

GENERAL ELECTRIC HUDSON RIVER INVESTIGATION

MARCH 4, 1992

- **GE DATA COLLECTION EFFORTS**
- **BAKERS FALLS SOURCE**
 - **DISCOVERY**
 - **HISTORIC PRESENCE**
 - **IMPLICATIONS**
 - **CURRENT BAKERS FALLS INVESTIGATION**

GENERAL ELECTRIC DATA COLLECTION

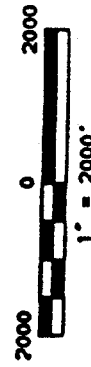
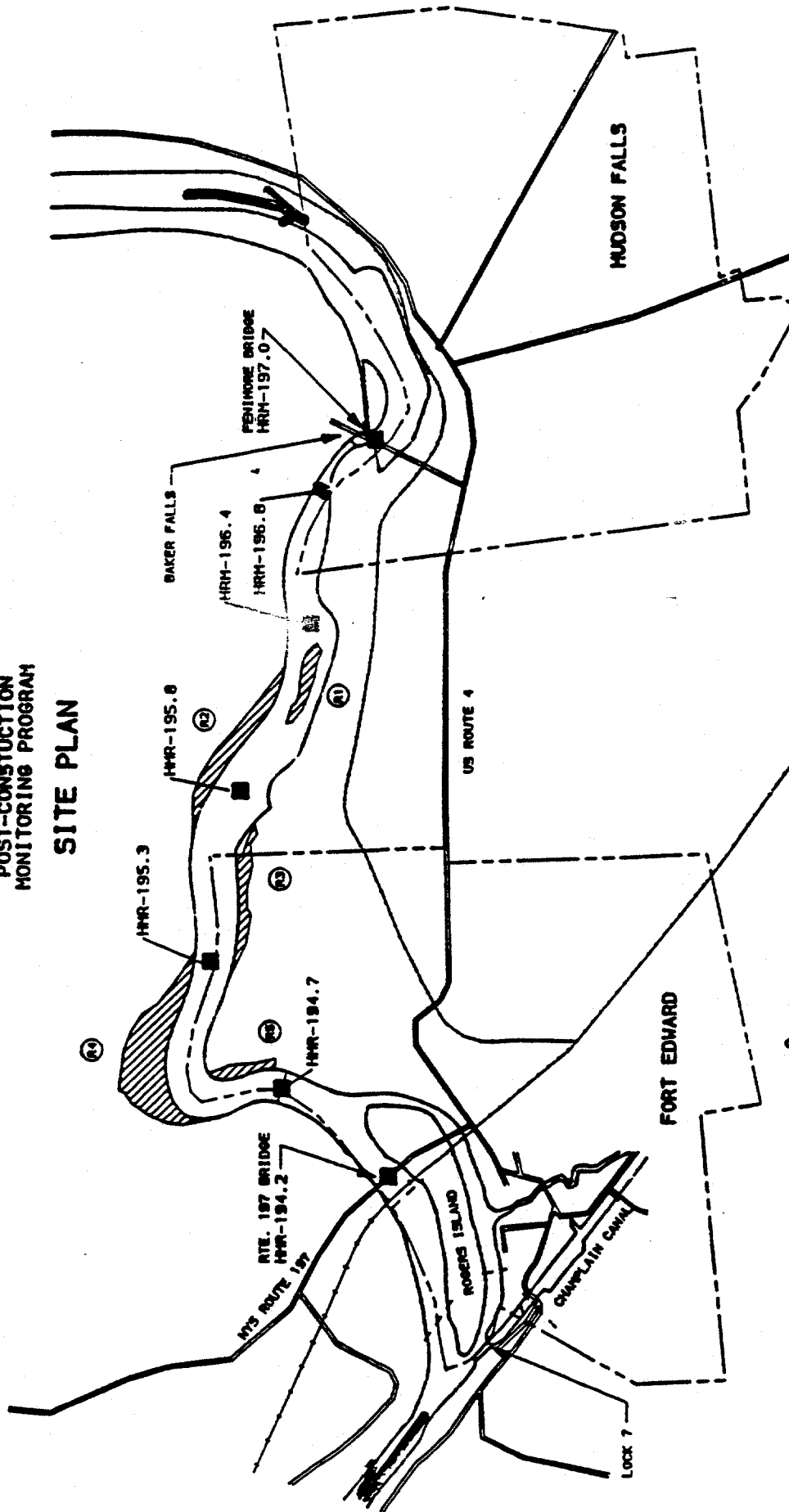
<u>DESCRIPTION</u>	<u>DATE(S)</u>	<u>MEDIA</u>	<u>Approximate #OF SAMPLES</u>	<u>CONTRACTOR</u>
Hot Spot Survey	1990	Sediments	60	Harza
H7 Survey	1990	Sediments	150	OBG
Remnant Monitoring	1988-91	Sed/Water/Biota/Air	2625	Harza
Lower River Sampling	1989-91	Sed/Biota	500	Harza
Hot Spot Survey	1990	Sediments	400	OBG
Upper Riv.Sediment Survey	1991	Sed Pore Water	1000 cores	OBG
Upper River Monitoring	1991-92	Water	1020	OBG
Bathymetric Survey	1991	Depth	608 Transects	Hydrodata
Storm Event Monitoring	1992	Water	65	OBG
TSS Survey	1991	Water	1300	OBG
Food Chain Study	1992	Water/biota/sediment	50	OBG
Other Source Invest.	1990	Water/sediments	140	OBG
Barge Canal Sediments	1992	Sediment	19	OBG
Upper River Fish	1990	Fish	195	LAW
Float Surveys	1991-92	Water	75	OBG
Remnant Deposits-Fixed Point	1992-Present	Water	270	OBG
Remnant Deposits-Verification	1992	Water	25	OBG
Remnant Deposits Char.	1989	Soils	300	Canonie
Scott Paper	1992	Soils	40	OBG

