	100	70	6.00
20...	1400	2290	76	75	6.6	9.5	0.90	755	11.9	105	--	--
JUN												
07...	1015	2600	77	74	7.0	18.5	0.80	748	9.2	100	100	18.0
23...	1000	2560	85	82	6.7	24.0	1.4	--	7.2	--	>210	16.0
JUL												
19...	1030	1560	87	86	6.6	25.0	0.90	--	7.5	--	>280	36.0
SEP												
01...	0945	1870	90	87	7.0	19.0	1.1	--	8.4	--	>100	36.0
OCT												
18...	1000	1710	86	83	7.0	12.0	0.40	--	10.3	--	>30	4.00
NOV												
15...	1000	3740	81	78	7.2	5.5	2.3	--	11.9	--	360	88.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
MAY 1987												
07...	20	6.1	1.2	--	--	--	--	--	--	58	--	67
28...	24	7.6	1.3	--	--	--	--	--	--	42	--	53
JUN												
30...	25	7.5	1.5	--	--	--	--	--	--	22	--	49
SEP												
01...	27	8.4	1.5	--	--	--	--	--	--	58	--	59
OCT												
20...	23	7.0	1.4	--	--	--	--	--	--	50	--	53
NOV												
10...	32	9.8	1.9	--	--	--	--	--	--	42	--	48
DEC												
01...	19	5.8	1.2	--	--	--	--	--	--	52	--	58
APR 1988												
05...	20	5.9	1.3	3.8	0.80	10	9.3	7.0	0.10	41	34	65
20...	22	6.6	1.3	4.3	0.70	12	11	7.3	0.10	64	38	84
JUN												
07...	23	6.8	1.4	4.1	0.70	14	11	6.9	0.30	--	40	35
23...	25	7.4	1.6	5.6	1.2	14	11	8.5	0.30	66	44	73
JUL												
19...	25	6.9	1.8	5.3	1.0	15	11	8.3	0.10	48	43	54
SEP												
01...	26	7.6	1.8	5.1	1.1	16	11	8.1	0.10	67	44	71
OCT												
18...	27	7.6	1.9	4.8	1.1	18	9.9	7.5	<0.10	53	44	57
NOV												
15...	23	6.9	1.4	3.9	0.90	13	12	6.9	<0.10	55	40	76

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
MAY 1987												
07...	24	43	--	ND	0.060	0.010	0.01	0.11	0.12	0.18	0.80	0.010
28...	29	34	--	ND	0.250	0.020	0.03	0.09	0.11	0.36	1.6	0.020
JUN												
30...	26	25	--	ND	0.250	0.010	0.01	0.11	0.12	0.37	1.6	0.010
SEP												
01...	29	38	--	ND	0.310	ND	--	--	0.20	0.51	2.3	0.010
OCT												
20...	14	39	--	ND	0.100	0.010	0.01	0.25	0.26	0.36	1.6	0.00
NOV												
10...	32	16	--	ND	0.190	ND	--	--	0.04	0.23	1.0	0.010
DEC												
01...	30	35	--	ND	0.280	ND	--	--	0.23	0.51	2.3	0.030
APR 1988												
05...	22	43	--	ND	0.450	0.00	0.0	0.18	0.18	0.63	2.8	0.010
20...	37	47	--	ND	0.170	0.00	0.0	0.10	0.10	0.27	1.2	0.020
JUN												
07...	30	5	--	ND	0.060	0.00	0.0	0.19	0.19	0.25	1.1	0.010
23...	41	32	--	ND	0.160	0.020	0.03	0.20	0.22	0.38	1.7	0.280
JUL												
19...	11	43	0.340	0.00	0.340	0.010	0.01	0.21	0.22	0.56	2.5	0.020
SEP												
01...	33	38	0.310	0.00	0.310	0.020	0.03	0.18	0.20	0.51	2.3	0.020
OCT												
18...	25	32	--	ND	0.100	ND	--	--	0.17	0.27	1.2	0.010
NOV												
15...	39	37	--	ND	0.330	0.010	0.01	0.30	0.31	0.64	2.8	0.010

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
MAY 1987												
07...	0.00	0.0	--	--	<10	--	10	--	90	--	16	--
28...	0.00	0.0	--	--	<10	--	<10	--	70	--	<5	--
JUN												
30...	0.00	0.0	--	--	<10	--	<10	--	80	--	<5	--
SEP												
01...	0.00	0.0	--	--	<10	1.0	30	2	90	--	<5	<5
OCT												
20...	ND	--	--	--	<1	--	6	--	30	--	<5	--
NOV												
10...	ND	--	--	--	1	--	7	--	80	--	<5	--
DEC												
01...	0.00	0.0	--	--	<1	1.0	6	4	370	--	<5	<5
APR 1988												
05...	0.00	0.0	--	10	<1	<1.0	2	1	110	20	<5	<5
20...	ND	--	<10	--	3	--	2	--	70	--	<5	--
JUN												
07...	ND	--	30	20	<1	<1.0	6	2	90	45	<5	<5
23...	ND	--	40	--	<1	--	6	--	110	--	<5	--
JUL												
19...	0.00	0.0	30	--	1	--	4	--	110	--	<5	--
SEP												
01...	ND	--	50	--	<1	--	7	--	120	--	<5	--
OCT												
18...	ND	--	20	10	<1	<1.0	4	2	80	12	<5	5
NOV												
15...	ND	--	70	--	<1	--	7	--	150	--	<5	--

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)
MAY 1987												
07...	20	--	<0.10	<1	--	<10	--	--	ND	ND	ND	ND
28...	30	--	<0.10	<1	--	<10	--	--	ND	ND	ND	ND
JUN												
30...	30	--	<0.10	<1	--	<10	--	--	ND	ND	ND	ND
SEP												
01...	20	--	<0.10	4	2	10	10	--	ND	ND	ND	ND
OCT												
20...	10	--	<0.10	<1	--	20	--	--	ND	ND	ND	ND
NOV												
10...	20	--	<0.10	<1	--	<10	--	--	ND	ND	ND	ND
DEC												
01...	80	--	<0.10	<1	<1	10	20	--	ND	ND	ND	ND
APR 1988												
05...	30	10	<0.10	<1	1	<10	<3	--	ND	ND	ND	ND
20...	10	--	<0.10	9	--	10	--	ND	ND	ND	ND	ND
JUN												
07...	20	10	<0.10	1	4	<10	8	ND	ND	ND	ND	ND
23...	50	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUL												
19...	70	--	<0.10	2	--	<10	--	0.0	ND	ND	ND	ND
SEP												
01...	40	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
OCT												
18...	20	3	<0.10	1	2	<10	4	3.0	ND	ND	ND	ND
NOV												
15...	30	--	<0.10	3	--	<10	--	2.0	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
MAY 1987												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988												
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL												
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAY 1987											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	2.0	ND	ND
JUN											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01434000 DELAWARE RIVER AT PORT JERVIS, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUN 1988				
23...	1000	2560	2	14
JUL				
19...	1030	1560	3	13
SEP				
01...	0945	1870	4	20
OCT				
18...	1000	1710	1	4.6
NOV				
15...	1000	3740	3	30

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
OCT 1987								
20...	1030	20200	<1	<10	9	6100	30	300

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987							
20...	<0.10	10	80	1	5	28	99

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY

LOCATION.--Lat 41 26'28", long 74 36'07", Orange County, Hydrologic Unit 02040104, on right bank just upstream from highway bridge on Graham Road, 0.5 mi downstream from Basher Kill, 0.8 mi southeast of Godeffroy, 1.7 mi south of Cuddebackville, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--307 mi 2 .

PERIOD OF RECORD.--Water years 1987 to current year.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1987 (a), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
MAY 1987												
07...	1500	483	--	80	7.9	16.5	1.6	--	11.1	--	--	--
28...	1400	266	--	95	7.6	20.0	0.60	--	9.7	--	--	--
JUN												
30...	1000	165	--	96	7.2	22.0	0.70	--	9.3	--	>40	40.0
SEP												
01...	1030	262	--	--	7.2	16.5	1.0	--	9.9	--	>260	52.0
OCT												
20...	1130	232	--	89	7.2	10.5	1.1	--	11.0	--	180	6.00
NOV												
10...	1045	257	--	--	7.2	5.0	0.70	--	11.7	--	180	40.0
DEC												
01...	1130	1130	--	--	7.0	5.0	6.4	--	16.9	--	>2000	>400
APR 1988												
05...	1115	477	86	86	6.6	10.5	0.80	760	11.5	104	70	6.00
20...	1300	228	92	91	9.1	9.0	1.3	755	13.0	114	--	--
JUN												
07...	1130	244	88	86	6.6	17.5	1.0	748	9.3	99	60	24.0
23...	1100	134	100	98	6.7	22.0	0.90	--	8.4	--	>200	34.0
JUL												
19...	1200	159	95	93	7.0	24.0	1.0	--	8.4	--	>240	160
SEP												
01...	1100	186	111	106	6.8	17.0	1.0	766	8.7	90	>280	54.0
OCT												
18...	0800	84	103	100	6.6	11.0	0.40	--	10.5	--	>60	4.00
NOV												
15...	0900	362	95	93	7.1	5.0	5.1	--	12.8	--	840	>26.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
MAY 1987												
07...	20	6.1	1.2	--	--	--	--	--	--	56	--	64
28...	25	7.7	1.3	--	--	--	--	--	--	57	--	83
JUN												
30...	27	8.3	1.5	--	--	--	--	--	--	56	--	67
SEP												
01...	26	8.1	1.5	--	--	--	--	--	--	68	--	72
OCT												
20...	24	7.2	1.4	--	--	--	--	--	--	61	--	72
NOV												
10...	21	6.3	1.3	--	--	--	--	--	--	53	--	56
DEC												
01...	17	5.0	1.2	--	--	--	--	--	--	49	--	66
APR 1988												
05...	21	6.3	1.2	6.5	0.90	10	9.6	10	0.10	62	41	67
20...	23	6.9	1.4	6.9	0.80	13	11	12	0.10	53	47	58
JUN												
07...	21	6.6	1.2	5.7	0.70	14	12	10	0.30	46	45	54
23...	27	8.3	1.6	6.7	1.0	21	11	10	0.20	--	51	49
JUL												
19...	22	6.5	1.4	7.2	1.1	12	10	10	0.10	66	44	83
SEP												
01...	28	8.5	1.7	8.3	1.0	16	14	12	0.10	89	55	92
OCT												
18...	27	8.2	1.6	7.8	1.2	17	10	11	0.10	53	50	55
NOV												
15...	24	7.0	1.5	6.6	1.1	13	14	11	0.10	62	49	66

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
MAY 1987												
07...	19	45	--	ND	0.180	0.010	0.01	0.13	0.14	0.32	1.4	0.020
28...	45	38	--	ND	0.500	0.020	0.03	0.09	0.11	0.61	2.7	0.060
JUN												
30...	17	39	--	ND	0.350	0.020	0.03	0.19	0.21	0.56	2.5	0.060
SEP												
01...	25	47	--	ND	0.760	0.00	0.0	0.21	0.21	0.97	4.3	0.070
OCT												
20...	24	48	--	ND	0.400	0.010	0.01	0.26	0.27	0.67	3.0	0.030
NOV												
10...	37	19	--	ND	0.420	ND	--	--	0.22	0.64	2.8	0.030
DEC												
01...	25	36	--	ND	0.260	0.010	0.01	0.19	0.20	0.46	2.0	0.050
APR 1988												
05...	21	46	--	ND	0.280	0.010	0.01	0.22	0.23	0.51	2.3	0.020
20...	16	42	--	ND	0.130	0.00	0.0	0.19	0.19	0.32	1.4	0.030
JUN												
07...	41	13	--	ND	0.290	0.010	0.01	0.28	0.29	0.58	2.6	0.040
23...	40	9	0.450	0.00	0.450	0.020	0.03	0.29	0.31	0.76	3.4	0.220
JUL												
19...	40	43	1.01	0.00	1.01	0.010	0.01	0.16	0.17	1.2	5.2	0.150
SEP												
01...	37	55	0.450	0.00	0.450	0.010	0.01	0.56	0.57	1.0	4.5	0.070
OCT												
18...	7	48	--	ND	0.670	0.010	0.01	0.18	0.19	0.86	3.8	0.050
NOV												
15...	29	37	--	ND	0.330	0.010	0.01	0.32	0.33	0.66	2.9	0.040

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
MAY 1987												
07...	0.00	0.0	--	--	<10	--	<10	--	130	--	<5	--
28...	0.040	0.12	--	--	<10	--	<10	--	160	--	<5	--
JUN												
30...	0.050	0.15	--	--	<10	--	<10	--	120	--	7	--
SEP												
01...	0.050	0.15	--	--	<10	--	30	--	90	--	7	--
OCT												
20...	0.010	0.03	--	--	<1	--	11	--	80	--	<5	--
NOV												
10...	0.010	0.03	--	--	<1	--	5	--	550	--	<5	--
DEC												
01...	0.010	0.03	--	--	1	1.0	7	5	340	--	<5	<5
APR 1988												
05...	0.00	0.0	--	20	<1	<1.0	6	3	160	56	<5	<5
20...	0.00	0.0	60	--	3	--	3	--	190	--	<5	--
JUN												
07...	0.020	0.06	60	20	1	<1.0	7	4	230	120	<5	<5
23...	0.00	0.0	30	--	<1	--	4	--	140	--	<5	--
JUL												
19...	0.120	0.37	50	--	<1	--	4	--	140	--	<5	--
SEP												
01...	0.030	0.09	80	--	1	--	13	--	110	--	<5	--
OCT												
18...	0.040	0.12	30	<10	<1	<1.0	19	3	80	21	<5	<5
NOV												
15...	0.00	0.0	110	--	3	--	10	--	200	--	<5	--

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
MAY 1987												
07...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
28...	50	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN												
30...	20	--	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
SEP												
01...	20	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
OCT												
20...	10	--	0.10	2	--	30	--	ND	ND	ND	ND	ND
NOV												
10...	40	--	<0.10	2	--	20	--	ND	ND	ND	ND	ND
DEC												
01...	50	--	<0.10	<1	1	20	20	ND	ND	ND	ND	ND
APR 1988												
05...	40	31	<0.10	6	2	<10	9	ND	ND	ND	ND	ND
20...	30	--	<0.10	11	--	<10	--	ND	ND	ND	ND	ND
JUN												
07...	40	21	<0.10	7	1	<10	13	ND	ND	ND	ND	ND
23...	40	--	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
JUL												
19...	60	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
SEP												
01...	20	--	<0.10	3	--	150	--	ND	ND	ND	ND	ND
OCT												
18...	<10	5	<0.10	5	<1	110	5	ND	ND	ND	ND	ND
NOV												
15...	20	--	<0.10	10	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
MAY 1987											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
MAY 1987											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

DELAWARE RIVER BASIN

01437500 NEVERSINK RIVER AT GODEFFROY, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
07...	1130	244	4	2.6
JUL				
19...	1200	159	4	1.7
SEP				
01...	1100	186	6	3.0
OCT				
18...	0800	84	1	0.23
NOV				
15...	0900	362	3	2.9

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
OCT 1987								
20...	1130	11300	<1	<10	4	4000	<10	180

DATE	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987							
20...	<0.10	<10	40	0	4	13	100

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANNA RIVER BASIN

01502701 SUSQUEHANNA RIVER AT AFTON, NY

LOCATION.--Lat 42 13'38", long 75 31'27", Chenango County, Hydrologic Unit 02050101, at bridge on State Highway 41, 0.1 mi southeast of Afton and intersection of State Highways 7 and 41, and 0.2 mi downstream from Kelsey Brook.

DRAINAGE AREA.--1,716 mi2.

PERIOD OF RECORD.--Water years 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (a).
MINOR ELEMENT DATA: 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
NUTRIENT DATA: 1988 (b), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1988-89 (a).
SEDIMENT DATA: 1988 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR 1988												
05...	1100	5220	158	7.5	9.0	14	--	10.8	--	--	65	22
MAY												
03...	0800	3140	154	7.4	6.0	3.6	--	11.4	2300	290	63	21
JUN												
07...	0830	1200	188	8.0	17.0	2.6	756	9.3	1500	90.0	78	26
AUG												
03...	0930	402	218	7.5	26.0	3.3	756	8.2	600	120	87	29
OCT												
06...	0900	355	238	--	11.0	4.4	771	8.4	11000	460	96	32

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
APR 1988												
05...	2.4	3.9	1.0	53	14	6.8	0.10	100	82	140	24	116
MAY												
03...	2.5	4.2	1.0	50	14	7.0	0.10	84	80	88	52	36
JUN												
07...	3.1	5.4	1.0	66	12	8.1	0.10	124	95	144	32	112
AUG												
03...	3.6	7.0	1.2	76	15	11	<0.10	128	112	164	64	100
OCT												
06...	4.0	8.3	1.5	79	17	12	0.10	132	122	140	32	108

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
APR 1988												
05...	0.680	0.00	0.680	0.030	0.04	0.19	0.22	0.90	4.0	0.040	0.00	0.0
MAY												
03...	--	ND	0.550	0.030	0.04	0.16	0.19	0.74	3.3	0.020	0.00	0.0
JUN												
07...	0.350	0.00	0.350	0.020	0.03	0.34	0.36	0.71	3.1	0.030	0.00	0.0
AUG												
03...	--	ND	0.070	0.010	0.01	0.32	0.33	0.40	1.8	0.030	0.00	0.0
OCT												
06...	0.560	0.00	0.560	0.030	0.04	0.21	0.24	0.80	3.5	0.040	0.00	0.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANNA RIVER BASIN

01502701 SUSQUEHANNA RIVER AT AFTON, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)
APR 1988												
05...	750	<1	6	1300	<5	50	<0.10	4	10	0	0	0.0
MAY												
03...	170	2	10	370	<5	30	<0.10	<1	<10	0	0	0.0
JUN												
07...	110	<1	6	280	<5	40	<0.10	3	<10	--	--	--
AUG												
03...	80	<1	<1	200	<5	70	<0.10	1	<10	ND	ND	ND
OCT												
06...	150	<1	52	330	8	40	0.10	2	200	ND	ND	ND

DATE	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)
APR 1988												
05...	0	0	0	0	0	0	0	0	0	0	0	0
MAY												
03...	0	0	0	0	0	0	0	0	0	0	0	0
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
06...	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
APR 1988												
05...	0	0	0.00	0	0	0	0	0.0	0	0	0	0
MAY												
03...	0	0	0.00	0	0	0	0	0.0	0	0	0	0
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUN 1988				
07...	0830	1200	5	16

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANNA RIVER BASIN

01512850 CHENANGO RIVER AT BINGHAMTON, NY

LOCATION.--Lat 42 06'11", long 75 54'55", Broome County, Hydrologic Unit 02050102, at bridge on Clinton Street, at Binghamton, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--1,602 mi2.

PERIOD OF RECORD.--Water years 1967,1988 to current year.
CHEMICAL DATA: 1967 (a), 1988 (b), 1989 (a).
MINOR ELEMENT DATA: 1967 (a), 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
NUTRIENT DATA: 1988 (b), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1988 (b), 1989 (a).
SEDIMENT DATA: 1988 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR 1988												
05...	1200	5700	171	7.3	12.0	16	--	11.2	--	--	67	21
MAY												
03...	1200	2500	201	7.4	11.0	4.6	--	11.0	6000	20.0	80	25
JUN												
07...	1045	820	282	8.0	17.5	6.5	755	9.0	480	15.0	110	35
AUG												
03...	1100	430	295	7.5	28.0	5.3	756	7.0	2400	80.0	120	36
OCT												
06...	1045	290	372	--	12.0	5.3	772	6.7	1600	95.0	140	43

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
APR 1988												
05...	3.5	5.8	1.0	51	15	10	0.10	120	87	160	32	128
MAY												
03...	4.3	7.0	1.0	61	17	12	0.10	112	103	128	68	60
JUN												
07...	6.6	11	1.2	95	14	17	0.10	172	142	224	44	180
AUG												
03...	7.2	13	1.3	87	19	21	<0.10	188	150	228	80	148
OCT												
06...	9.0	17	1.6	121	20	28	<0.10	204	191	220	64	156

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
APR 1988												
05...	1.05	0.020	1.07	0.060	0.08	0.12	0.18	1.2	5.5	0.060	0.00	0.0
MAY												
03...	0.900	0.00	0.900	0.020	0.03	0.15	0.17	1.1	4.7	0.020	0.00	0.0
JUN												
07...	0.740	0.010	0.750	0.070	0.09	0.43	0.50	1.2	5.5	0.030	0.00	0.0
AUG												
03...	0.240	0.00	0.240	0.030	0.04	0.45	0.48	0.72	3.2	E0.040	E0.040	--
OCT												
06...	0.690	0.00	0.690	0.030	0.04	0.19	0.22	0.91	4.0	0.040	ND	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANA RIVER BASIN

01512850 CHENANGO RIVER AT BINGHAMTON, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)
APR 1988												
05...	900	<1	6	1400	<5	50	<0.10	4	10	0	0	0.0
MAY												
03...	200	1	6	450	<5	30	<0.10	<1	<10	0	0	0.0
JUN												
07...	340	1	8	680	5	70	<0.10	4	20	--	--	--
AUG												
03...	180	<1	10	440	<5	80	<0.10	3	<10	ND	ND	ND
OCT												
06...	200	<1	7	--	<5	50	<0.10	4	--	ND	ND	ND

DATE	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)
APR 1988												
05...	0	0	0	0	0	0	0	0	0	0	0	0
MAY												
03...	0	0	0	0	0	0	0	0	0	0	0	0
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
APR 1988												
05...	0	0	0.00	0	0	0	0	0.0	0	0	0	0
MAY												
03...	0	0	0.00	0	0	0	0	0.0	0	0	0	0
JUN												
07...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUN 1988				
07...	1045	820	13	29

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANNA RIVER BASIN

01514937 SUSQUEHANNA RIVER AT SMITHBORO, NY

LOCATION.--Lat 42 01'41", long 76 23'07", Tioga County, Hydrologic Unit 02050103, at bridge on State Highway 282, 1.2 mi west of Nichols and 1.2 mi east of Smithboro.

DRAINAGE AREA.--4,725 mi2.

PERIOD OF RECORD.--Water years 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (a).
MINOR ELEMENT DATA: 1988 (b), 1989 (a).
PESTICIDE DATA: 1988-89 (a).
ORGANIC DATA: OC--1988 (b).
NUTRIENT DATA: 1988 (b), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1988-89 (a).
SEDIMENT DATA: 1988 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
APR 1988											
05...	1600	14000	166	7.3	15.0	17	--	10.3	--	--	63
MAY											
05...	1030	6850	175	7.8	11.0	5.6	--	8.4	4700	280	66
JUN											
09...	0945	2850	241	7.9	16.0	7.6	759	10.2	1700	65.0	93
AUG											
04...	1100	1200	310	7.9	28.0	2.8	755	8.2	160	45.0	110
OCT											
04...	1030	850	327	7.7	15.0	3.0	765	7.4	780	75.0	120

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1988											
05...	20	3.1	6.0	1.1	47	16	11	0.10	116	85	152
MAY											
05...	21	3.4	7.5	1.2	49	17	11	0.10	96	91	100
JUN											
09...	29	4.9	10	1.2	75	14	16	0.10	148	120	188
AUG											
04...	34	6.4	15	1.6	102	21	23	0.10	184	162	248
OCT											
04...	37	6.3	14	1.9	98	23	24	0.10	188	165	196

DATE	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
APR 1988											
05...	32	120	0.800	0.030	0.830	0.080	0.10	0.35	0.43	1.3	5.6
MAY											
05...	48	52	0.600	0.00	0.600	0.050	0.06	0.19	0.24	0.84	3.7
JUN											
09...	56	132	0.590	0.010	0.600	0.030	0.04	0.25	0.28	0.88	3.9
AUG											
04...	80	168	0.590	0.00	0.590	0.030	0.04	0.46	0.49	1.1	4.8
OCT											
04...	52	144	0.980	0.020	1.00	0.040	0.05	0.18	0.22	1.2	5.4

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANNA RIVER BASIN

01514937 SUSQUEHANNA RIVER AT SMITHBORO, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
APR 1988										
05...	0.060	0.00	0.0	790	<1	10	1300	<5	50	<0.10
MAY										
05...	0.030	0.010	0.03	250	2	10	530	<5	40	<0.10
JUN										
09...	0.070	0.00	0.0	310	1	10	610	5	60	<0.10
AUG										
04...	0.050	0.010	0.03	80	<1	37	190	<5	70	<0.10
OCT										
04...	0.070	0.030	0.09	90	<1	8	220	<5	40	<0.10

DATE	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)
APR 1988										
05...	4	20	ND	0	0	0.0	0	0	0	0
MAY										
05...	2	20	ND	0	0	0.0	0	0	0	0
JUN										
09...	8	20	ND	--	--	--	--	--	--	--
AUG										
04...	2	10	--	ND	ND	ND	ND	ND	0.1	ND
OCT										
04...	3	20	--	ND	ND	ND	ND	ND	0.1	ND

DATE	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)
APR 1988										
05...	0	0	0	0	0	0	0	0	0	0
MAY										
05...	0	0	0	0	0	0	0	0	0	0
JUN										
09...	--	--	--	--	--	--	--	--	--	--
AUG										
04...	ND	ND	ND	0.9	ND	ND	ND	ND	ND	ND
OCT										
04...	ND	ND	ND	1.6	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988										
05...	0.00	0	0	0	0	0.0	0	0	0	0
MAY										
05...	0.00	0	0	0	0	0.0	0	0	0	0
JUN										
09...	--	--	--	--	--	--	--	--	--	--
AUG										
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT										
04...	ND	ND	ND	ND	ND	ND	ND	0.1	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
09...	0945	2850	15	115

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANNA RIVER BASIN

01520500 CHEMUNG RIVER AT CHEMUNG, NY

LOCATION.--Lat 42 00'08", long 76 38'06", Chemung County, Hydrologic Unit 02050105, on right bank 100 ft upstream from bridge State Highway 427, 0.7 mi southwest of Chemung, and 10.0 mi upstream from mouth.

DRAINAGE AREA.--2,506 mi2.

PERIOD OF RECORD.--Water years 1953-54, 1962, 1970-78, 1988 to current year.
CHEMICAL DATA: 1953-54 (a), 1962 (a), 1970-71 (a), 1972 (b), 1974 (b), 1975-77 (d), 1988 (b), 1989 (a).
MINOR ELEMENT DATA: 1953-54 (a), 1972 (b), 1973 (a), 1974 (b), 1975-77 (d), 1988 (b), 1989 (a).
PESTICIDE DATA: 1972 (a), 1988 (b), 1989 (a).
ORGANIC DATA: 1972 (a), 1974 (a), 1975-77 (d).
OC--1988 (b), 1989 (a).
NUTRIENT DATA: 1953-54 (a), 1970-71 (a), 1972 (b), 1974 (a), 1975-77 (d), 1988 (b), 1989 (a).
BIOLOGICAL DATA:
Bacterial--1974 (a), 1975-77 (d).
Phytoplankton--1974 (a), 1975 (d), 1976-77 (c).
SEDIMENT: 1972 (a), 1975 (b), 1976 (a), 1988 (a), 1989 (a).

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR 1988												
05...	1050	7490	176	8.0	12.0	--	8.5	60	18	3.7	7.2	1.6
MAY												
03...	1145	2770	229	8.9	10.5	--	10.6	82	24	5.3	9.1	1.5
JUN												
07...	1130	1120	299	8.1	17.5	5.2	8.2	110	33	7.3	13	1.8
AUG												
01...	1145	715	384	8.7	29.0	--	8.8	140	41	9.4	20	2.4
OCT												
05...	1130	228	485	8.6	17.5	--	9.0	180	52	13	27	3.2

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
APR 1988												
05...	42	22	12	0.10	--	90	--	--	--	--	ND	0.490
MAY												
03...	56	29	15	0.10	--	118	--	--	--	0.340	0.00	0.340
JUN												
07...	82	31	19	0.20	166	155	185	75	110	0.590	0.020	0.610
AUG												
01...	106	33	34	0.20	--	204	--	--	--	0.340	0.00	0.340
OCT												
05...	125	43	46	0.10	--	259	--	--	--	0.910	0.020	0.930

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
APR 1988												
05...	0.180	0.23	0.06	0.24	0.73	3.2	0.340	0.010	0.03	6800	1	15
MAY												
03...	0.010	0.01	0.16	0.17	0.51	2.3	0.040	0.00	0.0	320	1	9
JUN												
07...	0.080	0.10	0.01	0.09	0.70	3.1	0.050	0.020	0.06	230	1	6
AUG												
01...	0.020	0.03	0.30	0.32	0.66	2.9	0.090	0.030	0.09	410	<1	9
OCT												
05...	0.010	0.01	0.16	0.17	1.1	4.9	0.120	0.070	0.21	330	<1	6

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANNA RIVER BASIN

01520500 CHEMUNG RIVER AT CHEMUNG, NY - continued

WATER-QUALITY DATA (continued)

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
APR 1988												
05...	11000	5	440	<0.10	1	70	3.0	0	0	0.0	0	0
MAY												
03...	570	<5	130	--	5	<10	ND	0	0	0.0	0	0
JUN												
07...	450	<5	70	--	6	10	ND	--	--	--	--	--
AUG												
01...	780	<5	110	<0.10	4	<10	2.0	ND	ND	ND	ND	ND
OCT												
05...	350	<5	70	--	3	<10	ND	ND	ND	ND	ND	ND

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1988											
05...	0	0	0	0	0	0	0	0	0	0	0
MAY											
03...	0	0	0	0	0	0	0	0	0	0	0
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
AUG											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988											
05...	0	0.00	0	0	0	0	0.0	0	0	0	0
MAY											
03...	0	0.00	0	0	0	0	0.0	0	0	0	0
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
AUG											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
AUG 1988				
01...	1145	715	13	25
OCT				
05...	1130	228	11	6.8

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

SUSQUEHANNA RIVER BASIN

01520500 CHEMUNG RIVER AT CHEMUNG, NY - continued

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
OCT 1987												
26...	1100	8360	--	<1	<10	1	3500	<10	100	<0.10	<10	20
AUG 1988												
15...	1000	10800	2100	<10	--	<1	4900	<100	180	0.02	<100	20

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
OCT 1987											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
OCT 1987											
26...	--	--	--	--	--	--	--	--	--	--	--
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
OCT 1987											
26...	--	--	--	--	--	--	--	0	3	15	98
AUG 1988											
15...	ND	ND	ND	ND	ND	ND	ND	1	4	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ALLEGHENY RIVER BASIN

03011020 ALLEGHENY RIVER AT SALAMANCA, NY

LOCATION.--Lat 42 09'23",long 78 42'56", Cattaraugus County, Hydrologic Unit 05010001, on left bank 230 ft upstream from Main Street bridgein Salamanca,1.3 mi downstream from Great Valley Creek, and 1.6 mi upstream from Little Valley Creek.

DRAINAGE AREA.--1,608 mi2.

