Appendix A

List of Standard Operating Procedures (SOPs) Used by Participating Laboratories

SOP No. SEP-V90-20; Operation of the Van-Veen or Young Grab Sampler

SOP No. Corpus Christi F10.9; Extraction and Storage of Pore-Water Samples

SOP No. SEP-V90-21; Collection and Handling of Subtidal Sediment Chemistry Samples at Station F (-10 m to -30 m or maximum depth)

SOP No. ADL-2819; Extraction of Organic Compounds -- Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs) and Chlorinated Pesticides -- from Sediment or Shoreline Soil Samples

SOP No. ADL-2821; Fractionation/Cleanup of Sample Extracts for Polycyclic Aromatic Hydrocarbon, Polychlorinated Biphenyl and Chlorinated Pesticide Analyses

SOP No. ADL-2827; Determination of Polynuclear Aromatic Hydrocarbons and Selected Heterocyclic Compounds by Gas Chromatography/Mass Spectrometry in the Selected Ion Monitoring Mode

SOP No. ADL-2818; Determination of Chlorinated Pesticides and PCB Congeners by Gas Chromatography-Electron Capture Detection

SOP No. ADL-2829; Determination of Total Organic Carbon (Weight Percent) in Sediment Samples

SOP No. Corpus Christi F10.6; Sea Urchin Fertilization Toxicity Test

SOP No. Corpus Christi F10.7; Sea Urchin Embryological Development Toxicity Test

Appendix B

Raw Data

Table B-1. Sediment Hydrocarbons, TOC, Grain Size

SAMPLE ID	FIELD ID	LABID	STATION	FILENAME	MATRIX	SIZE		ANALDATE	UNIT	C0N	C0NQ	2-C1N	2-C1NQ	1-C1N	1-C1NQ
AN-S-27 PB	NA	AN-S-27 PB		)X4440	SED	10	g	09/19/93	ng/g	29.89		1.7934	J	1.0004	J
AN-S-28 SRM	NA	AN-S-28 SRM		)X4441	SED	5.1	g	09/19/93	ng/g	297		121		71.5	
AN-S-29 MS	NA	AN-S-29 MS		)X4443	SED	10.12	g wet	09/19/93	%	54.9			NA		NA
AN-S-30 T. REF.	NA	AN-S-30 T. REF.		)X4444	SED	30.13	g wet	09/19/93	ng/g	8.85		2.419	J	1.711	J
MBT007	MBSQT930600	MBT007	6	)X4445	SED	11.67	g	09/19/93	ng/g	41.8		25.96		12.32	
MBT008	MBSQT931100	MBT008	11	)X4446	SED	7.5	g	09/19/93	ng/g	56		35.28		21.84	
MBT008-L DUP	MBSQT931100	MBT008-L DUP	11	)X4447	SED	7.41	g	09/19/93	ng/g	49.6		36.58		22.32	
MBT009	MBSQT930800	MBT009	8	)X4448	SED	13.29	g	09/19/93	ng/g	21.08		12.4		6.82	
MBT010	MBSQT931000	MBT010	10	)X4449	SED	10.16	g	09/19/93	ng/g	42.35		23.65		14.85	
MBT011	MBSQT930500	MBT011	5	)X4450	SED	11.54	g	09/19/93	ng/g	51.03		23.31		13.86	
MBT012	MBSQT930100	MBT012	1	)X4451	SED	16.57	g	09/19/93	ng/g	14.3		1.495	J	0.845	J
MBT013	MBSQT930200	MBT013	2	)X4452	SED	22.22	g	09/19/93	ng/g	14.07		0.871	J	0.5025	J
MBT014	MBSQT930300	MBT014	3	)X4453	SED	15.2	g	09/20/93	ng/g	5.133	J	1.416	J	0.944	J
MBT015	MBSQT931200	MBT015	12	)X4455	SED	13.97	g	09/20/93	ng/g	29.92		11.56		7.48	
MBT016	MBSQT930900	MBT016	9	)X4456	SED	15.75	g	09/20/93	ng/g	83.66		41.83		34.71	
MBT017	MBSQT930400	MBT017	4	)X4457	SED	19.86	g	09/20/93	ng/g	13.42		1.098	J	0.732	J
MBT018	MBSQT930700	MBT018	7	)X4458	SED	15.18	g	09/20/93	ng/g	24.42		16.5		7.92	

SAMPLE ID	FIELD ID	2,6-C2N	2,6-C2NQ	2,3,5-C3N	2,3,5-C3NQ	C1N	C1NQ	C2N	C2NQ	C3N	C3NQ	C4N	C4NQ	ACEY	ACEYQ	ACE	ACEQ
AN-S-27 PB	NA	0.4697	J		ND	1.952	J	1.22	J		ND		ND		ND		ND
AN-S-28 SRM	NA	13.2		28.05		115.5		143		280.5		99		35.2		17.05	
AN-S-29 MS	NA		NA		NA		NA		NA		NA		NA	65.88		60.39	
AN-S-30 T. REF.	NA	0.5782	J	1.947	J	2.478	J	5.9		9.44		17.11		8.26		3.363	J
MBT007	MBSQT930600	3.256	J	6.16		23.76		31.24		31.68		44		16.72		15.4	
MBT008	MBSQT931100	5.32	J	11.76		35.28		54.88		56		78.4		21.28		16.8	
MBT008-L DUP	MBSQT931100	5.27	J	11.78		35.34		55.8		68.2		86.8		22.94		19.22	
MBT009	MBSQT930800	1.984	J	4.526	J	11.78		19.84		23.56		32.24		8.68		13.02	
MBT010	MBSQT931000	3.52	J	9.35		24.75		39.05		42.9		55		18.7		13.75	
MBT011	MBSQT930500	4.158	J	11.97		22.05		40.32		57.33		88.2		23.31		22.68	
MBT012	MBSQT930100	0.2795	J	0.364	J	1.56	J	2.08	J	1.56	J	2.925	J	0.975	J	0.338	J
MBT013	MBSQT930200	0.1876	J		ND	1.005	J	0.938	J		ND		ND	0.3082	J		ND
MBT014	MBSQT930300	0.2832	J	0.767	J	1.652	J	3.186	J	4.779	J	7.08		2.655	J	0.826	J
MBT015	MBSQT931200	1.768	J	5.304	J	11.56		21.08		23.12		36.72		12.24		9.52	
MBT016	MBSQT930900	31.15		29.37		46.28		89		124.6		84.55		89		34.71	
MBT017	MBSQT930400	0.732	J	0.671	J	1.22	J	3.05	J	4.087	J	2.013	J	2.928	J	0.61	J
MBT018	MBSQT930700	2.244	J	4.818	J	15.18		23.1		25.74		19.14		9.24		11.22	

SAMPLE ID	FIELD ID	BIP	BIPQ	C0F	C0FQ	C1F	C1FQ	C2F	C2FQ	C3F	C3FQ	C0P	C0PQ	C0A	C0AQ	1-C1P	1-C1PQ	C1P/A
AN-S-27 PB	NA	2.623	J		ND		ND		ND		ND	3.57	J		ND	0.3122		1.12
AN-S-28 SRM	NA	39.05		36.3		53.9		88		225.5		331.2		124.2		68.31		282.9
AN-S-29 MS	NA		NA	77.47	&		NA		NA		NA	173.34	&	83.43			NA	
AN-S-30 T. REF.	NA	1.652	J	10.62		5.9		7.67		5.428	J	129.2		31.16		17.48		66.88
MBT007	MBSQT930600	7.92		23.76		13.64		29.92		22.44		216.2		65.8		36.66		136.3
MBT008	MBSQT931100	13.44		35.28		25.76		38.64		29.12		345.6		83.2		217.6		217.6
MBT008-L DUP	MBSQT931100	12.4		42.16		26.04		40.3		37.82		392.2		103.6		59.94		244.2
MBT009	MBSQT930800	4.898	J	19.22		13.02		19.84		13.02		170.4		55.38		26.27		106.5
MBT010	MBSQT931000	8.8		29.15		19.25		30.8		23.1		250.8		72.6		46.86		178.2
MBT011	MBSQT930500	10.08		41.58		28.35		41.58		44.1		338.4		115.2		60.48		208.8
MBT012	MBSQT930100	1.82	J	0.91	J	0.5135	J	1.43	J		ND	10.78		1.54	J	1.54	J	5.775
MBT013	MBSQT930200	1.407	J	0.2747	J		ND		ND		ND	4.235	J	0.462	J	0.3465	J	1.463
MBT014	MBSQT930300	1.062	J	2.478	J	1.652	J	3.127	J	2.655	J	31.82		5.92	J	4.662	J	17.02
MBT015	MBSQT931200	5.712	J	21.08		12.24		16.32		15.64		205		59.86		33.62		131.2
MBT016	MBSQT930900	15.13		106.8		72.98		97.9		64.08		906.4		339.9		164.8		597.4
MBT017	MBSQT930400	1.525	J	2.501	J	2.074	J	2.623	J	2.257	J	36		9.75		6	J	22.5
MBT018	MBSQT930700	6.006	J	16.5		11.22		18.48		15.84		169.4		47.74		26.18		107.8

SAMPLE ID	FIELD ID	C1P/AQ	C2P/A	C2P/AQ	C3P/A	C3P/AQ	C4P/A	C4P/AQ	C0D	C0DQ	C1D	C1DQ	C2D	C2DQ	C3D	C3DQ	FLU	FLUQ
AN-S-27 PB	NA	J	0.98	J		ND		ND		ND		ND		ND		ND		ND
AN-S-28 SRM	NA		303.6		324.3		351.9		39.33		66.24		151.8		193.2		897	
AN-S-29 MS	NA	NA		NA		NA		NA		NA		NA		NA		NA	209.79	&
AN-S-30 T. REF.	NA		47.12		22.04		50.16		6.992	J	5.548	J	7.524	J	4.94	J	364.8	
MBT007	MBSQT930600		122.2		79.9		117.5		15.51		20.68		40.89		46.06		465.3	
MBT008	MBSQT931100		192		121.6		179.2		24.96		32		47.36		41.6		768	
MBT008-L DUP	MBSQT931100		199.8		103.6		162.8		28.12		34.04		54.02		43.66		888	
MBT009	MBSQT930800		85.2		46.86		70.29		10.65		13.49		19.17		17.75		333.7	
MBT010	MBSQT931000		138.6		85.8		125.4		18.48		25.74		40.92		35.64		541.2	
MBT011	MBSQT930500		194.4		129.6		172.8		24.48		33.12		61.92		62.64		640.8	
MBT012	MBSQT930100	J	5.544	J	4.62	J	4.774	J	0.6314	J	1.001	J	1.386	J	1.848	J	27.72	
MBT013	MBSQT930200	J	1.309	J		ND		ND	0.2387	J	0.3003	J	0.4158	J		ND	5.236	J
MBT014	MBSQT930300		11.84		7.4		9.62		1.628	J	1.998	J	2.516	J	2.146	J	81.4	
MBT015	MBSQT931200		98.4		54.12		82		13.12		16.4		23.78		21.32		418.2	
MBT016	MBSQT930900		463.5		226.6		288.4		55.62		78.28		103		82.4		1648	
MBT017	MBSQT930400		16.5		8.25		13.5		1.725	J	2.175	J	2.175	J	1.725	J	97.5	
MBT018	MBSQT930700		92.4		60.06		84.7		12.32		16.17		25.41		28.49		361.9	

SAMPLE ID	FIELD ID	PYR	PYRQ	C1F/P	C1F/PQ	C2F/P	C2F/PQ	C3F/P	C3F/PQ	BAA	BAAQ	C0C	C0CQ	C1C	C1CQ	C2C	C2CQ	C3C
AN-S-27 PB	NA	0.406	J		ND		ND		ND		ND		ND		ND		ND	
AN-S-28 SRM	NA	759		469.2		476.1		255.3		476.1		531.3		358.8		234.6		200.1
AN-S-29 MS	NA	154.71	&		NA		NA		NA	135.27	&	128.79	&		NA		NA	
AN-S-30 T. REF.	NA	273.6		136.8		62.32		26.6		167.2		159.6		60.04		27.36		21.28
MBT007	MBSQT930600	427.7		282		188		94		282		272.6		169.2		103.4		75.2
MBT008	MBSQT931100	620.8		390.4		249.6		121.6		390.4		416		224		134.4		89.6
MBT008-L DUP	MBSQT931100	673.4		414.4		273.8		125.8		407		458.8		214.6		140.6		96.2
MBT009	MBSQT930800	276.9		170.4		99.4		51.83		170.4		163.3		92.3		56.8		45.44
MBT010	MBSQT931000	448.8		297		184.8		92.4		277.2		303.6		158.4		92.4		66
MBT011	MBSQT930500	532.8		381.6		216		100.8		352.8		345.6		187.2		115.2		79.2
MBT012	MBSQT930100	20.79		11.55		6.622	J	2.618	J	12.32		16.17		5.082	J	2.618	J	1.617
MBT013	MBSQT930200	3.465	J	1.386	J	1.386	J	0.3619	J	1.617	J	2.156	J	0.6468	J	0.4466	J	
MBT014	MBSQT930300	57.72		26.64		14.06		5.994	J	30.34		32.56		11.1		5.55	J	3.848
MBT015	MBSQT931200	344.4		205		123		57.4		205		213.2		98.4		65.6		45.92
MBT016	MBSQT930900	1339		824		463.5		195.7		793.1		762.2		391.4		206		133.9
MBT017	MBSQT930400	74.25		38.25		16.5		6.6	J	45.75		42		15		6.75	J	4.575
MBT018	MBSQT930700	315.7		192.5		130.9		67.76		184.8		192.5		107.8		84.7		60.83

SAMPLE ID	FIELD ID	C3CQ	C4C	C4CQ	BBF	BBFQ	BKF	BKFQ	BEP	BEPQ	BAP	BAPQ	PER	PERQ	INDP	INDPQ	DAHA	DAHAQ
AN-S-27 PB	NA	ND		ND		ND		ND		ND		ND		ND		ND		ND
AN-S-28 SRM	NA		82.8		1104		358.8		538.2		483		282.9		641.7		158.7	
AN-S-29 MS	NA	NA		NA	140.13	&	120.69	&		NA	131.22	&		NA	153.09	&	130.41	&
AN-S-30 T. REF.	NA		15.2		258.4		83.6		121.6		197.6		50.92		167.2		30.4	
MBT007	MBSQT930600		39.48		455.9		145.7		235		329		84.6		277.3		61.1	
MBT008	MBSQT931100		55.04		633.6		185.6		339.2		448		108.8		396.8		83.2	
MBT008-L DUP	MBSQT931100		53.28		673.4		229.4		362.6		473.6		118.4		429.2		88.8	
MBT009	MBSQT930800		21.3		262.7		92.3		127.8		191.7		55.38		163.3		34.08	
MBT010	MBSQT931000		38.28		475.2		151.8		244.2		330		85.8		290.4		62.04	
MBT011	MBSQT930500		42.48		518.4		165.6		259.2		388.8		100.8		324		68.4	
MBT012	MBSQT930100	J	1.309	J	20.79		7.7		10.01		12.32		3.08	J	9.24		2.002	J
MBT013	MBSQT930200	ND		ND	2.849	J	1.078	J	1.617	J	1.848	J	0.3696	J	1.694	J	0.2849	J
MBT014	MBSQT930300	J	2.22	J	46.62		17.02		23.68		34.78		8.14		27.38		4.81	J
MBT015	MBSQT931200		22.96		311.6		114.8		164		229.6		59.86		180.4		39.36	
MBT016	MBSQT930900		79.31		1133		401.7		576.8		865.2		226.6		710.7		144.2	
MBT017	MBSQT930400	J	3.15	J	55.5		18.75		26.25		44.25		10.5		31.5		6.525	J
MBT018	MBSQT930700		30.8		338.8		107.8		177.1		215.6		59.29		215.6		44.66	

SAMPLE ID	FIELD ID	BGHI	BGHIQ	D8N	D8NQ	D10A	D10AQ	D10P	D10PQ	D12BP	D12BPQ	TOC WT %	TOC (dup) WT %	% GRAVEL	% SAND
AN-S-27 PB	NA	2.03	J	63		61		70		64					
AN-S-28 SRM	NA	641.7		37		55		69		93					
AN-S-29 MS	NA	160.38	&	43		61		81		103					
AN-S-30 T. REF.	NA	159.6		37		59		76		99					
MBT007	MBSQT930600	286.7		34		44		47		61		2.43	2.52	0.0	36.6
MBT008	MBSQT931100	416		41		56		64		85		4.29		0.0	11.0
MBT008-L DUP	MBSQT931100	444		41		62		74		97					
MBT009	MBSQT930800	170.4		48		62		71		94		1.69		0.2	58.1
MBT010	MBSQT931000	297		38		55		66		92		0.87		0.4	51.4
MBT011	MBSQT930500	324		46		63		72		103		2.12		0.0	29.6
MBT012	MBSQT930100	10.78		54		65		77		99		2.93	3.01	6.5	85.8
MBT013	MBSQT930200	1.848	J	62		67		77		92		0.23		0.4	96.7
MBT014	MBSQT930300	28.12		46		59		74		91		1.47		1.4	84.1
MBT015	MBSQT931200	196.8		44		68		82		112		1.81		0.0	72.3
MBT016	MBSQT930900	793.1		63		89		103		141		2.07		10.8	67.0
MBT017	MBSQT930400	30.75		48		61		75		94		0.87		1.6	90.9
MBT018	MBSQT930700	223.3		48		66		77		108		1.96		0.4	36.0

SAMPLE ID	FIELD ID	% SILT	% CLAY	THC (mg/g sed)	TPAH (ng/g sed)	TPAH + PER (ng/g sed)	Ns+Fs+Ps+Ds/TPAH	TPAH/TOC (ng/g TOC)	TPAH/SILT + CLAY (ng/g S+C)	THC/TOC (mg/g TOC)	THC/SILT + CLAY (mg/g S+C)
AN-S-27 PB	NA			NA	43.791	43.791	0.88				
AN-S-28 SRM	NA			11.4	12265.07	12547.97	0.28				
AN-S-29 MS	NA			NA	1979.89	1979.89	0.15				
AN-S-30 T. REF.	NA			NA	2791.435	2842.355	0.15				
MBT007	MBSQT930600	46.7	16.7	3.86	5352.9	5437.5	0.20	220283.95	8444.79	158.85	6.09
MBT008	MBSQT931100	84.0	4.9	5	7708.24	7817.04	0.21	179679.25	8663.49	116.55	5.62
MBT008-L DUP	MBSQT931100			5.2	8309.54	8427.94	0.21				
MBT009	MBSQT930800	27.2	14.4	2.31	3319.938	3375.318	0.22	196446.04	7975.88	136.69	5.55
MBT010	MBSQT931000	34.8	13.4	3.57	5670.5	5756.3	0.21	651781.61	11771.75	410.34	7.41
MBT011	MBSQT930500	44.6	25.8	4.12	6854.85	6955.65	0.24	323341.98	9732.76	194.34	5.85
MBT012	MBSQT930100	4.5	3.2	0.966	247.5689	250.6489	0.25	8449.45	3210.51	32.97	12.53
MBT013	MBSQT930200	1.4	1.5	0.473	54.3469	54.7165	0.45	23629.09	1870.19	205.65	16.28
MBT014	MBSQT930300	8.8	5.7	1.69	582.035	590.175	0.20	39594.22	4020.14	114.97	11.67
MBT015	MBSQT931200	19.4	8.2	1.88	3955.992	4015.852	0.21	218563.09	14298.03	103.87	6.79
MBT016	MBSQT930900	15.1	7.1	2.22	15511	15737.6	0.23	749323.67	70006.95	107.25	10.02
MBT017	MBSQT930400	4.5	3.0	1.06	716.458	726.958	0.19	82351.49	9552.93	121.84	14.13
MBT018	MBSQT930700	49.4	14.1	2.67	3893.626	3952.916	0.20	198654.39	6125.16	136.22	4.20

SAMPLE ID	FIELD ID	TCON - C4N	TCON - C4N/TOC (ng/g TOC)	TC2N - C4N	TC2N - C4N/TOC (ng/g TOC)	TPHEN	TPHEN/TOC (ng/g TOC)	C2D/C2P	C3D/C3P	C2C/C2D	C3C/C3D
AN-S-27 PB	NA	33.062		1.22		5.67		0.00			
AN-S-28 SRM	NA	935		522.5		1593.9		0.50	0.60	1.55	1.04
AN-S-29 MS	NA	54.9		0		173.34					
AN-S-30 T. REF.	NA	43.778		32.45		315.4		0.16	0.22	3.64	4.31
MBT007	MBSQT930600	172.48	7097.942	106.92	4400.000	672.1	27658.436	0.33	0.58	2.53	1.63
MBT008	MBSQT931100	280.56	6539.860	189.28	4412.121	1056	24615.385	0.25	0.34	2.84	2.15
MBT008-L DUP	MBSQT931100	295.74		210.8		1102.6		0.27	0.42	2.60	2.20
MBT009	MBSQT930800	108.5	6420.118	75.64	4475.740	479.25	28357.988	0.23	0.38	2.96	2.56
MBT010	MBSQT931000	204.05	23454.023	136.95	15741.379	778.8	89517.241	0.30	0.42	2.26	1.85
MBT011	MBSQT930500	258.93	12213.679	185.85	8766.509	1044	49245.283	0.32	0.48	1.86	1.26
MBT012	MBSQT930100	22.425	765.358	6.565	224.061	31.493	1074.846	0.25	0.40	1.89	0.88
MBT013	MBSQT930200	16.013	6962.174	0.938	407.826	7.007	3046.522	0.32		1.07	
MBT014	MBSQT930300	21.83	1485.034	15.045	1023.469	77.7	5285.714	0.21	0.29	2.21	1.79
MBT015	MBSQT931200	122.4	6762.431	80.92	4470.718	570.72	31531.492	0.24	0.39	2.76	2.15
MBT016	MBSQT930900	428.09	20680.676	298.15	14403.382	2482.3	119917.874	0.22	0.36	2.00	1.63
MBT017	MBSQT930400	23.79	2734.483	9.15	1051.724	96.75	11120.690	0.13	0.21	3.10	2.65
MBT018	MBSQT930700	107.58	5488.776	67.98	3468.367	514.36	26242.857	0.28	0.47	3.33	2.14