BAKERS FALLS SOURCE - DISCOVERY

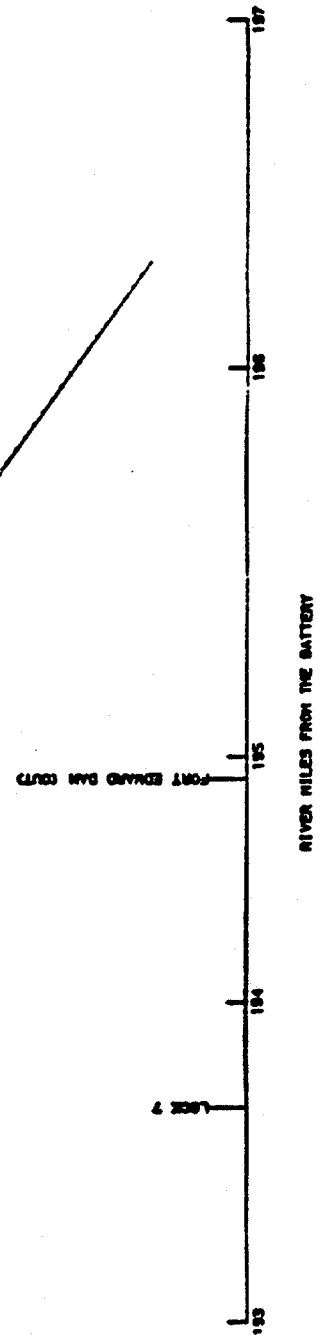
- **NEWLY IDENTIFIED**
- **LOCATED ABOVE FT. EDWARD/ROGERS ISLAND**
- **NON-SEDIMENT SOURCE (UNALTERED AROCLOR 1242)**
- **NOT THE REMNANT DEPOSITS**
- **CURRENT LEVELS ARE VERY LOW**
- **PRESENT HISTORICALLY**