PERIOD OF RECORD.-- Water years 1967, 1971-74, 1988 to current year.
CHEMICAL DATA: 1967 (a). 1971-72 (a). 1988 (b), 1989 (a).
MINOR ELEMENT DATA: 1967 (a), 1971 (a), 1972-74 (a), 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
NUTRIENT DATA: 1967 (a), 1971-72 (a), 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 1988												
12...	1115	2780	129	7.2	10.0	5.8	--	--	--	--	--	--
MAY												
10...	1230	3120	158	7.2	15.0	43	--	8.0	--	--	--	--
JUL												
21...	1030	349	307	7.9	22.0	6.4	--	6.4	--	88	26	5.7
OCT												
17...	1030	391	298	8.0	11.0	5.2	764	10.0	90	88	26	5.7

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
APR 1988												
12...	--	--	27	11	10	0.40	72	--	86	14	72	0.360
MAY												
10...	--	--	31	--	--	--	116	--	204	100	104	0.320
JUL												
21...	24	1.8	66	14	44	0.10	188	155	232	76	156	0.530
OCT												
17...	25	1.8	60	20	40	0.10	160	155	172	12	160	0.430

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
APR 1988												
12...	0.00	0.360	0.020	0.03	0.10	0.12	0.48	2.1	0.040	0.00	0.0	180
MAY												
10...	0.00	0.320	0.090	0.12	0.32	0.41	0.73	3.2	0.190	0.00	0.0	1100
JUL												
21...	0.010	0.540	0.050	0.06	0.38	0.43	0.97	4.3	0.050	ND	--	400
OCT												
17...	0.00	0.430	0.010	0.01	0.89	0.90	1.3	5.9	0.040	0.00	0.0	200

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ALLEGHENY RIVER BASIN

03011020 ALLEGHENY RIVER AT SALAMANCA, NY - continued

WATER-QUALITY DATA (continued)

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)
APR 1988												
12...	<1	3	550	<5	80	<0.10	12	<10	ND	ND	ND	ND
MAY												
10...	1	8	2400	<5	180	--	6	20	ND	ND	ND	ND
JUL												
21...	<1	34	750	<5	160	<0.10	4	30	ND	ND	ND	ND
OCT												
17...	1	3	580	<5	80	<0.10	6	<10	ND	ND	ND	ND

DATE	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1988												
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL												
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
17...	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
17...	ND	ND	ND	ND	ND	ND	ND	ND	0.2	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213320 CHAUTAUQUA CREEK AT BARCELONA, NY

LOCATION.--Lat 42 20'15", long 79 36'04", Chautauqua County, Hydrologic Unit 04120101, at bridge on State Highway 5, at Barcelona, and about 0.8 mi (1.3 km) down stream from Westfield Sewage Disposal Plant out Fall.

DRAINAGE AREA.--35.6 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b) 1988 (d), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (d), 1989 (a).
PESTICIDE DATA: 1987 (b) 1988 (d), 1989 (a).
NUTRIENT DATA: 1987 (b) 1988 (d), 1989 (a).
SEDIMENT DATA: 1987 (a), 1988 (b), 1989 (a).

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
APR 1987												
16...	0715	--	--	7.9	7.5	9.6	--	15.5	110	36	5.8	--
30...	0830	--	--	8.0	5.0	2.2	--	12.0	130	42	6.7	--
MAY												
19...	1500	--	327	8.7	18.0	1.1	--	--	150	46	9.6	--
JUN												
23...	0900	--	--	8.3	17.0	38	--	--	100	32	4.8	--
JUL												
21...	0900	--	--	8.0	25.0	1.0	--	7.9	180	59	8.3	--
OCT												
01...	0910	--	224	8.5	12.0	20	--	--	--	--	--	--
NOV												
17...	1645	--	--	8.0	12.0	2.5	--	15.5	140	44	7.3	--
DEC												
10...	0945	--	--	8.1	4.0	64	--	12.0	--	--	--	--
MAR 1988												
24...	0930	--	166	7.6	3.0	100	--	--	62	19	3.5	6.2
APR												
07...	1230	--	226	8.0	10.0	40	--	--	--	--	--	--
21...	0915	--	255	8.2	5.0	0.0	--	--	110	34	6.2	6.8
MAY												
04...	1115	--	268	8.3	11.0	9.7	--	11.2	--	--	--	--
19...	1130	--	237	8.2	12.0	15	--	10.2	98	30	5.5	7.1
JUN												
27...	1815	438	440	8.7	24.0	0.60	--	8.7	160	49	9.1	20
SEP												
08...	1030	--	406	8.1	14.5	1.7	--	--	180	54	10	11
OCT												
06...	1015	--	398	8.3	10.0	4.9	772	10.4	170	52	9.7	15
NOV												
17...	1130	--	255	7.9	5.0	2.8	760	11.6	110	34	6.3	6.1

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213320 CHAUTAUQUA CREEK AT BARCELONA, NY - continued

WATER-QUALITY DATA (continued)

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
APR 1987											
16...	--	--	--	--	--	110	--	157	44	102	--
30...	--	--	--	--	--	146	--	168	32	128	--
MAY											
19...	--	--	--	--	--	240	--	260	24	236	--
JUN											
23...	--	--	--	--	--	140	--	260	80	132	0.830
JUL											
21...	--	--	--	--	--	248	--	256	28	228	--
OCT											
01...	--	--	--	--	--	164	--	192	28	164	--
NOV											
17...	--	--	--	--	--	176	--	196	76	116	--
DEC											
10...	--	--	--	--	--	124	--	352	76	276	--
MAR 1988											
24...	1.1	48	16	11	0.10	102	87	410	52	358	0.520
APR											
07...	--	70	30	10	0.10	152	--	228	60	168	0.470
21...	1.2	82	29	12	0.10	160	139	212	52	160	0.530
MAY											
04...	--	84	--	--	--	176	--	208	44	164	--
19...	1.5	78	23	10	0.20	124	124	232	36	196	--
JUN											
27...	7.7	108	60	24	0.40	265	235	296	101	195	2.66
SEP											
08...	4.3	120	63	14	0.10	256	228	264	76	188	--
OCT											
06...	4.5	125	56	13	0.20	264	226	268	44	224	--
NOV											
17...	1.9	80	33	9.4	0.10	136	139	140	48	92	--

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
APR 1987											
16...	ND	0.560	0.030	0.04	0.11	0.14	0.70	3.1	0.020	ND	--
30...	ND	0.390	0.020	0.03	0.12	0.14	0.53	2.3	0.010	0.00	0.0
MAY											
19...	ND	0.600	0.020	0.03	0.08	0.10	0.70	3.1	0.030	0.020	0.06
JUN											
23...	0.00	0.830	0.080	0.10	0.21	0.29	1.1	5.0	0.100	0.00	0.0
JUL											
21...	--	1.49	0.010	0.01	0.14	0.15	1.6	7.3	0.00	0.00	0.0
OCT											
01...	ND	0.060	0.030	0.04	0.25	0.28	0.34	1.5	0.050	0.00	0.0
NOV											
17...	ND	0.130	ND	--	--	0.14	0.27	1.2	0.010	ND	--
DEC											
10...	ND	0.310	0.120	0.15	0.26	0.38	0.69	3.1	0.190	0.00	0.0
MAR 1988											
24...	0.00	0.520	0.310	0.40	0.25	0.56	1.1	4.8	0.230	0.020	0.06
APR											
07...	0.00	0.470	0.070	0.09	0.18	0.25	0.72	3.2	0.040	0.00	0.0
21...	0.00	0.530	0.080	0.10	0.16	0.24	0.77	3.4	0.070	0.00	0.0
MAY											
04...	ND	0.820	0.010	0.01	0.12	0.13	0.95	4.2	0.040	0.00	0.0
19...	ND	0.380	0.040	0.05	0.30	0.34	0.72	3.2	0.050	0.00	0.0
JUN											
27...	0.00	2.66	0.020	0.03	0.05	0.07	2.7	12	0.020	0.00	0.0
SEP											
08...	ND	0.530	ND	--	--	0.21	0.74	3.3	0.010	ND	--
OCT											
06...	ND	0.070	0.010	0.01	0.31	0.32	0.39	1.7	0.030	0.00	0.0
NOV											
17...	ND	0.220	0.020	0.03	0.17	0.19	0.41	1.8	0.00	ND	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213320 CHAUTAUQUA CREEK AT BARCELONA, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
16...	--	--	<10	--	<10	--	460	--	<100	--	10
30...	--	--	<10	--	<10	--	100	--	11	--	10
MAY											
19...	--	--	<10	1.0	<10	2	70	--	<5	<5	<10
JUN											
23...	--	--	<10	--	<10	--	2100	--	--	--	60
JUL											
21...	--	--	<10	--	20	--	270	--	<5	--	10
OCT											
01...	--	--	<10	--	10	--	1600	--	<100	--	40
NOV											
17...	--	--	<1	--	5	--	130	--	<5	--	10
DEC											
10...	--	--	<1	--	9	--	7400	--	6	--	150
MAR 1988											
24...	6000	90	<1	<1.0	10	1	11000	790	<5	<5	230
APR											
07...	1700	--	<1	--	6	--	2600	--	<5	--	50
21...	1700	30	2	<1.0	4	<1	2500	33	<5	<5	40
MAY											
04...	260	--	<1	--	4	--	640	--	<5	--	20
19...	610	80	5	<1.0	10	2	720	56	<5	<5	20
JUN											
27...	120	--	<1	--	6	--	50	--	<5	--	40
SEP											
08...	110	--	<1	--	4	--	120	--	<5	--	<10
OCT											
06...	360	160	<1	<1.0	9	2	300	41	<5	<5	20
NOV											
17...	100	--	1	--	37	--	180	--	10	--	20

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
16...	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
30...	--	0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAY											
19...	--	<0.10	<1	3	<10	10	ND	ND	ND	ND	ND
JUN											
23...	--	<0.10	--	--	<10	--	ND	ND	ND	ND	ND
JUL											
21...	--	0.20	2	--	20	--	ND	ND	ND	ND	ND
OCT											
01...	40	<0.10	<100	--	10	--	ND	ND	ND	ND	ND
NOV											
17...	--	--	<1	--	<10	--	ND	ND	ND	ND	ND
DEC											
10...	--	<0.10	8	--	30	--	ND	ND	ND	ND	ND
MAR 1988											
24...	29	<0.10	17	4	40	<3	ND	ND	ND	ND	ND
APR											
07...	--	<0.10	5	--	<10	--	ND	ND	ND	ND	ND
21...	6	<0.10	7	2	10	8	ND	ND	ND	ND	ND
MAY											
04...	--	--	<1	--	20	--	0	0	0.0	0	0
19...	7	<0.10	5	<1	<10	5	ND	ND	ND	ND	ND
JUN											
27...	--	<0.10	11	--	10	--	ND	ND	ND	ND	ND
SEP											
08...	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
OCT											
06...	7	<0.10	3	2	80	9	ND	ND	ND	ND	ND
NOV											
17...	--	<0.10	6	--	110	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213320 CHAUTAUQUA CREEK AT BARCELONA, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	2.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
24...	0.2	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	0	0	0	0	0	0	0	0	0	0	0
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
08...	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	3.2	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	1.3	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	0	0.00	0	0	0	0	0.0	0	0	0	0
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAM TRIBUTARY TO LAKE ERIE

04213320 CHAUTAUQUA CREEK AT BARCELONA, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
APR 1987		
16...	0715	21
30...	0830	3
OCT		
01...	0910	60
DEC		
10...	0945	246
MAY 1988		
19...	1130	25
JUN		
27...	1815	3
SEP		
08...	1030	4
OCT		
06...	1015	8
NOV		
17...	1130	4

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
JUL 1987								
21...	0900	22000	<1	140	10	8200	20	300

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987							
21...	<0.10	<10	50	0	6	23	100

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213378 CANADA CREEK AT DUNKIRK, NY

LOCATION.--Lat 42 28'32", long 79 21'56", Chautauqua County, Hydrologic Unit 04120101, at bridge on State Highway 5, 0.6 mi (.01 km) west of city line of Dunkirk.

DRAINAGE AREA.--39.9 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (d), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (d), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (d), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1987-88 (b), 1989 (a).

REMARKS--Water-discharge data from gage and height measurements and rating developed for 04213376 Canada Creek at Fredonia.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 1987												
16...	0815	--	--	--	8.0	8.0	6.2	--	14.8	120	39	6.2
30...	0945	--	--	--	8.2	6.0	1.3	--	12.0	120	39	6.7
MAY												
19...	1400	--	--	386	8.5	19.0	1.0	--	--	170	53	8.5
JUN												
23...	0945	--	--	--	8.0	18.0	42	--	--	150	49	7.8
JUL												
21...	1000	--	--	--	8.2	25.5	0.90	--	8.7	190	62	9.1
OCT												
01...	1100	110	--	317	8.3	22.0	23	--	--	--	--	--
NOV												
18...	0845	--	--	--	8.0	7.0	96	--	15.5	110	33	5.7
DEC												
10...	1030	23	--	--	8.0	5.0	48	--	12.2	--	--	--
MAR 1988												
24...	1015	360	--	198	7.6	4.0	96	--	--	71	22	3.8
APR												
07...	1345	136	--	264	7.8	10.0	40	--	--	--	--	--
21...	1000	55	--	326	8.2	6.0	0.0	--	--	120	38	6.8
MAY												
04...	1030	43	--	284	8.3	10.0	3.6	--	11.2	--	--	--
19...	1020	102	--	264	8.3	11.5	33	--	9.8	100	32	5.5
JUN												
27...	2000	10	454	454	8.2	23.5	1.2	--	7.6	180	56	10
SEP												
08...	1050	--	--	463	8.3	14.0	0.85	--	--	190	58	12
OCT												
06...	1100	--	--	423	7.9	9.0	3.8	772	10.4	180	55	9.7
NOV												
17...	1215	--	--	311	7.7	5.0	4.5	760	11.8	130	40	7.3

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213378 CANADA CREEK AT DUNKIRK, NY - continued

WATER-QUALITY DATA (continued)

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
APR 1987												
16...	--	--	--	--	--	--	162	--	189	76	106	--
30...	--	--	--	--	--	--	168	--	91	40	142	--
MAY												
19...	--	--	--	--	--	--	220	--	234	20	208	0.510
JUN												
23...	--	--	--	--	--	--	244	--	376	108	228	1.22
JUL												
21...	--	--	--	--	--	--	280	--	292	32	260	--
OCT												
01...	--	--	--	--	--	--	228	--	244	40	204	--
NOV												
18...	--	--	--	--	--	--	168	--	272	68	200	0.320
DEC												
10...	--	--	--	--	--	--	172	--	264	68	196	--
MAR 1988												
24...	9.0	1.1	51	22	15	0.10	128	104	344	46	298	0.680
APR												
07...	--	--	68	33	19	0.10	152	--	224	100	124	0.680
21...	14	1.3	84	37	24	0.20	200	172	216	60	156	0.800
MAY												
04...	--	--	87	--	--	--	184	--	216	32	184	--
19...	11	1.3	75	25	18	0.20	172	138	240	48	192	0.400
JUN												
27...	18	2.5	126	56	29	0.20	320	247	325	125	200	--
SEP												
08...	17	2.0	119	71	29	0.10	312	260	316	76	240	0.100
OCT												
06...	16	2.0	104	62	29	0.10	284	236	292	68	224	--
NOV												
17...	10	1.5	81	42	17	0.10	180	166	192	88	104	--

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
APR 1987											
16...	ND	1.07	0.010	0.01	0.11	0.12	1.2	5.3	0.010	ND	--
30...	ND	0.740	0.010	0.01	0.09	0.10	0.84	3.7	0.00	ND	--
MAY											
19...	0.00	0.510	0.030	0.04	0.06	0.09	0.60	2.7	0.00	ND	--
JUN											
23...	0.010	1.23	0.160	0.21	0.20	0.36	1.6	7.0	0.150	ND	--
JUL											
21...	--	0.330	0.020	0.03	0.10	0.12	0.45	2.0	0.00	ND	--
OCT											
01...	ND	0.460	0.050	0.06	0.27	0.32	0.78	3.5	0.060	0.010	0.03
NOV											
18...	0.00	0.320	0.120	0.15	0.30	0.42	0.74	3.3	0.170	0.00	0.0
DEC											
10...	--	--	--	--	--	--	--	--	--	--	--
MAR 1988											
24...	0.00	0.680	0.230	0.30	0.30	0.53	1.2	5.4	0.240	0.00	0.0
APR											
07...	0.00	0.680	0.060	0.08	0.15	0.21	0.89	3.9	0.030	0.00	0.0
21...	0.00	0.800	0.010	0.01	0.18	0.19	0.99	4.4	0.010	ND	--
MAY											
04...	ND	0.760	0.010	0.01	0.09	0.10	0.86	3.8	0.010	0.00	0.0
19...	0.00	0.400	0.050	0.06	0.40	0.45	0.85	3.8	0.070	0.00	0.0
JUN											
27...	ND	0.150	0.020	0.03	0.06	0.08	0.23	1.0	0.010	ND	--
SEP											
08...	0.00	0.100	0.00	0.0	0.19	0.19	0.29	1.3	0.010	ND	--
OCT											
06...	ND	0.410	0.010	0.01	0.27	0.28	0.69	3.1	0.010	ND	--
NOV											
17...	ND	0.730	0.170	0.22	0.30	0.47	1.2	5.3	0.00	ND	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213378 CANADA CREEK AT DUNKIRK, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
16...	--	--	<10	--	<10	--	270	--	<100	--	10
30...	--	--	<10	--	<10	--	80	--	15	--	20
MAY											
19...	--	--	<10	--	<10	--	140	--	<5	--	20
JUN											
23...	--	--	<10	--	<10	--	2900	--	<5	--	100
JUL											
21...	--	--	<10	1.0	20	1	100	--	<5	<5	20
OCT											
01...	--	--	<10	--	10	--	1300	--	<100	--	40
NOV											
18...	--	--	<1	--	9	--	4800	--	7	--	110
DEC											
10...	--	--	<1	--	8	--	3300	--	<5	--	80
MAR 1988											
24...	9800	30	<1	<1.0	8	1	8000	39	<5	<5	160
APR											
07...	1600	--	<1	--	8	--	2500	--	<5	--	50
21...	150	10	2	<1.0	2	5	410	34	<5	<5	20
MAY											
04...	230	--	2	--	7	--	560	--	6	--	20
19...	1100	<10	<1	<1.0	14	2	2300	33	<5	<5	50
JUN											
27...	40	--	<1	--	3	--	90	--	<5	--	50
SEP											
08...	30	--	<1	--	3	--	110	--	<5	--	20
OCT											
06...	110	20	1	<1.0	6	2	190	10	<5	<5	20
NOV											
17...	90	--	<1	--	2	--	240	--	<5	--	30

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
16...	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
30...	--	0.10	9	--	<10	--	ND	ND	ND	ND	ND
MAY											
19...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN											
23...	--	0.20	<1	--	20	--	ND	ND	ND	ND	ND
JUL											
21...	--	0.20	<1	<1	<10	10	ND	ND	ND	ND	ND
OCT											
01...	40	<0.10	<100	--	10	--	ND	ND	ND	ND	ND
NOV											
18...	--	--	8	--	20	--	ND	ND	ND	ND	ND
DEC											
10...	--	<0.10	14	--	20	--	ND	ND	ND	ND	ND
MAR 1988											
24...	14	<0.10	11	4	30	<3	ND	ND	ND	ND	ND
APR											
07...	--	<0.10	15	--	10	--	ND	ND	ND	ND	ND
21...	15	<0.10	4	1	<10	7	ND	ND	ND	ND	ND
MAY											
04...	--	<0.10	10	--	10	--	0	0	0.0	0	0
19...	13	<0.10	14	2	<10	7	ND	ND	ND	ND	ND
JUN											
27...	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND
SEP											
08...	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
OCT											
06...	10	<0.10	1	<1	40	<3	ND	ND	ND	ND	ND
NOV											
17...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213378 CANADA CREEK AT DUNKIRK, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
24...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	0	0	0	0	0	0	0	0	0	0	0
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
08...	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	0	0.00	0	0	0	0	0.0	0	0	0	0
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213378 CANADA CREEK AT DUNKIRK, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, *SUS-* PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, *SUS-* PENDED (T/DAY)
APR 1987				
16...	0815	--	11	--
30...	0945	--	2	--
JUN				
23...	0945	--	81	--
OCT				
01...	1100	110	41	12
DEC				
10...	1030	23	99	6.1
MAY 1988				
19...	1020	102	49	13
SEP				
08...	1050	--	1	--
NOV				
17...	1215	--	3	--

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	ALUM-INUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)
JUL 1987												
21...	1000	55800	--	<1	130	20	13000	20	390	<0.10	10	70
JUN 1988												
27...	2000	533000	3000	<10	--	10	8200	10	260	<0.10	10	30

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ALPHA BHC TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ATRA-ZINE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BETA BENZENE HEXA-CHLOR-IDE BOT.MAT (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	CHLOR-PYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXA-CHLOR-IDE BOT.MAT (UG/KG)
JUL 1987											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDO-SULFAN ALPHA BOT.MAT (UG/KG)	ENDO-SULFAN BETA BOT.MAT (UG/KG)	ENDO-SULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	ENDRIN ALDE-HYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)
JUL 1987											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987											
21...	--	--	--	--	--	--	--	5	28	36	100
JUN 1988											
27...	ND	ND	ND	ND	ND	ND	ND	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213500 CATTARAUGUS CREEK AT GOWANDA, NY

LOCATION.--Lat 42 27'50", long 78 56'07", Erie County, Hydrological Unit 04120102, on right bank 380 ft downstream from bridge on State Highways 39 and 62 at Gowanda, 4.2 mi downstream from South Branch, and 17.8 mi upstream from mouth. Water-quality

DRAINAGE AREA.--436 mi2.

PERIOD OF RECORD.--Water years 1959,1963-64, 1972 to current year.
CHEMICAL DATA: 1959 (e), 1963 (b), 1972 (a), 1975 (b), 1976-78 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b), 1987-1988 (d), 1989 (b).
MINOR ELEMENTS DATA: 1972-74 (a), 1975 (b), 1976-77 (c), 1978-86 (b), 1987-88 (d), 1989 (b).
PESTICIDE DATA: 1987-88 (d), 1989 (a).
ORGANIC DATA: OC--1975 (b), 1976-77 (c), 1978-80 (d), 1981 (c).
PCB--1988 (a).
NUTRIENT DATA: 1975 (b), 1976-77 (c), 1978-80 (d), 1981-82 (c), 1983-86 (b), 1987-88 (d), 1989 (b).
BIOLOGICAL DATA:
Bacterial--1978-80 (d), 1981-82 (c), 1983-88 (b), 1989 (a).
Phytoplankton--1978 (b), 1979-80 (c), 1981 (b).
SEDIMENT DATA: 1964 (b), 1978-82 (c), 1983-86 (b), 1987-88 (c), 1989 (b).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1958 to September 1959, unpublished; January 1978 to September 1981.
pH: October 1958 to September 1959, unpublished.
Water Temperatures: October 1958 to September 1959, January 1978 to September 1981.

EXTREMES FOR PERIOD DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 952 microsiemens Oct. 7, 1958; minimum daily, 150 microsiemens Feb. 19, 1981.
WATER TEMPERATURES: Maximum daily, 29.0 C Aug. 19, 1978; minimum daily, 0.0 C on many days during winter periods.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR 1987												
16...	1030	792	--	8.2	9.5	23	--	14.8	130	42	6.7	--
30...	1115	629	--	8.3	6.0	16	--	11.4	120	37	6.1	--
MAY												
19...	1045	269	410	8.2	15.0	6.4	--	--	180	55	9.2	--
JUN												
23...	1055	986	--	8.2	11.0	--	--	8.8	--	--	--	--
JUL												
20...	1830	272	--	8.4	32.0	2.0	--	10.3	150	47	8.9	--
SEP												
29...	0915	234	403	8.1	22.0	4.4	--	--	170	54	9.5	--
NOV												
02...	1105	411	--	8.1	22.0	9.3	--	11.6	170	53	8.6	--
DEC												
09...	0930	1360	--	8.2	5.0	100	--	12.2	--	--	--	--
MAR 1988												
23...	1045	550	349	7.8	4.5	20	--	--	150	46	8.0	11
APR												
07...	1115	1050	279	7.5	12.0	47	--	--	--	--	--	--
21...	1200	516	345	8.3	6.0	0.0	--	--	150	47	8.5	8.8
MAY												
04...	1300	522	318	8.4	12.0	8.8	--	10.8	--	--	--	--
19...	1300	2060	250	8.0	12.5	230	--	10.0	100	31	5.4	6.2
JUN												
28...	0915	144	458	--	--	2.9	--	--	190	59	11	19
SEP												
08...	0845	174	457	8.2	13.0	7.1	--	--	190	57	12	21
OCT												
06...	0900	161	435	8.4	10.0	15	772	11.0	190	59	10	16
NOV												
17...	0945	406	346	8.0	6.0	13	760	11.8	150	47	8.4	9.9

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213500 CATTARAUGUS CREEK AT GOWANDA, NY - continued

WATER-QUALITY DATA (continued)

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)
APR 1987												
16...	--	--	--	--	--	156	--	212	60	158	1.36	--
30...	--	--	--	--	--	146	--	187	32	128	0.920	--
MAY												
19...	--	--	--	--	--	224	--	241	16	252	1.26	--
JUN												
23...	--	--	--	--	--	--	--	606	--	--	--	0.970
JUL												
20...	--	--	--	--	--	197	--	234	88	152	0.630	--
SEP												
29...	--	--	--	--	--	220	--	288	100	188	1.15	--
NOV												
02...	--	--	--	--	--	204	--	211	64	174	0.810	--
DEC												
09...	--	--	--	--	--	208	--	404	96	308	--	--
MAR 1988												
23...	1.3	115	28	17	0.10	188	180	224	48	176	1.63	--
APR												
07...	--	98	28	11	0.10	172	--	256	52	204	1.11	--
21...	1.3	125	28	14	0.10	204	183	216	52	164	1.34	--
MAY												
04...	--	114	--	--	--	204	--	208	80	128	0.660	--
19...	1.3	91	19	9.3	0.30	128	127	600	68	532	0.530	--
JUN												
28...	1.8	150	34	28	0.30	298	243	302	107	195	1.26	--
SEP												
08...	1.9	141	47	29	0.10	284	253	312	76	236	0.630	--
OCT												
06...	1.9	148	45	20	0.10	280	241	292	68	224	0.710	--
NOV												
17...	1.7	115	36	14	0.10	200	186	204	80	124	0.760	--

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS NO2)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)
APR 1987												
16...	--	0.00	--	1.36	0.080	0.10	--	0.11	0.19	1.5	6.9	0.030
30...	--	0.00	--	0.920	0.090	0.12	--	0.15	0.24	1.2	5.1	0.020
MAY												
19...	--	0.010	--	1.27	0.160	0.21	--	0.06	0.22	1.5	6.6	0.010
JUN												
23...	4.3	--	0.07	--	0.150	0.19	0.13	1.4	1.6	--	--	0.190
JUL												
20...	--	0.00	--	0.630	0.070	0.09	--	0.09	0.16	0.79	3.5	0.00
SEP												
29...	--	0.00	--	1.15	0.130	0.17	--	0.18	0.31	1.5	6.5	0.00
NOV												
02...	--	0.00	--	0.810	0.050	0.06	--	0.16	0.21	1.0	4.5	0.010
DEC												
09...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 1988												
23...	--	0.00	--	1.63	0.080	0.10	--	0.13	0.21	1.8	8.1	0.050
APR												
07...	--	0.00	--	1.11	0.120	0.15	--	0.14	0.26	1.4	6.1	0.110
21...	--	0.00	--	1.34	0.040	0.05	--	0.10	0.14	1.5	6.6	0.020
MAY												
04...	--	0.00	--	0.660	0.070	0.09	--	0.09	0.16	0.82	3.6	0.010
19...	--	0.00	--	0.530	0.310	0.40	--	0.89	1.2	1.7	7.7	0.570
JUN												
28...	--	0.010	--	1.27	0.330	0.42	--	0.24	0.57	1.8	8.1	0.010
SEP												
08...	--	0.00	--	0.630	0.270	0.35	--	0.25	0.52	1.2	5.1	0.010
OCT												
06...	--	0.00	--	0.710	0.150	0.19	--	0.33	0.48	1.2	5.3	0.010
NOV												
17...	--	0.00	--	0.760	0.140	0.18	--	0.30	0.44	1.2	5.3	0.020

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213500 CATTARAUGUS CREEK AT GOWANDA, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987												
16...	ND	--	--	--	<10	--	<10	--	1400	--	<100	--
30...	0.00	0.0	--	--	<10	--	<10	--	640	--	<5	--
MAY												
19...	ND	--	--	--	<10	--	10	--	490	--	<5	--
JUN												
23...	0.020	0.06	--	--	<10	--	20	--	7900	--	--	--
JUL												
20...	0.00	0.0	--	--	<10	--	20	--	660	--	<5	--
SEP												
29...	ND	--	--	--	<10	<1.0	10	1	240	--	<100	<5
NOV												
02...	ND	--	--	--	1	--	2	--	660	--	<5	--
DEC												
09...	--	--	--	--	<1	--	10	--	7400	--	8	--
MAR 1988												
23...	0.00	0.0	1200	<10	<1	<1.0	4	1	1800	6	<5	<5
APR												
07...	0.00	0.0	1700	--	<1	--	7	--	3000	--	<5	--
21...	0.00	0.0	220	<10	2	<1.0	3	3	520	10	<5	<5
MAY												
04...	0.00	0.0	270	--	<1	--	7	--	610	--	<5	--
19...	0.00	0.0	6500	40	<1	<1.0	15	3	1300	46	5	<5
JUN												
28...	ND	--	310	--	<1	--	4	--	280	--	<5	--
SEP												
08...	ND	--	190	--	1	--	4	--	480	--	<5	--
OCT												
06...	ND	--	340	20	1	<1.0	3	<1	640	14	<5	<5
NOV												
17...	ND	--	410	--	1	--	3	--	760	--	<5	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBONTETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987												
16...	20	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
30...	20	--	0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAY												
19...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN												
23...	270	--	<0.10	--	--	40	--	--	--	--	--	--
JUL												
20...	40	--	0.20	<1	--	<10	--	--	--	--	--	--
SEP												
29...	10	--	<0.10	<100	<1	<10	<10	ND	ND	ND	ND	ND
NOV												
02...	20	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
DEC												
09...	130	--	<0.10	8	--	20	--	ND	ND	ND	ND	ND
MAR 1988												
23...	40	9	<0.10	10	4	10	<3	ND	ND	ND	ND	ND
APR												
07...	50	--	<0.10	14	--	<10	--	ND	ND	ND	ND	ND
21...	10	7	<0.10	5	1	<10	<3	ND	ND	ND	ND	ND
MAY												
04...	20	--	--	7	--	10	--	0	0	0.0	0	0
19...	360	9	<0.10	18	2	40	5	ND	ND	ND	ND	ND
JUN												
28...	60	--	<0.10	3	--	10	--	ND	ND	ND	ND	ND
SEP												
08...	20	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
OCT												
06...	30	11	<0.10	4	1	10	4	ND	ND	ND	ND	ND
NOV												
17...	30	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213500 CATTARAUGUS CREEK AT GOWANDA, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	--	--	--	--	--	--	--	--	--	--	--
JUL											
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	0	0	0	0	0	0	0	0	0	0	0
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	--	--	--	--	--	--	--	--	--	--	--
JUL											
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	0	0.00	0	0	0	0	0.0	0	0	0	0
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04213500 CATTARAUGUS CREEK AT GOWANDA, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
APR 1987				
16...	1030	792	38	81
30...	1115	629	19	32
JUN				
23...	1055	986	370	985
NOV				
02...	1105	411	14	16
DEC				
09...	0930	1360	245	900
MAY 1988				
19...	1300	2060	474	2640
JUN				
28...	0915	144	9	3.5
SEP				
08...	0845	174	11	5.2
OCT				
06...	0900	161	15	6.5
NOV				
17...	0945	406	16	18

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
JUL 1987												
20...	1830	40100	--	<1	110	10	8400	10	380	<0.10	<10	50
JUN 1988												
28...	0915	15300	5700	<10	--	20	17000	<100	390	<0.10	20	70

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
JUL 1987											
20...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 1987											
20...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987											
20...	--	--	--	--	--	--	--	2	49	80	98
JUN 1988											
28...	ND	ND	ND	ND	ND	ND	ND	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214020 CATTARAUGUS CREEK AT IRVING, NY

LOCATION.--Lat 42 33'53", long 79 07'30", Chautauqua County, Hydrologic Unit 04120102, on left bank at downstream side of Conrail railroad bridge, 0.6 mi west of Iriving, and 0.9 mi upstream from mouth.