Table B-2. Sediment Metals

Mass Bays - Metals		Total ICAP Metals (conc. in ug/g)										Total AA Metals (conc. in ug/g)							
STATION	SAMPLE ID	Al*	Be	Cd	Cr	Cu	Fe*	Mn	Ni	V	Zn	Ag	As	Hg	Pb	Sb	Se	Sn	Tl
6	MBT007	2.10	ND	ND	117	96.0	2.60	328	ND	51.3	136	3.39	13.5	0.672	94	ND	ND	17.6	ND
11	MBT008	2.15	ND	ND	718	57.4	2.56	262	4.73	87.0	133	1.31	15.5	0.795	145	ND	ND	13.1	ND
8	MBT009	1.92	ND	ND	77.7	46.4	2.25	335	ND	40.2	83.6	2.76	5.38	0.462	55.1	ND	ND	13.3	ND
8	MBT009 DUP 1	1.90	ND	ND	70.3	40.1	2.20	318	ND	40.6	82.8	2.87	9.08	0.43	51.9	ND	ND	10.6	ND
8	MBT009 DUP 2	1.73	ND	ND	72.8	43.6	2.22	318	ND	38.9	86.8	3	8.65	NA	54.5	ND	ND	10.9	ND
10	MBT010	1.56	ND	ND	705	38.8	2.04	224	4.69	58.9	108	1.22	12.7	0.527	80.4	ND	ND	8.58	ND
5	MBT011	2.50	ND	ND	118	51.9	2.86	351	ND	53.6	110	2.44	13.3	0.409	58.7	ND	ND	6.75	ND
1	MBT012	0.28	ND	ND	6.20	3.80	0.43	38.0	ND	9.37	16.8	0.05	3.61	ND	56.5	ND	ND	ND	ND
2	MBT013	0.21	ND	ND	4.48	ND	0.32	36.4	ND	6.65	ND	ND	2.27	ND	3.3	ND	ND	ND	ND
3	MBT014	0.46	ND	ND	11.0	5.47	0.77	85.6	ND	16.0	35.2	0.11	6.1	0.061	11.7	ND	ND	ND	ND
12	MBT015	1.37	ND	ND	345	20.4	2.02	244	ND	49.6	80.9	0.57	7.85	0.349	56.5	ND	ND	8.09	ND
9	MBT016	1.05	ND	ND	363	22.9	1.30	142	ND	31.0	77.2	0.58	7.44	0.435	58.2	ND	ND	8.94	ND
4	MBT017	0.21	ND	ND	5.23	ND	0.33	42.7	ND	7.75	14.0	ND	2.78	ND	4.8	ND	ND	ND	ND
7	MBT018	1.54	ND	ND	80.7	54.2	1.83	250	ND	38.6	94.0	3.29	6.34	0.647	67.1	ND	ND	7.75	ND

* Al AND Fe REPORTED AS WEIGHT%

Table B-3. Sediment PCBs

SAMPLE ID	FIELD ID	Lab ID	STATION	MATRIX	SIZE		ANALDATE	UNIT	TOC WT%	8	8Q	18	18Q	28	28Q
AN-S-27 PB	NA	AN-S-27 PB		SED	12	g	09/08/93	ng/g			ND		ND		ND
AN-S-28 SR	NA	AN-S-28 SRM		SED	5.1	g	09/08/93	ng/g		1.2		6.4		7.99	
AN-S-29 MS	NA	AN-S-29 MS		SED	10.12	g	09/08/93	%			NA		NA	63	
AN-S-30 TR	NA	AN-S-30 TRF		SED	30.13	g	09/08/93	ng/g			ND	0.289		0.19	NC
MBT007	MBSQT930600	MBT007	6	SED	11.67	g	09/08/93	ng/g	2.43	1.03		1.61		4.97	
MBT008	MBSQT931100	MBT008	11	SED	7.5	g	09/08/93	ng/g	4.29		ND	2.09		0.648	NC
MBT008-L	MBSQT931100	MBT008-L	11	SED	7.41	g	09/08/93	ng/g			ND	1.06		0.614	
MBT009	MBSQT930800	MBT009	8	SED	13.29	g	09/08/93	ng/g	1.69		ND	2.75		1.13	NC
MBT010	MBSQT931000	MBT010	10	SED	10.16	g	09/08/93	ng/g	0.87		ND	0.312		0.511	NC
MBT011	MBSQT930500	MBT011	5	SED	11.54	g	09/08/93	ng/g	2.12		ND	2.8		1.34	
MBT012	MBSQT930100	MBT012	1	SED	16.57	g	09/08/93	ng/g	2.93		ND	0.773		0.044	NC
MBT013	MBSQT930200	MBT013	2	SED	22.22	g	09/08/93	ng/g	0.23		ND	0.228			ND
MBT014	MBSQT930300	MBT014	3	SED	15.2	g	09/08/93	ng/g	1.47		ND	1.72		0.162	NC
MBT015	MBSQT931200	MBT015	12	SED	13.97	g	09/08/93	ng/g	1.81		ND	0.651		0.335	
MBT016	MBSQT930900	MBT016	9	SED	15.75	g	09/08/93	ng/g	2.07		ND	2.33		0.481	
MBT017	MBSQT930400	MBT017	4	SED	19.86	g	09/08/93	ng/g	0.87		ND	1.34		0.018	NC
MBT018	MBSQT930700	MBT018	7	SED	15.18	g	09/08/93	ng/g	1.96	0.276		3.14		3.57	

SAMPLE ID	FIELD ID	52	52Q	44	44Q	66	66Q	101	101Q	87	87Q	77	77Q	77/TOC (ng/g TOC)	118	118Q	153
AN-S-27 PB	NA		ND		ND		ND		ND		ND		ND			ND	
AN-S-28 SR	NA	12.4		8.08		9.27		17.9		9.17	DB		ND		14.5		23.2
AN-S-29 MS	NA	72			NA		NA	71			NA		NA			NA	76
AN-S-30 TR	NA	0.058		0.042		0.724		0.592		4.49	NC		ND		0.931		1.25
MBT007	MBSQT930600	4.87		3.52		7.21		7.95		3.52	DB		ND		9.65		12.5
MBT008	MBSQT931100	0.555		0.076		1.88		3.05			ND	2.12		49.417	5.24		7.74
MBT008-L	MBSQT931100	0.817		0.462		1.56		3.55			ND	2.69			5.9		9.19
MBT009	MBSQT930800	0.836		0.723		2.21		2.54		10.8	G,NC	4.93		291.716	4.25		6.37
MBT010	MBSQT931000	0.794		0.139		1.62		2.92		1.26	DB	6.08		698.851	4.33		6.96
MBT011	MBSQT930500	1.72		0.946		2.07		3.8		0.611	DB	0.93		43.868	4.95		8.26
MBT012	MBSQT930100		ND		ND		ND		ND	8.17	G,NC		ND			ND	0.056
MBT013	MBSQT930200		ND		ND		ND		ND	6	NC	0.012		5.217		ND	
MBT014	MBSQT930300		ND		ND		ND	0.024		0.089	DB	0.031		2.109	0.063		0.181
MBT015	MBSQT931200	0.485		0.08			ND	1.86		0.548	DB	1.04		57.459	2.78		3.81
MBT016	MBSQT930900	0.972		0.526			ND	3.38		11.1		1.8		86.957	4.57		7.78
MBT017	MBSQT930400		ND		ND		ND		ND	6.36	NC	0.326		37.471		ND	
MBT018	MBSQT930700	3.05		2.41		5.5		7.5		12.7			ND		9.95		15.1

SAMPLE ID	FIELD ID	153Q	105	105Q	138	138Q	126	126Q	126/TOC (ng/g TOC)	187	187Q	128	128Q	200	200Q	180	180Q
AN-S-27 PB	NA	ND		ND		ND		ND			ND		ND		ND		ND
AN-S-28 SR	NA		5.08		17.2			ND		12.4		3.47		2.86		12.5	
AN-S-29 MS	NA			NA		NA	73	NC			NA		NA		NA	70	
AN-S-30 TR	NA		0.3		0.825		0.827	NC		0.525		0.43	NC		ND	0.391	
MBT007	MBSQT930600		3.85		10.9		0.931	NC	38.313	3.18		2.95		0.791		4.55	
MBT008	MBSQT931100		2.37		6.03		2.79	NC	65.035	2.59		1.81			ND	3.2	
MBT008-L	MBSQT931100		2.39		6.76		3.4	NC		2.75		2.14			ND	3.5	
MBT009	MBSQT930800		1.52		5.2		0.894	NC	52.899	1.69		1.34		0.283		2.76	
MBT010	MBSQT931000		1.33		5.49		2.58	NC	296.552	1.62		1.57		0.678		3.05	
MBT011	MBSQT930500		1.97		6.31		2.88	NC	135.849	2.78		3.04		0.425		7.68	
MBT012	MBSQT930100	NC	0.161	NC	0.148			ND		0.109	NC	0.157	NC		ND	0.158	
MBT013	MBSQT930200	ND		ND		ND		ND			ND		ND		ND	0.097	
MBT014	MBSQT930300			ND	0.115			ND		0.103		0.188	NC		ND	0.188	
MBT015	MBSQT931200		1.01		2.76		1.46	NC	80.663	0.616		1.15		0.147		1.37	
MBT016	MBSQT930900		2.19		5.93			ND		1.82		3.85		0.361		2.99	
MBT017	MBSQT930400	ND		ND		ND		ND			ND	0.189	NC		ND	0.126	
MBT018	MBSQT930700		3.75		13.3		1.09	NC	55.612	4.12		2.94		0.81		5.71	

SAMPLE ID	FIELD ID	170	170Q	195	195Q	206	206Q	209	209Q	TOTAL PCBs	TOTAL PCBs/TOC (ng/g TOC)	%DBOFB	%DBOFBQ
AN-S-27 PB	NA	0.314	NC		ND					0.314		70	
AN-S-28 SR	NA	7.98	DB	1.58	DB	6.25		8.98		188.41		81	
AN-S-29 MS	NA		NA		NA	71		73		569		83	
AN-S-30 TR	NA	7.68		0.319		0.242		0.423		20.528		80	
MBT007	MBSQT930600	2.36	DB	1.06		2.14		2.76		92.302	3798.436	50	
MBT008	MBSQT931100	1.63	DB	1.15		1.44		3.11		49.519	1154.289	72	
MBT008-L	MBSQT931100	2	DB	1.41		1.24		2.7		54.133		82	
MBT009	MBSQT930800	1.03	DB	0.699		1.23		1.79		54.975	3252.959	82	
MBT010	MBSQT931000	1.53	DB	0.896		0.88		2.9		47.45	5454.023	76	
MBT011	MBSQT930500	5.09	DB	1.2		1.56		2.83		63.192	2980.755	84	
MBT012	MBSQT930100	0.193	DB	0.198	NC	0.216	NC	0.232	NC	10.615	362.287	85	
MBT013	MBSQT930200	0.582	G,NC		ND	0.483	G,NC		ND	7.402	3218.261	84	
MBT014	MBSQT930300	0.276	DB	5.47	NC	0.244		0.192		9.046	615.374	82	
MBT015	MBSQT931200	0.72	DB	0.583		0.376		1.13		22.911	1265.801	89	
MBT016	MBSQT930900	1.56	DB	0.949		0.535		4.77		57.894	2796.812	91	
MBT017	MBSQT930400	0.07	DB		ND	5.77	G,NC		ND	14.199	1632.069	82	
MBT018	MBSQT930700	3.17	DB	1.24		2.8	DB	3.08		105.206	5367.653	90	

Table B-4. Sediment Pesticides

SAMPLE ID	FIELD ID	Lab ID	STATION	MATRIX	SIZE		ANALDATE	UNIT	TOC WT%	HCB	HCBQ	HCB/TOC (ng/g TOC)	GBHC	GBHCQ	GBHC/TOC (ng/g TOC)	HEPT
AN-S-27 PB	NA	AN-S-27 PB		SED	12	g	09/08/93	ng/g			ND					
AN-S-28 SRM	NA	AN-S-28 SRM		SED	5.1	g	09/08/93	ng/g		33			2.21			
AN-S-29 MS	NA	AN-S-29 MS		SED	10.12	g	09/08/93	%			NA			NA		
AN-S-30 TRF	NA	AN-S-30 TRF		SED	30.13	g	09/08/93	ng/g			ND		0.296			
MBT007	MBSQT930600D	MBT007	6	SED	11.67	g	09/08/93	ng/g	2.43		ND		0.871		35.844	0.301
MBT008	MBSQT931100D	MBT008	11	SED	7.5	g	09/08/93	ng/g	4.29		ND		1.41		32.867	0.002
MBT008-L	MBSQT931100D	MBT008-L	11	SED	7.41	g	09/08/93	ng/g			ND		1.52			0.086
MBT009	MBSQT930800D	MBT009	8	SED	13.29	g	09/08/93	ng/g	1.69	8.13		481.065	0.865		51.183	
MBT010	MBSQT931000D	MBT010	10	SED	10.16	g	09/08/93	ng/g	0.87	7.3		839.080	1.15		132.184	
MBT011	MBSQT930500D	MBT011	5	SED	11.54	g	09/08/93	ng/g	2.12		ND		0.872		41.132	0.224
MBT012	MBSQT930100D	MBT012	1	SED	16.57	g	09/08/93	ng/g	2.93		ND		0.544		18.567	
MBT013	MBSQT930200D	MBT013	2	SED	22.22	g	09/08/93	ng/g	0.23	4.02		1747.826	0.391		170.000	
MBT014	MBSQT930300D	MBT014	3	SED	15.2	g	09/08/93	ng/g	1.47	11.6		789.116	0.695		47.279	
MBT015	MBSQT931200D	MBT015	12	SED	13.97	g	09/08/93	ng/g	1.81		ND		0.797		44.033	
MBT016	MBSQT930900D	MBT016	9	SED	15.75	g	09/08/93	ng/g	2.07		ND		1.42		68.599	
MBT017	MBSQT930400D	MBT017	4	SED	19.86	g	09/08/93	ng/g	0.87		ND		0.508		58.391	
MBT018	MBSQT930700D	MBT018	7	SED	15.18	g	09/08/93	ng/g	1.96		ND		0.74		37.755	0.428

SAMPLE ID	FIELD ID	HEPTQ	HEPT/TOC (ng/g TOC)	ALD	ALDQ	ALD/TOC (ng/g TOC)	HE	HEQ	HE/TOC (ng/g TOC)	2,4'-DDE	2,4'-DDEQ	CIS	CISQ	CIS/TOC (ng/g TOC)	TRANS
AN-S-27 PB	NA	ND		0.711	NC			ND			ND		ND		
AN-S-28 SRM	NA	ND			ND			ND			ND	4.49			0.873
AN-S-29 MS	NA	NA			NA			NA		75			NA		
AN-S-30 TRF	NA	ND			ND			ND		0.285	NC	0.566			0.24
MBT007	MBSQT930600D	ND	12.387	8.72		358.848	3.3		135.802		ND	1.95		80.200	1.06
MBT008	MBSQT931100D	NC	0.047	15.3	NC	356.643	3.88	NC	90.443	0.403		3.04		70.862	1.66
MBT008-L	MBSQT931100D	NC		17.4	NC		4.33	NC		0.529		3.33			1.36
MBT009	MBSQT930800D	ND		6.96	NC	411.834	1.4	NC	82.840	0.795		2.05		121.302	0.957
MBT010	MBSQT931000D	ND		11	NC	1264.368	2.76	NC	317.241	0.587		2.45		281.609	0.909
MBT011	MBSQT930500D	NC	10.566		ND			ND			ND	2.29		108.019	0.878
MBT012	MBSQT930100D	ND		1.74	NC	59.386		ND			ND	0.401	NC	13.686	
MBT013	MBSQT930200D	ND		0.64	NC	278.261		ND		0.276		0.214	NC	93.043	
MBT014	MBSQT930300D	ND		2.44	NC	165.986	0.108	G,NC	7.347		ND	0.557		37.891	
MBT015	MBSQT931200D	ND		8.2	NC	453.039		ND			ND	2		110.497	0.497
MBT016	MBSQT930900D	ND		12.8	NC	618.357		ND			ND	3.9		188.406	0.418
MBT017	MBSQT930400D	ND		2.21	NC	254.023		ND			ND	0.583	NC	67.011	
MBT018	MBSQT930700D	NC	21.837	7.19	NC	366.837		ND			ND	2.35		119.898	1.44

SAMPLE ID	FIELD ID	TRANSQ	TRANS/TOC (ng/g TOC)	DIEL	DIELQ	DIEL/TOC (ng/g TOC)	4,4'-DDE	4,4'-DDEQ	154/2,4'-DDD	154/2,4'-DDDQ	4,4'-DDD	4,4'-DDDQ	2,4'-DDT
AN-S-27 PB	NA	ND			ND		0.58			ND			
AN-S-28 SRM	NA	NC			ND		7.05		11.1		10.6		1.2
AN-S-29 MS	NA	NA			NA			NA		NA	86		
AN-S-30 TRF	NA	NC			ND		2.46			ND	2.94		
MBT007	MBSQT930600D	NC	43.621		ND		3.4		5.62		7.92		
MBT008	MBSQT931100D		38.695		ND		5.46		10		14.7		
MBT008-L	MBSQT931100D				ND		5.81		11		17.3		
MBT009	MBSQT930800D		56.627	0.191	NC	11.302	8.13		2.73		6.41		0.943
MBT010	MBSQT931000D		104.483	0.646		74.253	5.8		13.7		57.4		0.808
MBT011	MBSQT930500D		41.415	0.634		29.906	2.74		4.7		7.6		3.23
MBT012	MBSQT930100D	ND		0.075	NC	2.560	0.428			ND	0.682		
MBT013	MBSQT930200D	ND			ND		1.27			ND	0.799		0.003
MBT014	MBSQT930300D	ND			ND		0.617		0.078		0.788		
MBT015	MBSQT931200D		27.459		ND		3.98		4.98		8.58		
MBT016	MBSQT930900D		20.193		ND		2.93		8.98		11.4		
MBT017	MBSQT930400D	ND			ND		0.376			ND	0.752		
MBT018	MBSQT930700D		73.469		ND		4.45		3.95		8.89		2.12

SAMPLE ID	FIELD ID	2,4'-DDTQ	4,4'-DDT	4,4'-DDTQ	MIREX	MIREXQ	MIREX/TOC (ng/g TOC)	DDD+DDE+DDT	DDD+DDE+DDT/TOC (ng/g TOC)	%DBOFB	%DBOFBQ
AN-S-27 PB	NA	ND		ND		ND		0.58		70	
AN-S-28 SRM	NA			ND	0.743			29.95		81	
AN-S-29 MS	NA	NA	89			NA		250		83	
AN-S-30 TRF	NA	ND	0.113	NC		ND		5.798		80	
MBT007	MBSQT930600D	ND	0.5	NC		ND		17.44	717.695	50	
MBT008	MBSQT931100D	ND	2.42	NC		ND		32.983	768.834	72	
MBT008-L	MBSQT931100D	ND	2.29		1.21			36.929		82	
MBT009	MBSQT930800D		2.83		0.262		15.503	21.838	1292.189	82	
MBT010	MBSQT931000D		1.2		0.545		62.644	79.495	9137.356	76	
MBT011	MBSQT930500D	NC	7.82		0.528		24.906	26.09	1230.660	84	
MBT012	MBSQT930100D	ND		ND		ND		1.11	37.884	85	
MBT013	MBSQT930200D			ND		ND		2.348	1020.870	84	
MBT014	MBSQT930300D	ND		ND		ND		1.483	100.884	82	
MBT015	MBSQT931200D	ND	2.21		0.46		25.414	19.75	1091.160	89	
MBT016	MBSQT930900D	ND	0.519	NC	1.02		49.275	23.829	1151.159	91	
MBT017	MBSQT930400D	ND		ND	0.092	NC	10.575	1.128	129.655	82	
MBT018	MBSQT930700D		0.33	NC	0.641		32.704	19.74	1007.143	90	

Table B-5. Amphipod Toxicity Results: 10 Day Exposure

Sample ID (See Note Below)	Station	Replicate	% Survival	% Affected	% Burial
Control 1	C1	1	0.95	0	0.95
		2	0.85	0	0.85
		3	0.90	0	0.90
		4	0.95	0	0.95
		5	0.95	0	0.95
Control 2	C2	1	1.00	0	1.00
		2	0.95	0	0.95
		3	0.90	0	0.90
		4	0.90	0	0.90
		5	1.00	0	1.00
MBSQT930100AT	1	1	0.25	0	0.25
		2	0.65	0	0.65
		3	0.60	0	0.60
		4	0.50	0	0.50
		5	0.65	0	0.65
MBSQT930200AT	2	1	0.95	0	0.95
		2	0.70	0	0.70
		3	0.75	0	0.75
		4	0.80	0	0.80
		5	0.75	0	0.75
MBSQT930300AT	3	1	0.90	0	0.90
		2	0.90	0	0.90
		3	0.75	0	0.75
		4	0.80	0	0.80
		5	0.85	0	0.85
MBSQT930400AT	4	1	1.00	0	1.00
		2	0.70	0	0.70
		3	0.80	0	0.80
		4	0.75	0	0.75
		5	0.60	0	0.60
MBSQT930500AT	5	1	0.60	0	0.60
		2	0.80	0	0.80
		3	0.85	0	0.85
		4	0.80	0	0.80
		5	0.85	0	0.85
MBSQT930600AT	6	1	0.85	0	0.85
		2	0.85	0	0.85
		3	0.80	0	0.80
		4	0.80	0	0.80
		5	0.55	0	0.55
MBSQT930700AT	7	1	0.70	0	0.70
		2	0.90	0	0.90
		3	0.80	0	0.80
		4	0.75	0	0.75
		5	0.95	0	0.95
MBSQT930800AT	8	1	0.90	0	0.90
		2	0.90	0	0.90
		3	0.95	0	0.95
		4	0.80	0	0.80
		5	0.85	0	0.85
MBSQT930900AT	9	1	0.45	0	0.45
		2	0.70	0	0.70
		3	0.60	0	0.60
		4	0.75	0	0.75
		5	0.90	0	0.90
MBSQT931000AT	10	1	0.85	0	0.85
		2	0.85	0	0.85
		3	1.00	0	1.00

Sample ID (See Note Below)	Station	Replicate	% Survival	% Affected	% Burial
		4	0.95	0	0.95
		5	0.95	0	0.95
MBSQT931100AT	11	1	0.85	0	0.85
		2	0.85	0	0.85
		3	0.70	0	0.70
		4	0.85	0	0.85
		5	0.95	0	0.95
MBSQT931200AT	12	1	0.90	0	0.90
		2	1.00	0	1.00
		3	1.00	0	1.00
		4	0.90	0	0.90
		5	0.80	0	0.80

Note: Control 1 was run wtith stations 1-4 and 9-12;
Control 2 was run with stations 5-8.