GENERAL ELECTRIC COMPANY
FORT EDWARD DAM PCB REMNANT
DEPOSIT CONTAINMENT
POST-CONSTRUCTION
MONITORING PROGRAM

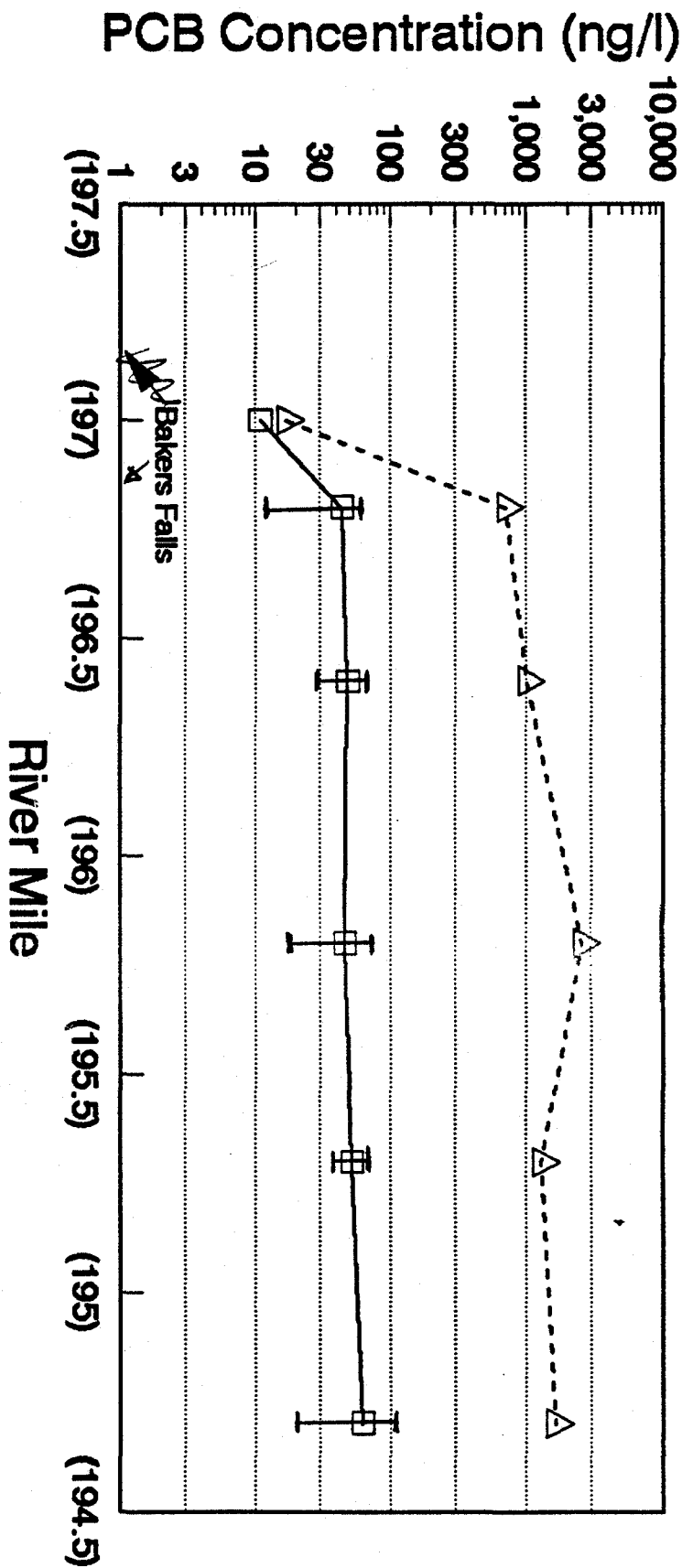
SITE PLAN



MARCH 1992



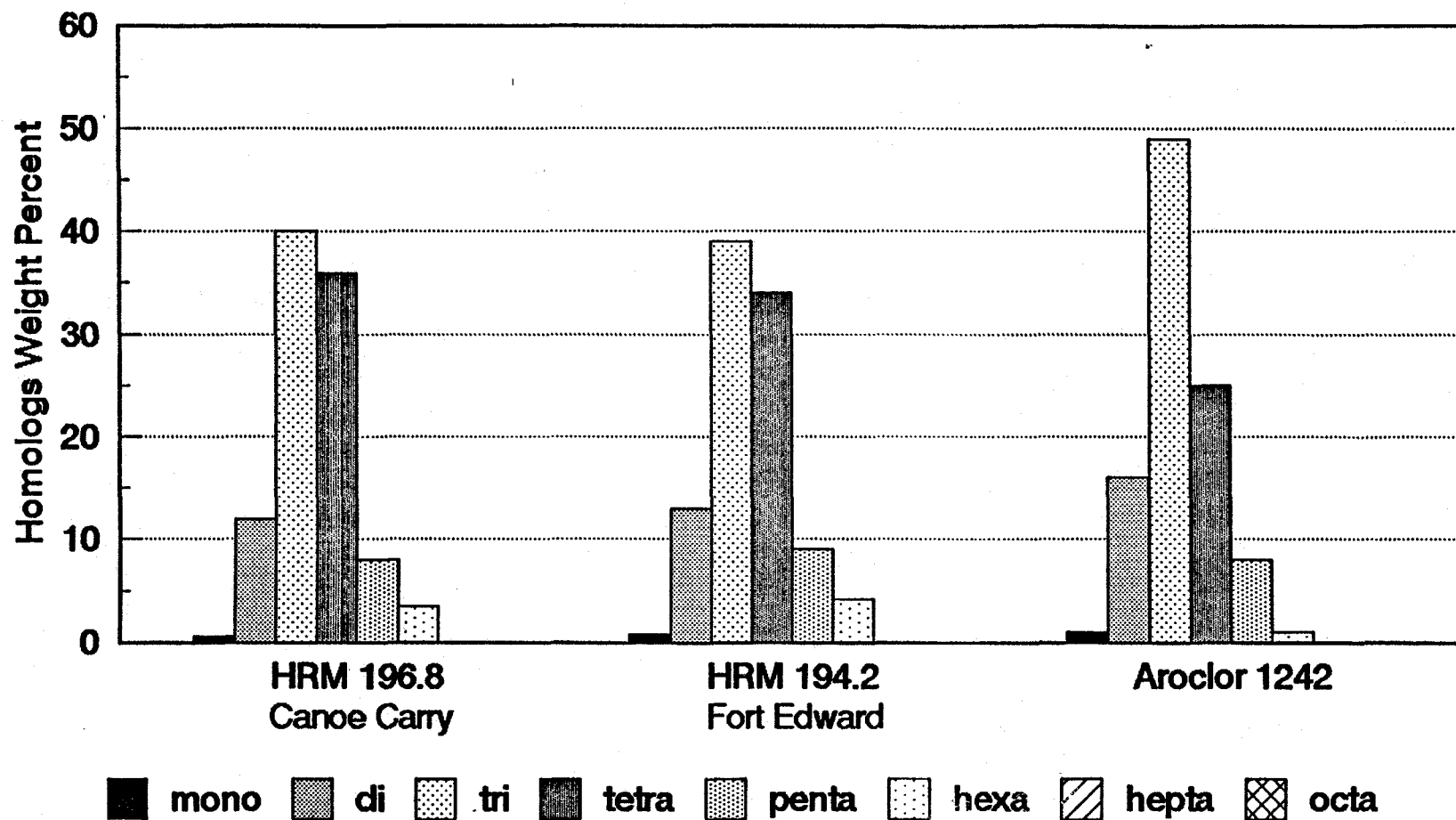
General Electric Company - Hudson River Project Water Column Total PCB Float Survey Results



Mean Float Survey 1-4 Float Survey 5
 June 26 - Sept 5, 1991 September 19, 1991

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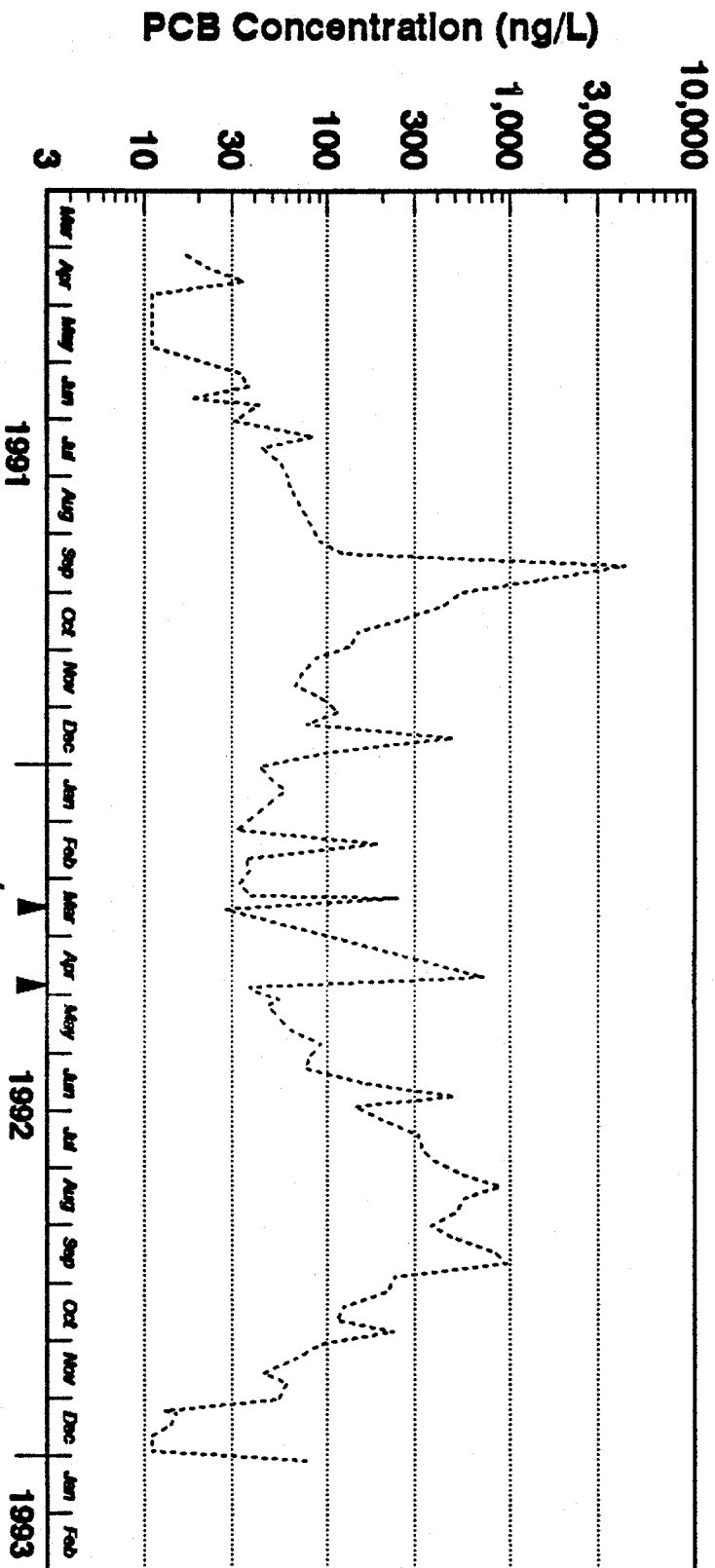
General Electric Company - Hudson River Project Post-Construction Remnant Deposit Monitoring Mean Homolog Distribution - 3/92 to 12/92