DRAINAGE AREA.--554 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (d), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (d), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (d), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1987-88 (b), 1989 (a).

REMARKS.--Water-discharge data based on records from stream-flow gage 04213500 Cattaraugus at Gowanda.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 1987												
16...	1145	1000	--	--	8.1	10.0	21	--	14.4	140	44	7.2
30...	1215	810	--	--	8.2	8.0	16	--	11.4	140	45	7.3
MAY												
19...	1245	340	--	429	7.9	17.5	12	--	--	190	59	9.8
JUN												
23...	1230	1100	--	--	8.2	23.0	170	--	--	140	44	7.4
JUL												
21...	1115	400	--	--	8.0	27.0	8.2	--	7.3	160	50	9.5
OCT												
01...	1200	1300	--	299	8.2	22.0	110	--	--	130	41	6.9
NOV												
18...	1000	610	--	--	7.9	8.0	18	--	14.7	160	51	8.6
DEC												
10...	1130	2800	--	--	8.2	5.0	280	--	11.4	--	--	--
MAR 1988												
24...	1200	1900	--	232	7.7	5.0	270	--	--	85	26	4.8
APR												
07...	1200	1400	--	293	8.0	12.0	44	--	--	--	--	--
21...	1115	590	--	357	8.1	7.0	0.0	--	--	160	49	9.1
MAY												
04...	0915	720	--	335	7.7	10.0	5.0	--	10.8	--	--	--
19...	0915	400	--	313	7.6	12.0	300	--	9.8	120	38	6.6
JUN												
28...	1100	180	435	435	7.9	19.5	9.0	--	7.4	190	56	11
SEP												
08...	1130	230	--	467	--	--	9.2	--	--	180	55	11
OCT												
06...	1300	196	--	430	8.0	11.0	7.4	772	10.6	200	60	12
NOV												
17...	0900	514	--	354	7.7	7.0	10	760	10.4	160	48	9.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214020 CATTARAUGUS CREEK AT IRVING, NY - continued

WATER-QUALITY DATA (continued)

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
APR 1987												
16...	--	--	--	--	--	--	162	--	214	60	170	1.23
30...	--	--	--	--	--	--	148	--	198	32	140	0.880
MAY												
19...	--	--	--	--	--	--	220	--	271	16	232	1.01
JUN												
23...	--	--	--	--	--	--	204	--	732	112	620	1.17
JUL												
21...	--	--	--	--	--	--	208	--	240	8	232	--
OCT												
01...	--	--	--	--	--	--	228	--	416	40	360	0.620
NOV												
18...	--	--	--	--	--	--	192	--	234	84	144	0.690
DEC												
10...	--	--	--	--	--	--	160	--	844	112	732	--
MAR 1988												
24...	6.7	1.4	76	31	11	0.10	140	127	882	76	806	0.520
APR												
07...	--	--	100	30	12	0.10	184	--	260	56	204	1.06
21...	9.9	1.2	125	32	15	0.10	212	191	236	56	180	1.20
MAY												
04...	--	--	118	--	--	--	208	--	228	36	192	0.900
19...	8.1	1.4	111	24	12	0.20	160	157	884	124	760	0.710
JUN												
28...	15	1.8	149	35	21	0.20	298	229	317	127	190	0.710
SEP												
08...	18	1.7	147	51	27	0.10	304	252	332	76	256	0.700
OCT												
06...	14	2.1	136	52	19	0.10	276	241	280	76	204	0.600
NOV												
17...	10	1.7	115	39	14	0.10	--	191	200	56	144	0.690

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
APR 1987											
16...	0.00	1.23	0.050	0.06	0.06	0.11	1.3	5.9	0.040	ND	--
30...	0.010	0.890	0.050	0.06	0.09	0.14	1.0	4.6	0.040	ND	--
MAY											
19...	0.020	1.03	0.080	0.10	0.09	0.17	1.2	5.3	0.020	ND	--
JUN											
23...	0.040	1.21	0.470	0.61	0.44	0.91	2.1	9.4	0.590	0.00	0.0
JUL											
21...	--	0.540	0.010	0.01	0.12	0.13	0.67	3.0	0.010	0.00	0.0
OCT											
01...	0.010	0.630	--	--	--	--	--	--	0.300	0.00	0.0
NOV											
18...	0.00	0.690	0.010	0.01	0.20	0.21	0.90	4.0	0.040	0.00	0.0
DEC											
10...	--	--	--	--	--	--	--	--	--	--	--
MAR 1988											
24...	0.00	0.520	1.00	1.3	0.50	1.5	2.0	8.9	0.820	0.00	0.0
APR											
07...	0.00	1.06	0.110	0.14	0.20	0.31	1.4	6.1	0.120	0.00	0.0
21...	0.00	1.20	0.020	0.03	0.11	0.13	1.3	5.9	0.010	0.00	0.0
MAY											
04...	0.00	0.900	0.030	0.04	0.10	0.13	1.0	4.6	0.010	0.00	0.0
19...	0.010	0.720	0.060	0.08	1.4	1.5	2.2	9.8	0.650	0.00	0.0
JUN											
28...	0.030	0.740	0.030	0.04	0.08	0.11	0.85	3.8	0.020	ND	--
SEP											
08...	0.040	0.740	0.030	0.04	0.20	0.23	0.97	4.3	0.020	ND	--
OCT											
06...	0.010	0.610	0.030	0.04	0.24	0.27	0.88	3.9	0.010	ND	--
NOV											
17...	0.010	0.700	0.270	0.35	0.25	0.52	1.2	5.4	0.020	0.00	0.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214020 CATTARAUGUS CREEK AT IRVING, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
16...	--	--	<10	--	<10	--	1300	--	<100	--	40
30...	--	--	<10	--	<10	--	1300	--	32	--	40
MAY											
19...	--	--	<10	--	<10	--	850	--	<5	--	50
JUN											
23...	--	--	<10	<1.0	20	3	12000	--	29	<5	420
JUL											
21...	--	--	<10	--	20	--	200	--	<5	--	10
OCT											
01...	--	--	<10	<1.0	20	4	6900	--	<100	<5	160
NOV											
18...	--	--	<1	--	6	--	1100	--	<5	--	50
DEC											
10...	--	--	<1	--	26	--	20000	--	18	--	480
MAR 1988											
24...	12000	150	<1	<1.0	24	2	24000	400	8	<5	540
APR											
07...	1300	--	<1	--	7	--	2800	--	<5	--	70
21...	70	<10	1	<1.0	2	<1	250	12	<5	<5	20
MAY											
04...	150	--	<1	--	5	--	340	--	<5	--	30
19...	11000	20	1	<1.0	21	2	1800	26	10	<5	500
JUN											
28...	330	--	<1	--	4	--	750	--	<5	--	80
SEP											
08...	240	--	<1	--	3	--	590	--	<5	--	50
OCT											
06...	260	20	<1	<1.0	24	2	430	13	<5	<5	30
NOV											
17...	350	--	<1	--	9	--	600	--	<5	--	40

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
16...	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
30...	--	0.10	5	--	<10	--	ND	ND	ND	ND	ND
MAY											
19...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN											
23...	--	<0.10	17	3	60	<10	ND	ND	ND	ND	ND
JUL											
21...	--	0.20	<1	--	<10	--	ND	ND	ND	ND	ND
OCT											
01...	160	<0.10	<100	2	40	<10	ND	ND	ND	ND	ND
NOV											
18...	--	--	<1	--	10	--	ND	ND	ND	ND	ND
DEC											
10...	--	<0.10	24	--	80	--	ND	ND	ND	ND	ND
MAR 1988											
24...	17	<0.10	29	2	90	8	ND	ND	ND	ND	ND
APR											
07...	--	<0.10	8	--	10	--	ND	ND	ND	ND	ND
21...	19	<0.10	4	1	10	<3	ND	ND	ND	ND	ND
MAY											
04...	--	<0.10	7	--	<10	--	0	0	0.0	0	0
19...	8	<0.10	24	1	70	9	ND	ND	ND	ND	ND
JUN											
28...	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND
SEP											
08...	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
OCT											
06...	19	<0.10	8	2	320	10	ND	ND	ND	ND	ND
NOV											
17...	--	<0.10	2	--	30	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214020 CATTARAUGUS CREEK AT IRVING, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	0	0	0	0	0	0	0	0	0	0	0
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
08...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	2.0	ND	ND	ND	ND
JUN											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
01...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
04...	0	0.00	0	0	0	0	0.0	0	0	0	0
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214020 CATTARAUGUS CREEK AT IRVING, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
APR 1987				
16...	1145	1000	43	116
30...	1215	810	63	138
JUN				
23...	1230	1100	618	1840
OCT				
01...	1200	1300	230	807
DEC				
10...	1130	2800	831	6280
MAY 1988				
19...	0915	400	723	781
JUN				
28...	1100	180	24	12
SEP				
08...	1130	230	15	9.3
OCT				
06...	1300	196	11	5.8
NOV				
17...	0900	514	14	19

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
JUL 1987												
21...	1115	53700	--	<1	250	20	12000	20	530	<0.10	10	60
JUN 1988												
28...	1100	17500	4800	<10	--	20	13000	10	3400	0.24	20	80

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
JUL 1987											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 1987											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987											
21...	--	--	--	--	--	--	--	9	84	98	100
JUN 1988											
28...	ND	ND	ND	ND	ND	ND	ND	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214240 EIGHTEENMILE CREEK AT HIGHLAND-ON-THE-LAKE, NY

LOCATION.--Lat 42 42'44", long 78 58'00", Erie County, Hydrologic Unit 04120103, at bridge on Lake Shore Road, 0.6 mi (.96 km) northeast of highland on the lake.

DRAINAGE AREA.--119 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987-88 (c), 1989 (a).
MINOR ELEMENT DATA: 1987-88 (c), 1989 (a).
PESTICIDE DATA: 1987-88 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987-88 (c), 1989 (a).
SEDIMENT DATA: 1987-88 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 1987												
16...	1330	--	--	--	8.6	10.5	1.4	--	15.4	120	37	6.6
27...	1400	19	--	--	8.3	17.0	0.70	--	10.0	150	48	8.4
MAY												
19...	1700	--	--	512	8.5	21.0	0.60	--	--	190	59	11
JUN												
24...	0830	86	--	--	7.6	19.0	16	--	--	160	50	8.3
JUL												
21...	1300	--	--	--	8.4	31.0	2.5	--	8.8	150	43	9.3
SEP												
28...	1310	201	--	418	8.3	19.0	2.5	--	--	--	--	--
NOV												
18...	1130	--	--	--	7.8	7.0	84	--	15.8	100	31	5.7
DEC												
10...	1205	802	--	--	8.2	5.0	56	--	12.0	--	--	--
MAR 1988												
23...	1200	115	--	443	7.7	5.0	4.1	--	--	150	45	8.6
APR												
04...	0900	--	--	222	8.1	11.0	280	--	--	--	--	--
19...	0900	115	--	389	7.1	4.0	1.3	--	--	140	44	8.4
MAY												
05...	1000	--	--	378	8.2	12.0	1.3	--	10.4	--	--	--
17...	0900	250	--	427	7.8	14.5	1.8	--	8.8	150	47	8.7
JUN												
28...	1315	97	490	479	7.8	21.5	1.9	--	9.6	160	46	12
SEP												
09...	0900	40	--	587	8.0	15.0	--	--	--	210	60	14
OCT												
05...	1130	22	--	534	8.2	11.5	1.8	764	10.0	210	63	13
NOV												
16...	1140	--	--	372	8.1	9.0	2.4	759	11.2	140	43	8.3

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214240 EIGHTEENMILE CREEK AT HIGHLAND-ON-THE-LAKE, NY - continued

WATER-QUALITY DATA (continued)

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
APR 1987												
16...	--	--	--	--	--	--	184	--	199	76	128	1.02
27...	--	--	--	--	--	--	234	--	239	66	198	0.990
MAY												
19...	--	--	--	--	--	--	332	--	348	44	304	0.980
JUN												
24...	--	--	--	--	--	--	264	--	316	104	272	2.46
JUL												
21...	--	--	--	--	--	--	244	--	304	44	260	--
SEP												
28...	--	--	--	--	--	--	256	--	274	82	192	0.590
NOV												
18...	--	--	--	--	--	--	196	--	290	80	272	0.540
DEC												
10...	--	--	--	--	--	--	188	--	296	100	196	--
MAR 1988												
23...	28	1.8	85	44	55	0.10	262	234	274	66	208	1.01
APR												
04...	--	--	53	38	20	0.10	168	--	1110	80	1030	0.490
19...	20	1.7	92	44	36	0.10	256	209	260	44	216	0.920
MAY												
05...	--	--	91	--	--	--	244	--	252	60	192	0.530
17...	25	2.3	103	42	40	0.30	288	227	296	96	200	0.500
JUN												
28...	29	3.0	100	58	49	0.20	312	257	342	109	233	--
SEP												
09...	40	3.1	102	100	58	0.10	348	336	380	88	292	0.520
OCT												
05...	30	3.4	113	82	45	0.10	312	304	320	60	260	--
NOV												
16...	18	2.4	76	56	27	0.10	196	200	200	76	124	1.25

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
APR 1987											
16...	0.00	1.02	0.00	0.0	0.13	0.13	1.2	5.1	0.010	ND	--
27...	0.00	0.990	0.020	0.03	0.06	0.08	1.1	4.7	0.00	ND	--
MAY											
19...	0.010	0.990	0.010	0.01	0.09	0.10	1.1	4.8	0.00	ND	--
JUN											
24...	0.030	2.49	0.040	0.05	0.17	0.21	2.7	12	0.060	0.00	0.0
JUL											
21...	--	0.220	0.020	0.03	0.23	0.25	0.47	2.1	0.00	0.00	0.0
SEP											
28...	0.00	0.590	0.020	0.03	0.26	0.28	0.87	3.9	0.010	0.00	0.0
NOV											
18...	0.00	0.540	0.150	0.19	0.62	0.77	1.3	5.8	0.280	0.00	0.0
DEC											
10...	--	--	--	--	--	--	--	--	--	--	--
MAR 1988											
23...	0.00	1.01	ND	--	--	0.14	1.2	5.1	0.010	0.00	0.0
APR											
04...	0.00	0.490	0.800	1.0	0.90	1.7	2.2	9.7	0.570	0.00	0.0
19...	0.00	0.920	ND	--	--	0.15	1.1	4.7	0.010	ND	--
MAY											
05...	0.00	0.530	0.010	0.01	0.14	0.15	0.68	3.0	0.010	ND	--
17...	0.00	0.500	0.00	0.0	0.25	0.25	0.75	3.3	0.010	0.00	0.0
JUN											
28...	ND	0.130	0.010	0.01	0.18	0.19	0.32	1.4	0.010	ND	--
SEP											
09...	0.00	0.520	0.020	0.03	0.32	0.34	0.86	3.8	0.010	ND	--
OCT											
05...	ND	0.640	0.030	0.04	0.36	0.39	1.0	4.6	0.010	ND	--
NOV											
16...	0.00	1.25	0.110	0.14	0.26	0.37	1.6	7.2	0.010	0.00	0.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214240 EIGHTEENMILE CREEK AT HIGHLAND-ON-THE-LAKE, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
16...	--	--	<10	--	<10	--	80	--	<100	--	<10
27...	--	--	<10	--	<10	--	100	--	9	--	<10
MAY											
19...	--	--	<10	--	10	--	90	--	<5	--	10
JUN											
24...	--	--	<10	--	<10	--	730	--	13	--	40
JUL											
21...	--	--	<10	1.0	20	4	200	--	<5	<5	10
SEP											
28...	--	--	<10	--	<10	--	360	--	<100	--	20
NOV											
18...	--	--	1	--	12	--	5400	--	7	--	130
DEC											
10...	--	--	<1	--	11	--	3600	--	7	--	80
MAR 1988											
23...	110	<10	<1	<1.0	3	1	260	12	<5	<5	30
APR											
04...	17000	--	<1	--	31	--	35000	--	14	--	690
19...	<10	20	1	<1.0	2	3	110	16	<5	<5	12
MAY											
05...	30	--	2	--	4	--	110	--	16	--	10
17...	70	10	6	<1.0	9	3	220	25	<5	<5	10
JUN											
28...	90	--	1	--	4	--	200	--	<5	--	50
SEP											
09...	140	--	<1	--	4	--	280	--	<5	--	20
OCT											
05...	90	<10	1	<1.0	10	1	160	21	<5	<5	20
NOV											
16...	50	--	<1	--	3	--	260	--	<5	--	30

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
16...	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
27...	--	0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAY											
19...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN											
24...	--	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
JUL											
21...	--	0.20	<1	4	<10	10	ND	ND	ND	ND	ND
SEP											
28...	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
NOV											
18...	--	--	5	--	40	--	ND	ND	ND	ND	ND
DEC											
10...	--	<0.10	7	--	20	--	ND	ND	ND	ND	ND
MAR 1988											
23...	21	<0.10	6	1	10	<3	ND	ND	ND	ND	ND
APR											
04...	--	<0.10	30	--	140	--	ND	ND	ND	ND	ND
19...	12	<0.10	4	1	<10	<3	ND	ND	ND	ND	ND
MAY											
05...	--	--	6	--	<10	--	0	0	0.0	0	0
17...	8	<0.10	6	<1	<10	<3	ND	ND	ND	ND	ND
JUN											
28...	--	<0.10	8	--	<10	--	ND	ND	ND	ND	ND
SEP											
09...	--	<0.10	5	--	<10	--	ND	ND	ND	ND	ND
OCT											
05...	9	<0.10	5	<1	<10	5	ND	ND	ND	ND	ND
NOV											
16...	--	<0.10	1	--	20	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214240 EIGHTEENMILE CREEK AT HIGHLAND-ON-THE-LAKE, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
05...	0	0	0	0	0	0	0	0	0	0	0
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
05...	0	0.00	0	0	0	0	0.0	0	0	0	0
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214240 EIGHTEENMILE CREEK AT HIGHLAND-ON-THE-LAKE, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
APR 1987				
16...	1330	--	10	--
27...	1400	19	3	0.15
JUN				
24...	0830	86	22	5.1
JUL				
21...	1300	--	6	--
SEP				
28...	1310	201	6	3.3
DEC				
10...	1205	802	92	199
MAY 1988				
17...	0900	250	15	10
JUN				
28...	1315	97	7	1.8
SEP				
09...	0900	40	10	1.1
OCT				
05...	1130	22	4	0.24
NOV				
16...	1140	--	2	--

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
JUL 1987												
21...	1300	111000	--	1	170	30	20000	40	720	<0.10	20	110
JUN 1988												
28...	1315	24900	8000	<1	--	20	17000	10	280	<0.01	30	70

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
JUL 1987											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
28...	ND	ND	1.0	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 1987											
21...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987											
21...	--	--	--	--	--	--	--	14	38	49	100
JUN 1988											
28...	ND	ND	ND	ND	ND	ND	ND	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214480 BUFFALO CREEK NEAR BLOSSOM, NY

LOCATION.--Lat 42 50'41", long 78 58'00", Erie County, Hydrologic Unit 04120103, at bridge on Pound Road, 1.5 mi (2.4 km) upstream from bridge in Blossom, and 2.3 mi (3.7 km) downstream from bridge on Bowen Road in Elma.

DRAINAGE AREA.--135 mi2.

PERIOD OF RECORD.--April to December 1987.
CHEMICAL DATA: 1987 (c), 1988 (a).
MINOR ELEMENT DATA: 1987 (c), 1988 (a).
PESTICIDE DATA: 1987 (c), 1988 (a).
NUTRIENT DATA: 1987 (c), 1988 (a).
SEDIMENT DATA: 1987 (b), 1988 (a).

REMARKS.--Water-discharge data based on records from stream-flow gage 04214500 Buff. Creek at Gardenville. Sampling site moved to 04214500 Buff. Creek at Gardenville in 1988.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR 1987												
15...	1500	157	--	9.0	15.5	2.0	17.1	150	47	9.0	--	188
29...	1030	327	--	8.1	7.0	13	12.4	130	41	7.6	--	164
MAY												
20...	1830	44	445	8.4	20.0	1.0	--	200	58	13	--	260
JUN												
24...	1010	172	--	8.2	20.0	20	--	150	48	8.2	--	216
JUL												
21...	1600	76	--	8.6	32.0	18	8.6	110	35	6.6	--	168
SEP												
29...	1045	64	407	8.6	22.0	1.6	--	--	--	--	0.20	228
NOV												
18...	1300	357	--	8.0	7.0	35	16.0	130	39	7.7	--	184
DEC												
09...	1115	530	--	8.0	5.5	36	12.4	--	--	--	--	228

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)
APR 1987											
15...	202	22	180	0.890	0.00	0.890	0.010	0.01	0.17	0.18	1.1
29...	204	34	170	--	ND	0.620	0.020	0.03	0.18	0.20	0.82
MAY											
20...	308	100	208	0.550	0.00	0.550	0.020	0.03	0.08	0.10	0.65
JUN											
24...	300	112	188	2.60	0.020	2.62	0.050	0.06	0.22	0.27	2.9
JUL											
21...	192	16	176	--	--	0.610	0.030	0.04	0.43	0.46	1.1
SEP											
29...	264	100	164	--	ND	0.050	0.030	0.04	0.30	0.33	0.38
NOV											
18...	252	76	176	0.440	0.00	0.440	0.040	0.05	0.30	0.34	0.78
DEC											
09...	264	144	120	--	--	--	--	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214480 BUFFALO CREEK NEAR BLOSSOM, NY - continued

WATER-QUALITY DATA (continued)

DATE	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987											
15...	4.7	0.010	ND	--	<10	--	<10	--	120	<100	--
29...	3.6	0.030	ND	--	<10	--	<10	--	560	<5	--
MAY											
20...	2.9	0.010	ND	--	<10	<1.0	<10	4	80	<5	<5
JUN											
24...	13	0.080	0.00	0.0	<10	--	<10	--	630	<5	--
JUL											
21...	4.7	0.040	0.00	0.0	<10	--	30	--	1000	<5	--
SEP											
29...	1.7	0.010	ND	--	<10	--	<10	--	120	<100	--
NOV											
18...	3.5	0.120	0.00	0.0	1	--	9	--	2000	<5	--
DEC											
09...	--	--	--	--	<1	--	8	--	2300	<5	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
15...	10	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
29...	30	0.10	2	--	<10	--	ND	ND	ND	ND	ND
MAY											
20...	<10	<0.10	<1	5	10	<10	ND	ND	ND	ND	ND
JUN											
24...	50	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
JUL											
21...	40	0.20	3	--	20	--	ND	ND	ND	ND	ND
SEP											
29...	10	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
NOV											
18...	70	--	3	--	20	--	ND	ND	ND	ND	ND
DEC											
09...	60	<0.10	2	--	20	--	ND	ND	ND	ND	ND

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214480 BUFFALO CREEK NEAR BLOSSOM, NY - continued

WATER-QUALITY DATA (continued)

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR 1987				
15...	1500	157	8	3.4
29...	1030	327	21	19
JUN				
24...	1010	172	35	16
DEC				
09...	1115	530	63	90

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
JUL 1987								
21...	1600	66200	1	130	10	9900	20	620

DATE	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987							
21...	<0.10	10	60	85	60	82	100

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214500 BUFFALO CREEK AT GARDENVILLE NY

LOCATION.--Lat 42 51' 17", long 78 45'19", Erie County, Hydrologic Unit 04120103, on left bank 300 ft downstream from bridge on Union Road in Gardenville, 2 mi upstream from Cayuga Creek, and 10.1 mi upstream from mouth.

DRAINAGE AREA.--142 mi2.

PERIOD OF RECORD.--Water years 1988 to 1989.
CHEMICAL DATA: 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1988 (c) 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
MAR 1988												
21...	1400	97	399	414	--	--	--	--	--	160	49	10
APR												
05...	1025	380	298	302	7.9	9.0	--	--	--	--	--	--
20...	1100	106	404	410	8.4	7.0	--	--	--	180	53	11
MAY												
02...	1015	149	344	353	8.6	11.0	--	11.8	--	--	--	--
18...	1115	89	408	418	8.0	13.0	--	10.4	--	180	53	11
JUN												
28...	1730	15	351	357	8.6	25.0	--	7.6	--	140	33	13
SEP												
06...	1045	37	560	562	7.9	14.0	--	--	--	220	63	16
OCT												
04...	1040	17	477	488	8.1	14.0	763	10.2	99	210	60	15
NOV												
15...	0950	125	399	411	8.2	5.0	763	14.0	110	180	54	10

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
MAR 1988											
21...	18	1.7	128	34	33	0.10	244	223	266	68	198
APR											
05...	--	--	97	27	18	0.10	200	--	248	36	212
20...	14	1.6	141	32	23	0.10	224	219	248	56	192
MAY											
02...	--	--	123	--	--	--	204	--	208	40	168
18...	15	2.0	151	27	23	0.30	228	222	276	92	184
JUN											
28...	16	2.6	99	39	26	0.30	226	189	243	91	152
SEP											
06...	29	2.6	145	75	44	0.10	376	317	400	96	304
OCT											
04...	20	3.0	148	56	31	0.10	288	274	312	76	236
NOV											
15...	16	2.4	118	53	23	0.10	256	229	276	92	184

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214500 BUFFALO CREEK AT GARDENVILLE NY - continued

WATER-QUALITY DATA (continued)

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
MAR 1988											
21...	--	--	1.01	0.060	0.08	0.26	0.32	1.3	5.9	0.00	0.0
APR											
05...	0.670	0.00	0.670	0.050	0.06	0.41	0.46	1.1	5.0	0.00	0.0
20...	0.850	0.00	0.850	0.010	0.01	0.12	0.13	0.98	4.3	ND	--
MAY											
02...	0.390	0.00	0.390	0.00	0.0	0.21	0.21	0.60	2.7	0.00	0.0
18...	0.480	0.00	0.480	0.020	0.03	0.52	0.54	1.0	4.5	0.00	0.0
JUN											
28...	--	ND	ND	0.010	0.01	0.28	0.29	--	--	ND	--
SEP											
06...	--	ND	0.080	--	--	--	0.23	0.31	1.4	ND	--
OCT											
04...	--	ND	0.070	0.010	0.01	0.25	0.26	0.33	1.5	ND	--
NOV											
15...	--	ND	0.310	0.020	0.03	0.31	0.33	0.64	2.8	ND	--

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
MAR 1988											
21...	80	<10	<1	<1.0	3	1	200	14	<5	<5	20
APR											
05...	960	--	<1	--	10	--	1800	--	<5	--	50
20...	<10	10	2	<1.0	2	<1	140	26	<5	<5	<10
MAY											
02...	70	--	1	--	5	--	180	--	5	--	20
18...	20	<10	5	<1.0	9	4	140	18	<5	<5	10
JUN											
28...	90	--	<1	--	4	--	170	--	<5	--	40
SEP											
06...	30	--	<1	--	3	--	150	--	<5	--	20
OCT											
04...	60	<10	2	<1.0	6	1	140	13	<5	<5	10
NOV											
15...	40	--	1	--	4	--	180	--	<5	--	30

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
MAR 1988											
21...	19	<0.10	6	3	80	<3	<0.3	<0.1	<0.30	<0.1	<0.4
APR											
05...	--	<0.10	6	--	20	--	0	0	0.0	0	0
20...	12	<0.10	6	2	<10	3	<0.5	<0.5	<0.50	<0.5	<0.5
MAY											
02...	--	<0.10	5	--	20	--	0	0	0.0	0	0
18...	6	<0.10	5	4	<10	4	<0.5	<0.5	<0.50	<0.5	<0.5
JUN											
28...	--	1.7	8	--	10	--	<0.5	<0.5	<0.50	<0.5	<0.5
SEP											
06...	--	<0.10	3	--	<10	--	<0.3	<0.1	<0.30	<0.1	<0.4
OCT											
04...	5	<0.10	3	2	<10	5	<0.3	<0.1	<0.30	<0.1	<0.4
NOV											
15...	--	<0.10	2	--	<10	--	<0.3	<0.1	<0.30	<0.1	<0.4

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214500 BUFFALO CREEK AT GARDENVILLE NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
MAR 1988											
21...	<0.1	<0.3	<0.2	<1.2	<0.2	--	<0.2	<0.2	<0.1	<0.1	<0.1
APR											
05...	0	0	0	0	0	0	0	0	0	0	0
20...	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MAY											
02...	0	0	0	0	0	0	0	0	0	0	0
18...	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
JUN											
28...	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SEP											
06...	<0.1	<0.3	<0.2	<1.2	<0.2	<0.5	<0.2	<0.2	<0.1	<0.1	<0.1
OCT											
04...	<0.1	<0.3	<0.2	<1.2	<0.2	<0.5	<0.2	<0.2	<0.1	<0.1	<0.1
NOV											
15...	<0.1	<0.3	<0.2	<1.2	<0.2	<0.5	<0.2	<0.2	<0.1	<0.1	<0.1

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAR 1988											
21...	<0.2	<0.300	<0.2	<0.3	<0.4	<0.3	<0.2	<0.3	<0.1	<0.2	<0.3
APR											
05...	0	0.00	0	0	0	0	0.0	0	0	0	0
20...	<0.5	<0.500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MAY											
02...	0	0.00	0	0	0	0	0.0	0	0	0	0
18...	<0.5	<0.500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
JUN											
28...	<0.5	<0.500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SEP											
06...	<0.2	<0.300	<0.2	<0.3	<0.4	<0.3	<0.2	<0.3	<0.1	<0.2	<0.3
OCT											
04...	<0.2	<0.300	<0.2	<0.3	<0.4	<0.3	<0.2	<0.3	<0.1	<0.2	<0.3
NOV											
15...	<0.2	<0.300	<0.2	<0.3	<0.4	<0.3	<0.2	<0.3	<0.1	<0.2	<0.3

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 1988				
18...	1115	89	4	0.96
JUN				
28...	1730	15	5	0.20
SEP				
06...	1045	37	5	0.50
OCT				
04...	1040	17	6	0.28

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214500 BUFFALO CREEK AT GARDENVILLE NY - continued

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)
JUN 1988										
28...	1730	31100	3100	<1	10	7300	<10	240	<0.10	10

DATE	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 1988										
28...	50	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 1988										
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 1988										
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214740 CAYUGA CREEK NEAR ALDEN, NY

LOCATION.--Lat 42 52'48, long 78 31'19", Erie County, Hydrologic Unit 04120104, at bridge on Three Rod Road, 1,8 mi southwest of Alden.

DRAINAGE AREA.--55.1 mi2.

PERIOD OF RECORD.--April to December 1987 (discontinued).
CHEMICAL DATA: 1987 (c), 1988 (a).
MINOR ELEMENT DATA: 1987 (c), 1988 (a).
PESTICIDE DATA: 1987 (c), 1988 (a).
NUTRIENT DATA: 1987 (c), 1988 (a).
SEDIMENT DATA: 1987 (b), 1988 (a).