Table B-6. Amphipod Toxicity Results: Daily Survival

Sample ID (See Note Below)	Station	Replicate	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Control 1	C1	1	20	20	20	20	20	20	20	20	20	20	19
		2	20	20	20	20	20	19	19	19	19	19	17
		3	20	20	20	20	20	20	20	20	20	20	18
		4	20	20	20	20	20	20	20	20	20	20	19
		5	20	20	20	20	20	20	20	20	20	20	19
Control 2	C2	1	20	20	20	20	20	20	20	20	20	20	20
		2	20	20	20	20	20	20	20	20	20	20	19
		3	20	20	20	20	20	20	20	20	20	20	18
		4	20	20	20	20	20	20	20	20	20	20	18
		5	20	20	20	20	20	20	20	20	20	20	20
MBSQT930100	1	1	20	20	20	20	20	20	20	20	20	20	5
		2	20	20	20	20	20	20	20	20	20	20	13
		3	20	20	20	20	19	19	19	19	19	19	12
		4	20	20	20	20	20	20	20	20	19	19	10
		5	20	20	20	20	20	20	20	20	20	20	13
MBSQT930200	2	1	20	20	20	20	20	20	20	20	20	20	19
		2	20	20	20	20	20	20	20	20	20	20	14
		3	20	20	20	20	20	20	20	20	20	20	15
		4	20	20	16	16	16	16	16	16	16	16	16
		5	20	20	18	18	18	18	18	18	18	18	15
MBSQT930300	3	1	20	20	19	19	19	19	19	19	19	19	18
		2	20	20	20	20	20	20	20	20	20	20	18
		3	20	20	20	20	20	20	20	20	20	20	15
		4	20	19	19	19	19	19	19	19	19	19	16
		5	20	20	20	20	20	20	20	20	20	20	17
MBSQT930400	4	1	20	20	20	20	20	20	20	20	20	20	20
		2	20	20	20	20	20	20	20	20	20	20	14
		3	20	20	20	20	20	20	20	20	20	20	16
		4	20	20	20	20	20	20	20	20	20	20	15
		5	20	20	19	19	19	19	19	19	19	19	12
MBSQT930500	5	1	20	20	20	20	20	20	20	20	20	20	12
		2	20	20	20	20	20	20	20	20	20	20	16
		3	20	20	20	20	20	20	20	20	20	20	17
		4	20	20	20	20	20	20	20	20	20	20	16
		5	20	20	20	20	20	20	20	20	20	20	17
MBSQT930600	6	1	20	20	20	20	20	20	20	20	20	20	17
		2	20	20	20	20	20	20	20	20	20	20	17
		3	20	20	20	20	20	20	20	20	20	20	16
		4	20	20	20	20	20	20	20	20	20	20	16
		5	20	20	20	20	20	20	20	20	20	20	11
MBSQT930700	7	1	20	20	20	20	20	20	20	20	20	20	14
		2	20	20	20	20	20	20	20	20	20	20	18
		3	20	20	20	20	20	20	20	20	20	20	16
		4	20	20	20	20	20	20	20	20	20	20	15
		5	20	20	20	20	20	20	20	20	20	20	19
MBSQT930800	8	1	20	20	20	20	20	20	20	20	20	20	18
		2	20	20	20	20	20	20	20	20	20	20	18
		3	20	20	20	20	20	20	20	20	20	20	19
		4	20	20	20	20	20	20	20	20	20	20	16
		5	20	20	20	20	20	20	20	20	20	20	17
MBSQT930900	9	1	20	20	20	20	20	20	20	20	20	20	9
		2	20	20	20	20	20	20	20	20	20	20	14
		3	20	20	20	20	20	20	20	20	20	20	12
		4	20	20	20	20	20	20	20	20	20	20	15
		5	20	20	20	20	20	20	20	20	20	20	18
MBSQT931000	10	1	20	20	19	19	19	19	19	19	18	18	17
		2	20	19	19	19	18	18	18	18	18	18	17
		3	20	20	20	20	20	20	20	20	20	20	20

Sample ID (See Note Below)	Station	Replicate	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
		4	20	20	20	20	20	20	20	20	20	19	19
		5	20	20	20	20	20	20	20	20	20	20	19
MBSQT931100	11	1	20	19	19	19	19	19	19	19	19	19	17
		2	20	20	20	20	20	20	18	18	18	18	17
		3	20	20	19	19	19	19	19	19	19	19	14
		4	20	20	20	20	20	20	20	20	20	20	17
		5	20	20	20	20	20	20	20	20	20	20	19
MBSQT931200	12	1	20	20	20	20	20	20	20	20	20	20	18
		2	20	20	20	20	20	20	20	20	20	20	20
		3	20	20	20	20	20	20	20	20	20	20	20
		4	20	20	20	20	19	19	19	19	19	19	18
		5	20	19	19	19	19	19	18	18	18	18	16

Note: Control 1 was run wtith stations 1-4 and 9-12;
Control 2 was run with stations 5-8.

Table B-7. Amphipod Toxicity: Daily DO (mg/L)

Mass Bays Amphipod Toxicity - Daily DO (mg/L)

Sample ID (See Note Below)	Station	Replicate	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Control 1	C1	1	6.9	7.0	6.7	7.1	7.0	6.9	7.0	6.9	7.0	7.0	7.2
		2	7.0	7.0	6.7	7.1	7.0	7.0	7.0	6.9	7.0	7.0	7.2
		3	6.9	7.0	6.7	7.1	7.0	6.9	7.1	7.0	7.0	7.1	7.2
		4	6.9	7.1	6.7	7.1	7.0	6.9	7.1	7.0	7.0	7.1	7.2
		5	6.9	7.1	6.7	7.1	7.0	6.9	7.0	7.0	7.1	7.1	7.2
Control 2	C2	1	7.1	7.1	7.0	6.9	7.1	7.2	7.1	7.1	7.2	7.1	7.1
		2	7.1	7.1	7.0	7.0	7.1	7.2	7.1	7.1	7.2	7.1	7.1
		3	7.1	7.1	7.1	7.0	7.0	7.1	7.1	7.2	7.2	7.0	7.1
		4	7.1	7.1	7.0	7.1	7.1	7.2	7.2	7.1	7.1	7.2	7.1
		5	7.1	7.1	7.0	7.1	7.0	7.1	7.1	7.0	7.1	7.1	7.0
MBSQT930100AT	1	1	7.0	7.2	6.7	7.1	7.0	7.1	7.0	7.1	7.1	7.1	7.0
		2	7.0	7.1	6.7	7.1	7.1	7.0	6.9	7.0	7.0	7.0	7.0
		3	6.9	7.1	6.7	7.0	7.0	7.0	6.9	7.0	7.1	7.1	7.0
		4	7.0	7.1	6.8	7.1	7.0	7.0	7.0	7.0	7.0	7.1	7.0
		5	7.0	7.0	6.8	7.0	7.0	7.1	7.1	6.9	7.1	7.1	7.2
MBSQT930200AT	2	1	7.0	7.1	6.8	7.1	7.0	7.0	7.0	7.0	7.1	7.1	7.1
		2	7.0	7.2	6.8	7.1	7.0	7.0	6.9	7.0	7.0	7.0	7.2
		3	7.0	7.2	6.8	7.0	7.1	6.9	6.9	7.0	7.1	7.0	7.1
		4	7.0	7.1	6.8	7.1	7.1	7.0	6.9	6.9	7.1	7.1	7.1
		5	7.0	7.1	6.8	7.1	7.1	7.0	7.0	7.0	7.1	7.1	7.1
MBSQT930300AT	3	1	7.0	7.2	6.8	7.1	7.1	7.0	7.0	7.0	7.1	7.1	7.1
		2	7.0	7.2	6.8	7.0	7.1	7.0	7.1	6.9	7.1	7.0	7.1
		3	7.0	7.0	6.8	7.1	7.1	7.0	7.1	6.9	7.1	7.0	7.1
		4	6.9	7.1	6.7	7.0	7.1	7.0	7.1	7.0	7.1	7.0	7.2
		5	6.8	7.1	6.7	7.1	7.1	7.0	7.1	7.0	7.1	7.0	7.1
MBSQT930400AT	4	1	6.9	7.1	6.8	7.1	7.1	7.0	7.1	7.0	7.1	7.0	7.1
		2	7.0	7.1	6.8	7.0	7.1	7.0	7.1	7.0	7.1	7.0	7.1
		3	7.0	7.1	6.8	7.1	7.0	7.0	7.1	7.0	7.0	7.0	7.1
		4	7.0	7.1	6.8	7.1	7.0	6.9	7.0	7.0	7.1	6.9	7.1
		5	6.9	7.1	6.8	7.1	7.1	7.0	7.0	6.9	7.1	7.0	7.1
MBSQT930500AT	5	1	7.0	7.1	7.0	7.0	7.0	7.1	7.1	7.0	7.2	7.1	7.0
		2	7.0	7.1	7.0	6.9	6.9	7.1	7.1	7.0	7.2	7.2	7.1
		3	7.0	7.1	6.9	6.9	7.0	7.2	7.1	7.0	7.1	7.1	7.0
		4	7.1	7.1	7.0	6.9	7.0	7.2	7.1	7.0	7.2	7.2	7.1
		5	7.1	7.1	7.0	7.0	7.1	7.1	7.1	7.0	7.2	7.1	7.0
MBSQT930600AT	6	1	7.1	7.1	7.1	7.0	7.1	7.0	7.1	7.1	7.1	7.2	7.1
		2	7.1	7.2	7.1	7.1	7.0	7.1	7.2	7.1	7.1	7.1	7.1
		3	7.1	7.1	7.0	7.1	7.1	7.2	7.2	7.1	7.2	7.1	7.1
		4	7.0	7.1	7.0	7.0	6.9	7.1	7.1	7.1	7.2	7.1	7.0
		5	7.0	7.1	7.1	6.9	6.9	7.1	7.1	7.2	7.1	7.2	7.0
MBSQT930700AT	7	1	7.1	7.1	7.0	6.9	7.0	7.0	7.1	7.2	7.1	7.2	7.1
		2	7.1	7.1	7.0	7.0	7.0	7.2	7.1	7.1	7.2	7.1	7.1
		3	7.0	7.1	7.0	7.0	6.9	7.1	7.1	7.1	7.2	7.1	7.1
		4	7.0	7.1	7.0	7.1	6.9	7.2	7.1	7.1	7.2	7.0	7.1
		5	7.1	7.2	7.1	7.0	7.0	7.2	7.1	7.0	7.1	7.0	7.1
MBSQT930800AT	8	1	7.1	7.2	7.1	6.9	7.0	7.1	7.0	7.0	7.1	7.0	7.1
		2	7.1	7.1	7.0	6.9	6.9	7.1	7.0	7.2	7.2	7.1	7.0
		3	7.1	7.1	7.1	7.0	7.0	7.1	7.1	7.1	7.2	7.1	7.0
		4	7.0	7.1	7.0	6.9	7.1	7.2	7.2	7.1	7.1	7.1	7.0
		5	7.0	7.1	7.0	6.9	7.0	7.2	7.1	7.0	7.2	7.0	7.0
MBSQT930900AT	9	1	6.9	7.1	6.8	7.1	7.1	7.1	7.0	6.9	7.0	6.9	7.0
		2	6.9	7.1	6.8	7.1	7.1	7.1	7.1	6.9	7.1	6.9	7.1
		3	6.9	7.2	6.8	7.1	7.1	7.1	7.0	7.0	7.1	7.0	7.1
		4	7.0	7.2	6.8	7.0	7.1	7.1	7.0	7.0	7.1	7.1	7.0
		5	7.0	7.2	6.8	7.0	7.1	7.0	7.1	6.9	7.0	6.9	6.9
MBSQT931000AT	10	1	6.7	7.2	6.8	7.0	7.1	7.1	7.1	7.0	7.1	7.0	6.8
		2	6.9	7.2	6.7	7.1	7.0	7.1	7.0	6.8	7.1	7.0	6.8
		3	6.9	7.2	6.8	7.1	7.1	7.1	7.0	6.9	7.0	7.0	6.8
		4	6.9	7.1	6.7	7.1	7.1	7.0	7.1	7.0	7.1	7.1	6.9
		5	7.0	7.1	6.8	7.1	7.2	7.1	7.1	7.0	7.1	7.0	6.8

Mass Bays Amphipod Toxicity - Daily DO (mg/L)

Sample ID (See Note Below)	Station	Replicate	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
MBSQT931100AT	11	1	7.0	7.1	6.7	7.0	7.2	7.1	7.0	6.9	7.1	7.0	6.9
		2	7.0	7.1	6.8	7.0	7.2	7.1	7.0	6.9	7.1	6.9	6.8
		3	6.9	7.1	6.7	7.0	7.0	7.1	6.9	7.0	7.0	7.0	6.8
		4	6.9	7.1	6.7	7.1	7.0	6.9	7.0	7.0	7.1	7.0	6.9
		5	6.8	7.1	6.8	7.1	7.0	6.9	7.1	6.9	7.1	7.1	7.0
MBSQT931200AT	12	1	6.8	7.1	6.8	7.0	7.0	7.1	7.0	7.0	7.1	7.0	6.9
		2	6.9	7.2	6.7	7.1	7.0	7.0	7.1	7.1	7.0	7.0	6.9
		3	6.9	7.2	6.7	7.1	7.1	7.1	7.1	7.0	7.1	6.9	6.8
		4	6.9	7.1	6.7	7.0	7.1	7.0	7.0	6.9	7.1	6.9	6.8
		5	6.9	7.1	6.7	7.0	7.1	7.0	6.9	6.9	7.1	7.1	6.9

Note: Control 1 was run wtith stations 1-4 and 9-12;
Control 2 was run with stations 5-8.

Table B-8. Amphipod Toxicity: Daily Salinity (pt)

Mass Bays Amphipod Toxicity - S (ppt)

Sample ID (See Note Below)	Station	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Control 1	C1	32	32	32	32	33	33	33	33	33	33	33
Control 2	C2	33	33	33	33	33	33	33	34	34	34	34
MBSQT930100	1	32	32	32	32	33	33	33	33	33	33	34
MBSQT930200	2	32	33	32	32	33	33	33	33	33	33	34
MBSQT930300	3	32	33	32	32	33	33	33	33	33	33	34
MBSQT930400	4	32	33	32	32	33	33	33	33	33	33	34
MBSQT930500	5	33	33	33	33	33	33	33	34	34	34	34
MBSQT930600	6	33	33	33	33	33	33	33	35	35	35	35
MBSQT930700	7	33	33	33	33	33	33	33	35	35	35	35
MBSQT930800	8	33	33	33	33	33	33	33	35	35	35	35
MBSQT930900	9	32	33	32	32	33	33	33	33	33	33	34
MBSQT931000	10	32	33	32	32	33	33	33	33	33	33	34
MBSQT931100	11	32	33	32	32	33	33	33	33	33	33	34
MBSQT931200	12	32	33	32	32	33	33	33	33	33	33	34

Note: Control 1 was run wtith stations 1-4 and 9-12;
Control 2 was run with stations 5-8.

Table B-9. Amphipod toxicity: Daily temperature (°C)

Mass Bays Amphipod Toxicity - T (degrees C)

Sample ID (See Note Below)	Station	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Control 1	C1	20.5	20.1	20.6	20.6	20.3	20.4	19.6	20.4	20.0	20.2	20.1
Control 2	C2	19.6	19.9	20.2	20.0	20.0	19.9	20.0	19.8	20.0	19.9	20.0
MBSQT930100AT	1	20.2	20.0	20.5	20.9	20.2	20.5	20.1	20.3	20.0	20.1	20.3
MBSQT930200AT	2	20.1	19.9	20.5	20.4	19.9	20.3	20.2	20.5	20.1	20.3	20.5
MBSQT930300AT	3	20.0	19.8	20.4	20.3	20.3	20.4	19.8	20.4	19.9	20.0	20.5
MBSQT930400AT	4	20.0	19.9	20.3	20.2	19.9	20.2	20.1	20.4	19.9	19.9	20.5
MBSQT930500AT	5	19.5	19.6	20.3	19.7	20.0	19.8	19.9	19.8	20.1	19.8	19.9
MBSQT930600AT	6	19.4	19.8	20.1	20.1	20.2	20.0	20.1	19.8	19.9	19.8	19.9
MBSQT930700AT	7	19.8	19.9	20.0	19.9	20.3	19.9	20.0	19.7	19.8	19.9	20.1
MBSQT930800AT	8	19.6	19.7	20.4	19.8	20.0	20.0	20.2	19.8	19.9	20.0	20.0
MBSQT930900AT	9	20.0	20.0	20.4	20.5	20.0	20.4	20.3	20.3	20.0	20.1	20.0
MBSQT931000AT	10	20.3	20.0	20.1	20.3	20.0	20.5	20.0	20.4	20.1	20.2	20.0
MBSQT931100AT	11	20.2	20.0	20.2	20.2	20.0	20.3	19.7	20.5	20.0	20.1	20.0
MBSQT931200AT	12	20.0	19.9	20.4	20.1	19.8	20.2	19.9	20.3	19.8	20.0	20.1

Note: Control 1 was run wtith stations 1-4 and 9-12;
Control 2 was run with stations 5-8.

Table B-10. Amphipod Toxicity: Daily pH

Mass Bays Amphipod Toxicity - pH

Sample ID (See Note Below)	Station	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Control 1	C1	8.1	8.6	8.0	8.0	8.6	8.3	8.2	8.3	8.3	8.4	8.3
Control 2	C2	8.0	8.2	8.1	8.2	8.5	8.2	8.3	8.2	8.3	8.3	8.4
MBSQT930100AT	1	8.2	8.8	8.2	8.0	8.9	8.3	8.3	8.5	8.5	8.6	8.8
MBSQT930200AT	2	8.2	8.7	8.1	8.1	8.8	8.3	8.3	8.5	8.4	8.5	8.6
MBSQT930300AT	3	8.1	8.7	8.1	8.1	8.9	8.4	8.2	8.6	8.5	8.5	8.8
MBSQT930400AT	4	8.1	8.7	8.1	8.1	8.8	8.3	8.3	8.6	8.5	8.5	8.7
MBSQT930500AT	5	8.0	8.2	8.1	8.2	8.6	8.2	8.4	8.7	8.6	8.5	8.5
MBSQT930600AT	6	8.0	8.2	8.2	8.2	8.6	8.4	8.4	8.5	8.5	8.6	8.5
MBSQT930700AT	7	8.0	8.2	8.2	8.2	8.6	8.3	8.4	8.4	8.4	8.5	8.5
MBSQT930800AT	8	8.0	8.2	8.2	8.2	8.6	8.4	8.5	8.7	8.6	8.5	8.5
MBSQT930900AT	9	8.1	8.7	8.2	8.2	8.9	8.4	8.2	8.6	8.5	8.5	8.8
MBSQT931000AT	10	8.2	8.8	8.3	8.2	8.9	8.4	8.3	8.5	8.5	8.5	8.7
MBSQT931100AT	11	8.2	8.8	8.2	8.1	8.9	8.4	8.2	8.6	8.5	8.5	8.7
MBSQT931200AT	12	8.2	8.8	8.2	8.1	8.9	8.4	8.3	8.6	8.5	8.5	8.7

Note: Control 1 was run wtith stations 1-4 and 9-12;
Control 2 was run with stations 5-8.