O'Brien & Gere Engineers, Inc.
March 2, 1993
cchomcom.drw

Geometric mean

General Electric Company - Hudson River Project 1991-1993 Water Column Monitoring Results



Fort Edward

O'Brien & Gere Engineers
March 2, 1993
BFCB3LDTW

INDICATES
HIGH FLOW

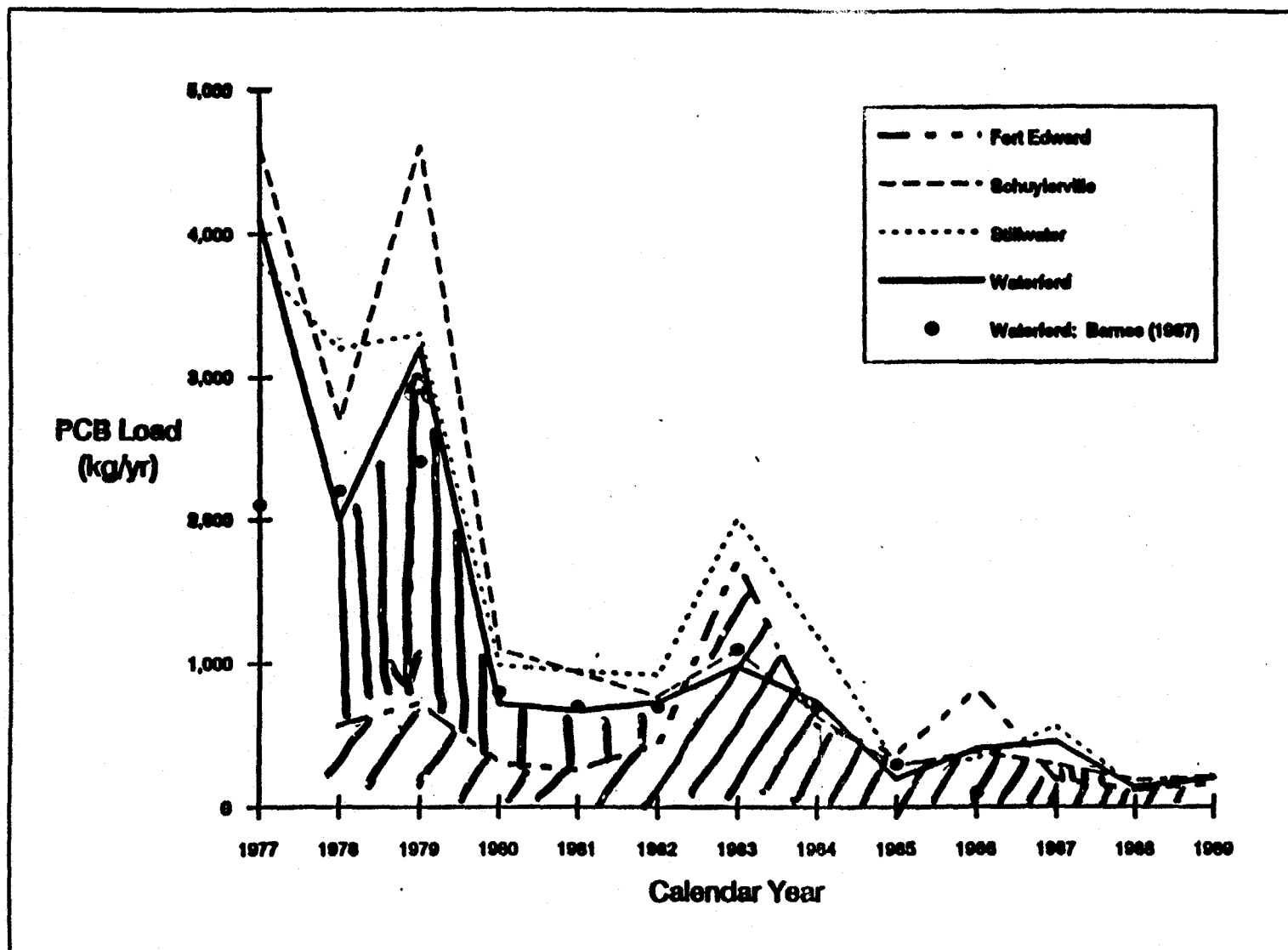
312462

BAKERS FALLS INVESTIGATION

IMPLICATIONS

- **The "old" sediments are supplying ever-decreasing amounts of degraded PCBs to the system — those with dramatically reduced bioaccumulation potential.**
- **The Bakers Falls Source is recontaminating the surface sediments with bioavailable, non-degradable PCBs.**
- **The Bakers Falls Source is controlling PCB fish levels in the upper Hudson River.**

Figure B.4-19
PCB Mass Transport Corrected Mean Method Estimates



NOTE: Barnes (1987) values are water-year estimates not using the corrected mean method.