REMARKS.--Water-discharge data based on records from stream-flow gage 04215000 Cayuga Creek near Lancaster. Sampling Site moved to
0445000 Cayuga Creek near Lancaster in 1988.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
APR 1987												
15...	1400	74	--	8.7	14.5	1.0	14.8	120	37	6.7	--	152
29...	1130	179	--	8.2	6.0	7.3	11.6	82	25	4.7	--	134
MAY												
20...	1200	13	416	8.3	16.0	1.0	--	180	55	9.7	--	240
JUN												
24...	1100	90	--	8.1	18.0	5.0	--	130	40	7.0	--	184
JUL												
21...	1730	71	--	8.2	29.5	7.1	7.4	120	37	6.3	--	176
SEP												
29...	1140	14	362	8.4	22.0	1.7	--	--	--	--	0.30	204
NOV												
18...	1430	100	--	8.1	7.0	13	16.3	120	37	6.9	--	164
DEC												
09...	1215	183	--	8.2	6.0	8.5	11.2	--	--	--	--	180

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)
APR 1987												
15...	170	26	144	0.660	0.00	0.660	0.010	0.01	0.23	0.24	0.90	4.0
29...	140	32	108	--	ND	0.380	0.020	0.03	0.20	0.22	0.60	2.7
MAY												
20...	248	100	148	0.430	0.00	0.430	0.020	0.03	0.05	0.07	0.50	2.2
JUN												
24...	228	92	136	2.71	0.010	2.72	0.020	0.03	0.23	0.25	3.0	13
JUL												
21...	188	8	180	--	--	0.490	0.030	0.04	0.25	0.28	0.77	3.4
SEP												
29...	248	112	136	--	ND	ND	0.010	0.01	0.37	0.38	--	--
NOV												
18...	184	48	136	--	ND	0.250	ND	--	--	0.20	0.45	2.0
DEC												
09...	200	104	96	--	--	--	--	--	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214740 CAYUGA CREEK NEAR ALDEN, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
15...	0.010	0.00	0.0	<10	--	<10	--	80	<100	--	<10
29...	0.030	0.00	0.0	<10	--	<10	--	380	11	--	20
MAY											
20...	0.00	ND	--	<10	1.0	<10	2	90	<5	<5	20
JUN											
24...	0.030	0.00	0.0	<10	--	<10	--	340	<100	--	<10
JUL											
21...	0.020	0.00	0.0	<10	--	20	--	450	<5	--	20
SEP											
29...	0.010	0.00	0.0	<10	--	<10	--	120	<100	--	10
NOV											
18...	0.050	0.00	0.0	<1	--	4	--	750	<5	--	20
DEC											
09...	--	--	--	<1	--	5	--	510	<5	--	30

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
15...	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
29...	--	0.10	<1	--	<10	--	ND	ND	ND	ND	ND
MAY											
20...	--	<0.10	<1	2	<10	10	ND	ND	ND	ND	ND
JUN											
24...	--	<0.10	<100	--	30	--	ND	ND	ND	ND	ND
JUL											
21...	--	0.20	<1	--	30	--	ND	ND	ND	ND	ND
SEP											
29...	10	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
NOV											
18...	--	--	3	--	10	--	ND	ND	ND	ND	ND
DEC											
09...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04214740 CAYUGA CREEK NEAR ALDEN, NY - continued

WATER-QUALITY DATA (continued)

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR 1987				
15...	1400	74	6	1.2
29...	1130	179	9	4.3
JUN				
24...	1100	90	7	1.7
DEC				
09...	1215	183	17	8.4

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLA-TILE IN BOTTOM MA-TERIAL (MG/KG)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G)
JUL 1987								
21...	1730	31900	<1	110	10	7400	20	330

DATE	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987							
21...	<0.10	10	40	1	9	22	100

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215000 CAYUGA CREEK NEAR LANCASTER, NY

LOCATION.--Lat 42 53'24", long 78 38'43", Erie County, Hydrologic Unit 04120103, on right bank 150 ft upstream fromlow dam in Como Lake Park, 700 ft downstream from bridge on Bowen Road, 800 ft downtream from Little Buffalo Creek, 2 mi southeast of Lancaster, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--96.4 mi2.

PERIOD OF RECORD: Water years 1988-89.
CHEMICAL DATA: 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1988 (c), 1989 (a).
PESTICIDE DATA: 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR 1988												
23...	0830	72	--	382	7.8	1.0	3.4	--	--	160	50	8.9
APR												
04...	1040	1440	--	221	7.9	11.0	160	--	--	--	--	--
19...	1100	68	--	374	7.1	6.0	1.6	--	--	160	50	9.0
MAY												
05...	1145	58	--	361	8.2	14.0	2.5	12.2	--	--	--	--
17...	1015	84	--	377	7.9	16.0	2.7	8.8	--	160	50	9.2
JUN												
29...	1600	6.9	393	435	8.4	21.5	2.0	9.6	--	180	54	12
SEP												
09...	1000	5.0	--	471	8.2	16.0	--	--	--	190	56	13
OCT												
05...	1000	12	--	460	8.1	12.0	--	10.0	764	200	59	12
NOV												
16...	0945	70	--	404	7.8	7.0	2.1	11.6	759	170	53	9.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
MAR 1988												
23...	14	1.7	123	30	26	0.10	228	204	230	58	172	1.13
APR												
04...	--	--	72	27	12	0.10	152	--	532	48	484	0.410
19...	13	1.5	126	33	23	0.10	256	205	260	24	236	--
MAY												
05...	--	--	131	--	--	--	240	--	244	52	192	--
17...	14	1.9	135	25	21	0.30	244	202	256	92	164	0.420
JUN												
29...	16	2.9	148	35	26	0.20	298	235	303	97	206	0.170
SEP												
09...	21	2.8	132	59	34	0.10	268	265	284	92	192	--
OCT												
05...	19	3.5	133	54	31	0.10	--	258	--	--	--	--
NOV												
16...	14	2.3	114	52	24	0.10	228	223	232	52	180	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215000 CAYUGA CREEK NEAR LANCASTER, NY - continued

WATER-QUALITY DATA (continued)

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
MAR 1988											
23...	0.00	1.13	0.010	0.01	0.28	0.29	1.4	6.3	0.010	0.00	0.0
APR											
04...	0.00	0.410	0.510	0.66	0.99	1.5	1.9	8.5	0.220	0.010	0.03
19...	ND	0.830	0.010	0.01	0.17	0.18	1.0	4.5	0.00	ND	--
MAY											
05...	ND	0.470	0.020	0.03	0.11	0.13	0.60	2.7	0.010	0.00	0.0
17...	0.00	0.420	0.010	0.01	0.36	0.37	0.79	3.5	0.010	0.00	0.0
JUN											
29...	0.00	0.170	0.010	0.01	0.20	0.21	0.38	1.7	0.020	ND	--
SEP											
09...	ND	0.100	0.010	0.01	0.29	0.30	0.40	1.8	0.010	ND	--
OCT											
05...	ND	0.060	0.010	0.01	0.35	0.36	0.42	1.9	0.010	ND	--
NOV											
16...	ND	0.390	0.020	0.03	0.28	0.30	0.69	3.1	0.010	0.00	0.0

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
MAR 1988											
23...	120	<10	<1	<1.0	2	<1	340	16	<5	<5	20
APR											
04...	8900	--	<1	--	20	--	15000	--	10	--	360
19...	10	10	<1	<1.0	3	6	140	35	<5	<5	20
MAY											
05...	60	--	1	--	3	--	210	--	<5	--	30
17...	70	<10	5	<1.0	8	3	270	22	<5	<5	20
JUN											
29...	90	--	<1	--	4	--	260	--	<5	--	70
SEP											
09...	60	--	<1	--	3	--	190	--	<5	--	20
OCT											
05...	40	<10	<1	<1.0	3	1	80	20	<5	<5	10
NOV											
16...	20	--	1	--	2	--	210	--	<5	--	30

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
MAR 1988											
23...	22	<0.10	6	<1	<10	<3	ND	ND	ND	ND	ND
APR											
04...	--	<0.10	25	--	70	--	ND	ND	ND	ND	ND
19...	17	<0.10	2	1	<10	8	ND	ND	ND	ND	ND
MAY											
05...	--	<0.10	6	--	<10	--	0	0	0.0	0	0
17...	10	<0.10	5	1	<10	<3	ND	ND	ND	ND	ND
JUN											
29...	--	0.70	4	--	10	--	ND	ND	ND	ND	ND
SEP											
09...	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
OCT											
05...	13	<0.10	3	1	<10	<3	ND	ND	ND	ND	ND
NOV											
16...	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215000 CAYUGA CREEK NEAR LANCASTER, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
MAR 1988											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
05...	0	0	0	0	0	0	0	0	0	0	0
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
MAR 1988											
23...	ND	ND	ND	ND	ND	ND	0.3	ND	ND	ND	ND
APR											
04...	ND	ND	ND	ND	ND	ND	0.3	ND	ND	ND	ND
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
05...	0	0.00	0	0	0	0	0.0	0	0	0	0
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY 1988				
17...	1015	84	19	4.3
JUN				
29...	1600	6.9	8	0.15
SEP				
09...	1000	5.0	6	0.08
OCT				
05...	1000	12	2	0.06
NOV				
16...	0945	70	4	0.76

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215000 CAYUGA CREEK NEAR LANCASTER, NY - continued

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)
JUN 1988 29...	1600	24600	3000	<10	10	8800	<100	230	<0.10	10

DATE	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 1988 29...	40	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 1988 29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUN 1988 29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215790 BUFFALO RIVER AT OHIO STREET AT BUFFALO, NY

LOCATION.--Lat 42 51'42", long 78 52'04", Erie County, Hydrologic Unit 04120103, at Ohio Street bridge, 1.0 mi upstream of mouth.

DRAINAGE AREA.--427 mi2.

PERIOD OF RECORD.--Water years 1971-74, 1987 to current year.
CHEMICAL DATA: 1987-88 (c), 1989 (a).
MINOR ELEMENT DATA: 1972 (b), 1973-74 (a), 1987-88 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
NUTRIENT DATA: 1987-88 (c), 1989 (a).
SEDIMENT DATA:1987-88 (b), 1989 (a).

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
APR 1987												
16...	1445	--	8.2	12.0	32	--	13.0	140	43	7.6	--	--
27...	1245	--	7.7	14.0	16	--	6.5	150	44	9.0	--	--
MAY												
19...	1200	443	7.5	16.0	18	--	--	170	50	9.8	--	--
JUN												
25...	1130	--	7.7	23.0	38	--	--	--	--	--	--	--
JUL												
27...	0830	--	7.7	23.5	110	--	--	100	32	5.4	--	--
SEP												
28...	1200	338	8.0	22.0	20	--	--	--	--	--	--	--
NOV												
09...	0930	--	7.6	8.5	14	--	8.0	180	53	11	--	--
DEC												
07...	1400	--	7.9	2.0	7.3	--	12.2	--	--	--	--	--
MAR 1988												
21...	1215	429	8.0	1.0	6.7	--	--	140	42	8.9	26	2.1
APR												
05...	0830	249	7.7	10.0	120	--	--	--	--	--	--	--
20...	0830	431	7.8	8.5	0.0	--	--	160	49	10	21	2.2
MAY												
02...	0845	275	7.6	9.0	38	--	10.6	--	--	--	--	--
18...	0900	436	7.4	14.0	16	--	5.2	170	50	10	22	2.6
JUN												
29...	1000	423	8.0	20.0	17	--	--	160	44	11	21	3.0
SEP												
06...	0845	482	7.6	19.0	16	--	--	160	45	12	34	3.9
OCT												
04...	0915	458	7.4	16.0	13	763	5.6	170	48	11	27	3.5
NOV												
15...	0800	372	8.0	6.0	20	763	10.8	140	44	8.4	17	2.7

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215790 BUFFALO RIVER AT OHIO STREET AT BUFFALO, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)
APR 1987											
16...	--	--	--	--	184	--	289	42	234	0.650	0.010
27...	--	--	--	--	206	--	272	66	210	0.410	0.020
MAY											
19...	--	--	--	--	256	--	280	84	196	0.270	0.040
JUN											
25...	--	--	--	--	188	--	220	56	164	0.860	0.040
JUL											
27...	--	--	--	--	168	--	347	148	184	0.430	0.010
SEP											
28...	--	--	--	--	208	--	232	68	162	0.250	0.010
NOV											
09...	--	--	--	--	232	--	267	78	198	0.170	0.010
DEC											
07...	--	--	--	--	292	--	301	112	204	0.650	0.00
MAR 1988											
21...	113	32	42	0.10	236	221	272	50	222	--	--
APR											
05...	71	29	18	0.10	188	--	352	48	304	0.440	0.00
20...	128	36	34	0.20	244	229	296	52	244	0.620	0.010
MAY											
02...	82	--	--	--	172	--	224	40	184	0.420	0.00
18...	129	33	33	0.30	224	228	236	48	188	0.390	0.020
JUN											
29...	124	32	32	0.30	276	218	296	80	216	0.220	0.020
SEP											
06...	110	51	51	0.20	312	263	320	56	264	0.360	0.080
OCT											
04...	109	57	40	0.10	264	252	300	64	236	0.310	0.030
NOV											
15...	96	47	25	0.10	236	202	296	72	224	0.390	0.00

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
APR 1987											
16...	0.660	0.090	0.12	0.32	0.41	1.1	4.7	0.090	0.00	0.0	--
27...	0.430	0.320	0.41	0.30	0.62	1.0	4.6	0.070	0.00	0.0	--
MAY											
19...	0.310	0.360	0.46	0.56	0.92	1.2	5.4	0.070	0.00	0.0	--
JUN											
25...	0.900	0.180	0.23	0.28	0.46	1.4	6.0	0.020	0.020	0.06	--
JUL											
27...	0.440	0.440	0.57	0.56	1.0	1.4	6.4	0.360	0.00	0.0	--
SEP											
28...	0.260	0.180	0.23	0.53	0.71	0.97	4.3	0.090	0.020	0.06	--
NOV											
09...	0.180	0.170	0.22	0.24	0.41	0.59	2.6	0.060	0.010	0.03	--
DEC											
07...	0.650	0.050	0.06	0.32	0.37	1.0	4.5	0.030	0.00	0.0	--
MAR 1988											
21...	0.850	0.520	0.67	0.25	0.77	1.6	7.2	0.020	0.00	0.0	220
APR											
05...	0.440	0.250	0.32	0.60	0.85	1.3	5.7	0.160	0.020	0.06	4600
20...	0.630	0.130	0.17	0.25	0.38	1.0	4.5	0.040	ND	--	480
MAY											
02...	0.420	0.090	0.12	0.40	0.49	0.91	4.0	0.100	0.00	0.0	1100
18...	0.410	0.210	0.27	0.50	0.71	1.1	5.0	0.060	0.00	0.0	450
JUN											
29...	0.240	0.170	0.22	0.21	0.38	0.62	2.7	0.070	ND	--	540
SEP											
06...	0.440	0.270	0.35	0.48	0.75	1.2	5.3	0.050	ND	--	310
OCT											
04...	0.340	0.310	0.40	0.61	0.92	1.3	5.6	0.060	0.00	0.0	400
NOV											
15...	0.390	0.150	0.19	0.45	0.60	0.99	4.4	0.060	0.010	0.03	640

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215790 BUFFALO RIVER AT OHIO STREET AT BUFFALO, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
APR 1987											
16...	--	<10	--	<10	--	2700	--	<100	--	110	--
27...	--	<10	--	10	--	1400	--	28	--	110	--
MAY											
19...	<1	<10	--	10	--	1600	--	9	--	110	--
JUN											
25...	--	<10	--	10	--	1500	--	--	--	70	--
JUL											
27...	--	<10	1.0	20	4	1100	--	<5	<5	100	--
SEP											
28...	--	<10	--	<10	--	1100	--	<100	--	50	--
NOV											
09...	--	<1	--	7	--	1100	--	<5	--	70	--
DEC											
07...	--	<1	<1.0	7	5	470	--	7	<5	50	--
MAR 1988											
21...	<10	<1	<1.0	4	2	570	29	<5	<5	70	53
APR											
05...	--	<1	--	18	--	7600	--	<5	--	130	--
20...	10	2	<1.0	5	4	1100	45	<5	<5	120	110
MAY											
02...	--	1	--	11	--	1900	--	9	--	70	--
18...	<10	6	<1.0	10	2	960	27	<5	<5	130	74
JUN											
29...	--	1	--	6	--	1200	--	<5	--	140	--
SEP											
06...	--	<1	--	8	--	780	--	<5	--	80	--
OCT											
04...	10	<1	<1.0	9	1	830	17	<5	<5	50	7
NOV											
15...	--	<1	--	7	--	1300	--	<5	--	70	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
16...	<0.10	<100	--	20	--	--	ND	ND	ND	ND	ND
27...	0.10	2	--	<10	--	--	ND	ND	ND	ND	ND
MAY											
19...	<0.10	--	--	40	--	--	ND	ND	ND	ND	ND
JUN											
25...	<0.10	--	--	30	--	--	ND	ND	ND	ND	ND
JUL											
27...	0.10	3	<1	<10	<10	--	--	--	--	--	--
SEP											
28...	<0.10	<100	--	10	--	--	ND	ND	ND	ND	ND
NOV											
09...	<0.10	4	--	<10	--	--	ND	ND	ND	ND	ND
DEC											
07...	<0.10	<1	1	20	20	--	ND	ND	ND	ND	ND
MAR 1988											
21...	<0.10	2	5	10	<3	4.0	ND	ND	ND	ND	ND
APR											
05...	<0.10	10	--	40	--	1.0	0	0	0.0	0	0
20...	<0.10	12	1	20	5	1.0	ND	ND	ND	ND	ND
MAY											
02...	<0.10	10	--	20	--	2.0	0	0	0.0	0	0
18...	<0.10	6	<1	10	4	3.0	ND	ND	ND	ND	ND
JUN											
29...	<0.10	8	--	10	--	2.0	ND	ND	ND	ND	ND
SEP											
06...	<0.10	11	--	<10	--	ND	ND	ND	ND	ND	ND
OCT											
04...	<0.10	6	1	20	4	ND	ND	ND	ND	ND	ND
NOV											
15...	<0.10	4	--	20	--	5.0	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215790 BUFFALO RIVER AT OHIO STREET AT BUFFALO, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
21...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
05...	0	0	0	0	0	0	0	0	0	0	0
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
02...	0	0	0	0	0	0	0	0	0	0	0
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	0.1	ND	ND	ND	ND	ND	0.2	ND	ND	ND	ND
SEP											
06...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
15...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
APR 1987											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
05...	0	0.00	0	0	0	0	0.0	0	0	0	0
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
02...	0	0.00	0	0	0	0	0.0	0	0	0	0
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ERIE

04215790 BUFFALO RIVER AT OHIO STREET AT BUFFALO, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
APR 1987		
16...	1445	48
27...	1245	54
MAY		
19...	1200	65
JUN		
25...	1130	52
NOV		
09...	0930	30
DEC		
07...	1400	10
MAY 1988		
18...	0900	33
JUN		
29...	1000	40
SEP		
06...	0845	23
OCT		
04...	0915	28
NOV		
15...	0800	32

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04216060 NIAGARA RIVER AT ANDERSON PARK, BUFFALO, NY

LOCATION.--Lat 42 54'53", long 78 54'12", Erie Coutny, Hydrologic Unit 04120104, at Anderson Park (Broderick Park) dock at foot of Ferry Street on Squaw Island, Buffalo, 0.6 mi downstream from Peace Bridge.

DRAINAGE AREA.--263,700 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987-88 (c), 1989 (a).
MINOR ELEMENT DATA: 1987-88 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
NUTRIENT DATA: 1987-88 (c), 1989 (a).
SEDIMENT DATA: 1987-88 (b), 1989 (a).

REMARKS--Water-discharge records obtained from daily discharge furnished by Detroit District Corp. of Engineers and Canada Department of the Environment.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR 1987												
14...	1500	246000	--	8.0	11.0	5.3	--	14.1	190	60	10	--
27...	1100	248000	--	8.3	7.0	1.5	--	12.4	130	39	8.5	--
MAY												
19...	1030	234000	301	8.1	11.0	2.8	--	--	130	37	8.4	--
JUN												
25...	1030	236000	--	8.3	21.0	7.6	--	--	130	37	8.4	--
JUL												
27...	0915	243000	--	8.1	24.5	10	--	--	130	38	8.3	--
SEP												
28...	1110	227000	292	8.6	22.0	--	--	--	--	--	--	--
NOV												
09...	1020	214000	--	8.0	8.5	4.8	--	10.6	130	37	8.2	--
DEC												
07...	0945	207000	--	8.4	5.0	3.8	--	11.4	100	31	6.5	--
MAR 1988												
21...	1115	208000	285	8.5	0.5	2.5	--	--	120	35	8.0	9.8
APR												
06...	0830	212000	272	7.7	3.0	16	--	--	--	--	--	--
18...	1040	211000	262	--	1.0	3.8	--	--	110	32	7.3	9.4
MAY												
03...	1015	217000	283	8.2	9.0	4.6	--	11.2	--	--	--	--
16...	1020	223000	300	8.4	11.0	2.5	--	11.0	130	37	8.7	10
JUN												
29...	0900	203000	295	8.4	19.0	3.9	--	--	120	36	8.5	9.5
SEP												
07...	1015	203000	285	8.2	20.0	2.2	--	--	120	33	8.6	9.0
OCT												
03...	0830	192000	294	8.2	17.0	2.0	763	7.6	130	38	9.0	9.8
NOV												
14...	0830	205000	302	8.3	8.0	8.0	763	10.2	130	38	9.1	10

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04216060 NIAGARA RIVER AT ANDERSON PARK, BUFFALO, NY - continued

WATER-QUALITY DATA (continued)

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)
APR 1987												
14...	--	--	--	--	--	168	--	174	54	148	--	ND
27...	--	--	--	--	--	156	--	172	50	126	--	ND
MAY												
19...	--	--	--	--	--	168	--	192	60	132	--	ND
JUN												
25...	--	--	--	--	--	166	--	175	52	144	0.230	0.00
JUL												
27...	--	--	--	--	--	164	--	185	116	52	--	ND
SEP												
28...	--	--	--	--	--	--	--	162	--	--	0.090	0.00
NOV												
09...	--	--	--	--	--	160	--	170	56	118	--	ND
DEC												
07...	--	--	--	--	--	176	--	196	80	116	--	ND
MAR 1988												
21...	1.4	97	25	17	0.20	162	155	170	46	124	--	--
APR												
06...	--	87	28	16	0.20	168	--	232	44	188	0.290	0.00
18...	1.2	82	24	16	0.20	176	139	184	32	152	--	ND
MAY												
03...	--	94	--	--	--	180	--	196	28	168	0.300	0.00
16...	1.4	97	21	15	0.20	188	151	200	96	104	0.320	0.00
JUN												
29...	1.4	100	25	15	0.30	188	156	200	84	116	0.250	0.00
SEP												
07...	1.2	95	25	15	0.10	164	149	180	60	120	0.240	0.00
OCT												
03...	1.4	96	30	15	0.10	176	161	192	80	112	0.210	0.00
NOV												
14...	1.6	98	30	15	0.10	180	163	192	76	116	--	ND

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)
APR 1987											
14...	0.390	0.020	0.03	0.26	0.28	0.67	3.0	0.010	ND	--	--
27...	0.250	0.030	0.04	0.11	0.14	0.39	1.7	0.010	ND	--	--
MAY											
19...	0.140	0.040	0.05	0.08	0.12	0.26	1.2	0.010	ND	--	--
JUN											
25...	0.230	0.030	0.04	0.15	0.18	0.41	1.8	0.020	ND	--	--
JUL											
27...	0.120	0.040	0.05	0.14	0.18	0.30	1.3	0.020	0.00	0.0	--
SEP											
28...	0.090	0.020	0.03	0.29	0.31	0.40	1.8	0.010	0.00	0.0	--
NOV											
09...	0.200	0.020	0.03	0.16	0.18	0.38	1.7	0.010	0.00	0.0	--
DEC											
07...	0.210	0.00	0.0	0.17	0.17	0.38	1.7	0.020	0.00	0.0	--
MAR 1988											
21...	0.250	0.010	0.01	0.20	0.21	0.46	2.0	0.010	0.00	0.0	60
APR											
06...	0.290	0.270	0.35	0.46	0.73	1.0	4.5	0.020	ND	--	400
18...	0.270	0.020	0.03	0.16	0.18	0.45	2.0	0.010	ND	--	130
MAY											
03...	0.300	0.020	0.03	0.25	0.27	0.57	2.5	0.020	0.00	0.0	140
16...	0.320	0.010	0.01	0.21	0.22	0.54	2.4	0.010	ND	--	90
JUN											
29...	0.250	0.100	0.13	0.18	0.28	0.53	2.3	0.010	ND	--	110
SEP											
07...	0.240	0.010	0.01	0.19	0.20	0.44	1.9	0.010	ND	--	50
OCT											
03...	0.210	0.020	0.03	0.29	0.31	0.52	2.3	0.010	ND	--	90
NOV											
14...	0.170	0.040	0.05	0.34	0.38	0.55	2.4	0.020	ND	--	280

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04216060 NIAGARA RIVER AT ANDERSON PARK, BUFFALO, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)
APR 1987											
14...	--	<10	--	20	--	240	--	<100	--	10	--
27...	--	<10	--	10	--	110	--	5	--	10	--
MAY											
19...	--	<10	--	<10	--	190	--	<100	--	<10	--
JUN											
25...	--	<10	<1.0	<10	8	430	--	8	<5	20	--
JUL											
27...	--	<10	--	20	--	540	--	9	--	30	--
SEP											
28...	--	<10	--	10	--	250	--	<100	--	10	10
NOV											
09...	--	<1	--	5	--	320	--	5	--	20	--
DEC											
07...	--	<1	<1.0	9	2	260	--	7	<5	10	--
MAR 1988											
21...	<10	<1	<1.0	24	1	340	11	<5	<5	<10	5
APR											
06...	--	<1	--	9	--	670	--	<5	--	20	--
18...	10	1	<1.0	5	1	230	8	<5	<5	20	5
MAY											
03...	--	1	--	6	--	290	--	<5	--	10	--
16...	<10	<1	<1.0	6	2	240	<3	<5	<5	20	1
JUN											
29...	--	2	--	6	--	300	--	<5	--	20	--
SEP											
07...	--	<1	--	5	--	160	--	<5	--	10	--
OCT											
03...	10	1	<1.0	6	1	160	23	<5	<5	10	3
NOV											
14...	--	<1	--	3	--	590	--	<5	--	40	--

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
14...	<0.10	<100	--	10	--	--	ND	ND	ND	ND	ND
27...	0.10	<1	--	<10	--	--	ND	ND	ND	ND	ND
MAY											
19...	<0.10	<100	--	<10	--	--	ND	ND	ND	ND	ND
JUN											
25...	<0.10	<1	<1	10	<10	--	ND	ND	ND	ND	ND
JUL											
27...	0.10	2	--	<10	--	--	--	--	--	--	--
SEP											
28...	<0.10	<100	--	<10	--	--	ND	ND	ND	ND	ND
NOV											
09...	<0.10	<1	--	<10	--	--	ND	ND	ND	ND	ND
DEC											
07...	<0.10	5	<1	30	10	--	ND	ND	ND	ND	ND
MAR 1988											
21...	<0.10	4	4	<10	<3	ND	ND	ND	ND	ND	ND
APR											
06...	<0.10	5	--	<10	--	--	ND	ND	ND	ND	ND
18...	<0.10	4	2	<10	4	2.0	ND	ND	ND	ND	ND
MAY											
03...	<0.10	7	--	10	--	4.0	0	0	0.0	0	0
16...	<0.10	1	5	<10	<3	ND	ND	ND	ND	ND	ND
JUN											
29...	<0.10	10	--	<10	--	1.0	ND	ND	ND	ND	ND
SEP											
07...	<0.10	1	--	20	--	2.0	ND	ND	ND	ND	ND
OCT											
03...	<0.10	2	<1	10	21	ND	ND	ND	ND	ND	ND
NOV											
14...	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04216060 NIAGARA RIVER AT ANDERSON PARK, BUFFALO, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
21...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
03...	0	0	0	0	0	0	0	0	0	0	0
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND
SEP											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
14...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
03...	0	0.00	0	0	0	0	0.0	0	0	0	0
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04216060 NIAGARA RIVER AT ANDERSON PARK, BUFFALO, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR 1987				
14...	1500	246000	9	5980
MAY				
19...	1030	234000	5	3160
JUN				
25...	1030	236000	12	7650
NOV				
09...	1020	214000	8	4620
MAY 1988				
16...	1020	223000	6	3610
JUN				
29...	0900	203000	7	3840
SEP				
07...	1015	203000	5	2740
OCT				
03...	0830	192000	5	2590
NOV				
14...	0830	205000	15	8300

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04217122 TONOWANDA CREEK NEAR EAST PEMBROKE, NY

LOCATION.--Lat 42 59'58", long 78 18'38", Genesse County, Hydrologic Unit 04120104, at bridge on County Highway 30 near East Pembroke.

DRAINAGE AREA.--200 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987-88 (c), 1989 (a).
MINOR ELEMENT DATA: 1987-88 (c), 1989 (a).
PESTICIDE DATA: 1987-88 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987-88 (c), 1989 (a).
SEDIMENT DATA: 1987-88 (b), 1989 (a).