Table B-11. Sea urchin fertilization test raw data and means for sediment porewater samples from Massachusetts Bay Massachusetts

Site	% WQAS[1]	% Fertilization					Mean ± SD
		Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
REF[2]	100	97	96	93	95	98	95.8 ± 1.9
1	100	1	0	1	0	1	0.6 ± 0.5
1	50	1	2	1	5	5	2.8 ± 2.0
1	25	2	3	2	5	1	2.6 ± 1.5
1	12.5	4	3	3	1	7	3.6 ± 2.2
2	100	0	2	3	1	4	2.0 ± 1.6
2	50	9	14	6	9	9	9.4 ± 2.9
2	25	40	47	37	39	43	41.2 ± 3.9
2	12.5	87	78	92	87	91	87.0 ± 5.5
3	100	0	2	4	6	1	2.6 ± 2.4
3	50	7	22	21	15	7	14.4 ± 7.3
3	25	16	27	23	29	27	24.4 ± 5.2
3	12.5	43	7	39	22	32	28.6 ± 14.5
4	100	4	10	7	4	2	5.4 ± 3.1
4	50	11	10	19	16	21	15.4 ± 4.8
4	25	25	33	42	33	42	35.0 ± 7.2
4	12.5	76	83	74	67	80	76.0 ± 6.1
5	100	91	86	92	95	89	90.6 ± 3.4
5	50	98	92	96	91	93	94.0 ± 2.9
5	25	95	99	90	96	30[3]	95.0 ± 3.7
5	12.5	87	83	93	89	90	88.4 ± 3.7
6	100	95	93	93	96	94	94.2 ± 1.3
6	50	98	93	90	92	94	93.4 ± 3.0
6	25	92	97	75	83	89	87.2 ± 8.5
6	12.5	84	96	89	91	66[3]	90.0 ± 5.0
7	100	96	85	94	94	90	91.8 ± 4.4

Site	% WQAS[1]	% Fertilization					Mean ± SD
		Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
7	50	98	94	95	94	92	94.6 ± 2.2
7	25	92	82	88	90	93	89.0 ± 4.4
7	12.5	97	87	93	32[3]	36[3]	92.3 ± 5.0
8	100	69	53	84	56	71	66.6 ± 12.5
8	50	90	97	96	86	95	92.8 ± 4.7
8	25	92	95	95	93	80[3]	93.8 ± 1.5
8	12.5	86	96	90	73	29[3]	86.2 ± 9.7
9	100	98	97	97	94	99	97.0 ± 1.9
9	50	91	96	98	97	92	94.8 ± 3.1
9	25	94	98	99	99	66[3]	97.5 ± 2.4
9	12.5	98	93	79	89	69	85.6 ± 11.6
10	100	90	93	91	94	92	92.0 ± 1.6
10	50	95	94	95	98	98	96.0 ± 1.9
10	25	97	93	96	100	98	96.8 ± 2.6
10	12.5	95	95	94	95	90	93.8 ± 2.2
11	100	91	92	93	86	88	90.0 ± 2.9
11	50	88	92	93	98	98	93.8 ± 4.3
11	25	91	99	96	96	97	95.8 ± 2.9
11	12.5	96	95	95	91	83[3]	94.2 ± 2.2
12	100	96	98	94	96	97	96.2 ± 1.5
12	50	97	93	98	98	99	97.0 ± 2.3
12	25	91	95	94	94	95	93.8 ± 1.6
12	12.5	88	94	94	94	57[3]	92.5 ± 3.0

[1] Percent of water quality adjusted porewater sample.

[2] Reference pore water extracted from sediment collected in Redfish Bay.

[3] Value is an outlier and was excluded from statistical analyses.

Table B-12. Sea urchin embryological development test raw data and means for sediment porewater samples from Massachusetts Bay Massachusetts

Site	% WQAS[1]	% Normal Development					
		Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Mean ± SD
REF[2]	100	99	99	97	98	100	98.6 ± 1.1
1	50	0	0	0	0	0	0 ± 0
1	25	0	0	0	0	0	0 ± 0
1	12.5	0	0	0	0	0	0 ± 0
1	6.25	67	56	68	76	69	67.2 ± 7.2
2	50	6	10	9	12	18	11.0 ± 4.5
2	25	97	91	95	89	96	93.6 ± 3.4
2	12.5	100	92	100	97	96	97.0 ± 3.3
2	6.25	98	99	98	97	96	97.6 ± 1.1
3	50	0	0	0	0	0	0 ± 0
3	25	36	16	24	22	7	21.0 ± 10.7
3	12.5	67	94	96	79	93	85.8 ± 12.5
3	6.25	71	99	84	84	98	87.2 ± 11.6
4	50	8	21	0	41	16	17.2 ± 15.5
4	25	88[3]	98	94	98	96	96.5 ± 1.9
4	12.5	96	94	99	84[3]	99	97.0 ± 2.4
4	6.25	98	99	97	96	99	97.8 ± 1.3
5	50	0	0	0	0	0	0 ± 0
5	25	73[3]	90	93	91	91	91.2 ± 1.3
5	12.5	97	100	97	97	98	97.8 ± 1.3
5	6.25	99	95	99	99	100	98.4 ± 1.9
6	50	93	70	91	20	54	65.6 ± 30.1
6	25	93	98	96	96	98	96.2 ± 2.0
6	12.5	98	98	98	98	99	98.2 ± 0.4
6	6.25	97	95	96	99	98	97.0 ± 1.6
7	50	97	97	97	97	97	97.0 ± 0

Site	% WQAS[1]	% Normal Development					
		Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Mean ± SD
7	25	99	100	98	96	99	98.4 ± 1.5
7	12.5	97	98	99	97	98	97.8 ± 0.8
7	6.25	99	95	99	98	100	98.2 ± 1.9
8	50	0	0	0	0	0	0 ± 0
8	25	99	97	98	98	95	97.4 ± 1.5
8	12.5	96	98	96	96	95	96.2 ± 1.1
8	6.25	98	94	98	100	98	97.6 ± 2.2
9	50	52	43	50	30	13	37.6 ± 16.2
9	25	98	96	99	98	99	98.0 ± 1.2
9	12.5	99	97	98	98	99	98.2 ± 0.8
9	6.25	98	93	96	99	97	96.6 ± 2.3
10	50	0	0	0	0	0	0 ± 0
10	25	0	0	0	0	0	0 ± 0
10	12.5	97	100	60[3]	100	84	95.2 ± 7.6
10	6.25	93	96	99	97	98	96.6 ± 2.3
11	50	0	0	0	0	0	0 ± 0
11	25	0	0	0	0	0	0 ± 0
11	12.5	0	55	72	4	45	35.2 ± 31.8
11	6.25	98	98	97	98	99	98.0 ± 0.7
12	50	0	0	0	0	0	0 ± 0
12	25	87	91	55	79	66	75.6 ± 15.0
12	12.5	97	97	98	99	97	97.6 ± 0.9
12	6.25	97	98	98	99	96	97.6 ± 1.1

[1] Percent of water quality adjusted porewater sample.

[2] Reference pore water extracted from sediment collected in Redfish Bay.

[3] Value is an outlier and was excluded from statistical analyses.

Table B-13. Infauna Data

Mass Bays - Infauna Data

Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Nemertea spp. indet.	N	1	1	1
Capitella capitata species complex	P	1	1	11
Eumida sanguinea	P	1	1	8
Harmothoe imbricata	P	1	1	1
Lagisca extenuata	P	1	1	1
Microphthalmus sczelkowii	P	1	1	4
Neanthes succinea	P	1	1	2
Paranaitis speciosa	P	1	1	1
Polydora cornuta	P	1	1	15
Polydora spp. juv.	P	1	1	8
Streblospio benedicti	P	1	1	81
Tubificidae spp. indet.	O	1	1	1
Ampelisca abdita	C	1	1	2
Leucon sp. 1	C	1	1	5
Limulus polyphemus	C	1	1	1
Orchomene minuta	C	1	1	4
Pagurus longicarpus	C	1	1	3
Xanthidae sp. 1	C	1	1	3
Crassostrea virginica	B	1	1	23
Crepidula plana	G	1	1	2
Mysella planulata	G	1	1	2
Tellina agilis	B	1	1	6
Capitella capitata species complex	P	1	2	1
Eteone heteropoda	P	1	2	1
Heteromastus filiformis	P	1	2	38
Leitoscoloplos robustus	P	1	2	1
Microphthalmus sczelkowii	P	1	2	64
Neanthes succinea	P	1	2	1
Parougia caeca	P	1	2	3
Polydora cornuta	P	1	2	3
Polydora spp. juv.	P	1	2	3
Sabellaria vulgaris	P	1	2	2
Streblospio benedicti	P	1	2	91
Syllides verrilli	P	1	2	1
Tharyx acutus	P	1	2	1
Tubificoides nr. pseudogaster	O	1	2	32
Ampelisca abdita	C	1	2	1
Crangon septemspinosa	C	1	2	1
Leucon sp. 1	C	1	2	3
Limulus polyphemus	C	1	2	1
Pagurus longicarpus	C	1	2	11
Anachis avara	G	1	2	1
Crassostrea virginica	B	1	2	1
Crepidula fornicata	G	1	2	1
Tellina agilis	B	1	2	2
Capitella capitata species complex	P	1	3	7
Heteromastus filiformis	P	1	3	13
Leitoscoloplos n.sp. B	P	1	3	1
Microphthalmus sczelkowii	P	1	3	51
Neanthes succinea	P	1	3	3
Paranaitis speciosa	P	1	3	1
Parougia caeca	P	1	3	1
Polydora cornuta	P	1	3	2
Polydora spp. juv.	P	1	3	6
Streblospio benedicti	P	1	3	95
Tubificoides nr. pseudogaster	O	1	3	17
Gammarus mucranatus	C	1	3	1
Pagurus longicarpus	C	1	3	5
Xanthidae sp. 1	C	1	3	1
Crassostrea virginica	B	1	3	2
Crepidula plana	G	1	3	1
Crepidula spp. juv.	G	1	3	1
Mulinia lateralis	B	1	3	2
Tellina agilis	B	1	3	5
Asabellides oculata	P	2	1	2
Capitella capitata species complex	P	2	1	27
Heteromastus filiformis	P	2	1	21
Leitoscoloplos robustus	P	2	1	33

Mass Bays - Infauna Data

Species Name	Taxonomic Group *	Station	Replicate	IND/ 0.1 M sq.
Leitoscoloplos n.sp. B	P	2	1	2
Microphthalmus sczelkowii	P	2	1	13
Pectinaria granulata	P	2	1	2
Polydora cornuta	P	2	1	12
Sabellaria vulgaris	P	2	1	1
Scolelepis squamata	P	2	1	10
Serpulidae spp. juv.	P	2	1	1
Spio setosa	P	2	1	23
Spiochaetopterus costarum	P	2	1	2
Spiophanes bombyx	P	2	1	9
Streblospio benedicti	P	2	1	119
Tharyx acutus	P	2	1	1
Tubificoides nr. pseudogaster	O	2	1	43
Ampelisca abdita	C	2	1	12
Ampelisca spp. juv.	C	2	1	4
Microprotopus ranyei	C	2	1	2
Pagurus longicarpus	C	2	1	1
Acteocina canaliculata	G	2	1	3
Mercinaria mercinaria	B	2	1	18
Mulinia lateralis	B	2	1	1
Spisula solidissima	B	2	1	1
Tellina agilis	B	2	1	1
Nemertea spp. indet.	N	2	2	2
Asabellides oculata	P	2	2	2
Capitella capitata species complex	P	2	2	38
Eteone heteropoda	P	2	2	2
Eusyllinae spp. indet.	P	2	2	1
Heteromastus filiformis	P	2	2	27
Leitoscoloplos robustus	P	2	2	58
Leitoscoloplos n.sp. B	P	2	2	1
Microphthalmus sczelkowii	P	2	2	14
Polydora cornuta	P	2	2	27
Scolelepis squamata	P	2	2	17
Spio setosa	P	2	2	14
Spiochaetopterus costarum	P	2	2	1
Spiophanes bombyx	P	2	2	2
Streblospio benedicti	P	2	2	251
Tharyx acutus	P	2	2	2
Tubificoides apectinatus	O	2	2	1
Tubificoides nr. pseudogaster	O	2	2	19
Ampelisca abdita	C	2	2	8
Ampelisca spp. juv.	C	2	2	3
Acteocina canaliculata	G	2	2	29
Bivalvia spp. juv.	B	2	2	2
Crepidula fornicata	B	2	2	2
Crepidula spp. juv.	B	2	2	4
Mercinaria mercinaria	B	2	2	30
Mulinia lateralis	B	2	2	4
Mysella planulata	B	2	2	1
Spisula solidissima	B	2	2	2
Tellina agilis	B	2	2	1
Nemertea spp. indet.	N	2	3	2
Capitella capitata species complex	P	2	3	23
Clymenella torquata	P	2	3	1
Eteone heteropoda	P	2	3	1
Glycera capitata	P	2	3	2
Heteromastus filiformis	P	2	3	39
Leitoscoloplos robustus	P	2	3	62
Leitoscoloplos n.sp. B	P	2	3	2
Microphthalmus sczelkowii	P	2	3	4
Nephtys picta	P	2	3	3
Polydora cornuta	P	2	3	6
Scolelepis squamata	P	2	3	20
Spio setosa	P	2	3	22
Spiochaetopterus costarum	P	2	3	1
Spiophanes bombyx	P	2	3	2
Streblospio benedicti	P	2	3	239
Tharyx acutus	P	2	3	2

Mass Bays - Infauna Data

Species Name	Taxonomic Group *	Station	Replicate	IND/ 0.1 M sq.
Tubificoides nr. pseudogaster	O	2	3	38
Ampelisca abdita	C	2	3	6
Ampelisca spp. juv.	C	2	3	10
Acteocina canaliculata	G	2	3	22
Ensis directus	B	2	3	1
Mercinaria mercinaria	B	2	3	35
Mulinia lateralis	B	2	3	2
Pandora gouldiana	B	2	3	1
Spisula solidissima	B	2	3	1
Tellina agilis	B	2	3	8
Asabellides oculata	P	3	1	26
Capitella capitata species complex	P	3	1	12
Clymenella torquata	P	3	1	1
Eteone heteropoda	P	3	1	6
Eteone longa	P	3	1	6
Eumida sanguinea	P	3	1	1
Exogone verugera	P	3	1	1
Heteromastus filiformis	P	3	1	87
Leitoscoloplos robustus	P	3	1	21
Mediomastus californiensis	P	3	1	1
Nicolea zostericola	P	3	1	1
Pholoe minuta	P	3	1	1
Polydora cornuta	P	3	1	6
Sphaerosyllis longicauda	P	3	1	1
Streblospio benedicti	P	3	1	255
Tharyx acutus	P	3	1	18
Tubificoides nr. pseudogaster	O	3	1	23
Ampelisca abdita	C	3	1	225
Ampelisca spp. juv.	C	3	1	167
Corophium tuberculatum	C	3	1	1
Edotea triloba	C	3	1	1
Leucon sp. 1	C	3	1	47
Microprotopus ranyei	C	3	1	43
Oxyurostylis smithi	C	3	1	5
Pagurus longicarpus	C	3	1	1
Acteocina canaliculata	B	3	1	27
Mercinaria mercinaria	B	3	1	2
Tellina agilis	B	3	1	6
Asabellides oculata	B	3	2	20
Capitella capitata species complex	P	3	2	29
Eteone heteropoda	P	3	2	3
Heteromastus filiformis	P	3	2	70
Leitoscoloplos robustus	P	3	2	6
Mediomastus californiensis	P	3	2	4
Microphthalmus sczelkowii	P	3	2	9
Neanthes succinea	P	3	2	2
Phyllodoce mucosa	P	3	2	1
Polydora cornuta	P	3	2	13
Sphaerosyllis brevifrons	P	3	2	1
Streblospio benedicti	P	3	2	269
Syllides verrilli	P	3	2	5
Tharyx acutus	P	3	2	29
Tubificoides nr. pseudogaster	O	3	2	24
Tubificidae spp. indet.	O	3	2	1
Ampelisca abdita	C	3	2	147
Ampelisca spp. juv.	C	3	2	104
Leucon sp. 1	C	3	2	24
Microprotopus ranyei	C	3	2	10
Oxyurostylis smithi	C	3	2	1
Acteocina canaliculata	G	3	2	7
Hiatella arctica	B	3	2	1
Lyonsia spp. juv.	B	3	2	1
Mercinaria mercinaria	B	3	2	2
Pandora spp. juv.	B	3	2	1
Tellina agilis	B	3	2	10
Asabellides oculata	P	3	3	10
Capitella capitata species complex	P	3	3	34
Eteone heteropoda	P	3	3	1

Mass Bays - Infauna Data

Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Heteromastus filiformis	P	3	3	8
Leitoscoloplos robustus	P	3	3	1
Neanthes succinea	P	3	3	1
Phyllodoce mucosa	P	3	3	1
Polydora cornuta	P	3	3	4
Streblospio benedicti	P	3	3	106
Tharyx acutus	P	3	3	5
Tubificoides nr. pseudogaster	O	3	3	3
Ampelisca abdita	C	3	3	47
Ampelisca spp. juv.	C	3	3	21
Edotea triloba	C	3	3	1
Leucon sp. 1	C	3	3	24
Microprotopus raneyi	C	3	3	10
Acteocina canaliculata	G	3	3	12
Lyonsia hyalina	B	3	3	1
Mercinaria mercinaria	B	3	3	1
Mulinia lateralis	B	3	3	1
Tellina agilis	B	3	3	1
Ampharete arctica	P	4	1	1
Capitella capitata species complex	P	4	1	25
Eteone heteropoda	P	4	1	2
Glycera capitata	P	4	1	1
Heteromastus filiformis	P	4	1	132
Leitoscoloplos robustus	P	4	1	3
Polydora cornuta	P	4	1	5
Streblospio benedicti	P	4	1	75
Tharyx acutus	P	4	1	31
Tubificoides nr. pseudogaster	O	4	1	31
Ampelisca spp. juv.	C	4	1	1
Acteocina canaliculata	G	4	1	2
Lyonsia arenosa	B	4	1	2
Mercinaria mercinaria	B	4	1	4
Nassarius trivittatus	B	4	1	1
Oenopota spp. juv.	B	4	1	1
Tellina agilis	B	4	1	4
Asabellides oculata	P	4	2	4
Capitella capitata species complex	P	4	2	13
Clymenella torquata	P	4	2	2
Eteone heteropoda	P	4	2	3
Eumida sanguinea	P	4	2	6
Eusyllinae spp. indet.	P	4	2	1
Exogone verugera	P	4	2	1
Glycera capitata	P	4	2	8
Heteromastus filiformis	P	4	2	337
Leitoscoloplos robustus	P	4	2	234
Mediomastus californiensis	P	4	2	2
Microphthalmus sczelkowii	P	4	2	2
Nephtys picta	P	4	2	5
Nicolea zostericola	P	4	2	3
Onuphidae spp. juv.	P	4	2	4
Parougia caeca	P	4	2	1
Pectinaria granulata	P	4	2	4
Pholoe minuta	P	4	2	1
Phyllodoce mucosa	P	4	2	1
Polydora cornuta	P	4	2	132
Polydora spp. juv.	P	4	2	4
Spio setosa	P	4	2	2
Spiochaetopterus costarum	P	4	2	1
Spiophanes bombyx	P	4	2	2
Streblospio benedicti	P	4	2	353
Syllides verrilli	P	4	2	3
Tharyx acutus	P	4	2	40
Tubificoides nr. pseudogaster	O	4	2	61
Ampelisca abdita	C	4	2	139
Ampelisca spp. juv.	C	4	2	52
Carcinus maenas	C	4	2	1
Gammarus mucronatus	C	4	2	2
Leucon sp. 1	C	4	2	1