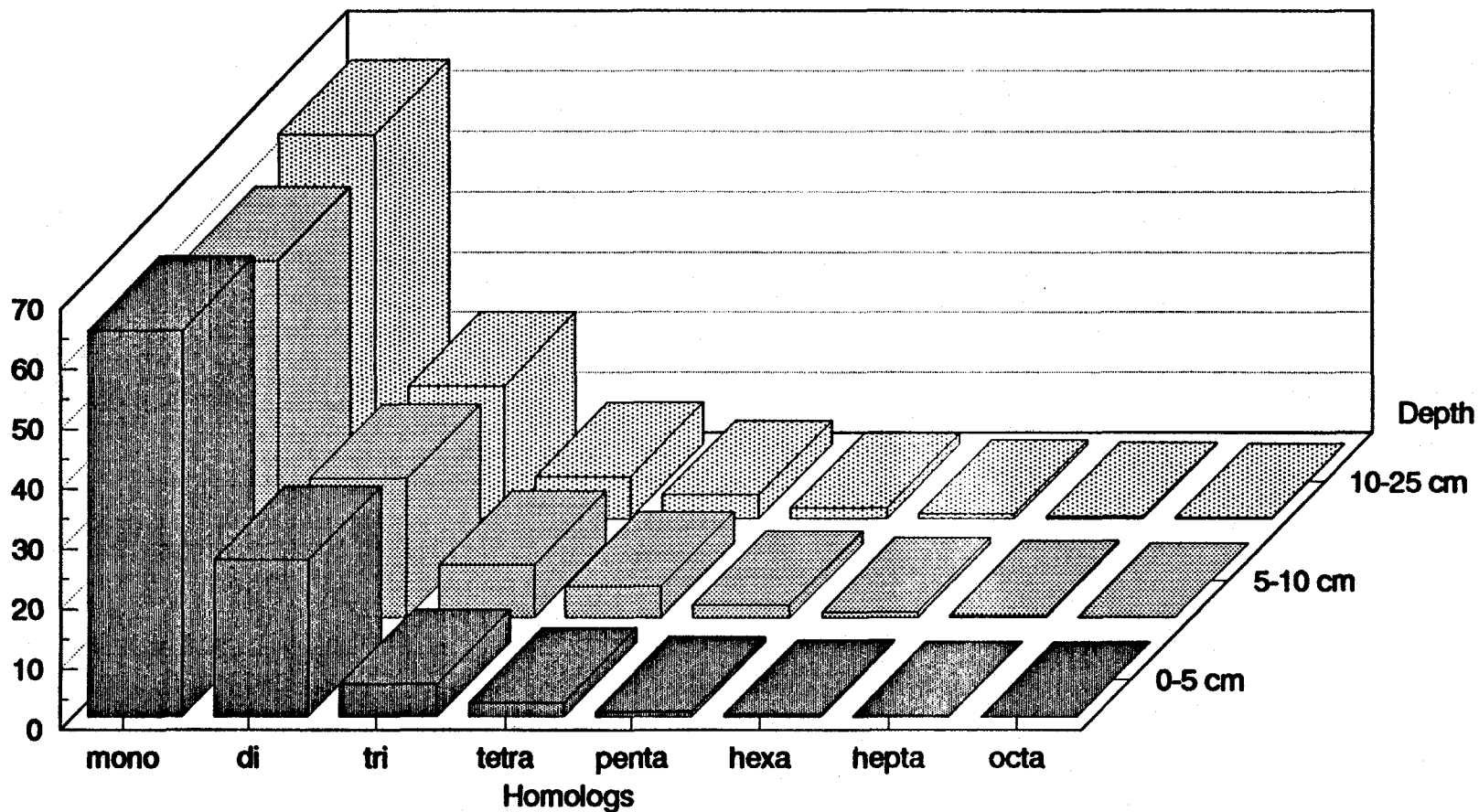
Number of Chlorines



General Electric Company - Hudson River Project 1991 Sediment Survey Results

Homolog Distribution in TIP Sediment Porewater

Weight Percent



BAKERS FALLS INVESTIGATION

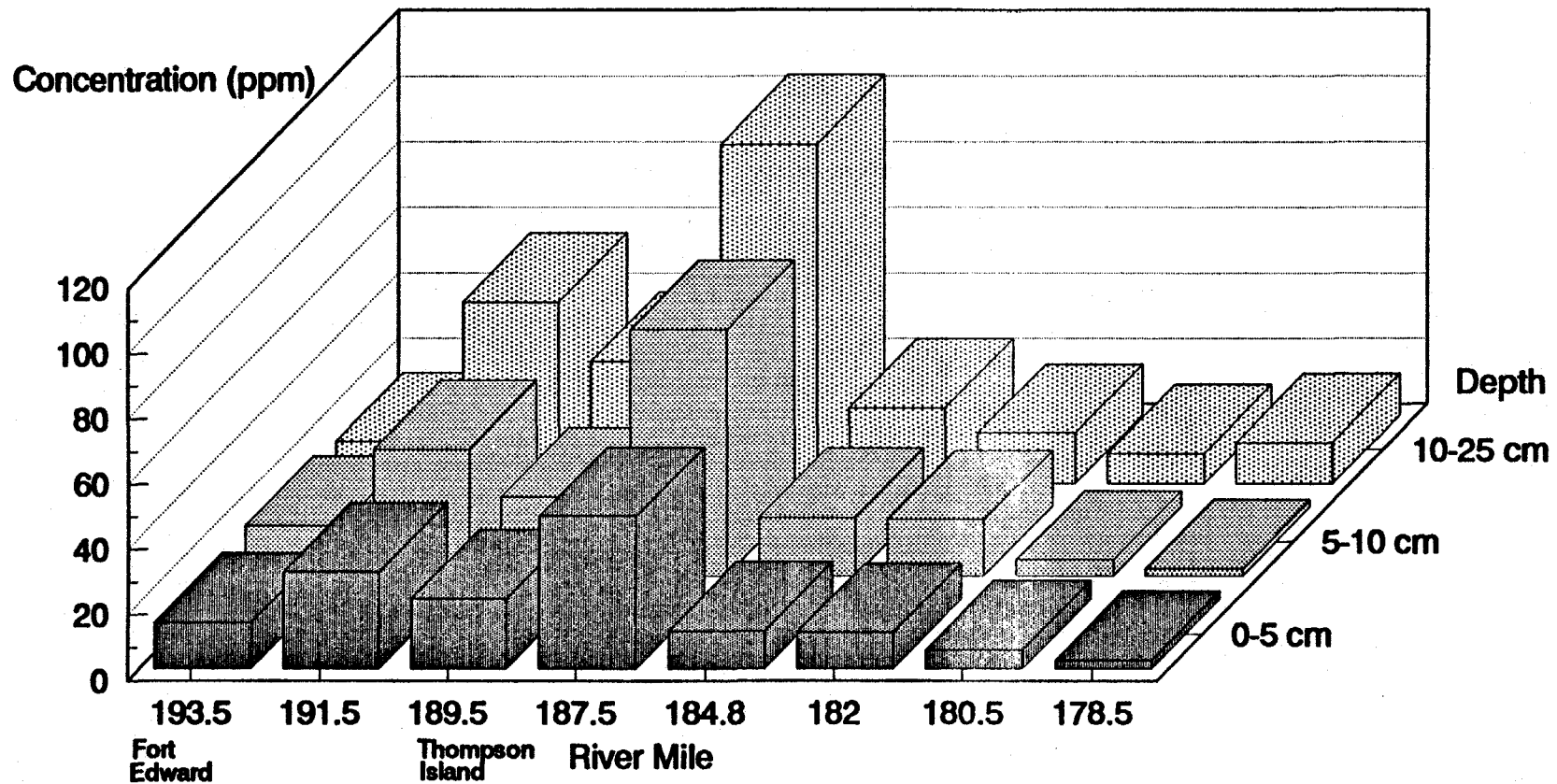
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General Electric Company Hudson River Project