REMARKS.--Water-discharge data based on records from stream-flow gage 04217000 Tonowanda Creek at Batavia and 04217500 Tonowanda Creek near Alabama.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 1987												
15...	1200	E370	--	--	8.0	13.5	15	--	12.7	170	52	9.5
28...	1130	E180	--	--	7.9	12.0	14	--	8.6	210	62	13
MAY												
20...	1030	E68	--	575	7.6	14.5	7.8	--	7.9	220	67	14
JUN												
22...	1315	E74	--	--	7.7	21.0	12	--	--	--	--	--
JUL												
22...	1515	E180	--	--	7.7	28.5	66	--	6.9	140	45	7.6
SEP												
30...	1100	E100	--	556	7.7	22.0	20	--	--	--	--	--
NOV												
19...	1130	E190	--	--	7.8	6.0	24	--	13.2	230	68	14
DEC												
08...	1130	E190	--	--	8.0	1.5	7.4	--	12.0	--	--	--
MAR 1988												
22...	1000	E140	--	488	8.2	2.0	8.8	--	--	210	61	13
APR												
06...	1230	520	--	364	7.4	13.0	46	--	--	--	--	--
18...	1230	E160	--	471	--	--	7.3	--	--	220	64	14
MAY												
03...	1145	283	--	405	8.0	11.0	12	--	10.0	--	--	--
16...	1200	145	--	507	8.2	19.0	15	--	8.4	220	65	15
JUN												
30...	0945	E24	685	683	7.4	17.0	3.5	--	6.0	260	73	19
SEP												
07...	1145	E34	--	595	7.4	17.0	16	--	--	210	61	15
OCT												
03...	1300	20	--	580	7.2	15.0	12	763	5.6	220	63	16

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04217122 TONOWANDA CREEK NEAR EAST PEMBROKE, NY - continued

WATER-QUALITY DATA (continued)

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
APR 1987												
15...	--	--	--	--	--	--	204	--	255	6	234	0.930
28...	--	--	--	--	--	--	286	--	310	70	240	1.04
MAY												
20...	--	--	--	--	--	--	328	--	338	96	248	0.860
JUN												
22...	--	--	--	--	--	--	312	--	334	70	288	1.03
JUL												
22...	--	--	--	--	--	--	228	--	296	96	184	--
SEP												
30...	--	--	--	--	--	--	308	--	358	64	320	0.940
NOV												
19...	--	--	--	--	--	--	288	--	351	80	260	0.830
DEC												
08...	--	--	--	--	--	--	296	--	301	88	240	1.08
MAR 1988												
22...	20	1.9	168	32	31	0.20	274	260	302	48	254	--
APR												
06...	--	--	135	28	18	0.10	216	--	300	52	248	0.750
18...	17	1.9	176	28	27	0.20	316	258	320	64	256	1.06
MAY												
03...	--	--	155	--	--	--	252	--	272	48	224	0.720
16...	18	2.3	190	28	28	0.30	320	271	352	120	232	0.830
JUN												
30...	37	4.0	218	40	59	0.30	409	364	455	111	344	0.860
SEP												
07...	31	3.9	169	50	51	0.20	360	315	416	96	320	1.55
OCT												
03...	34	4.6	166	51	47	0.40	324	316	368	88	280	1.94

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
APR 1987											
15...	0.010	0.940	0.080	0.10	0.19	0.27	1.2	5.4	0.070	0.010	0.03
28...	0.060	1.10	0.310	0.40	0.69	1.0	2.1	9.3	0.130	0.010	0.03
MAY											
20...	0.110	0.970	0.380	0.49	0.03	0.41	1.4	6.1	0.170	0.090	0.28
JUN											
22...	0.500	1.53	0.280	0.36	0.34	0.62	2.2	9.5	0.310	0.150	0.46
JUL											
22...	--	0.770	0.180	0.23	0.25	0.43	1.2	5.3	0.210	0.060	0.18
SEP											
30...	0.080	1.02	0.270	0.35	0.60	0.87	1.9	8.4	0.280	0.130	0.40
NOV											
19...	0.030	0.860	0.300	0.39	0.21	0.51	1.4	6.1	0.240	0.060	0.18
DEC											
08...	0.010	1.09	0.220	0.28	0.40	0.62	1.7	7.6	0.120	0.00	0.0
MAR 1988											
22...	--	1.27	0.190	0.24	0.24	0.43	1.7	7.5	0.160	0.090	0.28
APR											
06...	0.00	0.750	0.230	0.30	0.47	0.70	1.5	6.4	0.080	0.00	0.0
18...	0.030	1.09	0.230	0.30	0.44	0.67	1.8	7.8	0.210	0.120	0.37
MAY											
03...	0.020	0.740	0.080	0.10	0.30	0.38	1.1	5.0	0.110	0.00	0.0
16...	0.050	0.880	0.100	0.13	0.39	0.49	1.4	6.1	0.180	0.00	0.0
JUN											
30...	0.490	1.35	0.130	0.17	0.82	0.95	2.3	10	0.400	0.190	0.58
SEP											
07...	0.260	1.81	0.520	0.67	0.78	1.3	3.1	14	0.630	0.360	1.1
OCT											
03...	0.200	2.14	0.430	0.55	0.77	1.2	3.3	15	0.390	0.280	0.86

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04217122 TONOWANDA CREEK NEAR EAST PEMBROKE, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
15...	--	--	<10	--	<10	--	890	--	<100	--	60
28...	--	--	<10	--	10	--	940	--	14	--	100
MAY											
20...	--	--	<10	1.0	10	3	640	--	35	<5	150
JUN											
22...	--	--	<10	--	<10	--	780	--	--	--	100
JUL											
22...	--	--	<10	--	30	--	2900	--	<5	--	110
SEP											
30...	--	--	<10	<1.0	10	2	1200	--	<100	<5	120
NOV											
19...	--	--	<1	--	11	--	1800	--	<5	--	100
DEC											
08...	--	--	<1	--	8	--	510	--	<5	--	70
MAR 1988											
22...	200	<10	<1	<1.0	3	<1	540	10	<5	<5	80
APR											
06...	4000	--	<1	--	12	--	6200	--	<5	--	150
18...	220	10	--	<1.0	--	--	580	15	--	--	70
MAY											
03...	350	--	2	--	51	--	890	--	6	--	80
16...	410	20	7	<1.0	7	1	880	20	<5	<5	130
JUN											
30...	210	--	<1	--	3	--	660	--	<5	--	260
SEP											
07...	430	--	<1	--	5	--	1000	--	<5	--	140
OCT											
03...	330	<10	<1	<1.0	4	<1	770	14	<5	<5	110

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
15...	--	<0.10	<100	--	<10	--	ND	ND	ND	ND	ND
28...	--	0.10	5	--	10	--	ND	ND	ND	ND	ND
MAY											
20...	--	<0.10	<1	1	<10	20	ND	ND	ND	ND	ND
JUN											
22...	--	<0.10	--	--	10	--	ND	ND	ND	ND	ND
JUL											
22...	--	<0.10	<1	--	20	--	ND	ND	ND	ND	ND
SEP											
30...	--	<0.10	<100	<1	<10	<10	ND	ND	ND	ND	ND
NOV											
19...	--	--	1	--	20	--	ND	ND	ND	ND	ND
DEC											
08...	--	<0.10	1	--	20	--	ND	ND	ND	ND	ND
MAR 1988											
22...	73	<0.10	1	3	10	<3	ND	ND	ND	ND	ND
APR											
06...	--	<0.10	12	--	30	--	ND	ND	ND	ND	ND
18...	57	<0.10	--	--	<10	<3	ND	ND	ND	ND	ND
MAY											
03...	--	<0.10	8	--	10	--	0	0	0.0	0	0
16...	81	<0.10	7	1	<10	4	ND	ND	ND	ND	ND
JUN											
30...	--	0.40	6	--	10	--	ND	ND	ND	ND	ND
SEP											
07...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
OCT											
03...	83	<0.10	4	2	20	5	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04217122 TONOWANDA CREEK NEAR EAST PEMBROKE, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
22...	0.2	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
03...	0	0	0	0	0	0	0	0	0	0	0
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
03...	0	0.00	0	0	0	0	0.0	0	0	0	0
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04217122 TONOWANDA CREEK NEAR EAST PEMBROKE, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
APR 1987				
15...	1200	E370	29	--
28...	1130	E180	24	--
DEC				
08...	1130	E190	11	--
MAY 1988				
16...	1200	145	30	12
SEP				
07...	1145	E34	22	--
OCT				
03...	1300	20	16	0.86

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
JUL 1987												
22...	1515	25100	--	<1	160	5	3600	30	160	<0.10	<10	40
JUN 1988												
30...	0945	53400	5900	<10	--	20	10000	10	330	<0.10	20	70

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
JUL 1987											
22...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
30...	ND	ND	7.0	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 1987											
22...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987											
22...	--	--	--	--	--	--	--	0	3	8	98
JUN 1988											
30...	ND	ND	ND	1.0	ND	ND	ND	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04218054 TONOWANDA CREEK AT PENDLETON, NY

LOCATION.-- Lat 43 05'10", long 78 43'40", Erie County, Hydrologic Unit 042120104, at bridge on New Road at Pendleton and 0.3 mi upstream from the Erie Canal.

DRAINAGE AREA.--396 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987-88 (c), 1989 (a).
MINOR ELEMENT DATA: 1987-88 (c), 1989 (a).
PESTICIDE DATA: 1987-88 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987-88 (c), 1989 (a).
SEDIMENT DATA: 1987 (b), 1988-89 (a).

REMARKS.--Water-discharge data based on records from stream-flow gage 04218000 Tonowanda Creek at Rapids.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
APR 1987												
15...	0900	E1000	--	--	8.0	12.5	22	--	12.2	200	62	11
28...	0900	E320	--	--	8.1	13.0	6.6	--	9.2	310	92	19
MAY												
20...	0845	E150	--	--	8.0	15.5	20	--	--	350	110	19
JUN												
22...	1115	E60	--	--	8.0	21.0	23	--	--	300	93	16
JUL												
22...	1030	E620	--	--	8.1	27.5	22	--	7.1	260	82	13
SEP												
30...	0900	E150	--	588	8.0	22.0	30	--	6.4	--	--	--
NOV												
19...	0900	E290	--	--	8.0	5.0	30	--	14.9	270	83	16
DEC												
08...	0930	E500	--	--	8.1	1.5	11	--	13.0	--	--	--
MAR 1988												
22...	1200	E320	--	608	8.3	1.0	7.8	--	--	270	80	16
APR												
06...	1345	E2000	--	355	7.7	13.0	120	--	--	--	--	--
18...	1330	E310	--	637	8.3	8.0	6.0	--	--	280	85	16
MAY												
03...	1245	E640	--	435	8.1	11.0	17	--	--	--	--	--
17...	1215	E310	--	694	7.9	16.0	21	--	7.4	310	95	18
JUN												
29...	1030	E43	958	949	7.4	20.5	14	--	8.0	390	120	23
SEP												
07...	1300	E47	--	569	7.9	19.0	19	--	--	230	70	14
OCT												
03...	1115	E36	--	705	7.7	15.0	22	763	5.8	300	91	17

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04218054 TONOWANDA CREEK AT PENDLETON, NY - continued

WATER-QUALITY DATA (continued)

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
APR 1987												
15...	--	--	--	--	--	--	256	--	316	44	276	0.960
28...	--	--	--	--	--	--	394	--	430	116	342	4.10
MAY												
20...	--	--	--	--	--	--	540	--	568	164	404	1.13
JUN												
22...	--	--	--	--	--	--	480	--	538	134	404	0.670
JUL												
22...	--	--	--	--	--	--	372	--	397	128	288	--
SEP												
30...	--	--	--	--	--	--	352	--	405	84	336	0.930
NOV												
19...	--	--	--	--	--	--	404	--	451	72	340	0.610
DEC												
08...	--	--	--	--	--	--	348	--	360	136	284	--
MAR 1988												
22...	23	2.0	174	83	38	0.20	370	347	390	82	308	--
APR												
06...	--	--	118	39	18	0.20	248	--	416	92	324	0.600
18...	20	1.8	194	88	36	0.20	416	363	460	64	396	0.830
MAY												
03...	--	--	145	--	--	--	276	--	312	72	240	0.510
17...	24	2.4	197	110	38	0.30	492	406	528	172	356	0.960
JUN												
29...	38	3.0	193	220	62	0.40	673	582	784	223	561	--
SEP												
07...	20	2.8	145	99	32	0.20	404	325	420	104	316	0.820
OCT												
03...	30	3.4	176	120	46	0.30	432	414	484	112	372	0.890

DATE	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)
APR 1987											
15...	0.010	0.970	0.030	0.04	0.36	0.39	1.4	6.0	0.080	0.020	0.06
28...	0.170	4.27	3.70	4.8	4.8	8.5	13	57	0.080	0.010	0.03
MAY											
20...	0.020	1.15	0.060	0.08	0.18	0.24	1.4	6.2	0.120	0.040	0.12
JUN											
22...	0.010	0.680	0.050	0.06	0.27	0.32	1.0	4.4	0.130	0.020	0.06
JUL											
22...	--	0.690	0.050	0.06	0.24	0.29	0.98	4.3	0.100	0.070	0.21
SEP											
30...	0.010	0.940	0.050	0.06	0.49	0.54	1.5	6.6	0.160	0.00	0.0
NOV											
19...	0.010	0.620	0.030	0.04	0.24	0.27	0.89	3.9	0.140	0.040	0.12
DEC											
08...	--	--	--	--	--	--	--	--	--	--	--
MAR 1988											
22...	--	1.08	0.040	0.05	0.27	0.31	1.4	6.2	0.060	0.030	0.09
APR											
06...	0.00	0.600	1.20	1.5	1.5	2.7	3.3	15	0.140	0.00	0.0
18...	0.010	0.840	0.010	0.01	0.36	0.37	1.2	5.4	0.040	0.00	0.0
MAY											
03...	0.010	0.520	0.030	0.04	0.31	0.34	0.86	3.8	0.080	0.00	0.0
17...	0.030	0.990	0.070	0.09	0.47	0.54	1.5	6.8	0.120	0.020	0.06
JUN											
29...	ND	ND	0.050	0.06	0.34	0.39	--	--	0.130	0.00	0.0
SEP											
07...	0.020	0.840	0.030	0.04	0.33	0.36	1.2	5.3	0.110	0.030	0.09
OCT											
03...	0.010	0.900	0.040	0.05	0.47	0.51	1.4	6.2	0.160	0.090	0.28

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04218054 TONOWANDA CREEK AT PENDLETON, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
15...	--	--	<10	--	<10	--	1100	--	<100	--	50
28...	--	--	<10	--	10	--	450	--	5	--	50
MAY											
20...	--	--	<10	1.0	10	3	950	--	<5	<5	90
JUN											
22...	--	--	<10	--	<10	--	630	--	<5	--	90
JUL											
22...	--	--	<10	--	30	--	1000	--	<5	--	60
SEP											
30...	--	--	<10	<1.0	10	2	1300	--	<100	<5	90
NOV											
19...	--	--	<1	--	6	--	1500	--	<5	--	50
DEC											
08...	--	--	<1	--	5	--	630	--	5	--	40
MAR 1988											
22...	230	<10	<1	<1.0	2	2	460	19	<5	<5	50
APR											
06...	1300	--	<1	--	7	--	2500	--	<5	--	100
18...	100	10	1	<1.0	11	3	420	17	<5	<5	60
MAY											
03...	410	--	2	--	9	--	840	--	<5	--	50
17...	510	<10	4	<1.0	10	2	9000	13	<5	<5	110
JUN											
29...	810	--	<1	--	7	--	1400	--	11	--	230
SEP											
07...	460	--	<1	--	5	--	830	--	<5	--	60
OCT											
03...	610	<10	1	<1.0	8	1	980	12	<5	<5	90

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
15...	--	<0.10	<100	--	10	--	ND	ND	ND	ND	ND
28...	--	0.10	2	--	<10	--	ND	ND	ND	ND	ND
MAY											
20...	--	<0.10	<1	2	10	10	ND	ND	ND	ND	ND
JUN											
22...	--	<0.10	<1	--	20	--	ND	ND	ND	ND	ND
JUL											
22...	--	<0.10	<1	--	30	--	ND	ND	ND	ND	ND
SEP											
30...	90	<0.10	<100	<1	20	<10	ND	ND	ND	ND	ND
NOV											
19...	--	--	7	--	10	--	ND	ND	ND	ND	ND
DEC											
08...	--	<0.10	2	--	10	--	ND	ND	ND	ND	ND
MAR 1988											
22...	50	<0.10	3	5	<10	<3	ND	ND	ND	ND	ND
APR											
06...	--	<0.10	7	--	10	--	ND	ND	ND	ND	ND
18...	40	<0.10	5	2	<10	<3	ND	ND	ND	ND	ND
MAY											
03...	--	<0.10	6	--	<10	--	0	0	0.0	0	0
17...	61	<0.10	4	<1	<10	5	ND	ND	ND	ND	ND
JUN											
29...	--	<0.10	9	--	30	--	ND	ND	ND	ND	ND
SEP											
07...	--	<0.10	3	--	10	--	ND	ND	ND	ND	ND
OCT											
03...	36	<0.10	4	<1	40	11	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04218054 TONOWANDA CREEK AT PENDLETON, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
22...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
03...	0	0	0	0	0	0	0	0	0	0	0
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
07...	0.4	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
03...	0	0.00	0	0	0	0	0.0	0	0	0	0
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04218054 TONOWANDA CREEK AT PENDLETON, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)
APR 1987			
15...	0900	E1000	38
28...	0900	E320	10
JUL			
22...	1030	E620	25
MAY 1988			
17...	1215	E310	30
SEP			
07...	1300	E47	25
OCT			
03...	1115	E36	25

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
JUL 1987												
22...	1030	35400	--	<1	120	8	6800	10	220	<0.10	<10	40
JUN 1988												
29...	1030	23000	2800	<10	--	10	5900	10	250	<0.10	10	30

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
JUL 1987											
22...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
29...	ND	ND	3.0	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 1987											
22...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987											
22...	--	--	--	--	--	--	--	2	23	68	9
JUN 1988											
29...	ND	ND	ND	ND	ND	ND	ND	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NAIGARA RIVER BASIN

04218090 RANSOM CREEK NEAR CLARANCE CENTER, NY

LOCATION.--Lat 43 01'11", long79 39'47", Erie County, Hydrologic Unit 04120104, at bridge on Connor Road, 1.4 mi northwest of Clarence Center.

DRAINAGE AREA.--15.6 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987-88 (c), 1989 (a).
MINOR ELEMENT DATA: 1987-88 (c), 1989 (a).
PESTICIDE DATA: 1987-88 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987-88 (c), 1989 (a).
SEDIMENT DATA: 1987-88 (b), 1989 (a).

WATER-QUALITY DATA

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR 1987												
15...	1030	--	--	8.2	12.5	2.7	--	15.4	230	72	13	--
28...	1020	--	--	7.9	8.5	10	--	9.2	260	78	16	--
MAY												
20...	1310	--	--	7.8	15.5	2.6	--	--	420	130	24	--
JUN												
22...	1220	--	--	7.9	18.0	23	--	--	480	150	26	--
JUL												
22...	1130	--	--	7.7	26.0	14	--	5.3	310	97	16	--
SEP												
30...	1000	--	1000	7.7	22.0	7.5	--	--	--	--	--	--
NOV												
19...	1030	--	--	7.8	4.0	10	--	14.7	300	87	20	--
DEC												
08...	1015	--	--	8.2	4.0	3.6	--	11.6	--	--	--	--
MAR 1988												
22...	1115	--	829	8.6	1.0	2.5	--	15.0	320	94	20	44
APR												
04...	1130	--	402	7.6	10.0	64	--	--	--	--	--	--
19...	1200	--	775	8.3	5.5	2.0	--	--	330	99	21	33
MAY												
05...	1230	--	923	7.8	13.0	2.6	--	7.6	--	--	--	--
17...	1145	--	542	7.5	14.0	17	--	6.8	190	56	13	33
JUN												
29...	0930	1040	1040	7.2	14.5	8.0	--	4.2	420	130	24	57
SEP												
09...	1145	--	1450	7.6	15.0	--	--	--	700	220	36	59
OCT												
05...	0915	--	920	7.5	10.5	5.4	764	3.8	390	120	21	40
NOV												
16...	0850	--	963	7.8	7.0	2.6	759	9.4	380	110	25	48

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NAIGARA RIVER BASIN

04218090 RANSOM CREEK NEAR CLARANCE CENTER, NY - continued

WATER-QUALITY DATA (continued)

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)
APR 1987											
15...	--	--	--	--	--	296	--	365	50	314	1.45
28...	--	--	--	--	--	426	--	447	74	384	0.870
MAY											
20...	--	--	--	--	--	764	--	844	216	628	0.530
JUN											
22...	--	--	--	--	--	776	--	842	222	662	0.610
JUL											
22...	--	--	--	--	--	632	--	664	168	516	--
SEP											
30...	--	--	--	--	--	696	--	760	136	624	0.480
NOV											
19...	--	--	--	--	--	496	--	538	140	404	1.63
DEC											
08...	--	--	--	--	--	496	--	568	152	416	3.41
MAR 1988											
22...	2.3	192	110	75	0.20	530	461	572	110	462	--
APR											
04...	--	117	42	34	0.20	284	--	368	84	284	1.03
19...	2.0	196	120	61	0.30	512	454	516	36	480	1.21
MAY											
05...	--	236	--	--	--	676	--	740	188	552	0.750
17...	2.4	130	56	54	0.30	380	293	400	144	256	0.420
JUN											
29...	4.1	196	220	98	0.30	677	652	789	228	561	0.080
SEP											
09...	4.1	248	480	89	0.30	1090	1040	1100	196	904	0.270
OCT											
05...	7.0	150	230	58	0.30	608	568	365	92	544	0.120
NOV											
16...	3.6	186	190	84	0.30	568	573	648	140	508	3.62

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
APR 1987											
15...	0.010	1.46	0.020	0.03	0.29	0.31	1.8	7.8	0.050	0.010	0.03
28...	0.020	0.890	0.050	0.06	0.29	0.34	1.2	5.4	0.080	0.010	0.03
MAY											
20...	0.120	0.650	0.200	0.26	0.18	0.38	1.0	4.6	0.200	0.160	0.49
JUN											
22...	0.010	0.620	0.040	0.05	0.47	0.51	1.1	5.0	0.500	0.320	0.98
JUL											
22...	--	0.870	0.080	0.10	0.27	0.35	1.2	5.4	0.370	0.330	1.0
SEP											
30...	0.100	0.580	0.030	0.04	0.77	0.80	1.4	6.1	0.380	0.170	0.52
NOV											
19...	0.020	1.65	0.030	0.04	0.40	0.43	2.1	9.2	0.220	0.140	0.43
DEC											
08...	0.010	3.42	0.020	0.03	0.16	0.18	3.6	16	0.060	0.020	0.06
MAR 1988											
22...	--	1.65	0.010	0.01	0.33	0.34	2.0	8.8	0.040	0.010	0.03
APR											
04...	0.00	1.03	0.230	0.30	0.87	1.1	2.1	9.4	0.280	0.130	0.40
19...	0.010	1.22	0.00	0.0	0.23	0.23	1.5	6.4	0.030	0.00	0.0
MAY											
05...	0.020	0.770	0.050	0.06	0.32	0.37	1.1	5.0	0.060	0.020	0.06
17...	0.020	0.440	0.070	0.09	0.63	0.70	1.1	5.0	0.180	0.070	0.21
JUN											
29...	0.020	0.100	0.020	0.03	0.28	0.30	0.40	1.8	0.410	0.230	0.71
SEP											
09...	0.00	0.270	0.020	0.03	0.39	0.41	0.68	3.0	0.140	ND	--
OCT											
05...	0.010	0.130	0.020	0.03	0.79	0.81	0.94	4.2	0.620	0.310	0.95
NOV											
16...	0.040	3.66	0.050	0.06	0.29	0.34	4.0	18	0.120	0.100	0.31

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NAIGARA RIVER BASIN

04218090 RANSOM CREEK NEAR CLARANCE CENTER, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
15...	--	--	<10	--	<10	--	190	--	<100	--	30
28...	--	--	<10	--	<10	--	450	--	7	--	70
MAY											
20...	--	--	<10	1.0	10	1	200	--	<5	<5	100
JUN											
22...	--	--	<10	--	<10	--	950	--	<5	--	170
JUL											
22...	--	--	<10	--	20	--	840	--	<5	--	90
SEP											
30...	--	--	<10	--	10	--	510	--	<100	--	130
NOV											
19...	--	--	<1	--	5	--	540	--	<5	--	30
DEC											
08...	--	--	<1	--	5	--	250	--	<5	--	30
MAR 1988											
22...	<10	40	<1	<1.0	3	2	--	120	<5	<5	20
APR											
04...	2900	--	<1	--	31	--	3100	--	<5	--	70
19...	40	10	1	<1.0	3	2	140	17	<5	<5	30
MAY											
05...	60	--	<1	--	6	--	150	--	<5	--	100
17...	450	20	<1	<1.0	3	4	820	180	<5	<5	80
JUN											
29...	430	--	<1	--	5	--	560	--	<5	--	180
SEP											
09...	100	--	<1	--	4	--	210	--	<5	--	70
OCT											
05...	120	10	<1	<1.0	6	1	540	140	<5	<5	360
NOV											
16...	50	--	1	--	4	--	160	--	<5	--	20

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
15...	--	<0.10	<100	--	10	--	ND	ND	ND	ND	ND
28...	--	0.10	9	--	20	--	ND	ND	ND	ND	ND
MAY											
20...	--	<0.10	<1	1	<10	10	ND	ND	ND	ND	ND
JUN											
22...	--	<0.10	<1	--	20	--	ND	ND	ND	ND	ND
JUL											
22...	--	<0.10	<1	--	20	--	ND	ND	ND	ND	ND
SEP											
30...	130	<0.10	<100	--	20	--	ND	ND	ND	ND	ND
NOV											
19...	--	--	<1	--	10	--	ND	ND	ND	ND	ND
DEC											
08...	--	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
MAR 1988											
22...	27	<0.10	4	3	<10	7	ND	ND	ND	ND	ND
APR											
04...	--	<0.10	1	--	40	--	ND	ND	ND	ND	ND
19...	24	<0.10	5	1	<10	4	ND	ND	ND	ND	ND
MAY											
05...	--	--	8	--	<10	--	0	0	0.0	0	0
17...	57	<0.10	1	1	<10	12	ND	ND	ND	ND	ND
JUN											
29...	--	0.70	1	--	20	--	ND	ND	ND	ND	ND
SEP											
09...	--	<0.10	5	--	<10	--	ND	ND	ND	ND	ND
OCT											
05...	360	<0.10	3	2	10	18	ND	ND	ND	ND	ND
NOV											
16...	--	<0.10	1	--	10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NAIGARA RIVER BASIN

04218090 RANSOM CREEK NEAR CLARANCE CENTER, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
22...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND
APR											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
05...	0	0	0	0	0	0	0	0	0	0	0
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
30...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
05...	0	0.00	0	0	0	0	0.0	0	0	0	0
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NAIGARA RIVER BASIN

04218090 RANSOM CREEK NEAR CLARANCE CENTER, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
APR 1987		
15...	1030	9
28...	1020	11
JUN		
22...	1220	49
DEC		
08...	1015	10
MAY 1988		
17...	1145	24
JUN		
29...	0930	17
SEP		
09...	1145	4
OCT		
05...	0915	7
NOV		
16...	0850	1

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
JUL 1987												
22...	1130	32400	--	<1	70	5	3800	10	150	<0.10	<10	40
JUN 1988												
29...	0930	29800	3300	<10	--	10	6400	<100	160	<0.10	<100	40

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
JUL 1987											
22...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
JUL 1987											
22...	--	--	--	--	--	--	--	--	--	--	--
JUN 1988											
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
JUL 1987											
22...	--	--	--	--	--	--	--	1	13	30	98
JUN 1988											
29...	ND	ND	3.0	ND	ND	ND	ND	--	--	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY

LOCATION.--Lat 43 16'10", long 79 03'52", Niagara County, Hydrologic Unit 04120104, water samples collected about 2 mi upstream from Coast Guard wharf, at Fort Niagara and 1.5 mi south oif Youngstown

DRAINAGE AREA.--265,000 mi2.

PERIOD OF RECORD.--Water years 1971 to current year.
CHEMICAL DATA: 1971 (a), 1973-74 (b), 1975-82 (c), 1983-86 (b), 1987 (c), 1988 (d), 1989 (a).
MINOR ELEMENT DATA: 1971 (a), 1972-86 (b), 1987 (c), 1988 (d), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: OC--1973 (a), 1974-75 (b), 1978-80 (c), 1981 (b), 1988 (b), 1989 (a).
NUTRIENT DATA: 1971 (a), 1973-74 (b), 1975-82 (c), 1983-86 (b), 1987 (c), 1988 (d), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1973 (b), 1974 (d), 1975-82 (c), 1983-88 (b).
Phytoplankton--1973 (b), 1974 (d), 1975-77 (c), 1978-81 (c).
Periphyton--1974 (a), 1975-80 (b).
SEDIMENT DATA: 1975-77 (c), 1978 (b), 1979-82 (c), 1983-86 (b), 1987-88 (b), 1989 (a).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1973 to June 1980.
WATER TEMPERATURE: September 1973 to June 1980.

REMARKS.--Published in 1971 as "at Youngstown". Discharge is the daily mean reported by The Corps of Engineers Detroit for the Niagara River at Queenstown.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR 1987												
14...	0845	246000	--	--	8.0	7.5	4.0	--	16.4	--	120	35
27...	0905	248000	--	--	8.2	6.5	4.1	--	12.2	--	130	39
MAY												
19...	0915	234000	--	296	7.8	12.0	2.3	--	--	--	120	36
JUN												
25...	0930	236000	--	--	8.1	19.0	1.7	756	--	--	120	35
JUL												
28...	1100	240000	--	--	8.4	23.0	4.0	--	--	--	120	35
SEP												
28...	0940	227000	--	289	8.1	22.0	--	--	--	--	--	--
NOV												
05...	0825	212000	--	534	8.2	11.5	6.6	765	11.0	--	130	39
DEC												
07...	0830	212000	--	--	8.2	5.0	15	--	11.4	--	--	--
MAR 1988												
21...	0945	218000	--	290	8.4	0.0	7.5	--	--	--	120	36
APR												
06...	0935	223000	--	273	--	2.0	4.3	--	--	--	--	--
18...	0920	217000	--	259	--	1.0	3.8	--	--	--	110	33
MAY												
03...	0845	225000	--	287	8.1	7.5	2.2	760	13.3	--	--	--
03...	0900	225000	278	291	8.1	7.0	0.80	760	13.4	111	130	36
16...	0910	227000	--	293	8.1	12.0	1.5	--	12.9	--	120	36
JUN												
29...	1230	209000	291	291	8.0	19.0	1.6	--	9.2	--	120	35
SEP												
07...	0900	208000	--	282	8.3	20.0	1.5	--	--	--	120	35
OCT												
03...	0938	197000	--	288	8.1	18.0	2.0	763	9.0	--	130	36
NOV												
14...	0930	213000	--	292	8.3	8.0	12	763	11.4	--	130	36

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY - continued

WATER-QUALITY DATA (continued)

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
APR 1987												
14...	7.8	--	--	--	--	--	--	160	--	184	62	134
27...	8.4	--	--	--	--	--	--	146	--	166	38	142
MAY												
19...	7.5	--	--	--	--	--	--	184	--	168	60	132
JUN												
25...	8.3	--	--	--	--	--	--	184	--	170	40	152
JUL												
28...	7.9	--	--	--	--	--	--	152	--	172	140	84
SEP												
28...	--	--	--	--	--	--	--	--	--	169	--	--
NOV												
05...	8.6	--	--	--	--	--	--	160	--	165	54	128
DEC												
07...	--	--	--	--	--	--	--	168	--	176	232	184
MAR 1988												
21...	8.4	9.0	1.3	102	26	15	0.20	168	157	198	48	150
APR												
06...	--	--	--	94	27	14	0.10	172	--	220	52	168
18...	7.5	8.4	1.2	87	24	15	0.20	172	141	188	20	168
MAY												
03...	--	--	--	97	--	--	--	168	--	204	52	152
03...	8.5	9.5	1.3	95	27	16	0.10	159	164	--	--	--
16...	8.5	9.9	1.3	95	26	15	0.30	188	154	200	100	100
JUN												
29...	8.3	9.1	1.3	97	26	14	0.30	179	152	191	69	122
SEP												
07...	8.8	9.8	1.3	95	26	14	0.10	180	152	188	64	124
OCT												
03...	8.7	9.0	1.4	96	30	14	0.10	180	157	204	88	116
NOV												
14...	8.8	8.7	1.4	97	27	14	0.10	168	154	176	60	116

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
APR 1987												
14...	--	ND	0.280	0.010	0.01	--	0.23	0.24	0.52	2.3	0.020	ND
27...	--	ND	0.270	0.020	0.03	--	0.21	0.23	0.50	2.2	0.050	ND
MAY												
19...	0.160	0.00	0.160	0.040	0.05	--	0.16	0.20	0.36	1.6	0.010	0.00
JUN												
25...	0.150	0.00	0.150	0.020	0.03	0.03	0.13	0.15	0.30	1.3	0.010	ND
JUL												
28...	--	ND	0.110	0.020	0.03	--	0.10	0.12	0.23	1.0	0.010	0.00
SEP												
28...	--	ND	0.090	0.020	0.03	--	0.36	0.38	0.47	2.1	0.020	0.00
NOV												
05...	--	ND	0.160	0.130	0.17	--	0.28	0.41	0.57	2.5	--	0.010
DEC												
07...	--	ND	0.210	0.030	0.04	--	0.24	0.27	0.48	2.1	0.070	0.00
MAR 1988												
21...	--	--	0.230	0.060	0.08	--	0.41	0.47	0.70	3.1	0.050	0.00
APR												
06...	0.130	0.00	0.130	0.100	0.13	--	0.36	0.46	0.59	2.6	0.010	ND
18...	--	ND	0.240	0.010	0.01	--	0.19	0.20	0.44	1.9	0.020	ND
MAY												
03...	--	ND	1.78	0.010	0.01	--	0.21	0.22	2.0	8.9	0.020	0.00
03...	--	--	--	0.020	0.03	0.04	--	<0.20	--	--	0.010	0.010
16...	--	ND	0.270	0.030	0.04	--	0.21	0.24	0.51	2.3	0.010	ND
JUN												
29...	0.230	0.010	0.240	0.010	0.01	--	0.13	0.14	0.38	1.7	0.020	ND
SEP												
07...	0.130	0.00	0.130	0.010	0.01	--	0.25	0.26	0.39	1.7	0.010	0.010
OCT												
03...	--	ND	0.130	0.020	0.03	--	0.23	0.25	0.38	1.7	0.010	ND
NOV												
14...	--	ND	0.180	0.030	0.04	--	0.24	0.27	0.45	2.0	0.040	0.010