Mass Bays - Infauna Data

Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Microprotopus ranyei	C	4	2	10
Oxyurostylis smithi	C	4	2	10
Acteocina canaliculata	G	4	2	6
Ensis directus	B	4	2	8
Lyonsia arenosa	B	4	2	5
Mulinia lateralis	B	4	2	1
Nassaruis trivittatus	B	4	2	1
Oenopota spp. juv.	B	4	2	2
Pandora spp. juv.	B	4	2	4
Tellina agilis	B	4	2	20
Nemertea spp. indet.	N	4	3	1
Ampharete arctica	P	4	3	3
Asabellides oculata	P	4	3	15
Capitella capitata species complex	P	4	3	33
Clymenella torquata	P	4	3	4
Eteone heteropoda	P	4	3	4
Glycera capitata	P	4	3	11
Heteromastus filiformis	P	4	3	356
Leitoscoloplos robustus	P	4	3	218
Leitoscoloplos n.sp. B	P	4	3	1
Mediomastus californiensis	P	4	3	5
Microphthalmus sczelkowii	P	4	3	1
Nephtys picta	P	4	3	2
Nicolea zostericola	P	4	3	2
Onuphidae spp. juv.	P	4	3	1
Parougia caeca	P	4	3	2
Pectinaria granulata	P	4	3	3
Polydora cornuta	P	4	3	159
Polydora spp. juv.	P	4	3	5
Sabellaria vulgaris	P	4	3	1
Spio setosa	P	4	3	2
Spiochaetopterus costarum	P	4	3	1
Spiophanes bombyx	P	4	3	1
Streblospio benedicti	P	4	3	359
Syllides verrilli	P	4	3	1
Tharyx acutus	P	4	3	52
Tubificoides nr. pseudogaster	O	4	3	59
Ampelisca abdita	C	4	3	324
Ampelisca spp. juv.	C	4	3	206
Caprellidae spp. indet.	C	4	3	1
Crangon septemspinosa	C	4	3	2
Edotea triloba	C	4	3	2
Leucon sp. 1	C	4	3	2
Microprotopus ranyei	C	4	3	12
Oxyurostylis smithi	C	4	3	5
Tanaidacea spp. indet.	C	4	3	1
Ensis directus	B	4	3	14
Lyonsia arenosa	B	4	3	7
Mercinaria mercinaria	B	4	3	4
Mulinia lateralis	B	4	3	2
Odostomia cf. producta	B	4	3	2
Tellina agilis	B	4	3	31
Turridae spp. juv.	B	4	3	1
Anthozoa sp. 2	A	5	1	1
Nemertea spp. indet.	N	5	1	11
Aricidea catherinae	P	5	1	7
Asabellides oculata	P	5	1	77
Capitella capitata species complex	P	5	1	14
Eteone longa	P	5	1	1508
Gattyana cirrosa	P	5	1	1
Harmothoe imbricata	P	5	1	7
Lagisca extenuata	P	5	1	12
Mediomastus californiensis	P	5	1	65
Microphthalmus sczelkowii	P	5	1	16
Neanthes virens	P	5	1	101
Nephtys ciliata	P	5	1	5
Nephtys neotena	P	5	1	3
Pectinaria granulata	P	5	1	3

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Pherusa affinis	P	5	1	14
Pholoe minuta	P	5	1	23
Phyllodoce maculata	P	5	1	39
Phyllodoce mucosa	P	5	1	851
Polycirrus medusa	P	5	1	3
Polydora cornuta	P	5	1	3561
Polydora quadrilobata	P	5	1	22
Polydora spp. juv.	P	5	1	3
Proceraea cornuta	P	5	1	1
Pygospio elegans	P	5	1	1
Scoloplos spp. juv.	P	5	1	3
Spio filicornis	P	5	1	12
Spio thulini	P	5	1	279
Streblospio benedicti	P	5	1	370
Tharyx acutus	P	5	1	109
Typosyllis spp. juv.	P	5	1	1
Tubificoides apectinatus	O	5	1	12
Tubificoides nr. pseudogaster	O	5	1	38
Ampelisca abdita	C	5	1	422
Ampelisca spp. juv.	C	5	1	79
Caprellidae spp. indet.	C	5	1	2
Corophium bonelli	C	5	1	2
Diastylis sculpta	C	5	1	17
Dyopedos monacantha	C	5	1	7
Edotea triloba	C	5	1	17
Gammarus lawrencianus	C	5	1	4
Ischyrocerus anguipes	C	5	1	1
Leptocheirus pinguis	C	5	1	11
Leucon sp. 1	C	5	1	1
Photis pollex	C	5	1	36
Unciola irrorata	C	5	1	14
Cyrtodaria siliqua	B	5	1	4
Ensis directus	B	5	1	40
Gastropoda spp. indet.	B	5	1	2
Modiolus modiolus	B	5	1	19
Mya arenaria	B	5	1	213
Mytilidae spp. juv.	B	5	1	32
Nassaruis trivittatus	G	5	1	8
Tellina agilis	B	5	1	8
Anthozoa sp. 1	A	5	2	2
Nemertea spp. indet.	N	5	2	11
Aricidea catherinae	P	5	2	11
Asabellides oculata	P	5	2	71
Capitella capitata species complex	P	5	2	6
Enipo torelli	P	5	2	1
Eteone longa	P	5	2	1365
Euchone incolor	P	5	2	1
Gattyana cirrosa	P	5	2	16
Harmothoe imbricata	P	5	2	5
Lagisca extenuata	P	5	2	13
Mediomastus californiensis	P	5	2	59
Microphthalmus sczelkowii	P	5	2	29
Neanthes virens	P	5	2	105
Nephtys ciliata	P	5	2	1
Ninoe nigripes	P	5	2	1
Pectinaria granulata	P	5	2	3
Pherusa affinis	P	5	2	6
Pholoe minuta	P	5	2	29
Phyllodoce maculata	P	5	2	25
Phyllodoce mucosa	P	5	2	825
Polycirrus eximius	P	5	2	1
Polycirrus medusa	P	5	2	1
Polydora cornuta	P	5	2	2683
Polydora quadrilobata	P	5	2	12
Polydora spp. juv.	P	5	2	12
Prionospio steenstrupi	P	5	2	5
Proceraea cornuta	P	5	2	2
Pygospio elegans	P	5	2	1

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Scoloplos spp. juv.	P	5	2	2
Spio filicornis	P	5	2	6
Spio thulini	P	5	2	274
Streblospio benedicti	P	5	2	352
Tharyx acutus	P	5	2	99
Tubificoides apectinatus	O	5	2	36
Tubificoides nr. pseudogaster	O	5	2	25
Tubificidae spp. indet.	O	5	2	22
Ampelisca abdita	C	5	2	473
Ampelisca spp. juv.	C	5	2	59
Caprellidae spp. indet.	C	5	2	3
Carcinus maenas	C	5	2	1
Corophium bonelli	C	5	2	5
Diastylis sculpta	C	5	2	15
Dyopedos monacantha	C	5	2	15
Edotea triloba	C	5	2	38
Leptocheirus pinguis	C	5	2	27
Munna sp. 1	C	5	2	1
Pagurus longicarpus	C	5	2	1
Photis pollex	C	5	2	58
Unciola irrorata	C	5	2	10
Bivalvia spp. juv.	B	5	2	6
Ensis directus	B	5	2	26
Modiolus modiolus	B	5	2	8
Mya arenaria	B	5	2	295
Mytilidae spp. juv.	B	5	2	43
Nassarius trivittatus	G	5	2	5
Tellina agilis	B	5	2	7
Anthozoa sp. 2	A	5	3	2
Nemertea spp. indet.	N	5	3	7
Aricidea catherinae	P	5	3	5
Asabellides oculata	P	5	3	57
Autolytus alexandri	P	5	3	1
Capitella capitata species complex	P	5	3	16
Enipo torelli	P	5	3	2
Eteone longa	P	5	3	936
Gattyana cirrosa	P	5	3	8
Harmothoe imbricata	P	5	3	4
Lagisca extenuata	P	5	3	21
Mediomastus californiensis	P	5	3	29
Microphthalmus sczelkowii	P	5	3	2
Neanthes virens	P	5	3	126
Nephtys ciliata	P	5	3	1
Nephtys neotena	P	5	3	3
Pectinaria granulata	P	5	3	1
Pherusa affinis	P	5	3	5
Pholoe minuta	P	5	3	14
Phyllodoce maculata	P	5	3	9
Phyllodoce mucosa	P	5	3	430
Polydora cornuta	P	5	3	1977
Polydora quadrilobata	P	5	3	6
Prionospio steenstrupi	P	5	3	3
Proceraea cornuta	P	5	3	1
Spio filicornis	P	5	3	1
Spio thulini	P	5	3	168
Streblospio benedicti	P	5	3	203
Tharyx acutus	P	5	3	25
Tubificoides apectinatus	O	5	3	11
Tubificoides nr. pseudogaster	O	5	3	15
Tubificidae spp. indet.	O	5	3	4
Ampelisca abdita	C	5	3	190
Ampelisca spp. juv.	C	5	3	27
Brachyura spp. indet.	C	5	3	1
Corophium bonelli	C	5	3	4
Crangon septemspinosa	C	5	3	2
Diastylis sculpta	C	5	3	5
Dyopedos monacantha	C	5	3	9
Edotea triloba	C	5	3	15

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Leptocheirus pinguis	C	5	3	13
Photis pollex	C	5	3	15
Unciola irrorata	C	5	3	10
Bivalvia spp. juv.	B	5	3	4
Ensis directus	B	5	3	13
Mya arenaria	B	5	3	98
Mytilidae spp. juv.	B	5	3	44
Nassaruis trivittatus	G	5	3	1
Tellina agilis	B	5	3	3
Anthozoa sp. 1	A	6	1	1
Aricidea catherinae	P	6	1	7
Asabellides oculata	P	6	1	20
Capitella capitata species complex	P	6	1	15
Eteone longa	P	6	1	23
Lumbrineridae spp. juv.	P	6	1	1
Mediomastus californiensis	P	6	1	1
Neanthes virens	P	6	1	12
Nephtys incisa	P	6	1	2
Nephtys neotena	P	6	1	10
Paranaitis speciosa	P	6	1	1
Phyllodoce mucosa	P	6	1	6
Polydora cornuta	P	6	1	1804
Polydora spp. juv.	P	6	1	16
Scoloplos spp. juv.	P	6	1	1
Streblospio benedicti	P	6	1	248
Tharyx acutus	P	6	1	79
Tubificoides nr. pseudogaster	O	6	1	46
Ampelisca abdita	C	6	1	119
Ampelisca spp. juv.	C	6	1	16
Caprellidae spp. indet.	C	6	1	1
Crangon septemspinosa	C	6	1	1
Edotea triloba	C	6	1	1
Photis pollex	C	6	1	8
Gastropoda spp. juv.	G	6	1	1
Lyonsia spp. juv.	B	6	1	1
Mulinia lateralis	B	6	1	1
Mytilidae spp. juv.	B	6	1	1
Tellina agilis	B	6	1	3
Phoronis architecta	Ph	6	1	1
Aricidea catherinae	P	6	2	7
Asabellides oculata	P	6	2	22
Capitella capitata species complex	P	6	2	7
Eteone longa	P	6	2	13
Neanthes virens	P	6	2	3
Nephtys caeca	P	6	2	1
Nephtys incisa	P	6	2	1
Nephtys neotena	P	6	2	7
Paranaitis speciosa	P	6	2	1
Phyllodoce mucosa	P	6	2	5
Polydora cornuta	P	6	2	864
Polydora quadrilobata	P	6	2	1
Polydora spp. juv.	P	6	2	4
Streblospio benedicti	P	6	2	125
Tharyx acutus	P	6	2	32
Tubificoides apectinatus	O	6	2	2
Tubificoides nr. pseudogaster	O	6	2	13
Ampelisca abdita	C	6	2	33
Ampelisca spp. juv.	C	6	2	7
Crangon septemspinosa	C	6	2	2
Leptocheirus pinguis	C	6	2	1
Mya arenaria	B	6	2	1
Tellina agilis	B	6	2	2
Aricidea catherinae	P	6	3	3
Asabellides oculata	P	6	3	8
Capitella capitata species complex	P	6	3	6
Cirratulidae spp. indet.	P	6	3	2
Eteone longa	P	6	3	9
Mediomastus californiensis	P	6	3	1

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Neanthes virens	P	6	3	4
Nephtys ciliata	P	6	3	1
Nephtys neotena	P	6	3	6
Phyllodoce mucosa	P	6	3	5
Polydora cornuta	P	6	3	534
Polydora spp. juv.	P	6	3	2
Pygospio elegans	P	6	3	1
Scoloplos spp. juv.	P	6	3	1
Streblospio benedicti	P	6	3	85
Tharyx acutus	P	6	3	43
Tubificoides apectinatus	O	6	3	1
Tubificoides nr. pseudogaster	O	6	3	22
Ampelisca abdita	C	6	3	21
Ampelisca spp. juv.	C	6	3	3
Crangon septemspinosa	C	6	3	6
Tellina agilis	B	6	3	1
Yoldia limatula	B	6	3	1
Aricidea catherinae	P	7	1	2
Asabellides oculata	P	7	1	32
Capitella capitata species complex	P	7	1	2
Eteone heteropoda	P	7	1	2
Eteone longa	P	7	1	1
Leitoscoloplos robustus	P	7	1	2
Mediomastus californiensis	P	7	1	1
Neanthes virens	P	7	1	2
Nephtys neotena	P	7	1	3
Pholoe minuta	P	7	1	1
Phyllodoce mucosa	P	7	1	2
Polydora cornuta	P	7	1	1416
Polydora spp. juv.	P	7	1	28
Proceraea cornuta	P	7	1	1
Streblospio benedicti	P	7	1	1399
Tharyx acutus	P	7	1	14
Tubificoides nr. pseudogaster	O	7	1	52
Ampelisca abdita	C	7	1	22
Ampelisca spp. juv.	C	7	1	5
Leptocheirus pinguis	C	7	1	2
Mulinia lateralis	B	7	1	1
Mya arenaria	B	7	1	10
Nassaruis trivittatus	G	7	1	6
Pandora gouldiana	B	7	1	1
Tellina agilis	B	7	1	4
Nemertea spp. indet.	N	7	2	1
Aricidea catherinae	P	7	2	1
Asabellides oculata	P	7	2	9
Capitella capitata species complex	P	7	2	5
Euclymeninae spp. juv.	P	7	2	1
Leitoscoloplos robustus	P	7	2	2
Nephtys neotena	P	7	2	4
Polydora cornuta	P	7	2	248
Polydora spp. juv.	P	7	2	1
Streblospio benedicti	P	7	2	582
Tharyx acutus	P	7	2	4
Tubificoides nr. pseudogaster	O	7	2	62
Ampelisca abdita	C	7	2	2
Ampelisca spp. juv.	C	7	2	2
Crangon septemspinosa	C	7	2	1
Bivalvia spp. juv.	B	7	2	1
Mya arenaria	B	7	2	8
Nassaruis trivittatus	G	7	2	1
Pandora gouldiana	B	7	2	1
Tellina agilis	B	7	2	2
Asabellides oculata	P	7	3	12
Capitella capitata species complex	P	7	3	14
Leitoscoloplos robustus	P	7	3	1
Nephtys neotena	P	7	3	1
Nereididae spp. indet.	P	7	3	1
Polydora cornuta	P	7	3	207

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Polydora spp. juv.	P	7	3	2
Streblospio benedicti	P	7	3	889
Tharyx acutus	P	7	3	1
Tubificoides nr. pseudogaster	O	7	3	191
Ampelisca abdita	C	7	3	13
Mya arenaria	B	7	3	13
Nassaruis trivittatus	G	7	3	7
Tellina agilis	B	7	3	1
Yoldia limatula	B	7	3	1
Nemertea spp. indet.	N	8	1	1
Aricidea catherinae	P	8	1	221
Asabellides oculata	P	8	1	17
Capitella capitata species complex	P	8	1	10
Clymenella torquata	P	8	1	1
Eteone longa	P	8	1	6
Exogone hebes	P	8	1	2
Harmothoe imbricata	P	8	1	1
Leitoscoloplos spp. juv.	P	8	1	1
Lumbrineridae spp. juv.	P	8	1	78
Mediomastus californiensis	P	8	1	30
Neanthes virens	P	8	1	266
Nephtys ciliata	P	8	1	2
Nephtys neotena	P	8	1	25
Ninoe nigripes	P	8	1	13
Ophelina acuminata	P	8	1	1
Pectinaria granulata	P	8	1	3
Pherusa affinis	P	8	1	9
Pholoe minuta	P	8	1	8
Phyllodoce maculata	P	8	1	48
Phyllodoce mucosa	P	8	1	291
Polycirrus medusa	P	8	1	1
Polydora cornuta	P	8	1	10448
Polydora spp. juv.	P	8	1	73
Polygordius sp. A	P	8	1	1
Pygospio elegans	P	8	1	1
Scoletoma hebes	P	8	1	3
Spio filicornis	P	8	1	2
Spio thulini	P	8	1	143
Spiophanes bombyx	P	8	1	1
Streblospio benedicti	P	8	1	16
Tharyx acutus	P	8	1	32
Tubificoides apectinatus	O	8	1	167
Tubificoides nr. pseudogaster	O	8	1	264
Tubificidae spp. indet.	O	8	1	8
Ampelisca abdita	C	8	1	367
Ampelisca spp. juv.	C	8	1	151
Caprellidae spp. indet.	C	8	1	1
Corophium bonelli	C	8	1	2
Crangon septemspinosa	C	8	1	2
Photis pollex	C	8	1	5
Unciola irrorata	C	8	1	2
Ensis directus	B	8	1	8
Gastropoda spp. juv.	G	8	1	1
Hiatella arctica	B	8	1	1
Modiolus modiolus	B	8	1	12
Mya arenaria	B	8	1	4
Nassaruis trivituatus	G	8	1	2
Petricola pholadiformis	B	8	1	1
Tellina agilis	B	8	1	2
Phoronis architecta	Ph	8	1	1
Nemertea spp. indet.	N	8	2	1
Aricidea catherinae	P	8	2	192
Asabellides oculata	P	8	2	7
Capitella capitata species complex	P	8	2	4
Exogone hebes	P	8	2	3
Gattyana cirrosa	P	8	2	1
Lagisca extenuata	P	8	2	1
Lumbrineridae spp. juv.	P	8	2	7

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Species Name	Taxonomic Group *	Station	Replicate	IND/ 0.1 M sq.
Mediomastus californiensis	P	8	2	17
Neanthes virens	P	8	2	157
Nephtys ciliata	P	8	2	2
Nephtys neotena	P	8	2	8
Ninoe nigripes	P	8	2	16
Pherusa affinis	P	8	2	5
Pholoe minuta	P	8	2	5
Phyllodoce maculata	P	8	2	2
Phyllodoce mucosa	P	8	2	157
Polydora cornuta	P	8	2	5235
Polydora quadrilobata	P	8	2	1
Polydora spp. juv.	P	8	2	3
Scoletoma hebes	P	8	2	3
Scoloplos spp. juv.	P	8	2	1
Spio thulini	P	8	2	53
Streblospio benedicti	P	8	2	10
Tharyx acutus	P	8	2	10
Tubificoides apectinatus	O	8	2	70
Tubificoides nr. pseudogaster	O	8	2	91
Tubificidae spp. indet.	O	8	2	29
Ampelisca abdita	C	8	2	288
Ampelisca spp. juv.	C	8	2	135
Photis pollex	C	8	2	1
Unciola irrorata	C	8	2	6
Ensis directus	B	8	2	5
Mytilidae spp. juv.	B	8	2	3
Petricola pholadiformis	B	8	2	1
Tellina agilis	B	8	2	1
Phoronis architecta	Ph	8	2	1
Aricidea catherinae	P	8	3	135
Asabellides oculata	P	8	3	15
Capitella capitata species complex	P	8	3	7
Eteone longa	P	8	3	4
Exogone hebes	P	8	3	2
Gattyana cirrosa	P	8	3	1
Harmothoe imbricata	P	8	3	1
Lagisca extenuata	P	8	3	3
Lumbrineridae spp. juv.	P	8	3	4
Mediomastus californiensis	P	8	3	23
Monticellina baptisteae	P	8	3	1
Neanthes virens	P	8	3	397
Nephtys ciliata	P	8	3	9
Nephtys incisa	P	8	3	2
Nephtys neotena	P	8	3	6
Ninoe nigripes	P	8	3	29
Pectinaria granulata	P	8	3	2
Pherusa affinis	P	8	3	8
Pholoe minuta	P	8	3	13
Phyllodoce maculata	P	8	3	6
Phyllodoce mucosa	P	8	3	392
Polycirrus spp. indet.	P	8	3	1
Polydora cornuta	P	8	3	10276
Polydora spp. juv.	P	8	3	41
Polygordius sp. A	P	8	3	1
Scoletoma hebes	P	8	3	2
Spio filicornis	P	8	3	1
Spio thulini	P	8	3	140
Spiophanes bombyx	P	8	3	2
Streblospio benedicti	P	8	3	16
Tharyx acutus	P	8	3	13
Tubificoides apectinatus	O	8	3	181
Tubificoides nr. pseudogaster	O	8	3	50
Tubificidae spp. indet.	O	8	3	8
Ampelisca abdita	C	8	3	450
Ampelisca spp. juv.	C	8	3	120
Corophium spp. indet.	C	8	3	1
Crangon septemspinosa	C	8	3	5
Diastylis sculpta	C	8	3	2