1991 Sediment Survey Results

Total PCB Distribution in Sediment

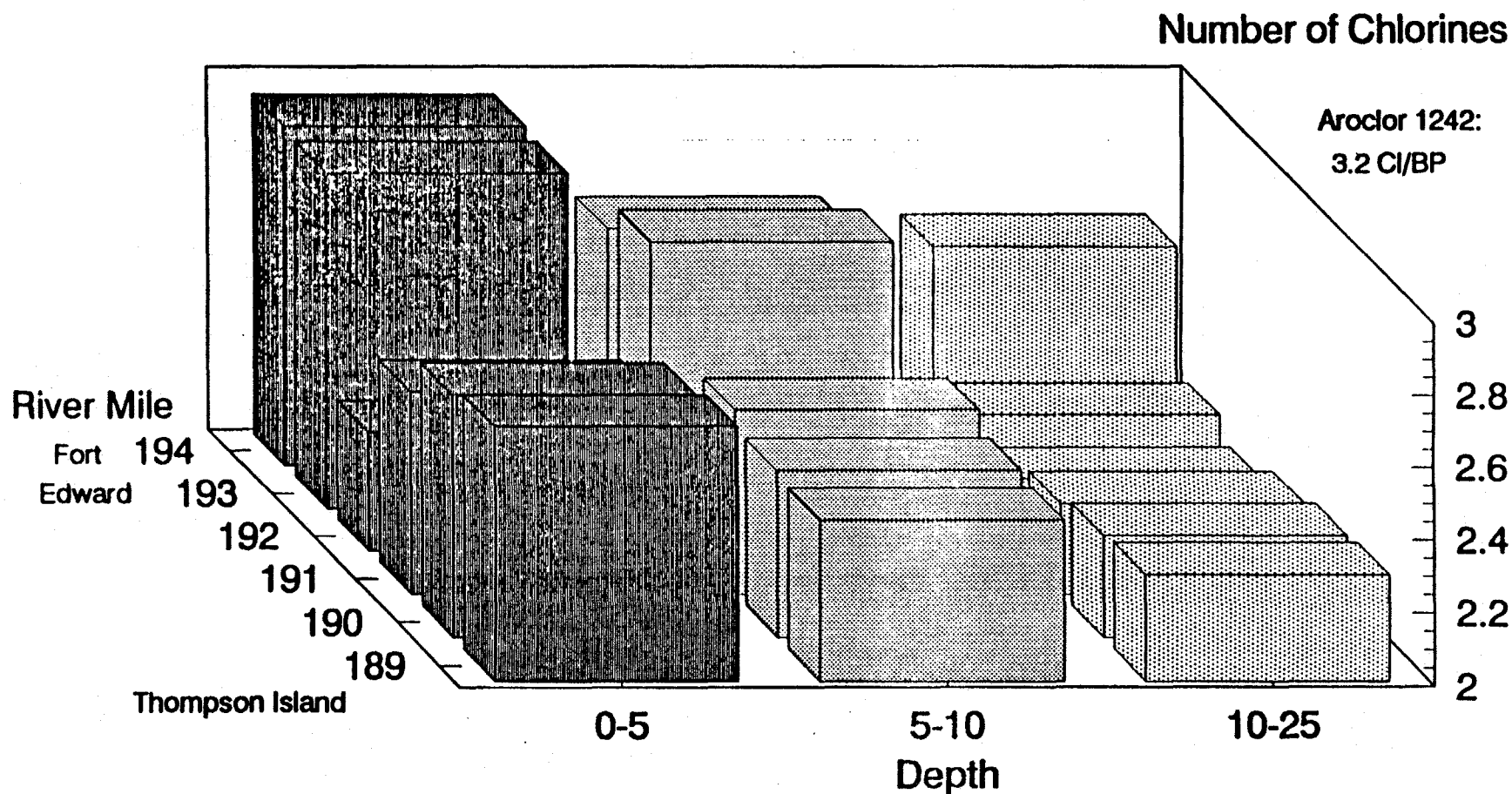


O'Brien & Gere Engineers, Inc.
totl-s2.drw

General Electric Hudson River Project

1991 Sediment Survey Results

Number of Chlorines/Biphenyl in Sediment



- * Decrease in total chlorines per biphenyl with river mile downstream from Fort Edward
- * Decrease in degree of chlorination with depth