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)
APR 1987												
14...	--	--	--	<10	--	--	<10	--	3100	--	<100	--
27...	--	--	--	<10	--	--	<10	--	11000	--	<5	<5
MAY												
19...	0.0	--	--	10	--	--	<10	--	750	--	<100	--
JUN												
25...	--	--	--	<10	--	--	<10	--	110	--	<100	--
JUL												
28...	0.0	--	--	<10	1.0	--	<10	6	130	--	5	<5
SEP												
28...	0.0	--	--	<10	--	--	10	--	2100	--	<100	--
NOV												
05...	0.03	--	--	<1	--	--	5	--	490	--	<5	--
DEC												
07...	0.0	--	--	<1	1.0	--	7	4	2200	--	<5	<5
MAR 1988												
21...	0.0	540	<10	<1	<1.0	--	11	1	20000	25	<5	<5
APR												
06...	--	260	--	<1	--	--	8	--	720	--	<5	--
18...	--	150	<10	1	<1.0	--	5	1	880	8	<5	<5
MAY												
03...	0.0	60	--	<1	--	--	8	--	540	--	<5	--
03...	0.03	--	<10	--	<1.0	<1	--	4	--	<3	--	<5
16...	--	40	<10	5	<1.0	--	14	2	160	<3	<5	<5
JUN												
29...	--	50	--	<1	--	--	11	--	100	--	8	--
SEP												
07...	0.03	50	--	<1	--	--	6	--	140	--	<5	--
OCT												
03...	--	230	<10	<1	<1.0	--	4	1	420	9	<5	<5
NOV												
14...	0.03	460	--	<1	--	--	8	--	950	--	<5	--

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)
APR 1987												
14...	20	--	<0.10	<100	--	--	<10	--	--	ND	ND	ND
27...	40	--	0.10	1	--	--	<10	--	--	ND	ND	ND
MAY												
19...	10	--	<0.10	<100	--	--	10	--	--	ND	ND	ND
JUN												
25...	<10	--	<0.10	<100	--	--	60	--	--	--	--	--
JUL												
28...	20	--	<0.10	2	2	--	<10	<10	--	ND	ND	ND
SEP												
28...	20	--	<0.10	<100	--	--	10	--	--	ND	ND	ND
NOV												
05...	20	--	<0.10	<1	--	--	<10	--	--	ND	ND	ND
DEC												
07...	50	--	<0.10	2	<1	--	30	10	--	ND	ND	ND
MAR 1988												
21...	100	4	<0.10	3	3	--	10	<3	2.0	ND	ND	ND
APR												
06...	10	--	<0.10	5	--	--	<10	--	--	ND	ND	ND
18...	20	1	<0.10	3	1	--	<10	4	ND	ND	ND	ND
MAY												
03...	10	--	--	6	--	--	<10	--	ND	0	0	0.0
03...	--	2	--	--	<1	<1.0	--	3	--	--	--	--
16...	<10	2	<0.10	5	3	--	<10	<3	ND	ND	ND	ND
JUN												
29...	50	--	0.40	2	--	--	<10	--	--	ND	ND	ND
SEP												
07...	<10	--	<0.10	4	--	--	<10	--	1.0	ND	ND	ND
OCT												
03...	10	2	<0.10	6	2	--	<10	5	ND	ND	ND	ND
NOV												
14...	30	--	<0.10	5	--	--	<10	--	2.0	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)
APR 1987												
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988												
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR												
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
03...	0	0	0	0	0	0	0	0	0	0	0	0
03...	--	--	--	--	--	--	--	--	--	--	--	--
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987												
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 1988												
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR												
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
03...	0	0	0.00	0	0	0	0	0.0	0	0	0	0
03...	--	--	--	--	--	--	--	--	--	--	--	--
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

NIAGARA RIVER BASIN

04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR 1987				
14...	0845	246000	8	5310
27...	0905	248000	95	63600
MAY				
19...	0915	234000	14	8850
JUN				
25...	0930	236000	5	3190
JUL				
28...	1100	240000	4	2590
NOV				
05...	0825	212000	29	16600
DEC				
07...	0830	212000	63	36100
MAY 1988				
03...	0900	225000	4	2430
16...	0910	227000	4	2450
JUN				
29...	1230	209000	6	3390
SEP				
07...	0900	208000	8	4490
OCT				
03...	0938	197000	5	2660
NOV				
14...	0930	213000	30	17300

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04227510 GENESEE RIVER AT GENESEO, NY

LOCATION.--Lat 42 46'37", long 77 50'31", Livingston County, Hydrologic Unit 04130003, at bridge on U.S. Highway 20A, and State Highway 39, 1.0 mi west of intersection with State Highway 63 and 1.5 mi Southwest of Geneseo.

DRAINAGE AREA.--1,425 mi2.

PERIOD OF RECORD.--Water years 1972-74, 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (a).
MINOR ELEMENT DATA: 1972-74 (a), 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
NUTRIENT DATA: 1988 (b), 1989 (a).
SEDIMENT DATA: 1988-89 (a).

REMARKS.--Water-discharge data are based on records from station 04227500 Genesee River near Mount Morris.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR 1988											
06...	1100	5420	196	8.2	13.0	9.3	77	23	4.8	7.1	1.6
MAY											
02...	1530	3110	204	8.0	11.5	9.8	80	23	5.4	7.8	1.4
JUN											
06...	0945	682	328	8.4	18.0	8.2	130	39	9.1	12	1.6
AUG											
02...	0945	230	381	8.4	26.5	7.2	150	43	11	16	2.1
OCT											
03...	0930	316	321	8.5	15.0	8.1	140	40	9.0	12	2.0

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
APR 1988												
06...	57	23	11	0.10	--	105	--	--	--	--	ND	0.740
MAY												
02...	60	23	12	0.10	--	109	--	--	--	0.600	0.00	0.600
JUN												
06...	107	31	17	0.10	207	174	224	90	134	0.730	0.010	0.740
AUG												
02...	118	35	25	0.10	--	203	--	--	--	0.390	0.010	0.400
OCT												
03...	105	27	18	0.10	--	171	--	--	--	0.380	0.00	0.380

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
APR 1988												
06...	0.570	0.73	0.73	1.3	2.0	9.0	0.650	0.00	0.0	11000	<1	24
MAY												
02...	0.050	0.06	0.12	0.17	0.77	3.4	0.170	0.00	0.0	2200	2	19
JUN												
06...	0.030	0.04	0.10	0.13	0.87	3.9	0.040	0.00	0.0	570	1	9
AUG												
02...	0.060	0.08	0.25	0.31	0.71	3.1	0.040	0.00	0.0	530	1	12
OCT												
03...	0.020	0.03	0.12	0.14	0.52	2.3	0.030	0.010	0.03	900	<1	6

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04227510 GENESEE RIVER AT GENESEO, NY - continued

WATER-QUALITY DATA (continued)

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
APR 1988											
06...	18000	60	350	<0.10	21	70	ND	ND	ND	ND	ND
MAY											
02...	5100	8	140	<0.10	9	20	0	0	0.0	0	0
JUN											
06...	1100	<5	70	<0.10	3	20	--	--	--	--	--
AUG											
02...	1000	<5	70	<0.10	3	20	ND	ND	ND	ND	ND
OCT											
03...	1000	<5	80	--	<1	50	ND	ND	ND	ND	ND

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1988											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
02...	0	0	0	0	0	0	0	0	0	0	0
JUN											
06...	--	--	--	--	--	--	--	--	--	--	--
AUG											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
02...	0	0.00	0	0	0	0	0.0	0	0	0	0
JUN											
06...	--	--	--	--	--	--	--	--	--	--	--
AUG											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
AUG 1988				
02...	0945	230	29	18
OCT				
03...	0930	316	21	18

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04232006 GENESEE RIVER AT CHARLOTTE DOCKS AT ROCHESTER NY

LOCATION.--Lat 43 13'26", long 77 36'59", Monroe County, Hydrologic Unit 04130003, at Charlotte Docks, at Rochester Cement Corp.,
in Rochester. 0.4 mi upstream from Rattlesnake Point, 1.6 mi upstream from Stutson Street Bridge, and 3.6 mi downstream from gaging station (04232000) at Rochester.

DRAINAGE AREA.--2,467 mi2 at station 04232000

PERIOD OF RECORD.--Water years 1971 to current year.
CHEMICAL DATA: 1971-72 (a), 1974 (b), 1975-82 (c), 1983-87 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1971-73 (a), 1974-87 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1988-89 (a).
ORGANIC DATA: OC--1974 (a), 1975 (b), 1977 (b), 1978-80 (c), 1981 (b).
NUTRIENT DATA: 1971 (a), 1974 (b), 1975-82 (c), 1983-87 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1974 (b), 1975-82 (c), 1983-88 (b), 1989 (a).
Phytoplankton--1974 (b), 1975-77 (c), 1978-81 (b).
Periphyton--1975-80 (b).
SEDIMENT DATA: 1974 (b), 1975-82 (c), 1983-88 (b), 1989 (a).

REMARKS.--Water discharge data are based on records from station 04232000 Genesee River at Rochester.

WATER-QUALITY DATA

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
APR 1988											
06...	1430	8460	403	8.1	15.0	9.9	150	44	10	22	2.5
MAY											
02...	1215	3680	440	8.2	11.0	10.6	150	45	10	26	2.0
JUN											
06...	1225	1490	643	8.4	21.0	8.5	220	67	14	40	2.4
AUG											
02...	1200	511	775	8.0	29.5	7.2	220	67	13	64	3.7
OCT											
03...	1200	879	855	7.9	16.5	7.0	240	71	15	73	3.4

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)
APR 1988											
06...	104	47	33	0.20	221	--	ND	1.07	0.360	0.46	0.41
MAY											
02...	101	50	42	0.20	236	0.560	0.010	0.570	0.180	0.23	0.41
JUN											
06...	137	87	68	0.20	361	0.490	0.040	0.530	0.070	0.09	0.21
AUG											
02...	112	110	110	0.30	435	0.670	0.050	0.720	0.220	0.28	0.44
OCT											
03...	125	100	130	0.20	468	0.500	0.060	0.560	0.250	0.32	0.15

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
APR 1988											
06...	0.77	1.8	8.1	0.510	0.00	0.0	9100	1	16	16000	6
MAY											
02...	0.59	1.2	5.1	0.140	0.00	0.0	2200	3	12	3800	<5
JUN											
06...	0.28	0.81	3.6	0.060	0.00	0.0	580	2	8	1500	<5
AUG											
02...	0.66	1.4	6.1	0.070	0.010	0.03	200	2	9	370	7
OCT											
03...	0.40	0.96	4.2	0.070	0.00	0.0	880	1	30	1000	<5

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04232006 GENESEE RIVER AT CHARLOTTE DOCKS AT ROCHESTER NY - continued

WATER-QUALITY DATA (continued)

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)
APR 1988											
06...	370	<0.10	20	60	ND	ND	ND	ND	ND	ND	ND
MAY											
02...	90	<0.10	6	20	--	--	--	--	--	--	--
JUN											
06...	80	<0.10	6	20	--	--	--	--	--	--	--
AUG											
02...	120	<0.10	6	30	ND	ND	ND	ND	ND	0.5	ND
OCT											
03...	130	--	7	50	ND	ND	ND	ND	ND	0.2	ND

DATE	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)	1,2-DICHLOROBENZENE TOTAL (UG/L)
APR 1988										
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY										
02...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	0.2	ND	ND	2.8	0.2	ND	ND	0.1	ND	ND
OCT										
03...	ND	ND	ND	200	0.2	0.4	ND	ND	ND	ND

DATE	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
APR 1988										
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY										
02...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	ND	1.2	ND	ND	ND	ND	ND	0.1	ND	ND
OCT										
03...	ND	0.7	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04237410 SENECA RIVER AT JACK'S REEF NEAR MEMPHIS, NY

LOCATION.--Lat 43 05'55", long 76 25'24", Onondaga County, Hydrologic Unit 04140201, at bridge on Plainville Road, 200 ft from intersection with State Highway 31, 2.3 mi upstream from Cross Lake and 2.6 mi northwest of Memphis.

DRAINAGE AREA.--3,091 mi2.

PERIOD OF RECORD.--Water years 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (a).
MINOR ELEMENT DATA: 1988 (b), 1989 (a).
PESTICIDE DATA: 1988-89 (a).
NUTRIENT DATA: 1988 (b), 1989 (a).
BIOLOGICAL DATA: 1988 (b), 1989 (a).
SEDIMENT DATA: 1988 (a).

REMARKS.--Water-discharge data based on records for station 04237500 Seneca River at Baldwinsville.

WATER-QUALITY DATA

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)
APR 1988											
04...	1300	2440	--	697	7.9	9.0	7.7	--	12.6	--	460
MAY											
02...	0930	1170	--	780	8.0	10.0	4.7	--	11.5	--	170
JUN											
06...	1230	1130	--	717	8.2	13.0	14	758	6.9	--	290
AUG											
02...	1130	1090	--	758	8.1	28.0	8.5	753	8.2	--	4400
OCT											
05...	1000	886	310	826	--	17.5	4.7	764	7.1	74	65

DATE	FECAL COLIFORM 24-HR MEM.FIL (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR 1988											
04...	44.0	250	74	17	43	2.1	159	88	72	0.20	460
MAY											
02...	4.00	280	83	18	49	2.3	168	99	89	0.20	464
JUN											
06...	12.0	240	68	16	50	2.3	151	82	86	0.20	420
AUG											
02...	20.0	180	47	14	78	2.3	104	77	120	0.10	464
OCT											
05...	10.0	220	60	16	78	2.6	118	99	130	0.10	520

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
APR 1988											
04...	392	488	88	400	1.22	0.020	1.24	0.050	0.06	0.32	0.37
MAY											
02...	441	520	132	388	0.740	0.010	0.750	0.040	0.05	0.37	0.41
JUN											
06...	395	468	136	332	0.480	0.020	0.500	0.050	0.06	0.53	0.58
AUG											
02...	401	520	180	340	0.060	0.00	0.060	0.030	0.04	0.54	0.57
OCT											
05...	456	528	112	416	0.100	0.010	0.110	0.060	0.08	0.57	0.63

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04237410 SENECA RIVER AT JACK'S REEF NEAR MEMPHIS, NY - continued

WATER-QUALITY DATA (continued)

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
APR 1988											
04...	1.6	7.1	0.060	0.00	0.0	260	<1	14	460	24	50
MAY											
02...	1.2	5.1	0.040	0.00	0.0	130	1	10	250	<5	40
JUN											
06...	1.1	4.8	0.070	0.00	0.0	290	<1	6	10	<5	50
AUG											
02...	0.63	2.8	0.080	0.00	0.0	170	<1	6	360	<5	50
OCT											
05...	0.74	3.3	0.070	0.00	0.0	80	<1	8	170	<5	40

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)
APR 1988										
04...	<0.10	2	<10	0	0	0.0	0	0	0	0
MAY										
02...	<0.10	2	10	0	0	0.0	0	0	0	0
JUN										
06...	<0.10	2	20	--	--	--	--	--	--	--
AUG										
02...	<0.10	1	10	--	--	--	--	--	--	--
OCT										
05...	<0.10	<1	20	ND	ND	ND	ND	ND	ND	ND

DATE	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)
APR 1988										
04...	0	0	0	0	0	0	0	0	0	0
MAY										
02...	0	0	0	0	0	0	0	0	0	0
JUN										
06...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	--	--	--	--	--	--	--	--	--	--
OCT										
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988										
04...	0.00	0	0	0	0	0.0	0	0	0	0
MAY										
02...	0.00	0	0	0	0	0.0	0	0	0	0
JUN										
06...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	--	--	--	--	--	--	--	--	--	--
OCT										
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04237410 SENECA RIVER AT JACK'S REEF NEAR MEMPHIS, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
AUG 1988				
02...	1130	1090	21	62

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04248250 OSWEGO RIVER AT LOCK 5 AT MINETTO, NY

LOCATION.--Lat 43 24'01", long 76 28'25", Oswego County, Hydrologic Unit 04140203, at bridge on Oswego River in Minetto, .01 mi upstream of lock 5.

DRAINAGE AREA.--5,097 mi2.

PERIOD OF RECORD.--Water years 1988 to current year.
CHEMICAL DATA: 1988 (b), 1989 (a).
MINOR ELEMENT DATA: 1988 (b), 1989 (a).
PESTICIDE DATA: 1988-89 (a)
NUTRIENT DATA: 1988 (b), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1988-89 (a).
SEDIMENT DATA: 1988 (a).

REMARKS.--Water-discharge data are based on records from station 04249000 Oswego River at Lock 7 Oswego.

WATER-QUALITY DATA

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)
APR 1988											
04...	1600	8200	--	591	8.1	7.0	6.0	--	13.2	--	--
MAY											
02...	1200	1520	--	973	8.0	9.0	6.5	--	11.7	--	17000
JUN											
06...	1030	2250	--	850	8.0	17.0	5.8	758	9.6	--	29000
AUG											
02...	1330	2970	--	790	8.0	28.0	7.3	756	10.0	--	8500
OCT											
05...	1215	1300	330	876	--	15.0	20	764	8.6	85	62000

DATE	FECAL COLIFORM 24-HR MEM.FIL (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
APR 1988											
04...	--	200	59	12	39	2.0	113	62	75	0.10	368
MAY											
02...	580	290	88	16	78	3.0	148	87	170	0.20	552
JUN											
06...	240	250	74	15	68	1.5	137	81	130	0.20	496
AUG											
02...	1200	190	53	14	71	2.5	106	82	130	0.10	484
OCT											
05...	2600	230	68	15	79	2.9	112	88	150	0.10	504

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
APR 1988											
04...	317	420	96	324	0.560	0.050	0.610	0.160	0.21	0.47	0.63
MAY											
02...	531	640	156	484	0.730	0.020	0.750	0.270	0.35	0.49	0.76
JUN											
06...	452	584	136	448	0.430	0.030	0.460	0.150	0.19	0.43	0.58
AUG											
02...	416	568	212	356	0.240	0.030	0.270	0.050	0.06	0.50	0.55
OCT											
05...	470	604	128	476	0.410	0.040	0.450	0.120	0.15	0.50	0.62

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04248250 OSWEGO RIVER AT LOCK 5 AT MINETTO, NY - continued

WATER-QUALITY DATA (continued)

DATE	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
APR 1988											
04...	1.2	5.5	0.070	ND	--	240	<1	13	400	76	50
MAY											
02...	1.5	6.7	0.080	0.00	0.0	290	1	10	460	<5	80
JUN											
06...	1.0	4.6	0.080	0.00	0.0	170	<1	7	280	6	70
AUG											
02...	0.82	3.6	0.090	ND	--	190	<1	6	710	33	90
OCT											
05...	1.1	4.7	0.120	0.00	0.0	400	<1	8	670	<5	80

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)
APR 1988										
04...	<0.10	3	20	0	0	0.0	0	0	0	0
MAY										
02...	<0.10	2	20	0	0	0.0	0	0	0	0
JUN										
06...	<0.10	9	10	--	--	--	--	--	--	--
AUG										
02...	<0.10	1	10	--	--	--	--	--	--	--
OCT										
05...	<0.10	1	20	ND	ND	ND	ND	ND	ND	ND

DATE	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)
APR 1988										
04...	0	0	0	0	0	0	0	0	0	0
MAY										
02...	0	0	0	0	0	0	0	0	0	0
JUN										
06...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	--	--	--	--	--	--	--	--	--	--
OCT										
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988										
04...	0.00	0	0	0	0	0.0	0	0	0	0
MAY										
02...	0.00	0	0	0	0	0.0	0	0	0	0
JUN										
06...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	--	--	--	--	--	--	--	--	--	--
OCT										
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04248250 OSWEGO RIVER AT LOCK 5 AT MINETTO, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR 1988				
04...	1600	8200	14	310
JUN				
06...	1030	2250	11	67

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04260500 BLACK RIVER AT WATERTOWN, NY

LOCATION.--Lat 43 59'08", long 75 55'30", Jefferson County, Hydrologic Unit 04150101, on downstream side of right abutment of Vanduzee Street Bridge at Watertown, and 3.5 mi upstream from Philomel Creek. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,864 mi 2 .

PERIOD OF RECORD.--Water years 1956-60, 1962 to current year.
CHEMICAL DATA: 1956 (e), 1959 (a), 1960 (b), 1965 (a), 1966-81 (d), 1982-87 (c), 1988 (d), 1989 (a).
MINOR ELEMENTS DATA: 1970-71 (a), 1974-79 (b), 1980 (c), 1981-87 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1975-79 (b), 1980-82 (a), 1988 (b), 1989 (a).
ORGANIC DATA: OC--1973 (c), 1974 (a), 1975 (c), 1976-77 (b), 1978-81 (d), 1988-89 (a).
PCB--1978-79 (b), 1980-82 (a).
NUTRIENT DATA: 1968 (b), 1969-81 (d), 1982-87 (c), 1988 (d), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1973-81 (d), 1982-86 (c), 1987-88 (b), 1989 (a).
Phytoplankton--1975-77 (d), 1978-79 (c), 1980 (b), 1981 (c).
Periphyton--1975-80 (b).
SEDIMENT DATA: 1975-76 (d), 1977 (c), 1978-81 (d), 1982-88 (c), 1989 (a).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1955 to September 1959, July 1962 to March 1969.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR 1988												
12...	1630	7720	73	6.8	8.0	1.9	13.1	28	9.4	1.0	2.5	0.70
MAY												
11...	1030	2810	93	7.1	14.5	2.0	13.1	35	12	1.2	4.0	0.60
JUN												
21...	1300	1140	113	7.3	24.5	1.3	12.4	38	13	1.3	6.7	0.80
AUG												
02...	1334	1340	103	7.5	28.5	1.0	--	35	12	1.3	5.6	0.80
OCT												
05...	1515	1560	93	6.8	13.0	2.3	14.3	30	10	1.3	5.8	0.90

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
APR 1988												
12...	20	13	2.3	0.20	63	41	69	31	38	--	ND	0.680
MAY												
11...	28	14	3.2	0.30	87	52	92	44	48	0.500	0.00	0.500
JUN												
21...	31	18	3.1	0.30	64	62	70	32	38	0.260	0.00	0.260
AUG												
02...	29	18	2.6	0.10	--	58	83	27	56	0.330	0.00	0.330
OCT												
05...	22	15	2.9	0.10	58	49	66	15	51	--	ND	0.210

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
APR 1988												
12...	0.030	0.04	0.26	0.29	0.97	4.3	0.020	0.00	0.0	320	3	18
MAY												
11...	0.040	0.05	0.25	0.29	0.79	3.5	0.020	0.00	0.0	200	3	26
JUN												
21...	0.010	0.01	0.35	0.36	0.62	2.7	0.730	0.00	0.0	120	1	44
AUG												
02...	0.030	0.04	0.21	0.24	0.57	2.5	0.040	0.00	0.0	120	4	4
OCT												
05...	0.020	0.03	0.42	0.44	0.65	2.9	0.030	0.00	0.0	170	2	17

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO LAKE ONTARIO

04260500 BLACK RIVER AT WATERTOWN, NY - continued

WATER-QUALITY DATA (continued)

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
APR 1988												
12...	360	6	30	<0.10	6	20	--	ND	ND	ND	ND	ND
MAY												
11...	430	20	40	<0.10	12	20	--	ND	ND	ND	ND	ND
JUN												
21...	340	38	60	<0.10	5	10	0.0	ND	ND	ND	ND	ND
AUG												
02...	460	<5	50	<0.10	5	10	--	ND	ND	ND	ND	ND
OCT												
05...	450	<5	40	<0.10	<1	20	ND	ND	ND	ND	ND	ND

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
21...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
02...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
21...	1300	1140	7	22

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04260712 ST. LAWRENCE RIVER AT CAPE VINCENT, NY

LOCATION.--Lat 44 07'48", long 76 20'10", Jefferson County, Hydrologic Unit 04150301, at end of U.S. Coast Guard Station dock in Cape Vincent, and approximately 1,500 ft downstream from village water intake.

DRAINAGE AREA.--295,800 mi2.

PERIOD OF RECORD.--Water years 1957, 1969-75, 1988 (discontinued).
CHEMICAL DATA: 1957 (a), 1969-74 (c), 1975, 1988 (b).
MINOR ELEMENTS DATA: 1957 (a), 1969-74 (c), 1975, 1988 (b).
PESTICIDE DATA: 1988 (b).
ORGANIC DATA: OC--1988 (c).
NUTRIENT DATA: 1957 (a), 1969-74 (c), 1975, 1988 (b).

WATER-QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)
APR 1988												
12...	1030	321	8.2	7.5	1.6	13.9	130	38	8.2	12	1.5	98
MAY												
10...	0748	323	7.6	11.0	0.70	--	130	38	8.3	12	1.6	100
JUN												
21...	0830	311	8.2	17.5	0.60	12.8	130	37	8.1	12	2.4	96
AUG												
02...	1128	297	7.8	24.0	1.7	--	120	33	8.3	12	1.3	87

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)
APR 1988												
12...	27	22	0.20	183	168	273	86	187	--	ND	0.310	0.010
MAY												
10...	27	22	0.30	205	169	229	89	140	--	ND	0.320	0.020
JUN												
21...	27	21	0.30	181	165	204	72	132	--	ND	0.220	0.020
AUG												
02...	27	21	0.10	157	155	172	52	120	0.100	0.00	0.100	0.030

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 1988												
12...	0.01	0.21	0.22	0.53	2.3	0.010	0.00	0.0	40	3	4	60
MAY												
10...	0.03	0.53	0.55	0.87	3.9	0.010	0.00	0.0	30	2	27	60
JUN												
21...	0.03	0.25	0.27	0.49	2.2	0.330	ND	--	20	1	36	40
AUG												
02...	0.04	0.17	0.20	0.30	1.3	0.010	ND	--	10	1	32	50

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1988											
12...	<5	<10	<0.10	13	<10	ND	ND	ND	ND	ND	ND
MAY											
10...	69	<10	<0.10	9	40	--	ND	ND	ND	ND	ND
JUN											
21...	40	<10	<0.10	28	20	ND	ND	ND	ND	ND	ND
AUG											
02...	24	<10	<0.10	3	20	0.0	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04260712 ST. LAWRENCE RIVER AT CAPE VINCENT, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY

LOCATION.--Lat 44 35'58", long 75 22'45", St. Lawrence County, Hydrologic Unit 04150302, on right bank 1.5 mi downstream from Beaver Creek, and 2.5 mi upstream from Heuvelton. Water-quality sampling site at discharge station.

DRAINAGE AREA.--965 mi 2 .

PERIOD OF RECORD.--Water years 1960, 1966-69, 1971-72, 1978-86, 1988 to current year.
CHEMICAL DATA: 1960 (a), 1966 (b), 1968-69 (d), 1971-72 (a), 1978 (c), 1979-80 (d), 1981-82 (c), 1983-86, 1988 (b), 1989 (a).
MINOR ELEMENTS DATA: 1978-79 (b), 1980 (c), 1981-86, 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
ORGANIC DATA: OC--1978 (c), 1979-80 (d), 1981 (c), 1988 (a).
NUTRIENT DATA: 1978 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b), 1988 (b), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1978 (c), 1979-80 (d), 1981-82 (c), 1983-86 (b).
Phytoplankton--1978-80 (c), 1981 (b).
Periphyton--1978-80 (b).
SEDIMENT DATA: 1978 (c), 1979-80 (d), 1981-85 (c), 1986 (b), 1988 (a).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1978 to September 1981.
WATER TEMPERATURES: January 1978 to September 1981.

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1978-81): Maximum daily, 155 microsiemens Jan. 31, 1981; minimum daily, 22 microsiemens sometime in February 1980.
WATER TEMPERATURES (water years 1978-81): Maximum daily, 28.0 C July 28, 1978 and July 23-28, 1979; minimum daily, 0.0 C on many days during winter periods.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR 1988												
13...	1430	2180	92	6.8	8.5	1.5	11.6	37	10	2.8	2.5	0.80
MAY												
11...	1415	1640	89	6.7	15.5	0.80	12.3	36	10	2.6	2.4	0.80
JUN												
22...	1410	249	108	7.3	24.0	1.0	11.6	44	12	3.4	3.3	0.70
AUG												
03...	1410	316	112	8.2	30.5	1.3	--	43	12	3.1	3.5	0.60
OCT												
04...	1300	532	92	7.1	16.5	0.60	13.0	38	11	2.6	2.8	1.1

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
APR 1988												
13...	26	15	3.6	0.20	67	50	74	37	37	--	ND	0.350
MAY												
11...	25	15	3.2	0.30	--	49	108	49	59	--	ND	0.230
JUN												
22...	32	14	4.3	0.50	67	57	69	32	37	0.160	0.00	0.160
AUG												
03...	30	15	4.7	0.20	66	57	76	36	40	--	ND	0.220
OCT												
04...	22	15	3.7	0.20	73	50	81	22	59	--	ND	0.140

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY - continued

WATER-QUALITY DATA (continued)

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
APR 1988												
13...	0.010	0.01	0.27	0.28	0.63	2.8	0.020	0.00	0.0	170	3	6
MAY												
11...	0.020	0.03	0.18	0.20	0.43	1.9	0.020	0.00	0.0	80	9	20
JUN												
22...	0.030	0.04	0.25	0.28	0.44	1.9	0.030	0.00	0.0	80	<1	3
AUG												
03...	0.010	0.01	0.32	0.33	0.55	2.4	0.010	ND	--	110	1	7
OCT												
04...	0.010	0.01	0.26	0.27	0.41	1.8	0.010	0.00	0.0	60	<1	1

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1988												
13...	280	5	50	<0.10	11	20	--	ND	ND	ND	ND	ND
MAY												
11...	230	85	30	<0.10	7	20	--	ND	ND	ND	ND	ND
JUN												
22...	340	<5	60	<0.10	<1	<10	0.0	ND	ND	ND	ND	ND
AUG												
03...	1400	39	40	<0.10	<1	10	--	ND	ND	ND	ND	ND
OCT												
04...	310	<5	20	<0.10	<1	<10	--	ND	ND	ND	ND	ND

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
APR 1988											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
APR 1988											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	0.1	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04263000 OSWEGATCHIE RIVER NEAR HEUVELTON, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
AUG 03...	1410	316	2	1.7

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY

LOCATION.--Lat 45 00'22", long 74 47'43", Stormont County, Ontario--St. Lawrence County, NY, Hydrologic Unit 04150301, at Robert Moses-Robert H. Saunders power dam on Lake St. Lawrence at the International Boundary at Cornwall, Ontario, 2.9 mi upstream from Grass River, 6.2 mi upstream from Raquette River, and 5.9 mi northeast of Massena, NY. Water-quality samples collected at power dam from taps at generators 17 and 30.

DRAINAGE AREA.--298,800 mi 2 .