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Edotea triloba	C	8	3	1
Leptocheirus pinguis	C	8	3	59
Photis pollex	C	8	3	2
Unciola irrorata	C	8	3	1
Ensis directus	B	8	3	9
Lyonsia spp. juv.	B	8	3	1
Modiolus modiolus	B	8	3	10
Mya arenaria	B	8	3	4
Mytilidae spp. juv.	B	8	3	2
Nassaruis trivittatus	G	8	3	3
Petricola pholadiformis	B	8	3	1
Tellina agilis	B	8	3	2
Cerebratulus lacteus	N	9	1	1
Nemertea spp. indet.	N	9	1	3
Ampharete arctica	P	9	1	2
Aricidea catherinae	P	9	1	49
Capitella capitata species complex	P	9	1	13
Eteone longa	P	9	1	1
Gattyana cirrosa	P	9	1	1
Harmothoe imbricata	P	9	1	1
Lumbrineridae spp. juv.	P	9	1	60
Mediomastus californiensis	P	9	1	11
Neanthes virens	P	9	1	6
Nephtys ciliata	P	9	1	15
Nephtys neotena	P	9	1	8
Ninoe nigripes	P	9	1	1
Paranaitis speciosa	P	9	1	1
Parougia caeca	P	9	1	22
Pherusa affinis	P	9	1	1
Pholoe minuta	P	9	1	8
Phyllodoce maculata	P	9	1	1
Phyllodoce mucosa	P	9	1	35
Polydora cornuta	P	9	1	250
Pygospio elegans	P	9	1	14
Scoletoma hebes	P	9	1	68
Tharyx acutus	P	9	1	94
Tubificoides apectinatus	O	9	1	91
Tubificoides nr. pseudogaster	O	9	1	71
Ampelisca abdita	C	9	1	3
Carcinus maenas	C	9	1	2
Corophium bonelli	C	9	1	3
Dexamine thea	C	9	1	1
Edotea triloba	C	9	1	3
Ischyrocerus anguipes	C	9	1	1
Oxyurostylis smithi	C	9	1	1
Photis pollex	C	9	1	22
Phoxocephalus holbolli	C	9	1	3
Bivalvia spp. juv.	B	9	1	2
Doto coronata	B	9	1	1
Ensis directus	B	9	1	23
Gastropoda spp. juv.	G	9	1	2
Lyonsia arenosa	B	9	1	1
Mya arenaria	B	9	1	15
Mytilidae spp. juv.	B	9	1	58
Nassaruis trivittatus	G	9	1	12
Spisula solidissima	B	9	1	1
Tellina agilis	B	9	1	23
Nemertea spp. indet.	N	9	2	1
Ampharete arctica	P	9	2	3
Aricidea catherinae	P	9	2	109
Capitella capitata species complex	P	9	2	11
Eteone longa	P	9	2	1
Glycera dibranchiata	P	9	2	1
Leitoscoloplos robustus	P	9	2	3
Lumbrineridae spp. juv.	P	9	2	10
Mediomastus californiensis	P	9	2	6
Microphthalmus sczelkowii	P	9	2	1
Neanthes virens	P	9	2	5

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Nephtys ciliata	P	9	2	14
Nephtys neotena	P	9	2	18
Ninoe nigripes	P	9	2	11
Parougia caeca	P	9	2	26
Pherusa affinis	P	9	2	1
Pholoe minuta	P	9	2	1
Phyllodoce mucosa	P	9	2	48
Polydora cornuta	P	9	2	280
Polydora quadrilobata	P	9	2	4
Pygospio elegans	P	9	2	9
Scoletoma hebes	P	9	2	120
Spio thulini	P	9	2	4
Spiophanes bombyx	P	9	2	2
Streblospio benedicti	P	9	2	1
Tharyx acutus	P	9	2	13
Tubificoides apectinatus	O	9	2	157
Tubificoides nr. pseudogaster	O	9	2	51
Ampelisca abdita	C	9	2	3
Carcinus maenas	C	9	2	1
Corophium bonelli	C	9	2	1
Edotea triloba	C	9	2	1
Leptocheirus pinguis	C	9	2	4
Oxyurostylis smithi	C	9	2	2
Photis pollex	C	9	2	2
Phoxocephalus holbolli	C	9	2	1
Unciola irrorata	C	9	2	1
Ensis directus	B	9	2	13
Mya arenaria	B	9	2	15
Mytilidae spp. juv.	B	9	2	116
Nassaruis trivittatus	G	9	2	11
Pandora gouldiana	B	9	2	1
Tellina agilis	B	9	2	15
Yoldia spp. juv.	B	9	2	3
Nemertea spp. indet.	N	9	3	1
Aricidea catherinae	P	9	3	158
Asabellides oculata	P	9	3	1
Capitella capitata species complex	P	9	3	7
Eteone longa	P	9	3	3
Glycera dibranchiata	P	9	3	1
Leitoscoloplos robustus	P	9	3	2
Lumbrineridae spp. juv.	P	9	3	23
Mediomastus californiensis	P	9	3	17
Neanthes virens	P	9	3	5
Nephtys caeca	P	9	3	1
Nephtys ciliata	P	9	3	9
Nephtys neotena	P	9	3	17
Ninoe nigripes	P	9	3	12
Parougia caeca	P	9	3	9
Pectinaria granulata	P	9	3	5
Pholoe minuta	P	9	3	4
Phyllodoce mucosa	P	9	3	31
Polydora cornuta	P	9	3	317
Polydora quadrilobata	P	9	3	5
Polydora spp. juv.	P	9	3	1
Prionospio steenstrupi	P	9	3	1
Pygospio elegans	P	9	3	10
Scoletoma hebes	P	9	3	200
Spio filicornis	P	9	3	3
Spio setosa	P	9	3	1
Spio thulini	P	9	3	9
Spiophanes bombyx	P	9	3	2
Tharyx acutus	P	9	3	36
Tubificoides apectinatus	O	9	3	192
Tubificoides nr. pseudogaster	O	9	3	64
Corophium spp. indet.	C	9	3	1
Oxyurostylis smithi	C	9	3	1
Photis pollex	C	9	3	4
Phoxocephalus holbolli	C	9	3	2

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Unciola irrorata	C	9	3	1
Ensis directus	B	9	3	6
Hiatella arctica	B	9	3	1
Lyonsia arenosa	B	9	3	1
Mya arenaria	B	9	3	11
Mytilidae spp. juv.	B	9	3	17
Nassaruis trivittatus	G	9	3	10
Tellina agilis	B	9	3	20
Yoldia spp. juv.	B	9	3	2
Nemertea spp. indet.	N	10	1	2
Aricidea catherinae	P	10	1	4
Capitella capitata species complex	P	10	1	1
Neanthes virens	P	10	1	5
Nephtys incisa	P	10	1	114
Ninoe nigripes	P	10	1	5
Pherusa affinis	P	10	1	1
Phyllodoce mucosa	P	10	1	1
Polydora cornuta	P	10	1	2588
Polydora spp. juv.	P	10	1	3
Pygospio elegans	P	10	1	9
Tharyx acutus	P	10	1	107
Tubificoides apectinatus	O	10	1	1
Diastylis sculpta	C	10	1	2
Leptocheirus pinguis	C	10	1	7
Photis pollex	C	10	1	2
Mytilidae spp. juv.	B	10	1	12
Tellina agilis	B	10	1	14
Yoldia limatula	B	10	1	1
Yoldia spp. juv.	B	10	1	5
Aricidea catherinae	P	10	2	36
Capitella capitata species complex	P	10	2	11
Eteone longa	P	10	2	5
Gattyana cirrosa	P	10	2	4
Lagisca extenuata	P	10	2	1
Leitoscoloplos robustus	P	10	2	2
Mediomastus californiensis	P	10	2	4
Microphthalmus sczelkowii	P	10	2	41
Neanthes virens	P	10	2	3
Nephtys neotena	P	10	2	185
Ninoe nigripes	P	10	2	9
Parougia caeca	P	10	2	35
Pectinaria granulata	P	10	2	1
Pherusa affinis	P	10	2	2
Pholoe minuta	P	10	2	3
Phyllodoce mucosa	P	10	2	141
Polydora cornuta	P	10	2	1846
Polydora quadrilobata	P	10	2	1
Polydora spp. juv.	P	10	2	2
Proceraea cornuta	P	10	2	1
Pygospio elegans	P	10	2	7
Spio thulini	P	10	2	1
Streblospio benedicti	P	10	2	2
Tharyx acutus	P	10	2	155
Tubificoides apectinatus	O	10	2	94
Ampelisca abdita	C	10	2	1
Anonyx sp. 1	C	10	2	5
Diastylis sculpta	C	10	2	19
Leptocheirus pinguis	C	10	2	11
Photis pollex	C	10	2	10
Bivalvia spp. juv.	B	10	2	2
Ensis directus	B	10	2	5
Mya arenaria	B	10	2	51
Mytilidae spp. juv.	B	10	2	11
Naticidae spp. juv.	G	10	2	1
Siliqua costata	B	10	2	1
Tellina agilis	B	10	2	7
Yoldia limatula	B	10	2	1
Nemertea spp. indet.	N	10	3	3

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Species Name	Taxonomic Group *	Station	Replicate	IND/ 0.1 M sq.
Aricidea catherinae	P	10	3	16
Asabellides oculata	P	10	3	2
Eteone longa	P	10	3	1
Leitoscoloplos robustus	P	10	3	2
Mediomastus californiensis	P	10	3	1
Microphthalmus sczelkowii	P	10	3	1
Neanthes virens	P	10	3	4
Nephtys neotena	P	10	3	37
Ninoe nigripes	P	10	3	4
Pholoe minuta	P	10	3	1
Phyllodoce mucosa	P	10	3	74
Polydora cornuta	P	10	3	1078
Polydora spp. juv.	P	10	3	1
Polygordius sp. A	P	10	3	1
Pygospio elegans	P	10	3	4
Tharyx acutus	P	10	3	80
Tubificoides apectinatus	O	10	3	1
Diastylis sculpta	C	10	3	3
Leptocheirus pinguis	C	10	3	4
Photis pollex	C	10	3	4
Bivalvia spp. juv.	B	10	3	8
Ensis directus	B	10	3	2
Modiolus modiolus	B	10	3	3
Mytilidae spp. juv.	B	10	3	20
Spisula solidissima	B	10	3	1
Tellinidae spp. juv.	B	10	3	2
Yoldia limatula	B	10	3	1
Ampharete arctica	P	11	1	1
Aricidea catherinae	P	11	1	2
Asabellides oculata	P	11	1	4
Capitella capitata species complex	P	11	1	37
Eteone longa	P	11	1	3
Gattyana cirrosa	P	11	1	2
Mediomastus californiensis	P	11	1	1
Microphthalmus sczelkowii	P	11	1	1
Neanthes virens	P	11	1	45
Paranaitis speciosa	P	11	1	1
Parougia caeca	P	11	1	1
Phyllodoce mucosa	P	11	1	62
Polydora cornuta	P	11	1	2465
Pygospio elegans	P	11	1	1
Scoletoma hebes	P	11	1	1
Streblospio benedicti	P	11	1	5
Tharyx acutus	P	11	1	68
Tubificoides apectinatus	O	11	1	12
Tubificoides nr. pseudogaster	O	11	1	1
Tubificidae spp. indet.	O	11	1	2
Ampelisca abdita	C	11	1	7
Crangon septemspinosa	C	11	1	2
Oxyurostylis smithi	C	11	1	4
Unciola irrorata	C	11	1	1
Tellina agilis	B	11	1	3
Nemertea spp. indet.	N	11	2	1
Aricidea catherinae	P	11	2	2
Asabellides oculata	P	11	2	6
Capitella capitata species complex	P	11	2	95
Chaetozone sp. A	P	11	2	6
Eteone longa	P	11	2	6
Fabricia stellaris stellaris	P	11	2	1
Gattyana cirrosa	P	11	2	2
Lagisca extenuata	P	11	2	2
Mediomastus californiensis	P	11	2	2
Microphthalmus sczelkowii	P	11	2	6
Neanthes virens	P	11	2	47
Nephtys incisa	P	11	2	1
Nephtys neotena	P	11	2	6
Ninoe nigripes	P	11	2	1
Parougia caeca	P	11	2	1

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Phyllodoce mucosa	P	11	2	176
Polycirrus spp. indet.	P	11	2	1
Polydora cornuta	P	11	2	5601
Polydora spp. juv.	P	11	2	14
Pygospio elegans	P	11	2	2
Spio filicornis	P	11	2	2
Spio thulini	P	11	2	10
Spiophanes bombyx	P	11	2	2
Streblospio benedicti	P	11	2	12
Tharyx acutus	P	11	2	908
Tubificoides apectinatus	O	11	2	45
Tubificoides nr. pseudogaster	O	11	2	175
Tubificidae spp. indet.	O	11	2	7
Ampelisca abdita	C	11	2	12
Caprellidae spp. indet.	C	11	2	1
Corophium bonelli	C	11	2	6
Crangon septemspinosa	C	11	2	2
Dyopedos monacantha	C	11	2	3
Oxyurostylis smithi	C	11	2	7
Pontogeneia inermis	C	11	2	1
Mya arenaria	B	11	2	6
Siliqua costata	B	11	2	2
Tellina agilis	B	11	2	12
Aricidea catherinae	P	11	3	4
Asabellides oculata	P	11	3	1
Capitella capitata species complex	P	11	3	101
Eteone longa	P	11	3	7
Leitoscoloplos n.sp. B	P	11	3	1
Microphthalmus sczelkowii	P	11	3	20
Neanthes virens	P	11	3	33
Ninoe nigripes	P	11	3	2
Parougia caeca	P	11	3	7
Pholoe minuta	P	11	3	1
Phyllodoce mucosa	P	11	3	54
Polydora cornuta	P	11	3	993
Pygospio elegans	P	11	3	6
Streblospio benedicti	P	11	3	15
Tharyx acutus	P	11	3	70
Tubificoides apectinatus	O	11	3	63
Tubificoides nr. pseudogaster	O	11	3	31
Ampelisca abdita	C	11	3	6
Corophium bonelli	C	11	3	1
Diastylis sculpta	C	11	3	1
Leptocheirus pinguis	C	11	3	1
Leucon sp. 1	C	11	3	1
Oxyurostylis smithi	C	11	3	4
Hiatella arctica	B	11	3	1
Nuculanidae spp. juv.	B	11	3	2
Tellina agilis	B	11	3	9
Nemertea spp. indet.	N	12	1	2
Ampharete arctica	P	12	1	1
Aricidea catherinae	P	12	1	335
Capitella capitata species complex	P	12	1	101
Chaetozone sp. A	P	12	1	2
Eteone longa	P	12	1	29
Exogone hebes	P	12	1	2
Gattyana cirrosa	P	12	1	3
Goniadella gracilis	P	12	1	1
Leitoscoloplos robustus	P	12	1	13
Mediomastus californiensis	P	12	1	12
Microphthalmus sczelkowii	P	12	1	2
Neanthes virens	P	12	1	7
Nephtys ciliata	P	12	1	50
Nephtys neotena	P	12	1	16
Ninoe nigripes	P	12	1	11
Parougia caeca	P	12	1	23
Pectinaria granulata	P	12	1	1
Pherusa affinis	P	12	1	2

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Species Name	Taxonomic Group *	Station	Replicate	IND/ 0.1 M sq.
Pholoe minuta	P	12	1	2
Phyllodoce maculata	P	12	1	9
Phyllodoce mucosa	P	12	1	720
Polydora cornuta	P	12	1	1877
Polydora quadrilobata	P	12	1	2
Polydora spp. juv.	P	12	1	5
Polygordius sp. A	P	12	1	2
Prionospio steenstrupi	P	12	1	8
Pygospio elegans	P	12	1	137
Spio filicornis	P	12	1	1
Spio thulini	P	12	1	2
Spiophanes bombyx	P	12	1	4
Tharyx acutus	P	12	1	488
Tubificoides apectinatus	O	12	1	518
Ampelisca abdita	C	12	1	1
Ampelisca spp. juv.	C	12	1	6
Carcinus maenas	C	12	1	2
Crangon septemspinosa	C	12	1	9
Diastylis sculpta	C	12	1	14
Edotea triloba	C	12	1	3
Leptocheirus pinguis	C	12	1	3
Oedicerotidae sp. 1	C	12	1	3
Oxyurostylis smithi	C	12	1	5
Photis pollex	C	12	1	92
Cyrtodaria siliqua	B	12	1	2
Ensis directus	B	12	1	8
Littorina spp. juv.	G	12	1	1
Modiolus modiolus	B	12	1	3
Nassaruis trivittatus	G	12	1	2
Nucula tenuis	B	12	1	1
Siliqua costata	B	12	1	1
Tellina agilis	B	12	1	46
Yoldia limatula	B	12	1	1
Anthozoa sp. 1	A	12	2	1
Nemertea spp. indet.	N	12	2	7
Aricidea catherinae	P	12	2	112
Capitella capitata species complex	P	12	2	44
Chaetozone sp. A	P	12	2	1
Eteone longa	P	12	2	19
Exogone hebes	P	12	2	1
Gattyana cirrosa	P	12	2	8
Leitoscoloplos robustus	P	12	2	9
Lumbrineridae spp. juv.	P	12	2	1
Mediomastus californiensis	P	12	2	15
Microphthalmus sczelkowii	P	12	2	5
Neanthes virens	P	12	2	33
Nephtys ciliata	P	12	2	17
Nephtys neotena	P	12	2	24
Ninoe nigripes	P	12	2	13
Parougia caeca	P	12	2	9
Pherusa affinis	P	12	2	12
Pholoe minuta	P	12	2	3
Phyllodoce maculata	P	12	2	5
Phyllodoce mucosa	P	12	2	813
Polydora cornuta	P	12	2	2146
Polydora quadrilobata	P	12	2	5
Prionospio steenstrupi	P	12	2	3
Pygospio elegans	P	12	2	54
Spio filicornis	P	12	2	1
Spio thulini	P	12	2	14
Spiophanes bombyx	P	12	2	1
Tharyx acutus	P	12	2	487
Tubificoides apectinatus	O	12	2	238
Ampelisca abdita	C	12	2	8
Ampelisca spp. juv.	C	12	2	6
Anonyx sp. 1	C	12	2	8
Carcinus maenas	C	12	2	1
Corophium crassicorne	C	12	2	12

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Species Name	Taxonomic Group *	Station	Replicate	IND./ 0.1 M sq.
Diastylis sculpta	C	12	2	6
Edotea triloba	C	12	2	12
Leptocheirus pinguis	C	12	2	1
Oedicerotidae sp. 1	C	12	2	1
Oxyurostylis smithi	C	12	2	3
Photis pollex	C	12	2	425
Bivalvia spp. juv.	B	12	2	1
Ensis directus	B	12	2	18
Mya arenaria	B	12	2	23
Mytilidae spp. juv.	B	12	2	3
Nassaruis trivittatus	G	12	2	2
Tellina agilis	B	12	2	14
Yoldia spp. juv.	B	12	2	1
Anthozoa sp. 2	A	12	3	1
Nemertea spp. indet.	N	12	3	5
Aricidea catherinae	P	12	3	90
Capitella capitata species complex	P	12	3	17
Eteone heteropoda	P	12	3	1
Eteone longa	P	12	3	3
Gattyana cirrosa	P	12	3	1
Lagisca extenuata	P	12	3	2
Leitoscoloplos robustus	P	12	3	2
Lumbrineridae spp. juv.	P	12	3	1
Mediomastus californiensis	P	12	3	8
Microphthalmus sczelkowii	P	12	3	5
Neanthes virens	P	12	3	2
Nephtys ciliata	P	12	3	1
Nephtys neotena	P	12	3	18
Ninoe nigripes	P	12	3	7
Parougia caeca	P	12	3	134
Pherusa affinis	P	12	3	4
Pholoe minuta	P	12	3	2
Phyllodoce maculata	P	12	3	5
Phyllodoce mucosa	P	12	3	134
Polydora cornuta	P	12	3	225
Polydora quadrilobata	P	12	3	1
Polydora spp. juv.	P	12	3	4
Prionospio steenstrupi	P	12	3	2
Pygospio elegans	P	12	3	39
Spio thulini	P	12	3	15
Spiophanes bombyx	P	12	3	1
Tharyx acutus	P	12	3	175
Tubificoides apectinatus	O	12	3	112
Ampelisca abdita	C	12	3	4
Argissa hamatipes	C	12	3	2
Corophium crassicorne	C	12	3	13
Crangon septemspinosa	C	12	3	5
Diastylis sculpta	C	12	3	10
Diastylis spp. indet.	C	12	3	1
Dyopedos monacantha	C	12	3	2
Edotea triloba	C	12	3	5
Lamprops quadriplicata	C	12	3	13
Oedicerotidae sp. 1	C	12	3	11
Pagurus longicarpus	C	12	3	1
Photis pollex	C	12	3	158
Ensis directus	B	12	3	7
Gastropoda spp. juv.	G	12	3	1
Nassaruis trivittatus	G	12	3	3

* Note: A=Anthozoa, N=Nemertea, P=Polychaeta, O=Oligochaeta, C=Crustacea, B=Bivalvia, G=Gastropoda, Ph=Phoronida