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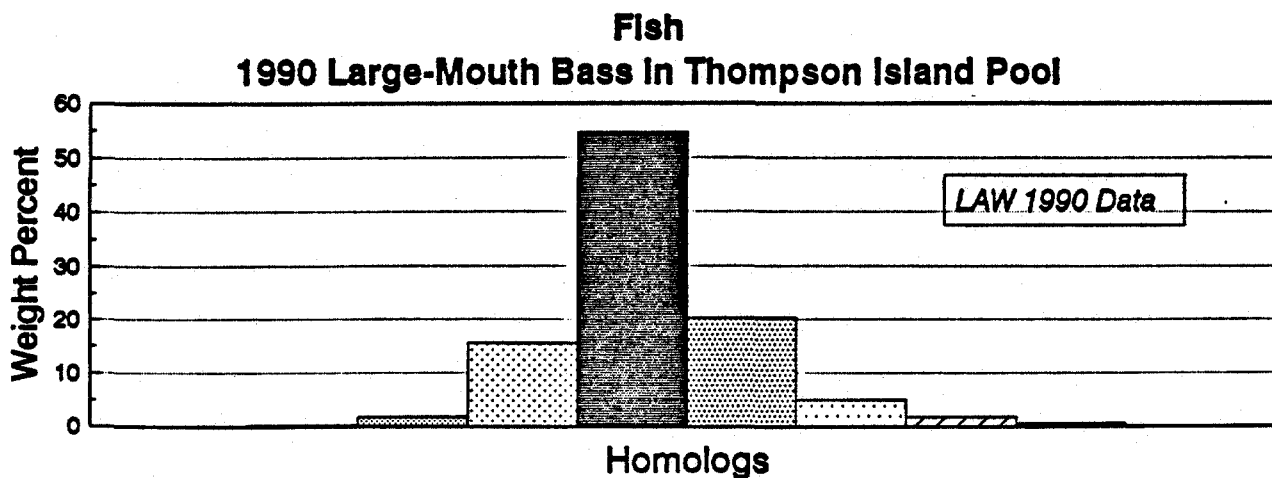
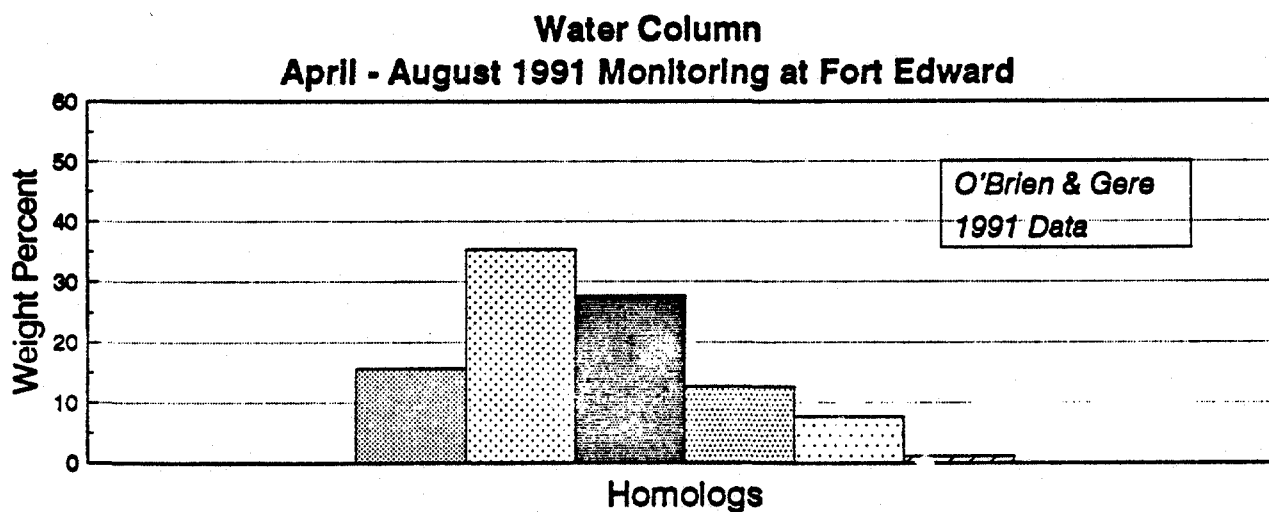
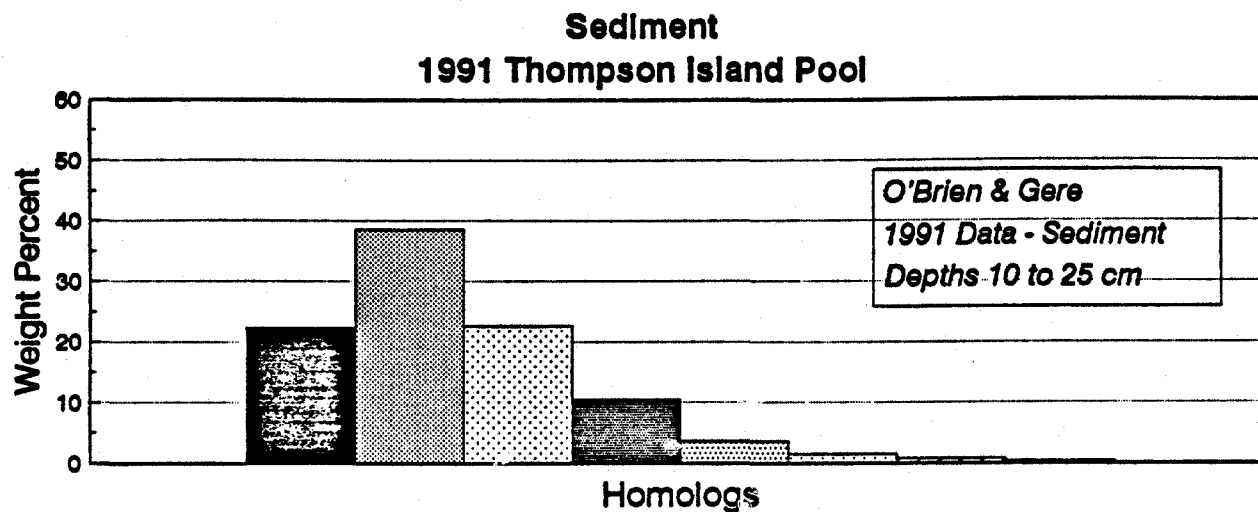
PCB CONCENTRATIONS IN FISH FROM THE THOMPSON ISLAND POOL