PERIOD OF RECORD.--Water years 1955, 1966 to current year. Prior to October 1970, published as "near Massena, NY".
CHEMICAL DATA: 1955 (a), 1974 (c), 1975-81 (d), 1982-86 (c), 1987 (b), 1988 (b), 1989 (a).
MINOR ELEMENTS DATA: 1974-77 (b), 1978 (a), 1979 (b), 1980 (c), 1981-87 (b), 1988 (c), 1989 (a).
RADIOCHEMICAL DATA: 1974-88 (a).
ORGANIC DATA: OC--1974 (a), 1975 (b), 1977 (b), 1978-81 (d), 1988-89 (a).
NUTRIENT DATA: 1974-75 (c), 1976-81 (d), 1982-86 (c), 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1974 (c), 1975-81 (d), 1982-86 (c), 1987-88 (b), 1989 (a).
Phytoplankton--1974 (a), 1975-77 (d), 1978-81 (c).
Periphyton--1974 (a), 1975 (c), 1976-80 (b).
SEDIMENT DATA: 1975 (d), 1976-77 (c), 1978-81 (d), 1982-86 (c), 1987 (b), 1988 (c), 1989 (a).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to September 1986.
WATER TEMPERATURES: October 1955 to October 1958, unpublished; January 1966 to September 1986.

REMARKS.--Discharge is determined from summation of discharge through the Robert Moses-Robert H. Saunders powrer dam, the Long Sault Dam, the Massena Diversion, the Rasin River Diversion, the Cornwall and Massena municipal water supply, and the Cornwall and the Wiley-Dondero navigation canals. U.S.-Canada coordinated discharge figures supplied by Corps of Engineers. Temperature observations from October 1955 to October 1958 made at Aluminum Company of America Massena Canal power station and those from January 1966 to September 1986 made approximately 68 ft below normal forebay level.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 400 microsiemens Aug. 7, 1978, Mar. 29, 1979; minimum daily, 250 microsiemens Dec. 21, 1978.

WATER TEMPERATURES: Maximum daily, 24.5 C on several days in August and September 1973 and August 1975; minimum daily 0.0 C on many days during winter periods except 1972-74, 1979, 1982-85.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)
APR 1988												
13...	1100	258000	320	8.2	7.5	2.6	--	120	36	7.9	12	1.8
MAY												
10...	1406	228000	312	7.6	11.0	0.80	--	130	37	8.0	11	1.3
JUN												
22...	1100	248000	312	8.1	19.0	0.90	13.4	130	38	8.1	12	1.3
AUG												
03...	1100	246000	304	8.0	26.0	0.90	--	120	34	8.4	12	1.3
OCT												
04...	1009	238000	310	7.4	13.0	0.80	--	130	36	8.8	12	1.7

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
APR 1988												
13...	97	25	22	0.20	182	163	193	66	127	ND	0.310	0.020
MAY												
10...	97	27	21	0.30	213	164	232	93	139	ND	0.310	0.00
JUN												
22...	96	26	20	0.30	--	163	178	78	100	ND	0.240	0.010
AUG												
03...	90	27	21	0.10	182	158	170	71	99	ND	0.180	0.030
OCT												
04...	92	27	20	0.10	175	161	201	69	132	ND	0.340	0.030

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER MAIN STEM

04264331 ST. LAWRENCE RIVER AT CORNWALL, ONTARIO--NEAR MASSENA, NY - continued

WATER-QUALITY DATA (continued)

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 1988												
13...	0.03	0.60	0.62	0.93	4.1	0.010	0.00	0.0	70	4	70	730
MAY												
10...	0.0	0.24	0.24	0.55	2.4	0.010	ND	--	50	3	310	380
JUN												
22...	0.01	0.26	0.27	0.51	2.3	0.010	ND	--	30	1	14	5400
AUG												
03...	0.04	0.36	0.39	0.57	2.5	0.010	ND	--	90	4	18	1300
OCT												
04...	0.04	0.34	0.37	0.71	3.1	0.030	0.00	0.0	30	2	32	270

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1988											
13...	<5	<10	<0.10	12	10	--	ND	ND	ND	ND	ND
MAY											
10...	20	<10	<0.10	12	50	--	ND	ND	ND	ND	ND
JUN											
22...	14	30	<0.10	5	1000	ND	ND	ND	ND	ND	ND
AUG											
03...	34	20	<0.10	3	160	0.0	ND	ND	ND	ND	ND
OCT											
04...	<5	10	<0.10	<1	60	ND	ND	ND	ND	ND	ND

DATE	CHLOROFORM TOTAL (UG/L)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L)	DICHLOROBROMOMETHANE TOTAL (UG/L)	METHYLBROMIDE TOTAL (UG/L)	METHYLCHLORIDE TOTAL (UG/L)	METHYLENE CHLORIDE TOTAL (UG/L)	1,1,1-TRICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHANE TOTAL (UG/L)	1,1-DICHLOROETHYLENE TOTAL (UG/L)	1,1,2-TRICHLOROETHANE TOTAL (UG/L)	1,1,2,2 TETRACHLOROETHANE TOTAL (UG/L)
APR 1988											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DICHLOROBENZENE TOTAL (UG/L)	1,2-DICHLOROETHANE WATER WHOLE TOTAL (UG/L)	1,2-DICHLOROPROPANE TOTAL (UG/L)	1,2-TRANSDICHLOROETHENE TOTAL (UG/L)	1,3-DICHLOROBENZENE TOTAL (UG/L)	1,4-DICHLOROBENZENE TOTAL (UG/L)	TETRACHLOROETHYLENE TOTAL (UG/L)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L)	TRICHLOROETHYLENE TOTAL (UG/L)	2-CHLOROETHYLVINYLETHER TOTAL (UG/L)	VINYL CHLORIDE TOTAL (UG/L)
APR 1988											
13...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
10...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04266500 RAQUETTE RIVER AT PIERCEFIELD, NY

LOCATION.--Lat 44 14'05", long 74 34'20", St. Lawrence County, Hydrologic Unit 04150305, on left bank 0.5 mi downstream from powerplant at Piercefield, and 1.5 mi upstream from Dead Creek.

DRAINAGE AREA.--721 mi 2 .

PERIOD OF RECORD.--Water years 1955, 1970-72, April 1988 to current year.
CHEMICAL DATA: 1955, 1970-72 (a), 1988 (b), 1989 (a).
MINOR ELEMENTS DATA: 1955, 1970-72 (a), 1988 (b), 1989 (a).
PESTICIDE DATA: 1988 (b), 1989 (a).
ORGANIC DATA: OC--1988 (a).
NUTRIENT DATA: 1970-72 (a), 1988 (b), 1989 (a).
SEDIMENT DATA: 1988-89 (a).

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
APR 1988												
14...	1100	3320	35	5.5	8.5	0.80	--	11.8	10	3.2	0.59	1.7
MAY												
12...	1100	2210	34	6.0	14.0	0.60	760	14.2	11	3.3	0.59	1.5
JUN												
23...	1130	408	40	6.5	21.5	1.0	--	10.7	13	3.9	0.78	2.0
OCT												
06...	1500	483	39	6.9	11.0	1.0	--	13.0	13	3.8	0.80	1.8

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
APR 1988												
14...	0.40	4.0	9.9	1.7	0.10	--	20	42	15	27	ND	0.440
MAY												
12...	1.4	5.0	9.2	1.5	0.30	58	21	65	38	27	ND	0.400
JUN												
23...	0.40	7.0	9.2	1.9	0.30	--	23	21	11	10	ND	0.160
OCT												
06...	0.60	9.0	8.3	1.8	0.10	22	23	31	15	16	ND	0.130

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
APR 1988												
14...	0.010	0.01	0.19	0.20	0.64	2.8	0.010	0.00	0.0	150	2	9
MAY												
12...	0.030	0.04	0.36	0.39	0.79	3.5	0.00	ND	--	100	2	17
JUN												
23...	0.040	0.05	0.40	0.44	0.60	2.7	0.320	0.00	0.0	70	<1	18
OCT												
06...	0.060	0.08	0.40	0.46	0.59	2.6	0.020	ND	--	130	2	52

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04266500 RAQUETTE RIVER AT PIERCEFIELD, NY - continued

WATER-QUALITY DATA (continued)

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOL (C6H-5OH) TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
APR 1988												
14...	160	<5	30	<0.10	4	10	--	ND	ND	ND	ND	ND
MAY												
12...	210	35	20	<0.10	7	20	--	ND	ND	ND	ND	ND
JUN												
23...	320	<5	80	<0.10	<1	20	0.0	ND	ND	ND	ND	ND
OCT												
06...	380	<5	60	<0.10	<1	40	--	ND	ND	ND	ND	ND

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1988											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1988											
14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN 1988				
23...	1130	408	1	1.1
OCT				
06...	1500	483	7	9.1

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04273500 SARANAC RIVER AT PLATTSBURGH, NY

LOCATION.--Lat 44 40'54", long 73 28'18", Clinton County, Hydrologic Unit 02010006, on right bank at Plattsburgh, 600 ft downstream from Imperial Paper and Color Corp. dam, 3.0 mi upstream from mouth, and 5.5 mi downstream from Mead Brook.

DRAINAGE AREA.--608 mi 2 .

PERIOD OF RECORD.--Water years 1955, 1959, 1966-67, 1971-72, 1987 to 1989.
CHEMICAL DATA: 1955 (a), 1959 (d), 1966-67, 1971-72 (a), 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENTS DATA: 1955 (a), 1959 (d), 1966-67, 1972 (a), 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
NUTRIENT DATA: 1955 (a), 1959 (d), 1966-67, 1971-72 (a), 1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from stream-flow gage at this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR 1987												
27...	1615	853	--	--	7.4	14.0	1.0	--	10.4	--	27	7.5
MAY												
26...	1630	587	--	91	7.8	18.5	1.0	--	9.9	--	33	9.3
JUN												
16...	1355	813	--	81	7.6	20.5	1.3	--	9.1	--	30	8.4
AUG												
03...	1515	282	--	--	8.0	12.5	1.0	--	8.8	--	36	10
SEP												
28...	1545	282	--	--	8.0	19.0	1.4	--	11.1	--	36	9.6
NOV												
04...	1530	416	--	--	7.6	10.5	2.1	--	14.0	--	40	12
DEC												
02...	1600	1500	--	--	7.6	0.0	3.5	--	18.3	--	30	8.1
APR 1988												
06...	1430	2000	70	67	6.4	7.5	1.6	760	12.4	104	23	6.4
18...	1530	1280	75	71	6.6	9.0	1.5	746	12.0	106	26	7.1
JUN												
08...	1500	369	93	92	7.1	19.0	1.5	--	9.2	--	36	9.7
20...	1700	238	100	95	8.0	26.0	1.2	--	8.9	--	37	10
JUL												
20...	1500	274	107	106	8.1	25.5	0.80	762	8.5	104	41	11
SEP												
12...	1800	205	99	98	8.0	18.0	0.73	752	8.9	96	38	10
OCT												
20...	0815	314	97	94	7.3	7.5	0.90	--	12.0	--	38	10
NOV												
17...	0900	1080	75	73	7.3	5.0	1.1	--	11.6	--	27	7.2

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04273500 SARANAC RIVER AT PLATTSBURGH, NY - continued

WATER-QUALITY DATA (continued)

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
APR 1987												
27...	1.9	--	--	--	--	--	--	26	--	58	15	39
MAY												
26...	2.4	--	--	--	--	--	--	49	--	64	26	47
JUN												
16...	2.3	--	--	--	--	--	--	78	--	64	38	44
AUG												
03...	2.7	--	--	--	--	--	--	81	--	67	37	43
SEP												
28...	2.9	--	--	--	--	--	--	56	--	67	45	36
NOV												
04...	2.4	--	--	--	--	--	--	59	--	68	55	17
DEC												
02...	2.4	--	--	--	--	--	--	50	--	78	39	25
APR 1988												
06...	1.8	2.7	0.60	16	12	4.1	0.10	52	37	66	28	38
18...	2.0	2.9	0.60	18	11	4.2	0.10	60	39	68	23	45
JUN												
08...	2.8	3.8	0.70	29	11	5.5	0.30	55	51	81	28	53
20...	2.8	3.9	0.60	29	9.7	5.4	0.30	56	50	63	50	13
JUL												
20...	3.3	4.7	0.70	34	9.8	6.6	0.10	76	57	89	49	40
SEP												
12...	3.2	4.5	0.60	32	9.2	6.3	0.10	--	53	92	44	48
OCT												
20...	3.1	4.3	0.70	30	11	6.1	<0.10	66	53	69	33	36
NOV												
17...	2.1	3.2	0.60	17	14	5.2	<0.10	--	42	81	36	45

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
APR 1987											
27...	ND	0.190	0.010	0.01	0.10	0.11	0.30	1.3	0.010	0.00	0.0
MAY											
26...	ND	0.120	0.070	0.09	0.11	0.18	0.30	1.3	0.020	0.00	0.0
JUN											
16...	ND	0.180	0.010	0.01	0.22	0.23	0.41	1.8	0.020	0.00	0.0
AUG											
03...	ND	0.080	0.00	0.0	0.20	0.20	0.28	1.2	0.020	0.00	0.0
SEP											
28...	ND	0.070	0.020	0.03	0.23	0.25	0.32	1.4	0.020	0.00	0.0
NOV											
04...	ND	0.180	0.010	0.01	0.15	0.16	0.34	1.5	0.010	0.00	0.0
DEC											
02...	ND	0.260	ND	--	--	0.23	0.49	2.2	0.020	0.00	0.0
APR 1988											
06...	ND	0.310	0.030	0.04	0.41	0.44	0.75	3.3	0.020	ND	--
18...	ND	0.280	0.010	0.01	0.16	0.17	0.45	2.0	0.010	0.00	0.0
JUN											
08...	ND	ND	0.020	0.03	0.25	0.27	--	--	0.020	0.00	0.0
20...	ND	0.090	0.010	0.01	0.25	0.26	0.35	1.5	0.020	ND	--
JUL											
20...	ND	0.140	0.010	0.01	0.19	0.20	0.34	1.5	0.010	ND	--
SEP											
12...	ND	0.080	ND	--	--	0.19	0.27	1.2	0.010	ND	--
OCT											
20...	ND	0.090	0.010	0.01	0.24	0.25	0.34	1.5	0.010	ND	--
NOV											
17...	ND	0.250	0.020	0.03	0.29	0.31	0.56	2.5	0.010	0.00	0.0

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04273500 SARANAC RIVER AT PLATTSBURGH, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
27...	--	--	<10	--	<10	--	280	--	<100	--	20
MAY											
26...	--	--	<10	--	<10	--	300	--	<5	--	30
JUN											
16...	--	--	<10	--	<10	--	420	--	<5	--	30
AUG											
03...	--	--	<10	--	30	--	450	--	6	--	40
SEP											
28...	--	--	<1	--	5	--	440	--	<5	--	40
NOV											
04...	--	--	<1	--	7	--	320	--	<5	--	20
DEC											
02...	--	--	<1	1.0	7	3	370	--	<5	<5	20
APR 1988											
06...	120	50	1	<1.0	5	<1	290	110	<5	<5	20
18...	60	--	<1	--	3	--	210	--	<5	--	30
JUN											
08...	60	30	2	<1.0	7	4	350	180	<5	<5	50
20...	60	--	<1	--	4	--	340	--	<5	--	80
JUL											
20...	50	--	<1	--	4	--	410	--	<5	--	50
SEP											
12...	40	--	1	--	8	--	320	--	<5	--	40
OCT											
20...	50	10	<1	<1.0	6	3	350	240	<5	<5	10
NOV											
17...	110	--	1	--	8	--	320	--	<5	--	30

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
27...	--	--	<100	--	<10	--	ND	ND	ND	ND	ND
MAY											
26...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN											
16...	--	<0.10	<1	--	10	--	ND	ND	ND	ND	ND
AUG											
03...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
SEP											
28...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
NOV											
04...	--	<0.10	3	--	20	--	ND	ND	ND	ND	ND
DEC											
02...	--	<0.10	<1	<1	<10	<10	ND	ND	ND	ND	ND
APR 1988											
06...	11	<0.10	2	<1	<10	3	ND	ND	ND	ND	ND
18...	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
JUN											
08...	15	<0.10	3	1	<10	4	ND	ND	ND	ND	ND
20...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
JUL											
20...	--	<0.10	1	--	10	--	ND	ND	ND	ND	ND
SEP											
12...	--	<0.10	10	--	<10	--	ND	ND	ND	ND	ND
OCT											
20...	8	0.10	1	<1	<10	5	ND	ND	ND	ND	ND
NOV											
17...	--	<0.10	8	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04273500 SARANAC RIVER AT PLATTSBURGH, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
12...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04273500 SARANAC RIVER AT PLATTSBURGH, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUN 1988				
08...	1500	369	2	2.0
JUL				
20...	1500	274	2	1.5
SEP				
12...	1800	205	3	1.7
OCT				
20...	0815	314	1	0.85
NOV				
17...	0900	1080	4	12

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)
SEP 1987								
28...	1545	24800	<1	<10	20	5900	60	89
SEP 1988								
12...	1815	--	--	--	--	--	--	--

DATE	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
SEP 1987							
28...	0.12	<10	100	0	3	9	76
SEP 1988							
12...	--	--	--	2	6	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04276500 BOUQUET RIVER AT WILLSBORO, NY

LOCATION.--Lat 42 21'30", long 73 23'50, Essex County, Hydrologic Unit 02010004, on right bank 0.5 mi upstream from bridge on State Highway 22, 2.5 mi downstream from North Branch Bouquet River, and 3.0 mi upstream from mouth, Willsboro.

DRAINAGE AREA.--275 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (a).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	SPECIFIC CONDUCTANCE LAB (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
APR 1987												
27...	1745	--	--	--	7.6	8.5	1.0	--	11.0	--	42	12
MAY												
26...	1800	--	--	--	7.4	20.0	1.0	--	9.9	--	56	16
JUN												
16...	1530	--	--	116	8.1	21.5	1.4	--	8.9	--	42	12
AUG												
03...	1250	--	--	--	7.9	11.5	4.0	--	8.9	--	70	20
SEP												
28...	1400	--	--	--	7.9	14.0	1.7	--	11.6	--	39	12
NOV												
04...	1330	--	--	133	7.3	14.5	2.6	--	11.1	--	51	15
DEC												
02...	1430	--	--	--	7.6	2.0	7.3	--	18.9	--	39	11
APR 1988												
06...	1245	746	76	74	6.7	7.5	--	760	12.0	100	26	7.3
18...	1330	375	129	119	6.7	10.5	1.8	746	11.8	108	40	11
JUN												
08...	1300	254	196	155	7.4	18.5	1.4	--	9.7	--	57	16
20...	1530	204	186	184	8.4	27.0	1.0	--	9.3	--	66	18
JUL												
20...	1300	213	188	188	8.3	24.5	1.5	762	9.7	117	70	19
SEP												
12...	1345	--	161	160	7.8	18.0	1.0	752	10.2	109	55	15
OCT												
19...	1300	--	177	181	7.7	10.5	0.80	762	11.0	99	70	19
NOV												
16...	1300	856	102	101	7.6	4.5	2.0	768	12.0	92	34	9.5

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04276500 BOUQUET RIVER AT WILLSBORO, NY - continued

WATER-QUALITY DATA (continued)

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)
APR 1987												
27...	2.8	--	--	--	--	--	--	49	--	72	10	59
MAY												
26...	3.8	--	--	--	--	--	--	81	--	107	40	83
JUN												
16...	2.8	--	--	--	--	--	--	98	--	98	38	60
AUG												
03...	4.9	--	--	--	--	--	--	129	--	130	47	90
SEP												
28...	2.3	--	--	--	--	--	--	82	--	89	49	46
NOV												
04...	3.4	--	--	--	--	--	--	89	--	90	63	27
DEC												
02...	2.7	--	--	--	--	--	--	59	--	84	30	36
APR 1988												
06...	1.8	3.3	0.40	17	11	5.4	0.10	57	40	78	12	66
18...	3.1	5.7	0.40	31	12	9.6	0.10	82	60	87	32	55
JUN												
08...	4.1	7.5	0.60	46	12	12	0.20	94	80	120	41	79
20...	5.0	9.4	0.70	52	11	15	0.20	108	90	121	63	58
JUL												
20...	5.5	10	0.70	57	11	17	0.10	121	97	131	43	88
SEP												
12...	4.3	9.6	0.50	42	9.9	15	0.10	104	80	118	36	82
OCT												
19...	5.5	9.7	0.90	53	12	15	<0.10	108	94	115	43	72
NOV												
16...	2.6	5.0	0.40	24	13	8.8	0.10	68	54	75	21	54

DATE	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)
APR 1987											
27...	ND	0.110	0.040	0.05	0.06	0.10	0.21	0.93	0.00	ND	--
MAY											
26...	ND	0.080	0.020	0.03	0.08	0.10	0.18	0.80	0.010	ND	--
JUN											
16...	ND	0.090	0.010	0.01	0.08	0.09	0.18	0.80	0.00	ND	--
AUG											
03...	ND	ND	0.020	0.03	0.12	0.14	--	--	0.010	ND	--
SEP											
28...	ND	ND	0.010	0.01	0.21	0.22	--	--	0.00	ND	--
NOV											
04...	ND	0.100	0.020	0.03	0.15	0.17	0.27	1.2	0.010	ND	--
DEC											
02...	ND	0.190	0.010	0.01	0.19	0.20	0.39	1.7	0.020	0.00	0.0
APR 1988											
06...	ND	0.230	0.010	0.01	0.23	0.24	0.47	2.1	0.040	ND	--
18...	ND	0.120	0.040	0.05	0.07	0.11	0.23	1.0	0.010	0.00	0.0
JUN											
08...	ND	ND	0.010	0.01	0.14	0.15	--	--	0.010	ND	--
20...	ND	0.080	0.010	0.01	0.19	0.20	0.28	1.2	0.010	ND	--
JUL											
20...	ND	ND	0.070	0.09	0.19	0.26	--	--	0.00	ND	--
SEP											
12...	ND	ND	0.020	0.03	0.10	0.12	--	--	0.00	ND	--
OCT											
19...	ND	ND	0.00	0.0	0.15	0.15	--	--	0.010	ND	--
NOV											
16...	ND	0.120	0.010	0.01	0.16	0.17	0.29	1.3	0.010	ND	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04276500 BOUQUET RIVER AT WILLSBORO, NY - continued

WATER-QUALITY DATA (continued)

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)
APR 1987											
27...	--	--	<10	--	<10	--	190	--	<100	--	10
MAY											
26...	--	--	<10	--	20	--	160	--	<5	--	10
JUN											
16...	--	--	<10	--	<10	--	200	--	<5	--	20
AUG											
03...	--	--	<10	--	20	--	420	--	<5	--	30
SEP											
28...	--	--	<1	--	4	--	250	--	<5	--	10
NOV											
04...	--	--	<1	--	3	--	240	--	<5	--	10
DEC											
02...	--	--	<1	1.0	16	4	500	--	<5	<5	10
APR 1988											
06...	740	60	<1	<1.0	3	1	720	77	<5	<5	20
18...	120	--	<1	--	2	--	200	--	<5	--	20
JUN											
08...	80	20	2	<1.0	5	2	190	86	<5	<5	20
20...	100	--	<1	--	9	--	180	--	<5	--	20
JUL											
20...	100	--	1	--	7	--	200	--	<5	--	20
SEP											
12...	110	--	1	--	3	--	200	--	<5	--	10
OCT											
19...	60	<10	<1	<1.0	6	4	210	96	<5	5	20
NOV											
16...	180	--	3	--	31	--	310	--	6	--	10

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)	CHLORODIBROMOMETHANE TOTAL (UG/L)	CHLOROETHANE TOTAL (UG/L)
APR 1987											
27...	--	--	<100	--	<10	--	ND	ND	ND	ND	ND
MAY											
26...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN											
16...	--	<0.10	<1	--	20	--	ND	ND	ND	ND	ND
AUG											
03...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
SEP											
28...	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
NOV											
04...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
DEC											
02...	--	<0.10	3	1	20	20	ND	ND	ND	ND	ND
APR 1988											
06...	7	<0.10	4	1	10	11	ND	ND	ND	ND	ND
18...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
JUN											
08...	10	<0.10	3	2	<10	9	ND	ND	ND	ND	ND
20...	--	<0.10	<1	--	20	--	ND	ND	ND	ND	ND
JUL											
20...	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
SEP											
12...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
OCT											
19...	8	<0.10	4	1	<10	15	ND	ND	ND	ND	ND
NOV											
16...	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04276500 BOUQUET RIVER AT WILLSBORO, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
12...	0.1	ND	ND	ND	ND	1.0	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04276500 BOUQUET RIVER AT WILLSBORO, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUN 1988				
08...	1300	254	2	1.4
20...	1530	204	2	1.1
JUL				
20...	1300	213	5	2.9
SEP				
12...	1345	--	6	--
OCT				
19...	1300	--	2	--
NOV				
16...	1300	856	2	4.6

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
SEP 1987												
28...	1400	5200	--	<1	<10	1	2800	40	33	<0.10	<10	20
SEP 1988												
12...	1345	6540	160	<10	--	20	70	<100	17	0.01	<100	<10

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
SEP 1987											
28...	--	--	--	--	--	--	--	--	--	--	--
SEP 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP 1987											
28...	--	--	--	--	--	--	--	--	--	--	--
SEP 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
SEP 1987											
28...	--	--	--	--	--	--	--	0	E2	7	100
SEP 1988											
12...	ND	ND	ND	ND	ND	ND	ND	1	2	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04279015 LA CHUTE AT STATE HIGHWAY 22 AT TICONDEROGA, NY

LOCATION.--Lat 43 50'38", long 73 25'57", Essex County, Hydrologic Unit 02010001, River Channel Gage on right bank 250 ft (76 m) downstream from International Paper Company "C" Mill Dam, 250 ft (76 m) upstream from Trout Brook, and 0.5 mi (0.8 km) downstream from upper ("A" Mill) Dam.

DRAINAGE AREA.--244 mi2.

PERIOD OF RECORD.--Water years 1987 to 1989.
CHEMICAL DATA: 1987 (b), 1988 (c), 1989 (a).
MINOR ELEMENT DATA: 1987 (b), 1988 (c), 1989 (a).
PESTICIDE DATA: 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: PCB--1988 (b).
NUTRIENT DATA: 1987 (b), 1988 (c), 1989 (a).
BIOLOGICAL DATA:
Bacteria--1987 (a).
SEDIMENT DATA: 1988 (b), 1989 (a).

REMARKS.--Water-discharge data obtained from a discharge rating developed for this site.

WATER-QUALITY DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)
APR 1987												
28...	1030	--	--	--	7.6	8.5	3.6	--	11.0	--	--	--
MAY												
27...	1045	--	--	141	7.8	16.0	3.0	--	9.6	--	--	--
JUN												
17...	0830	--	--	111	7.8	19.0	2.4	--	9.0	--	>120	24.0
AUG												
03...	1045	--	--	--	7.9	12.5	1.6	--	8.6	--	--	--
SEP												
28...	1145	--	--	--	7.6	13.5	0.90	--	10.1	--	--	--
NOV												
04...	1145	--	--	--	7.6	14.5	3.5	--	12.5	--	--	--
DEC												
02...	1130	--	--	--	7.7	4.0	3.5	--	17.7	--	--	--
APR 1988												
06...	1045	30	142	135	7.9	8.5	--	760	12.2	104	--	--
18...	1130	70	133	137	8.1	10.5	28	746	11.1	102	--	--
JUN												
08...	1100	46	137	137	8.0	18.0	3.1	--	9.5	--	--	--
20...	1330	46	138	134	7.8	25.5	0.90	--	8.4	--	--	--
JUL												
20...	1115	59	144	124	8.2	25.0	1.5	762	8.6	104	--	--
SEP												
12...	1200	32	125	128	8.1	19.0	1.1	752	9.5	103	--	--
OCT												
19...	1115	63	138	140	7.8	12.0	1.6	762	10.8	100	--	--
NOV												
16...	1200	362	139	141	7.8	5.5	5.0	768	12.6	99	--	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04279015 LA CHUTE AT STATE HIGHWAY 22 AT TICONDEROGA, NY - continued

WATER-QUALITY DATA (continued)

DATE	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)
APR 1987												
28...	59	18	3.5	--	--	--	--	--	--	52	--	82
MAY												
27...	53	16	3.2	--	--	--	--	--	--	73	--	111
JUN												
17...	42	13	2.3	--	--	--	--	--	--	83	--	96
AUG												
03...	52	16	3.0	--	--	--	--	--	--	76	--	80
SEP												
28...	36	9.8	2.8	--	--	--	--	--	--	55	--	58
NOV												
04...	60	17	4.2	--	--	--	--	--	--	62	--	69
DEC												
02...	51	15	3.3	--	--	--	--	--	--	64	--	85
APR 1988												
06...	49	14	3.3	6.2	0.60	38	12	10	0.10	82	69	90
18...	50	15	3.0	4.9	0.60	44	12	8.2	0.10	105	70	124
JUN												
08...	54	16	3.4	5.1	0.60	45	11	7.8	0.30	80	71	84
20...	51	15	3.4	5.1	0.50	42	7.1	8.3	0.30	75	65	84
JUL												
20...	57	17	3.6	5.8	0.60	46	11	9.1	0.10	94	75	105
SEP												
12...	50	15	3.1	5.2	0.50	38	12	8.9	0.10	111	68	119
OCT												
19...	57	17	3.5	5.7	0.90	44	11	8.7	<0.10	--	73	74
NOV												
16...	53	15	3.8	5.5	0.80	42	15	9.2	0.10	90	75	98

DATE	SOLIDS, VOLATILE ON IGNITION, TOTAL (MG/L)	RESIDUE TOTAL FIXED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS NH4)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS NO3)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
APR 1987												
28...	10	67	ND	0.060	0.010	0.01	0.08	0.09	0.15	0.66	0.010	ND
MAY												
27...	30	81	ND	ND	0.040	0.05	0.05	0.09	--	--	0.010	0.00
JUN												
17...	35	61	ND	ND	0.010	0.01	0.06	0.07	--	--	0.010	ND
AUG												
03...	29	49	ND	ND	0.010	0.01	0.13	0.14	--	--	0.010	ND
SEP												
28...	38	28	ND	ND	0.00	0.0	0.15	0.15	--	--	0.00	ND
NOV												
04...	51	23	ND	ND	0.010	0.01	0.19	0.20	--	--	0.00	0.00
DEC												
02...	31	42	ND	0.070	ND	--	--	0.11	0.18	0.80	0.010	0.00
APR 1988												
06...	10	80	ND	0.080	0.010	0.01	0.16	0.17	0.25	1.1	0.010	ND
18...	38	86	ND	ND	0.040	0.05	0.12	0.16	--	--	0.060	0.00
JUN												
08...	25	59	ND	0.130	0.00	0.0	0.18	0.18	0.31	1.4	0.010	ND
20...	45	39	ND	ND	0.010	0.01	0.19	0.20	--	--	0.010	ND
JUL												
20...	41	64	ND	ND	0.010	0.01	0.18	0.19	--	--	0.010	ND
SEP												
12...	54	65	ND	ND	0.00	0.0	0.13	0.13	--	--	0.010	ND
OCT												
19...	20	54	ND	ND	ND	--	--	0.19	--	--	0.010	ND
NOV												
16...	41	57	ND	ND	0.010	0.01	0.27	0.28	--	--	0.010	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04279015 LA CHUTE AT STATE HIGHWAY 22 AT TICONDEROGA, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
APR 1987												
28...	--	--	--	<10	--	<10	--	280	--	<100	--	10
MAY												
27...	0.0	--	--	<10	--	<10	--	240	--	<5	--	20
JUN												
17...	--	--	--	<10	--	10	--	170	--	<5	--	10
AUG												
03...	--	--	--	<10	--	20	--	180	--	<5	--	20
SEP												
28...	--	--	--	<1	--	4	--	90	--	<5	--	<10
NOV												
04...	0.0	--	--	<1	--	4	--	130	--	<5	--	<10
DEC												
02...	0.0	--	--	<1	--	9	--	250	--	<5	--	<10
APR 1988												
06...	--	140	<10	<1	<1.0	5	<1	170	23	<5	<5	10
18...	0.0	1300	--	2	--	8	--	1700	--	6	--	50
JUN												
08...	--	140	20	<1	<1.0	6	3	230	52	<5	<5	20
20...	--	90	--	<1	--	4	--	230	--	<5	--	20
JUL												
20...	--	110	--	<1	--	5	--	280	--	7	--	20
SEP												
12...	--	90	--	<1	--	4	--	170	--	<5	--	<10
OCT												
19...	--	130	20	<1	<1.0	4	2	220	46	<5	<5	<10
NOV												
16...	--	150	--	2	--	14	--	280	--	<5	--	10

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
28...	--	--	<100	--	<10	--	ND	ND	ND	ND	ND
MAY											
27...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
JUN											
17...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
AUG											
03...	--	<0.10	<1	--	<10	--	ND	ND	ND	ND	ND
SEP											
28...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
NOV											
04...	--	<0.10	3	--	<10	--	ND	ND	ND	ND	ND
DEC											
02...	--	<0.10	1	--	<10	--	ND	ND	ND	ND	ND
APR 1988											
06...	7	<0.10	1	2	<10	7	ND	ND	ND	ND	ND
18...	--	<0.10	2	--	20	--	ND	ND	ND	ND	ND
JUN											
08...	9	<0.10	<1	1	<10	3	ND	ND	ND	ND	ND
20...	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
JUL											
20...	--	<0.10	2	--	<10	--	ND	ND	ND	ND	ND
SEP											
12...	--	<0.10	4	--	<10	--	ND	ND	ND	ND	ND
OCT											
19...	4	<0.10	4	<1	<10	8	ND	ND	ND	ND	ND
NOV											
16...	--	<0.10	6	--	<10	--	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04279015 LA CHUTE AT STATE HIGHWAY 22 AT TICONDEROGA, NY- continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)
APR 1987											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
12...	0.1	ND	ND	ND	ND	0.9	ND	ND	ND	ND	ND
OCT											
19...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY											
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
28...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC											
02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988											
06...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN											
08...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT											
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV											
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

ST. LAWRENCE RIVER BASIN

04279015 LA CHUTE AT STATE HIGHWAY 22 AT TICONDEROGA, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
JUN 1988				
08...	1100	46	3	0.37
20...	1330	46	2	0.25
JUL				
20...	1115	59	5	0.80
OCT				
19...	1115	63	2	0.34
NOV				
16...	1200	362	13	13

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
SEP 1987												
28...	1145	93600	--	1	<10	10	5900	40	160	0.12	10	60
SEP 1988												
12...	1200	48000	230	<10	--	20	340	<100	47	0.12	<100	<10

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
SEP 1987											
28...	--	--	--	--	--	--	--	--	--	--	--
SEP 1988											
12...	ND	ND	ND	ND	E1.0	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFAN SULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP 1987											
28...	--	--	--	--	--	--	--	--	--	--	--
SEP 1988											
12...	ND	ND	1.0	ND	ND	ND	ND	ND	ND	ND	ND

DATE	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	P,P' DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
SEP 1987											
28...	--	--	--	--	--	--	--	1	5	14	97
SEP 1988											
12...	ND	ND	ND	ND	ND	ND	ND	5	12	100	--

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY

LOCATION.--Lat 44 59'46", long 73 21'37", Clinton County, Hydrologic Unit 02010006, on left bank at outlet of Lake Champlain in Rouses Point, and 1.0 mi south of Fort Montgomery ruins. Water-quality sampling site at stage station.