Table B-14 Sediment redox data

Mass Bays - Sediment Redox Data

Station	Replicate	Sed Depth (cm)	EH (MV)
1	1	2	-427.3
1	1	4	-427.3
1	1	6	-427.3
1	1	8	-427.3
1	2	2	-133.8
1	2	4	-135.0
1	2	6	-135.2
1	2	8	-135.2
1	3	2	-307.4
1	3	4	-321.4
1	3	6	-321.5
1	3	8	-321.5
2	1	2	-160.3
2	1	4	-149.8
2	1	6	-168.0
2	1	8	-152.2
2	2	2	28.3
2	2	4	-30.2
2	2	6	-41.3
2	2	8	-54.4
2	3	2	-73.4
2	3	4	-123.7
2	3	6	-128.3
2	3	8	-148.8
3	1	2	-204.2
3	1	4	-215.8
3	1	6	-227.4
3	1	8	-229.6
3	2	2	-183.0
3	2	4	-199.9
3	2	6	-229.3
3	2	8	-243.4
3	3	2	-289.9
3	3	4	-306.3
3	3	6	-312.9
3	3	8	-319.6
4	1	2	-40.1
4	1	4	-36.3
4	1	6	-36.3
4	1	8	-217.0
4	2	2	-9.0
4	2	4	-53.5
4	2	6	-66.0
4	2	8	-84.1
4	3	2	-114.0
4	3	4	-137.8
4	3	6	-151.8
4	3	8	-170.2
5	1	2	-147.5
5	1	4	-149.2
5	1	6	-192.5
5	1	8	-210.7
5	2	2	-134.5
5	2	4	-140.3
5	2	6	-144.4
5	2	8	-172.0
5	3	2	-113.3
5	3	4	-107.3
5	3	6	-107.4
5	3	8	-111.8
6	1	2	79.0
6	1	4	75.0
6	1	6	69.0
6	1	8	50.1
6	2	2	-213.0
6	2	4	-228.5
6	2	6	-242.5
6	2	8	-249.4
6	3	2	-81.4
6	3	4	-104.4
6	3	6	-128.1

Mass Bays - Sediment Redox Data

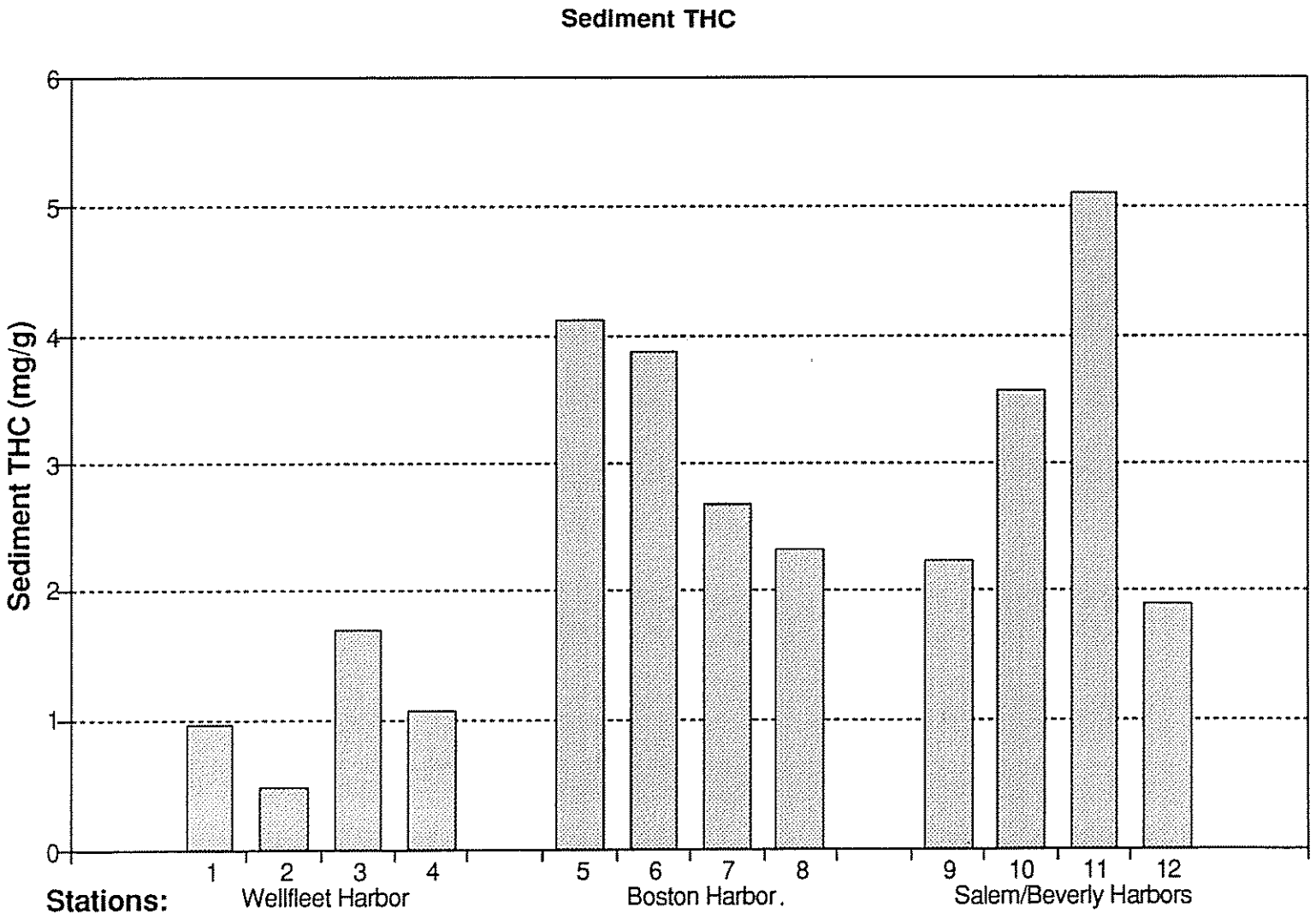
Station	Replicate	Sed Depth (cm)	EH (MV)
6	3	8	-146.5
7	1	2	-
7	1	4	-
7	1	6	-
7	1	8	-
7	2	2	-16.5
7	2	4	-14.8
7	2	6	-14.4
7	2	8	-12.5
7	3	2	-98.9
7	3	4	-127.6
7	3	6	-133.5
7	3	8	-133.5
8	1	2	-15.7
8	1	4	-9.2
8	1	6	-8.4
8	1	8	-8.3
8	2	2	144.5
8	2	4	147.2
8	2	6	147.5
8	2	8	147.8
8	3	2	49.4
8	3	4	39.2
8	3	6	36.1
8	3	8	29.6
9	1	2	-28.9
9	1	4	-48.1
9	1	6	-103.9
9	1	8	-108.2
9	2	2	-83.8
9	2	4	-159.8
9	2	6	-176.3
9	2	8	-181.5
9	3	2	-33.2
9	3	4	-82.3
9	3	6	-98.4
9	3	8	-119.7
10	1	2	133.8
10	1	4	108.1
10	1	6	147.7
10	1	8	147.3
10	2	2	124.7
10	2	4	-22.8
10	2	6	-7.9
10	2	8	8.9
10	3	2	199.7
10	3	4	192.6
10	3	6	11.4
10	3	8	15.7
11	1	2	-95.2
11	1	4	-158.0
11	1	6	-178.5
11	1	8	-200.5
11	2	2	-1.1
11	2	4	-4.2
11	2	6	-49.6
11	2	8	-72.4
11	3	2	-133.2
11	3	4	-159.8
11	3	6	-160.6
11	3	8	-165.1
12	1	2	190.5
12	1	4	192.8
12	1	6	180.7
12	1	8	70.8
12	2	2	57.0
12	2	4	79.6
12	2	6	84.6
12	2	8	2.1
12	3	2	421.8
12	3	4	474.1

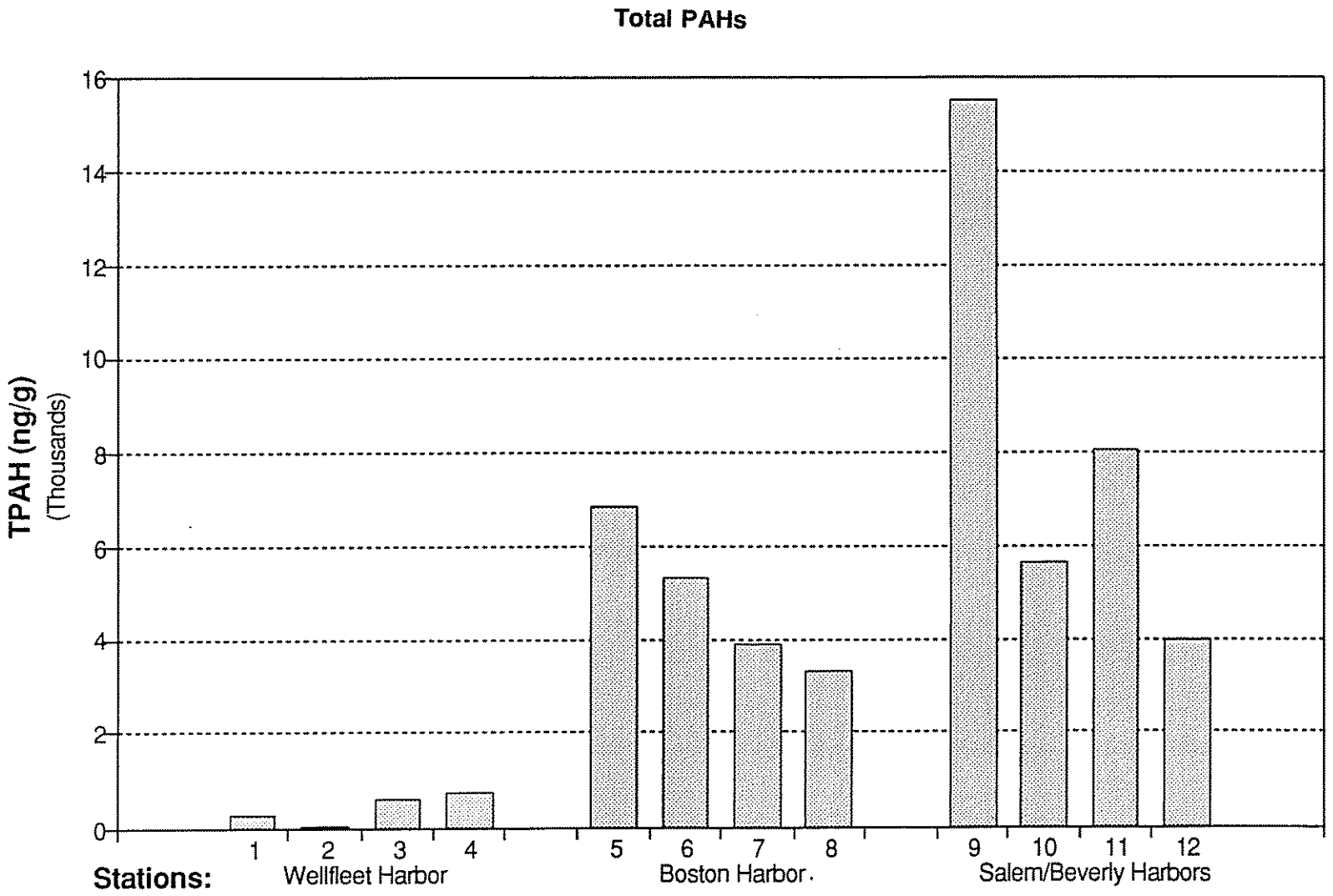
Mass Bays - Sediment Redox Data

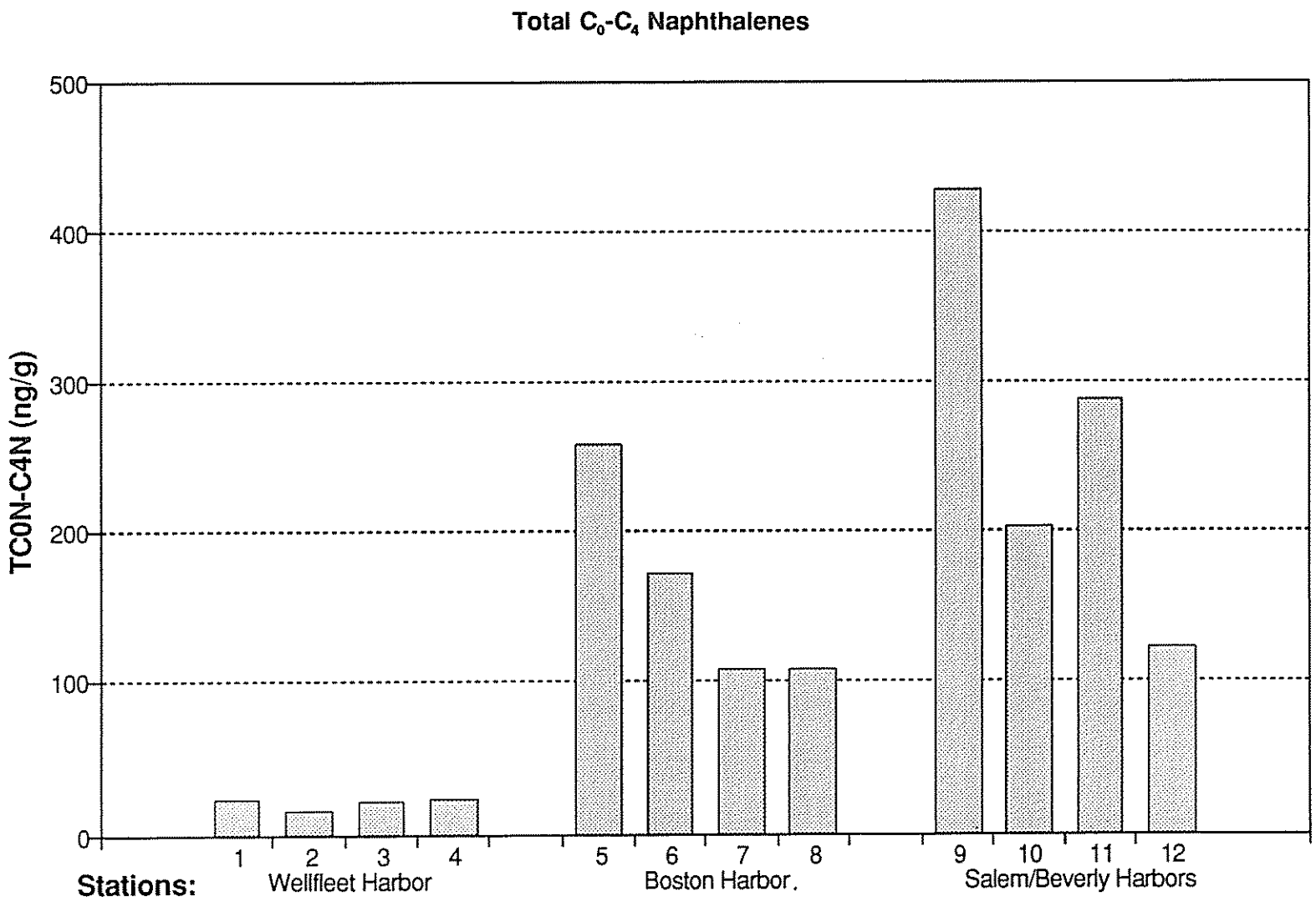
Station	Replicate	Sed Depth (cm)	EH (MV)
12	3	6	448.4
12	3	8	315.7

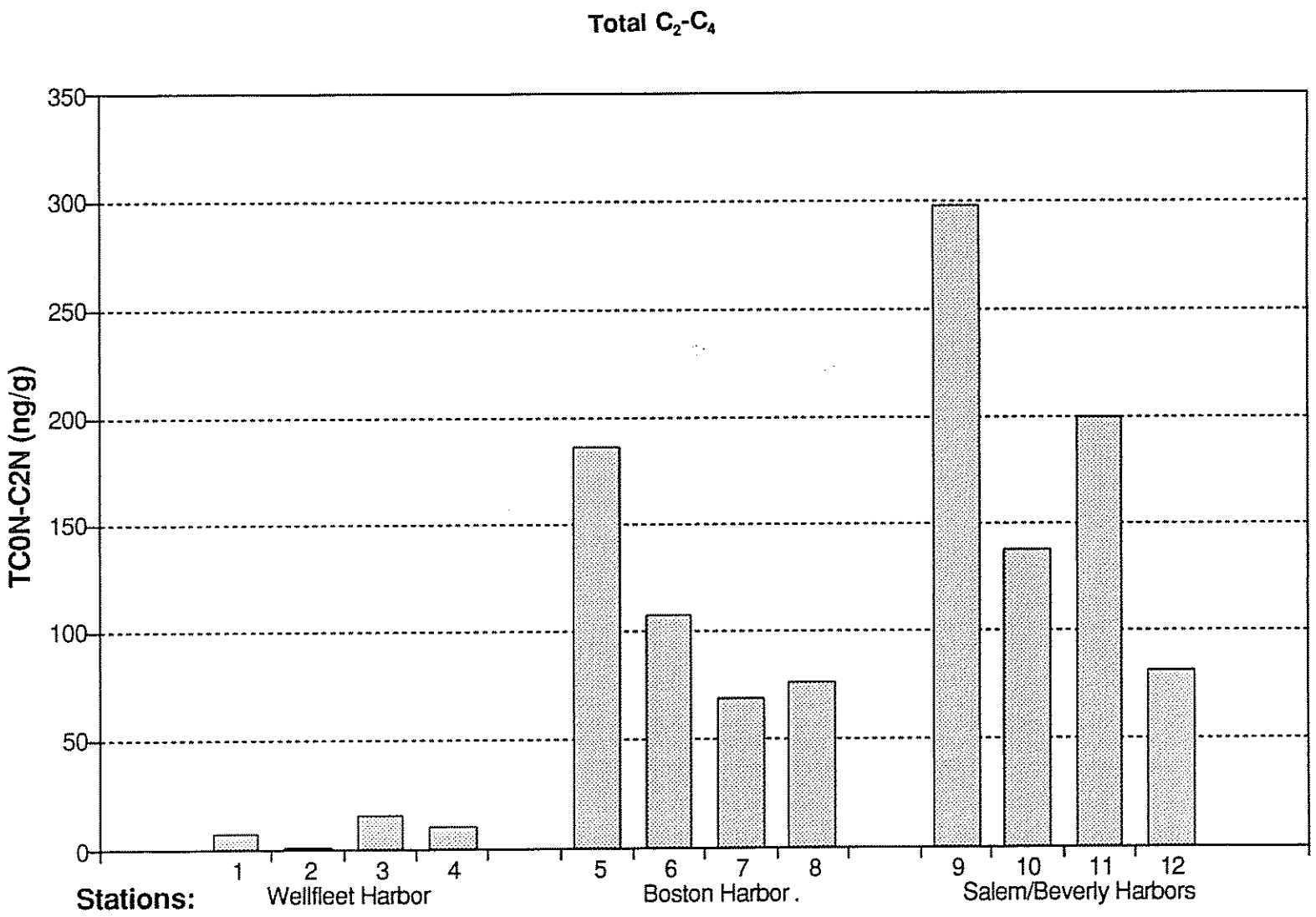
Appendix C

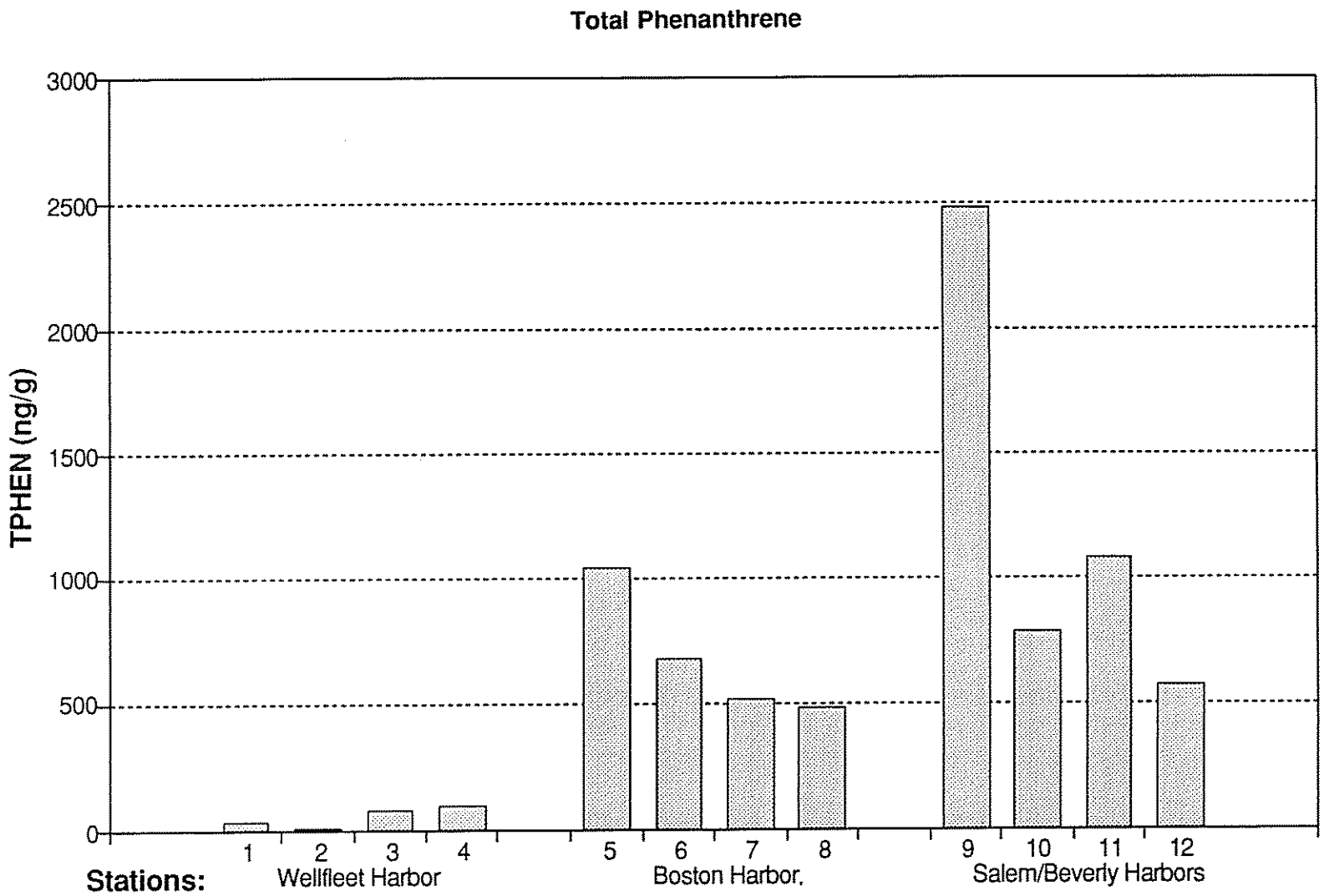
Bar Graphs of Concentrations of Sediment Hydrocarbons, metals, PCBs and Pesticides by Station