	<u>1991</u>	<u>1992</u>
Brown Bullhead	5.27	18.09
Black Crapple	7.13	31.49
Bluegill	3.55	6.43
Chain Pickerel	.56	5.05
Largemouth bass	3.87	22.46
Northern pike	3.19	64.70
Pumpkinseed	4.20	13.34
Walleye	5.21	30.33
Yellow perch	6.87	12.91

All values are parts per million

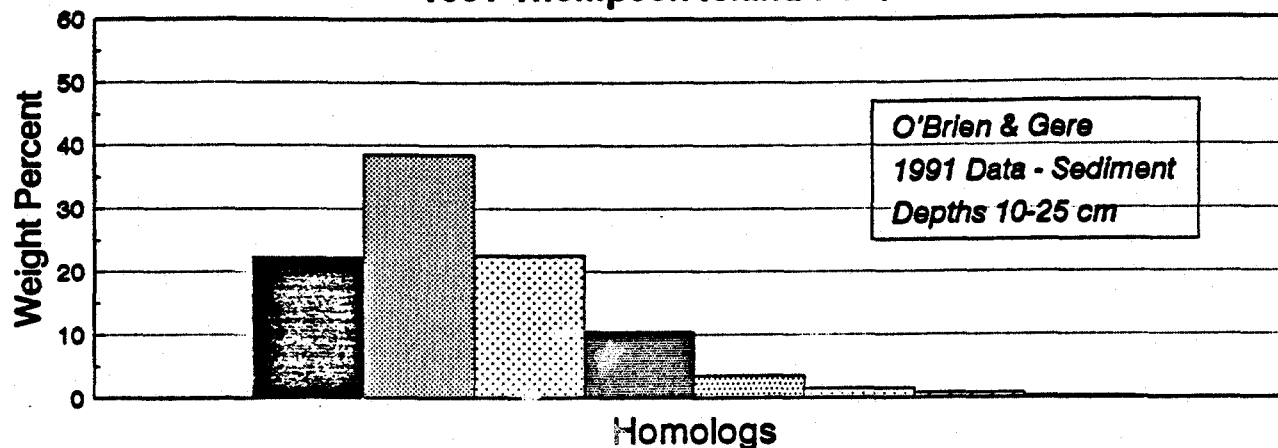
Source: NYSDEC

General Electric Company - Hudson River Project Pre-September 1991 Event Homolog Distributions

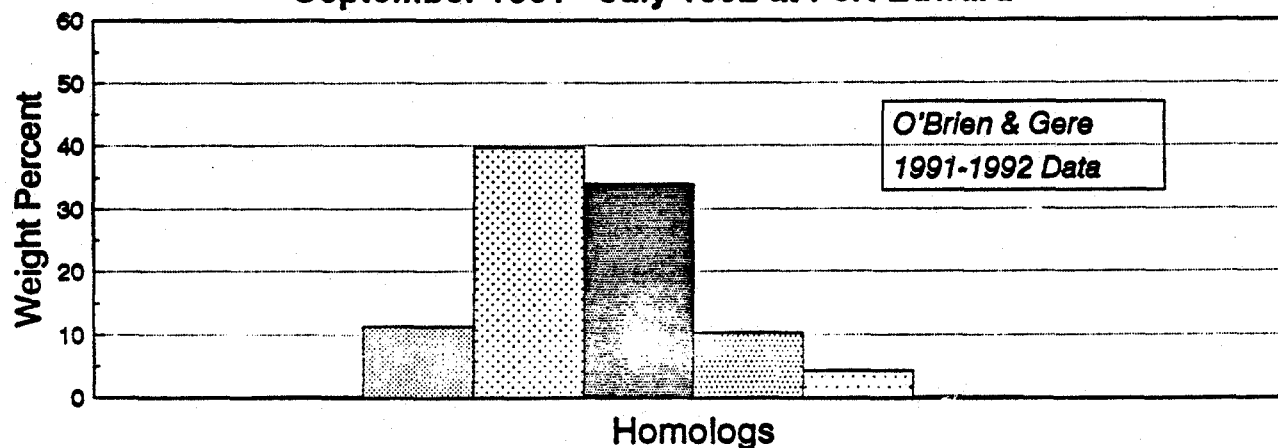


General Electric Company - Hudson River Project Post-September 1991 Event Homolog Distributions

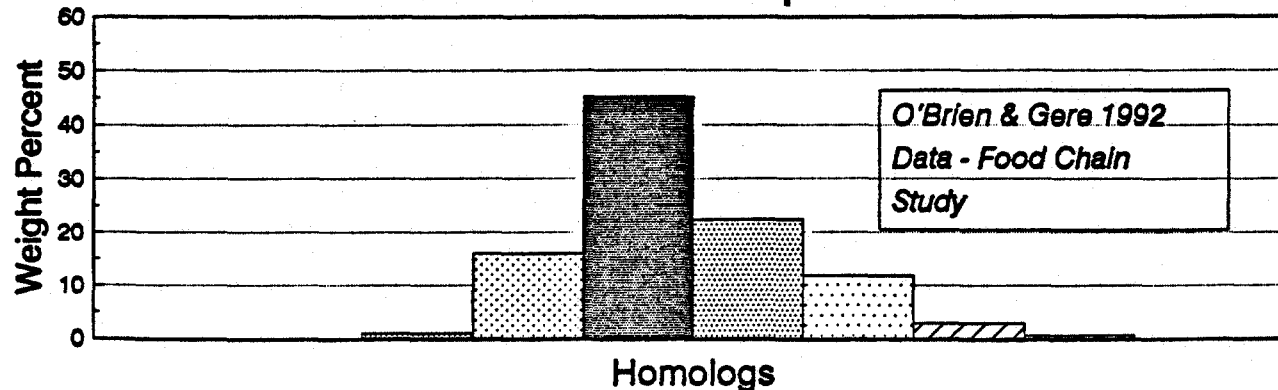
Sediment 1991 Thompson Island Pool



Water Column September 1991 - July 1992 at Fort Edward



Fish 1992 Small-Mouth Bass in Thompson Island Pool



■ mono ■ di ■ tri ■ tetra ■ penta ■ hexa ▨ hepta ▩ octa

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