DRAINAGE AREA.--8,277 mi 2 .

PERIOD OF RECORD.--Water years 1966-67, 1969-72, 1974 to current year.
CHEMICAL DATA: 1966-67 (a), 1969 (b), 1970 (c), 1971-72 (b), 1974-82 (c), 1983-86 (b), 1987 (c), 1988 (d), 1989 (b).
MINOR ELEMENTS DATA: 1974-86 (b), 1987 (c), 1988 (d), 1989 (b).
PESTICIDE DATA: 1976-79 (b), 1980 (a), 1982 (b), 1987 (b), 1988 (c), 1989 (a).
ORGANIC DATA: OC--1974 (a), 1975-77 (b), 1978 (a), 1979-81 (c), 1988 (b), 1989 (a).
PCB--1978-79 (b), 1980 (a), 1982 (b), 1988 (a).
NUTRIENT DATA: 1970 (c), 1971-72 (b), 1974 (b), 1975-82 (c), 1983-86 (b), 1987 (c), 1988 (d), 1989 (b).
BIOLOGICAL DATA:
Bacteria--1974 (a), 1975-82 (c), 1983-86 (b), 1987-88 (b), 1989 (a).
Phytoplankton--1974 (a), 1975-78 (c), 1979 (b), 1980-81 (c).
Periphyton--1975 (c), 1976-80 (b).
SEDIMENT DATA: 1975-82 (c), 1983-87 (b), 1988-89 (c).

REMARKS.--Water-quality data was also collected at this site for the National Stream-accounting network.

WATER-QUALITY DATA

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DISSOLVED (PER-CENT SATUR-ATION)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	FECAL COLI-FORM 24-HR MEM.FIL (COLS./ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
APR 1987												
27...	1450	--	--	8.1	12.0	0.80	--	15.4	--	--	--	58
MAY												
26...	1500	--	161	8.5	19.0	0.40	--	10.9	--	--	--	60
JUN												
16...	1200	--	156	8.0	19.5	0.60	--	9.4	--	--	--	--
AUG												
04...	0930	--	--	8.0	12.0	0.30	--	8.3	--	--	--	61
SEP												
29...	1000	--	--	7.6	15.0	1.0	--	10.1	--	1800	50.0	21
NOV												
05...	0915	--	172	7.6	11.5	1.8	--	11.0	--	--	--	63
DEC												
03...	0900	--	--	7.8	--	1.0	--	18.4	--	>200	200	66
APR 1988												
07...	0915	--	154	6.9	4.0	0.60	--	14.4	--	--	--	57
19...	0930	--	169	6.9	6.0	0.80	--	13.3	--	--	--	61
JUN												
09...	0900	--	163	7.0	13.0	1.5	--	10.3	--	--	--	63
21...	0930	--	163	8.3	20.5	0.80	--	9.8	--	--	--	63
JUL												
21...	0900	--	167	6.9	23.0	0.50	--	7.1	--	--	--	64
AUG												
24...	0830	156	159	8.2	20.0	1.4	760	8.4	93	--	--	61
SEP												
12...	1645	161	162	8.6	19.0	--	752	10.2	111	--	--	62
OCT												
19...	1600	171	171	7.8	10.0	1.2	762	10.8	96	--	--	66
NOV												
16...	1600	167	170	7.5	5.5	9.0	768	11.6	92	--	--	63

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY - continued

WATER-QUALITY DATA (continued)

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L)	SOLIDS, VOLA-TILE ON IGNI-TION, TOTAL (MG/L)
APR 1987												
27...	17	3.7	--	--	--	--	--	--	63	--	85	22
MAY												
26...	18	3.7	--	--	--	--	--	--	97	--	108	36
JUN												
16...	--	--	--	--	--	--	--	--	107	--	110	48
AUG												
04...	18	3.8	--	--	--	--	--	--	84	--	89	38
SEP												
29...	6.6	1.2	--	--	--	--	--	--	81	--	122	54
NOV												
05...	18	4.3	--	--	--	--	--	--	98	--	103	61
DEC												
03...	19	4.5	--	--	--	--	--	--	85	--	103	38
APR 1988												
07...	16	4.1	6.2	1.3	46	14	9.6	0.10	86	79	88	36
19...	17	4.4	7.0	1.3	51	14	9.6	0.10	100	84	120	34
JUN												
09...	18	4.3	7.1	1.4	51	14	9.9	0.20	94	86	97	35
21...	18	4.4	7.0	1.2	51	14	9.8	0.20	96	85	87	53
JUL												
21...	18	4.6	7.3	1.2	51	14	10	0.10	107	86	122	44
AUG												
24...	17	4.4	7.1	1.0	49	13	10	0.10	90	85	--	--
SEP												
12...	17	4.7	7.5	1.2	49	14	10	0.10	--	84	--	--
OCT												
19...	19	4.6	7.8	1.6	53	15	11	0.10	91	91	96	16
NOV												
16...	18	4.5	6.8	1.6	51	15	11	0.10	113	88	152	50

DATE	RESIDUE TOTAL FIXED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS NH4)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
APR 1987												
27...	70	ND	0.160	0.010	0.01	--	0.11	0.12	0.28	1.2	0.010	ND
MAY												
26...	72	ND	0.110	0.030	0.04	--	0.07	0.10	0.21	0.93	0.010	ND
JUN												
16...	62	ND	0.120	<0.010	--	--	--	0.16	0.28	1.2	0.010	ND
AUG												
04...	54	ND	ND	<0.010	--	--	--	0.18	--	--	0.010	ND
SEP												
29...	63	ND	ND	0.010	0.01	--	0.25	0.26	--	--	0.010	ND
NOV												
05...	42	ND	0.120	0.010	0.01	--	0.21	0.22	0.34	1.5	0.010	0.00
DEC												
03...	48	ND	0.170	ND	--	--	--	0.12	0.29	1.3	0.010	0.00
APR 1988												
07...	52	ND	0.200	0.010	0.01	--	0.27	0.28	0.48	2.1	0.010	ND
19...	86	ND	0.130	0.010	0.01	--	0.14	0.15	0.28	1.2	0.010	0.00
JUN												
09...	62	ND	0.260	0.00	0.0	--	0.18	0.18	0.44	1.9	0.010	0.00
21...	34	ND	ND	0.010	0.01	0.01	0.25	0.26	--	--	0.010	<0.010
JUL												
21...	78	ND	0.080	0.030	0.04	--	0.34	0.37	0.45	2.0	0.020	ND
AUG												
24...	--	--	--	0.020	0.03	--	--	<0.20	--	--	0.010	<0.010
SEP												
12...	--	ND	ND	0.010	0.01	--	0.23	0.24	--	--	0.010	ND
OCT												
19...	80	ND	ND	0.00	0.0	--	0.19	0.19	--	--	0.020	ND
NOV												
16...	102	ND	0.250	0.040	0.05	--	0.42	0.46	0.71	3.1	0.070	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY - continued

WATER-QUALITY DATA (continued)

DATE	PHOSPHATE, ORTHO, DISSOLVED (MG/L AS PO4)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)
APR 1987												
27...	--	--	--	<10	--	--	<10	--	60	--	<100	--
MAY												
26...	--	--	--	<10	--	--	<10	--	20	--	<5	--
JUN												
16...	--	--	--	<10	--	--	<10	--	40	--	7	--
AUG												
04...	--	--	--	<10	--	--	20	--	30	--	<5	--
SEP												
29...	--	--	--	<1	<1.0	--	2	2	80	--	<5	<5
NOV												
05...	0.0	--	--	<1	--	--	36	--	90	--	<5	--
DEC												
03...	0.0	--	--	<1	--	--	9	--	50	--	<5	--
APR 1988												
07...	--	10	<10	<1	<1.0	--	2	3	40	13	<5	<5
19...	0.0	20	--	<1	--	--	6	--	40	--	<5	--
JUN												
09...	0.0	40	<10	2	<1.0	--	6	2	80	17	<5	<5
21...	--	30	--	<1	--	--	3	--	60	--	<5	--
JUL												
21...	--	<10	--	<1	--	--	3	--	80	--	<5	--
AUG												
24...	--	--	<10	--	<1.0	<1	--	1	--	7	--	<5
SEP												
12...	--	10	--	1	--	--	1	--	20	--	<5	--
OCT												
19...	--	70	<10	1	<1.0	--	5	2	120	8	<5	<5
NOV												
16...	--	550	--	2	--	--	9	--	920	--	9	--

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	PHENOL (C6H5OH) TOTAL (UG/L)	BROMOFORM TOTAL (UG/L)	CARBON-TETRACHLORIDE TOTAL (UG/L)	CHLOROBENZENE TOTAL (UG/L)
APR 1987												
27...	<10	--	--	<100	--	--	60	--	--	ND	ND	ND
MAY												
26...	10	--	<0.10	<1	--	--	<10	--	--	ND	ND	ND
JUN												
16...	20	--	<0.10	<1	--	--	<10	--	--	ND	ND	ND
AUG												
04...	10	--	<0.10	7	--	--	<10	--	--	ND	ND	ND
SEP												
29...	<10	--	<0.10	2	1	--	<10	<10	--	ND	ND	ND
NOV												
05...	<10	--	0.10	<1	--	--	30	--	--	ND	ND	ND
DEC												
03...	<10	--	<0.10	4	--	--	<10	--	--	ND	ND	ND
APR 1988												
07...	<10	4	<0.10	2	1	--	<10	5	--	ND	ND	ND
19...	<10	--	<0.10	<1	--	--	10	--	--	ND	ND	ND
JUN												
09...	20	4	<0.10	4	3	--	<10	5	ND	ND	ND	ND
21...	20	--	<0.10	2	--	--	<10	--	ND	ND	ND	ND
JUL												
21...	40	--	<0.10	2	--	--	<10	--	0.0	ND	ND	ND
AUG												
24...	--	<1	--	--	1	<1.0	--	<3	--	--	--	--
SEP												
12...	<10	--	<0.10	2	--	--	<10	--	--	ND	ND	ND
OCT												
19...	<10	<1	<0.10	3	<1	--	<10	<3	ND	ND	ND	ND
NOV												
16...	50	--	<0.10	7	--	--	<10	--	--	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY - continued

WATER-QUALITY DATA (continued)

DATE	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)
APR 1987												
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL												
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
12...	ND	ND	0.1	ND	ND	ND	ND	0.9	ND	ND	ND	ND
OCT												
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
16...	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)
APR 1987												
27...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAY												
26...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
16...	ND	ND	ND	ND	ND	ND	ND	19	ND	2.0	ND	ND
AUG												
04...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SEP												
29...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DEC												
03...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
APR 1988												
07...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUN												
09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL												
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG												
24...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCT												
19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NOV												
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY - continued

SUSPENDED SEDIMENT DISCHARGE

DATE	TIME	SEDIMENT, SUSPENDED (MG/L)
APR 1987		
27...	1450	--
MAY		
26...	1500	--
JUN		
16...	1200	--
AUG		
04...	0930	--
SEP		
29...	1000	--
NOV		
05...	0915	--
DEC		
03...	0900	--
APR 1988		
07...	0915	--
19...	0930	--
JUN		
09...	0900	3
21...	0930	--
JUL		
21...	0900	--
AUG		
24...	0830	3
SEP		
12...	1645	--
OCT		
19...	1600	4
NOV		
16...	1600	37

BED MATERIAL ANALYSES

DATE	TIME	SOLIDS, VOLATILE IN BOTTOM MATERIAL (MG/KG)	ALUMINUM, RECOV. FM BOTTOM MATERIAL (UG/G)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN)
SEP 1987												
29...	1000	7340	--	<1	<10	7	3900	<10	73	<0.10	<10	20
SEP 1988												
12...	1645	15100	130	<10	--	20	150	<100	23	0.02	<100	<10

DATE	AROCLOR 1221 IN BOTTOM MAT. (UG/KG)	AROCLOR 1248 PCB BOT.MAT (UG/KG)	AROCLOR 1254 PCB BOT.MAT (UG/KG)	AROCLOR 1260 PCB BOT.MAT (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALPHA BHC TOTAL IN BOTTOM MATERIAL (UG/KG)	ATRAZINE, TOTAL IN BOTTOM MATERIAL (UG/KG)	BETA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORPYRIFOS IN BOT. MAT. (UG/KG)	DELTA BENZENE HEXACHLORIDE BOT.MAT (UG/KG)
SEP 1987											
29...	--	--	--	--	--	--	--	--	--	--	--
SEP 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN ALPHA BOT.MAT (UG/KG)	ENDOSULFAN BETA BOT.MAT (UG/KG)	ENDOSULFATE BOT.MAT (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN ALDEHYDE BOT.MAT (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
SEP 1987											
29...	--	--	--	--	--	--	--	--	--	--	--
SEP 1988											
12...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 4.--Selected water-quality and bottom-material data from streams in New York, 1987-88 (continued).

STREAMS TRIBUTARY TO ST. LAWRENCE RIVER

04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT, NY - continued

BED MATERIAL ANALYSES (continued)

DATE	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	P,P' DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG)	BED MAT. FALL DIAM. % FINER THAN .004 MM	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM
SEP 1987											
29...	--	--	--	--	--	--	--	0	1	17	100
SEP 1988											
12...	ND	ND	ND	ND	ND	ND	ND	1	6	100	--

Table 5.--Result of analyses of quality-assurance samples.

[Abbreviations used in table: AL - Aluminum, CA - Calcium, CACO3 - Calcium carbonate, CD - Cadmium, CL - Chloride, CU - Copper, F - Fluoride, FE - Iron, HG - Mercury, K - Potassium, LAB - laboratory, MG - Magnesium, MG/L - milligram per liter, MN - Manganese, NA - Sodium, NI - Nickel, PB - Lead, SO4 - Sulfate, UG/L - microgram per liter, US/CM - microsiemens per centimeter, ZN - Zinc.]

Field blanks

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM)	PH LAB (STANDARD UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
APR 1988										
05...	1230	1	5.8	--	--	--	--	--	2.0	<0.20
14...	1345	3	7.1	0	0.03	0.01	<0.20	0.10	1.0	0.30
20...	1230	2	5.9	0	0.10	0.04	<0.20	0.10	2.0	<0.20
21...	1145	1	6.1	0	0.08	0.04	<0.20	<0.10	1.0	<0.20
MAY										
04...	1130	1	6.8	--	0.06	<0.01	<0.20	0.10	9.0	<0.20
12...	1300	1	6.0	--	0.11	<0.01	<0.20	0.10	2.0	<0.20
18...	1000	2	6.7	1	0.21	0.05	<0.20	0.20	1.0	<0.20
JUN										
09...	1100	2	6.0	1	0.08	0.07	<0.20	0.10	1.5	<0.20
16...	1230	2	7.6	--	0.18	<0.01	<0.20	0.10	2.0	1.0
21...	0930	1	6.3	1	0.15	0.05	<0.20	0.10	2.0	<0.20
23...	1230	1	7.8	0	0.07	0.05	<0.20	0.10	1.0	0.60
JUL										
21...	1100	2	7.4	1	0.41	0.06	0.40	0.10	2.0	<0.20
AUG										
19...	0945	2	7.9	--	0.11	<0.01	<0.20	0.10	1.0	<0.20
SEP										
12...	1900	1	7.6	0	0.06	0.01	<0.20	0.10	1.0	<0.20
OCT										
06...	0800	2	7.1	1	0.35	0.08	0.30	0.20	1.0	<0.20
06...	1500	1	7.5	1	0.20	0.04	<0.20	0.10	2.0	<0.20
20...	1000	2	7.3	0	0.11	0.01	<0.20	0.10	2.0	<0.20
NOV										
09...	1130	2	7.3	1	0.12	0.09	<0.20	0.10	2.0	<0.20
17...	1200	2	6.8	--	0.13	<0.01	<0.20	0.10	1.0	<0.20

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
APR 1988										
05...	0.10	--	<10	--	<1	--	3	--	<10	--
14...	0.10	0.10	10	--	<1	--	1	--	>10	--
20...	0.10	0.10	<10	<10	1	<1.0	<1	<1	<10	<3
21...	0.10	0.10	<10	--	2	--	<1	--	<10	--
MAY										
04...	0.10	0.10	10	<10	<1	<1.0	10	1	<10	<3
12...	0.20	0.10	<10	--	<1	--	2	--	<10	--
18...	0.10	0.20	<10	<10	6	<1.0	5	2	20	<3
JUN										
09...	<0.10	0.20	<10	<10	1	<1.0	2	2	20	<3
16...	0.40	0.10	20	--	<1	--	4	--	10	--
21...	0.10	0.30	<10	--	<1	--	2	--	10	--
23...	0.30	0.20	<10	--	<1	--	2	--	<10	--
JUL										
21...	<0.10	0.10	<10	--	3	--	3	--	20	--
AUG										
19...	0.10	<0.10	30	--	<1	--	3	--	60	--
SEP										
12...	0.20	<0.10	<10	--	1	--	2	--	180	--
OCT										
06...	<0.10	0.10	10	<10	<1	<1.0	2	<1	<10	<3
06...	0.10	<0.10	40	<10	<1	<1.0	5	3	50	8
20...	0.10	<0.10	<10	<10	1	<1.0	4	1	20	6
NOV										
09...	<0.10	0.10	10	<10	<1	<1.0	5	5	40	7
17...	0.20	<0.10	20	--	1	--	8	--	40	--

Table 5.--Result of analyses of quality-assurance samples (continued).

Field blanks (cont'd)

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
APR 1988									
05...	<5	--	<10	--	<0.10	5	--	<10	--
14...	<5	--	<10	--	<0.10	2	--	<10	--
20...	<5	<5	<10	<1	<0.10	5	<1	<10	<3
21...	<5	--	<10	--	<0.10	4	--	<10	--
MAY									
04...	<5	<5	<10	<1	<0.10	5	<1	<10	7
12...	<5	--	<10	--	<0.10	5	--	<10	--
18...	5	<5	<10	<1	<0.10	6	<1	<10	<3
JUN									
09...	<5	<5	<10	<1	<0.10	2	1	<10	<3
16...	<5	--	<10	--	<0.10	2	--	<10	--
21...	<5	--	20	--	1.6	2	--	<10	--
23...	<5	--	<10	--	<0.10	<1	--	<10	--
JUL									
21...	5	--	<10	--	<0.10	1	--	<10	--
AUG									
19...	<5	--	<10	--	<0.10	5	--	<10	--
SEP									
12...	<5	--	<10	--	<0.10	4	--	<10	--
OCT									
06...	<5	<5	<10	<1	0.30	2	1	<10	4
06...	<5	<5	<10	<1	<0.10	4	1	<10	4
20...	<5	5	<10	<1	<0.10	3	1	<10	6
NOV									
09...	7	<5	<10	1	<0.10	2	1	10	6
17...	<5	--	<10	--	<0.10	11	--	<10	--

Table 5.--Result of analyses of quality-assurance samples (continued).

Paired duplicate samples

DATE	TIME	SPECIFIC CONDUCTANCE LAB (US/CM)	PH LAB (STANDARD UNITS)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
01317395	SCHROON RIVER, STATE HIGHWAY 418, AT WARRENSBURG NY									
MAY 1988										
12...	1200	72	7.8	23	7.3	1.2	3.7	0.30	18	9.0
12...	1200	72	7.9	23	7.4	1.2	3.8	0.30	18	9.0
01422642	WEST BRANCH DELAWARE RIVER AT DE LANCEY NY									
APR 1988										
21...	1100	91	7.5	30	8.8	1.9	4.4	0.90	19	11
21...	1100	91	7.5	29	8.5	1.9	4.4	0.90	19	11
01437500	NEVERSINK RIVER AT GODEFFROY NY									
JUN 1988										
23...	1100	98	7.5	27	8.3	1.6	6.7	1.0	21	11
23...	1100	98	7.4	28	8.4	1.6	6.7	1.0	17	10
04213320	CHAUTAUQUA CREEK AT BARCELONA NY									
MAY 1988										
04...	1115	268	8.1	--	--	--	--	--	84	--
04...	1115	268	8.0	--	--	--	--	--	86	--
04213378	CANADAWAY CREEK AT DUNKIRK NY									
MAY 1988										
19...	1020	264	7.8	100	32	5.5	11	1.3	75	25
19...	1020	264	7.8	100	32	5.5	11	1.5	74	25
04214500	BUFFALO CREEK AT GARDENVILLE NY									
NOV 1988										
15...	0900	411	8.3	180	54	10	16	2.4	118	53
15...	0900	412	8.3	170	53	10	16	2.5	118	53
04218054	TONAWANDA CREEK AT PENDLETON NY									
APR 1988										
18...	1330	637	8.2	280	85	16	20	1.8	194	88
18...	1330	637	8.2	290	89	17	21	1.9	194	88
04219640	NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA NY									
MAY 1988										
03...	0845	287	8.0	--	--	--	--	--	97	--
03...	0845	287	8.0	--	--	--	--	--	97	--
JUN										
29...	1230	291	8.4	120	35	8.3	9.1	1.3	97	26
29...	1230	--	--	--	--	--	--	--	--	--
04273500	SARANAC RIVER AT PLATTSBURGH NY									
OCT 1988										
20...	0815	94	7.7	38	10	3.1	4.3	0.70	30	11
20...	0815	94	7.7	38	10	3.1	4.3	0.70	30	11
NOV										
17...	0900	73	7.4	27	7.2	2.1	3.2	0.60	17	14
17...	0900	73	7.4	26	7.1	2.1	3.2	0.70	17	14
04295000	RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT NY									
APR 1988										
07...	0915	154	7.9	57	16	4.1	6.2	1.3	46	14
07...	0915	153	7.7	57	16	4.1	6.2	1.3	47	15
JUN										
09...	0900	163	8.0	63	18	4.3	7.1	1.4	51	14
09...	0900	158	8.0	62	18	4.2	6.9	1.3	51	14
JUL										
21...	0900	167	7.8	64	18	4.6	7.3	1.2	51	14
21...	0900	170	8.2	61	17	4.5	7.0	1.1	51	14
SEP										
12...	1645	162	8.4	62	17	4.7	7.5	1.2	49	14
12...	1645	163	8.6	64	18	4.7	7.2	1.1	50	14

Table 5.--Result of analyses of quality-assurance samples (continued).

Paired duplicate samples (cont'd)

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
01317395 SCHROON RIVER, STATE HIGHWAY 418, AT WARRENSBURG NY										
MAY 1988										
12...	6.4	0.10	39	50	--	1	--	2	--	110
12...	6.4	0.10	39	50	--	1	--	2	--	90
01422642 WEST BRANCH DELAWARE RIVER AT DE LANCEY NY										
APR 1988										
21...	7.4	0.10	46	60	--	2	--	6	--	70
21...	7.3	0.10	45	20	--	2	--	4	--	70
01437500 NEVERSINK RIVER AT GODEFFROY NY										
JUN 1988										
23...	10	0.20	51	30	--	<1	--	4	--	140
23...	9.6	0.20	48	30	--	<1	--	4	--	160
04213320 CHAUTAUQUA CREEK AT BARCELONA NY										
MAY 1988										
04...	--	--	--	260	--	<1	--	4	--	640
04...	--	--	--	240	--	<1	--	3	--	600
04213378 CANADAWAY CREEK AT DUNKIRK NY										
MAY 1988										
19...	18	0.20	138	1100	<10	<1	<1.0	14	2	2300
19...	17	0.20	137	20	20	<1	<1.0	30	2	120
04214500 BUFFALO CREEK AT GARDENVILLE NY										
NOV 1988										
15...	23	0.10	229	40	--	1	--	4	--	180
15...	22	0.10	227	40	--	<1	--	2	--	200
04218054 TONAWANDA CREEK AT PENDLETON NY										
APR 1988										
18...	36	0.20	363	100	10	1	<1.0	11	3	420
18...	34	0.20	367	100	10	1	<1.0	8	2	430
04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA NY										
MAY 1988										
03...	--	--	--	60	--	<1	--	8	--	540
03...	--	--	--	60	--	44	--	17	--	120
JUN										
29...	14	0.30	152	50	--	<1	--	11	--	100
29...	--	--	--	60	--	28	--	11	--	170
04273500 SARANAC RIVER AT PLATTSBURGH NY										
OCT 1988										
20...	6.1	<0.10	53	50	10	<1	<1.0	6	3	350
20...	6.1	<0.10	53	50	10	<1	<1.0	6	3	350
NOV										
17...	5.2	<0.10	42	110	--	1	--	8	--	320
17...	5.2	<0.10	42	110	--	2	--	9	--	330
04295000 RICHELIEU RIVER (LAKE CHAMPLAIN) AT ROUSES POINT NY										
APR 1988										
07...	9.6	0.10	79	10	<10	<1	<1.0	2	3	40
07...	9.9	0.10	81	20	10	<1	<1.0	2	1	40
JUN										
09...	9.9	0.20	86	40	<10	2	<1.0	6	2	80
09...	10	0.30	85	40	<10	2	<1.0	3	3	70
JUL										
21...	10	0.10	86	<10	--	<1	--	3	--	80
21...	9.9	0.10	84	<10	--	<1	--	4	--	100
SEP										
12...	10	0.10	84	10	--	1	--	1	--	20
12...	10	0.10	85	40	--	<1	--	3	--	20

Table 5.--Result of analyses of quality-assurance samples (continued).

Paired duplicate samples (cont'd)

DATE	IRON TOTAL DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
01317395 SCHROON RIVER, STATE HIGHWAY 418, AT WARRENSBURG NY										
MAY 1988										
12...	--	<5	--	10	--	<0.10	6	--	<10	--
12...	--	<5	--	10	--	<0.10	4	--	<10	--
01422642 WEST BRANCH DELAWARE RIVER AT DE LANCEY NY										
APR 1988										
21...	--	<5	--	20	--	<0.10	7	--	<10	--
21...	--	<5	--	20	--	<0.10	5	--	<10	--
01437500 NEVERSINK RIVER AT GODEFFROY NY										
JUN 1988										
23...	--	<5	--	40	--	<0.10	<1	--	10	--
23...	--	<5	--	50	--	<0.10	<1	--	<10	--
04213320 CHAUTAUQUA CREEK AT BARCELONA NY										
MAY 1988										
04...	--	<5	--	20	--	--	<1	--	20	--
04...	--	<5	--	20	--	<0.10	<1	--	10	--
04213378 CANADAWAY CREEK AT DUNKIRK NY										
MAY 1988										
19...	33	<5	<5	50	13	<0.10	14	2	<10	7
19...	50	<5	<5	20	13	<0.10	4	2	20	9
04214500 BUFFALO CREEK AT GARDENVILLE NY										
NOV 1988										
15...	--	<5	--	30	--	<0.10	2	--	<10	--
15...	--	<5	--	30	--	<0.10	1	--	<10	--
04218054 TONAWANDA CREEK AT PENDLETON NY										
APR 1988										
18...	17	<5	<5	60	40	<0.10	5	2	<10	<3
18...	15	<5	<5	50	39	<0.10	5	1	<10	<3
04219640 NIAGARA RIVER (LAKE ONTARIO) AT FORT NIAGARA NY										
MAY 1988										
03...	--	<5	--	10	--	--	6	--	<10	--
03...	--	<5	--	<10	--	<0.10	3	--	<10	--
JUN										
29...	--	8	--	50	--	0.40	2	--	<10	--
29...	--	<5	--	20	--	<0.10	5	--	20	--
04273500 SARANAC RIVER AT PLATTSBURGH NY										
OCT 1988										
20...	240	<5	<5	10	8	0.10	1	<1	<10	5
20...	240	<5	<5	<10	8	0.10	1	<1	<10	5
NOV										
17...	--	<5	--	30	--	<0.10	8	--	<10	--
17...	--	<5	--	30	--	<0.10	10	--	<10	--
04295000 RICHELIEU RIVER (LAKE CHAMPLAIN)										
APR 1988										
07...	13	<5	<5	<10	4	<0.10	2	1	<10	5
07...	17	<5	<5	10	4	<0.10	3	1	<10	5
JUN										
09...	17	<5	<5	20	4	<0.10	4	3	<10	5
09...	11	<5	<5	30	4	<0.10	3	3	<10	4
JUL										
21...	--	<5	--	40	--	<0.10	2	--	<10	--
21...	--	<5	--	40	--	<0.10	1	--	<10	--
SEP										
12...	--	<5	--	<10	--	<0.10	2	--	<10	--
12...	--	<5	--	<10	--	<0.10	4	--	<10	--