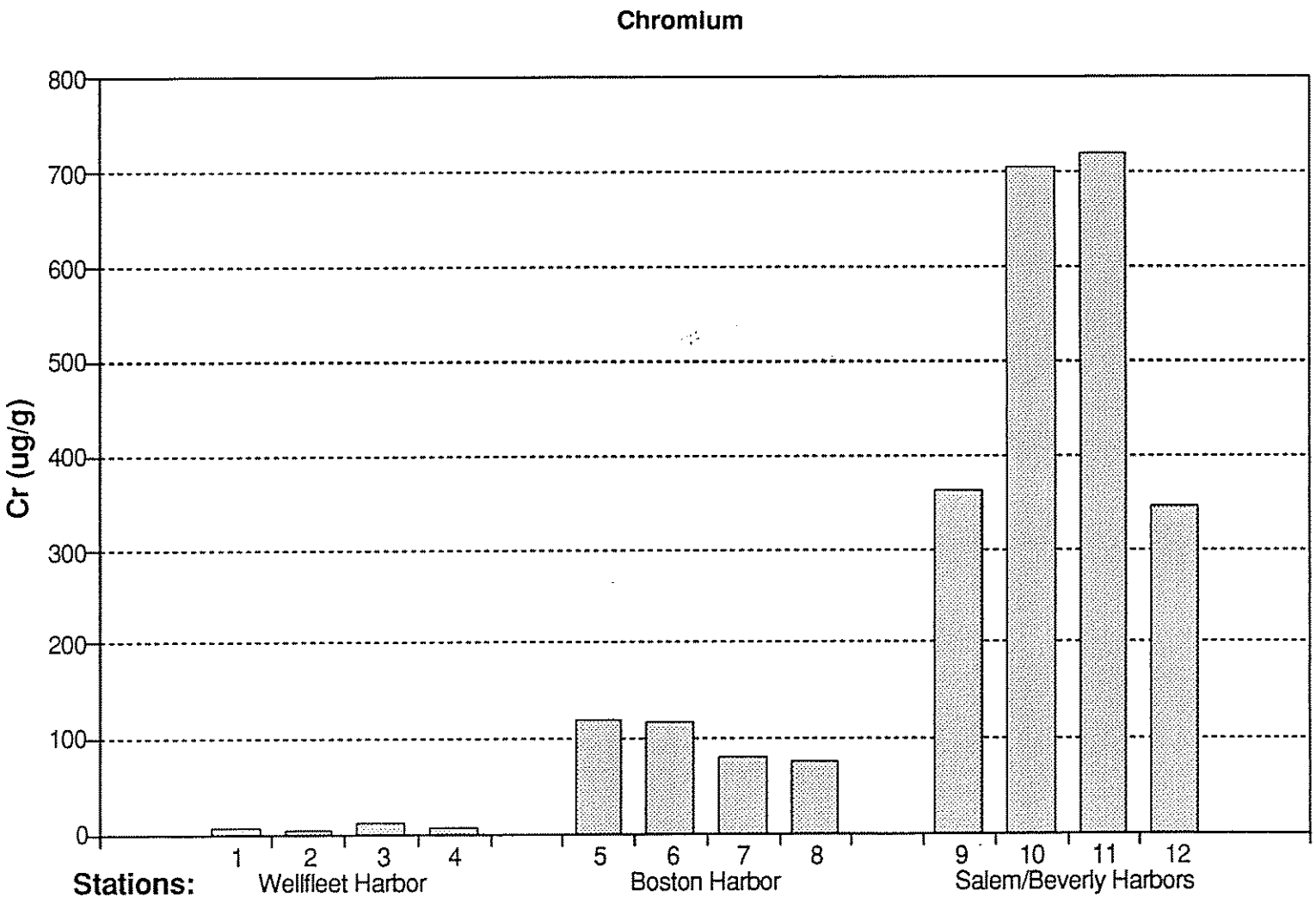

Sediment THC
Sediment THC (mg/g)
0
1
2
3
4
5
6
Stations:
1
2
3
4
Wellfleet Harbor
5
6
7
8
Boston Harbor.
9
10
11
12
Salem/Beverly Harbors

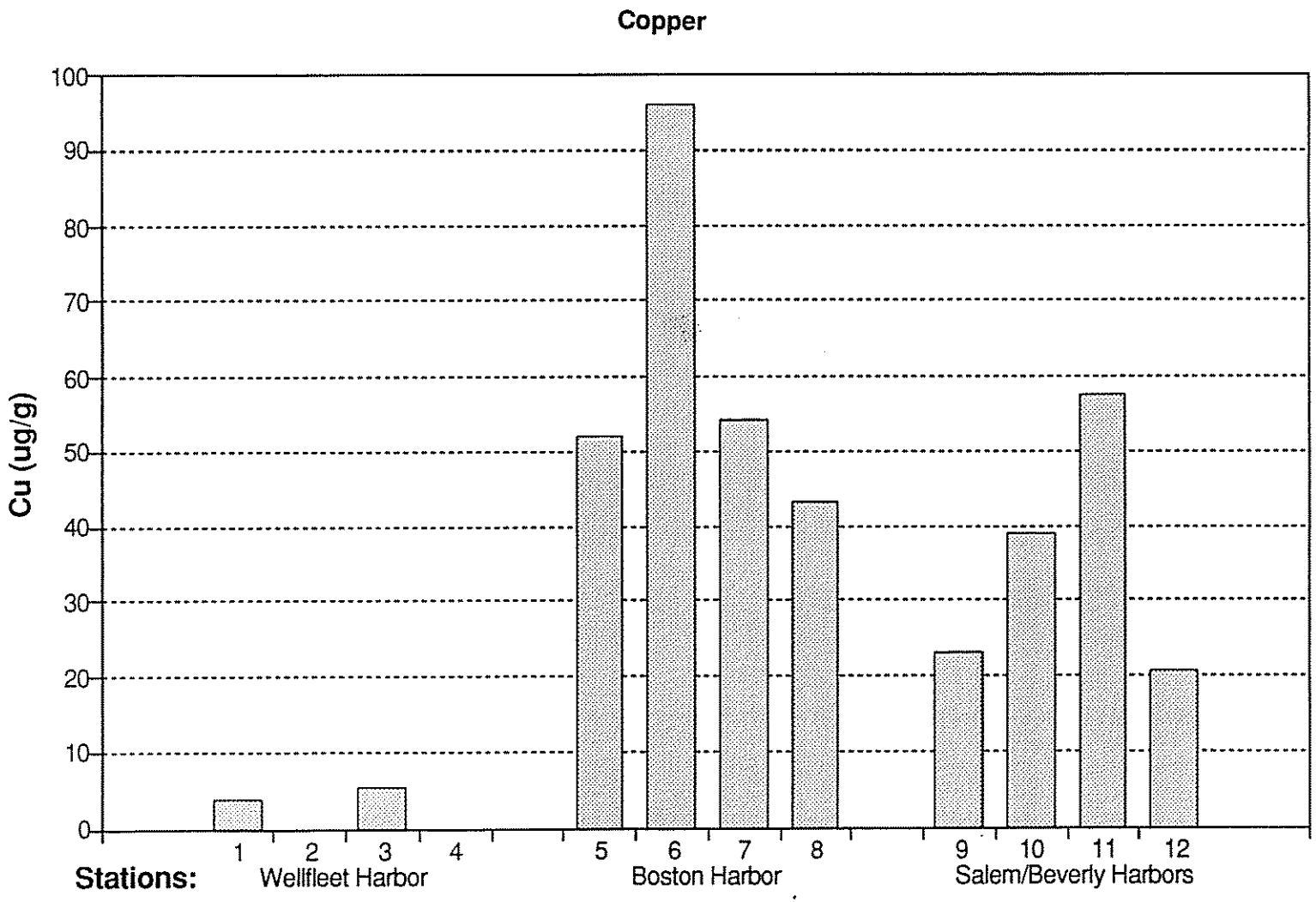

Total PAHs
TPAH (ng/g)
(Thousands)
16
14
12
10
8
6
4
2
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

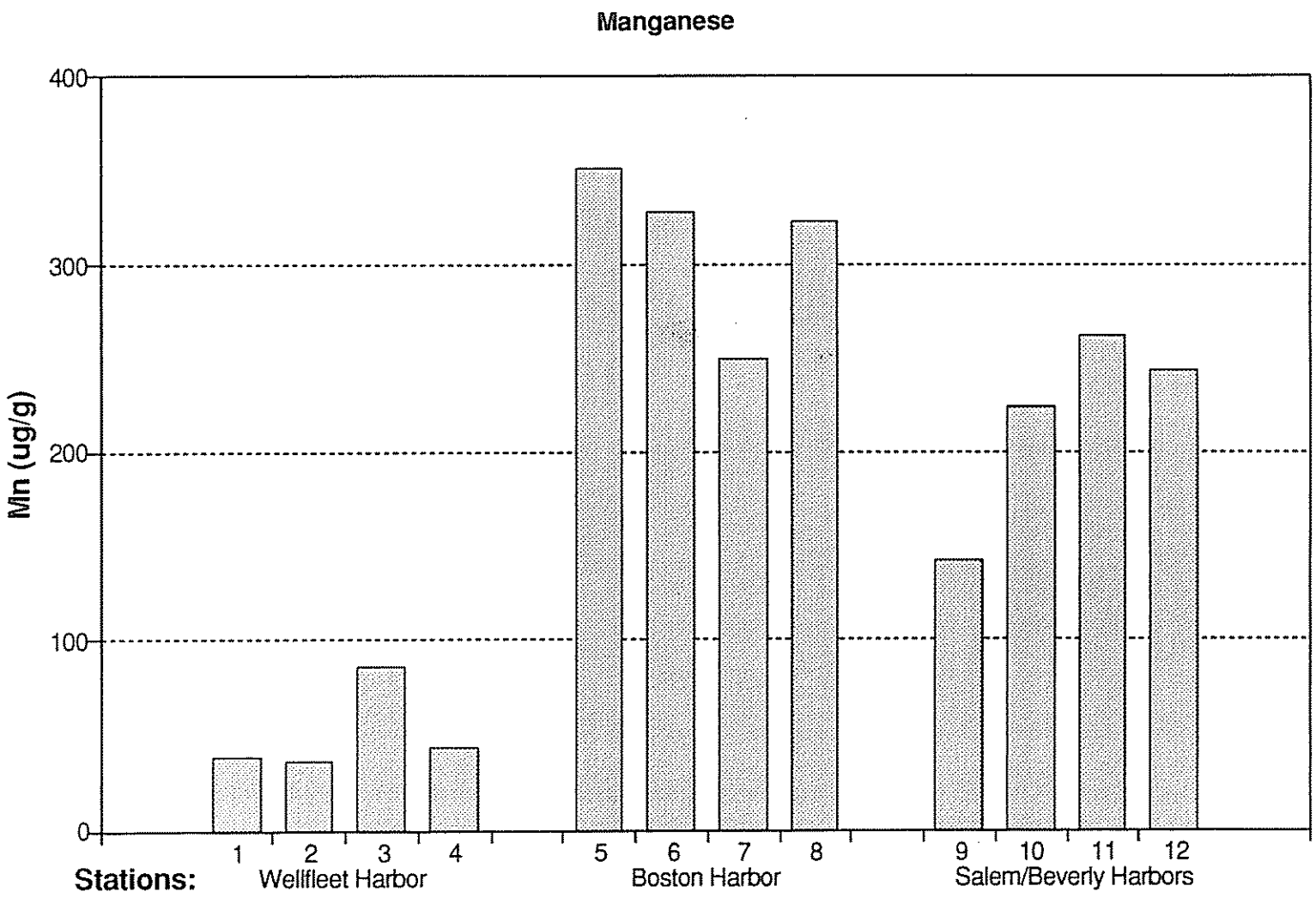

Total C_0-C_4 Naphthalenes
TC0N-C4N (ng/g)
500
400
300
200
100
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

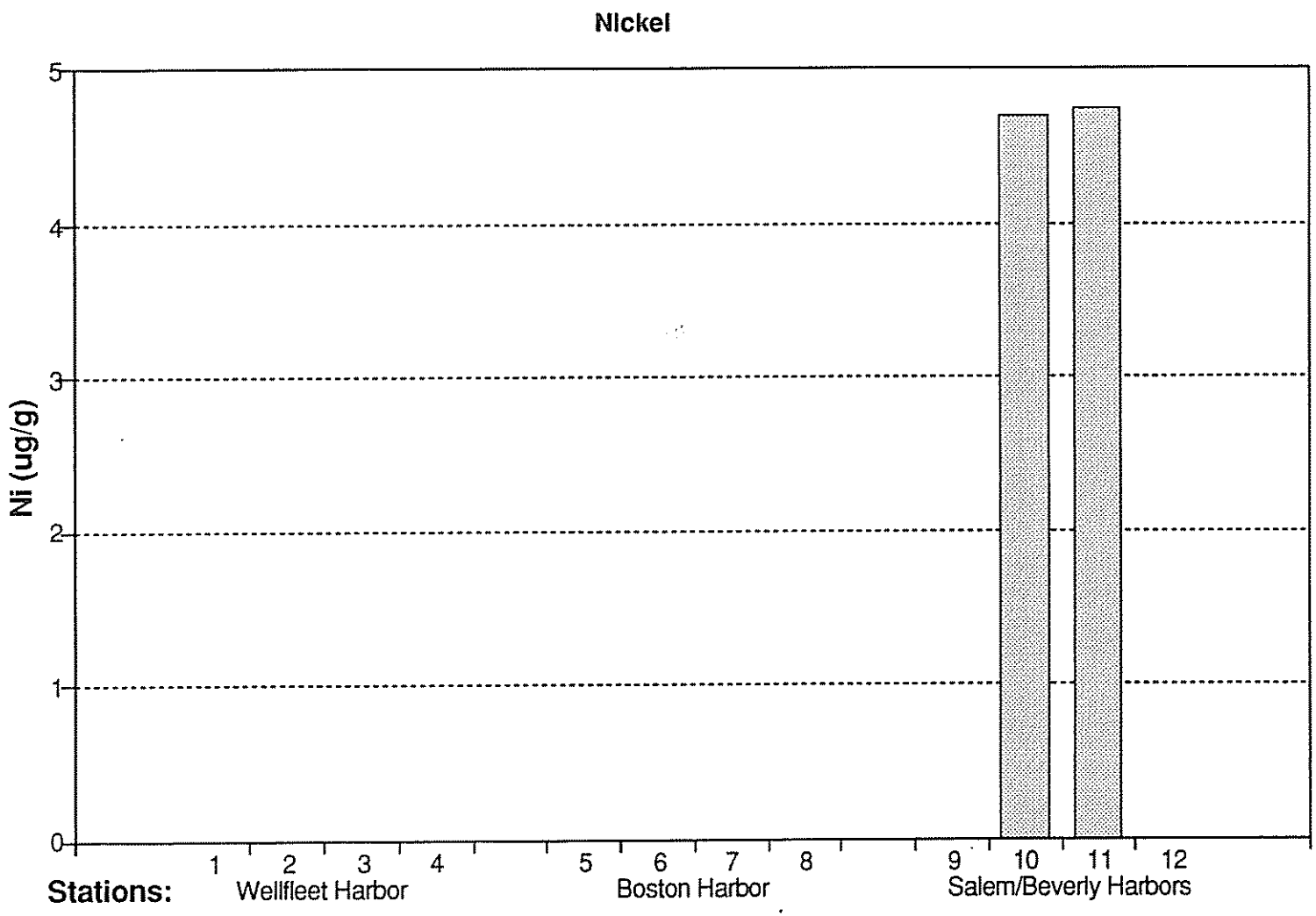

Total C_2-C_4
TC0N-C2N (ng/g)
350
300
250
200
150
100
50
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor .
Salem/Beverly Harbors

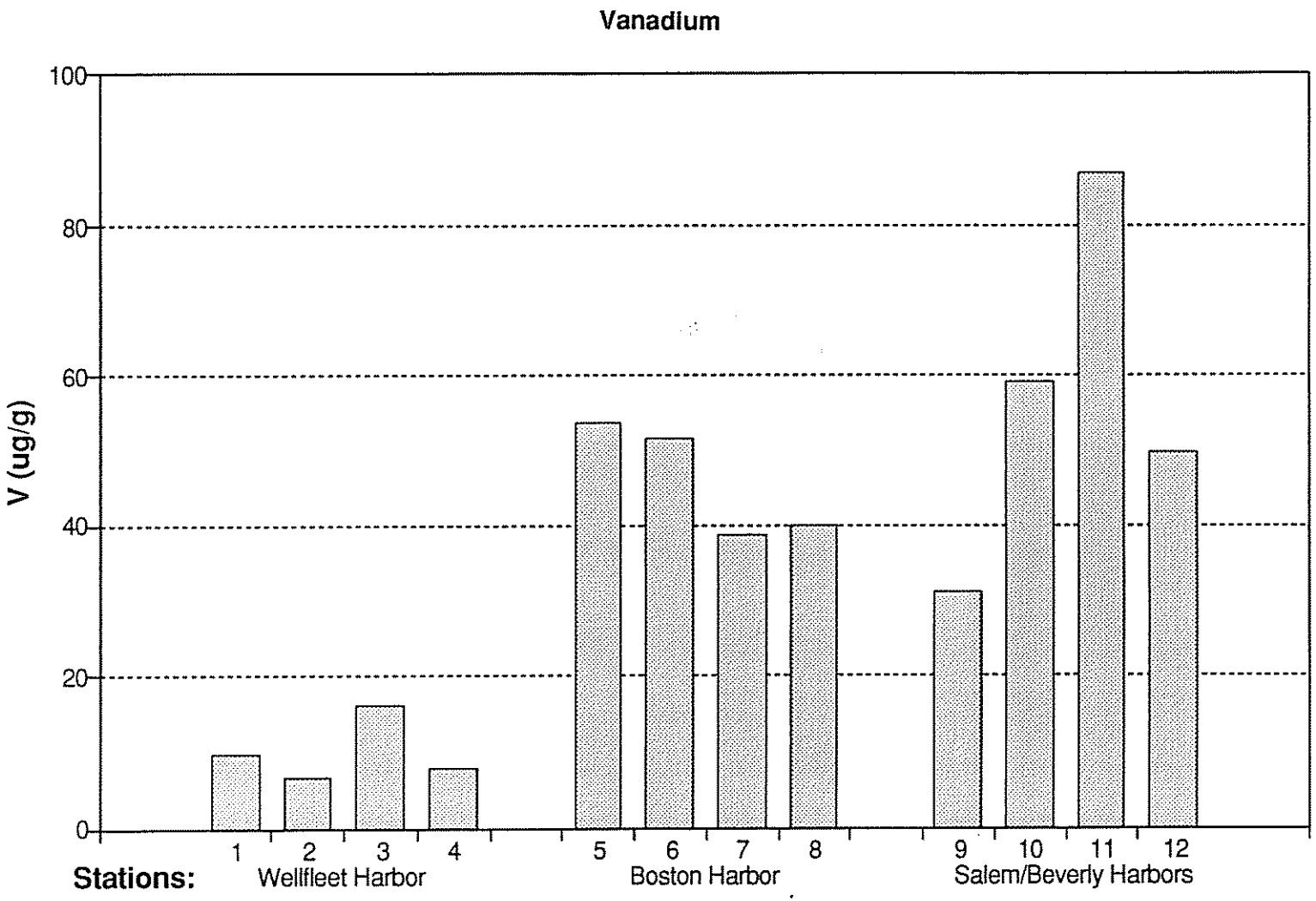

Total Phenanthrene
TPHEN (ng/g)
3000
2500
2000
1500
1000
500
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor,
Salem/Beverly Harbors

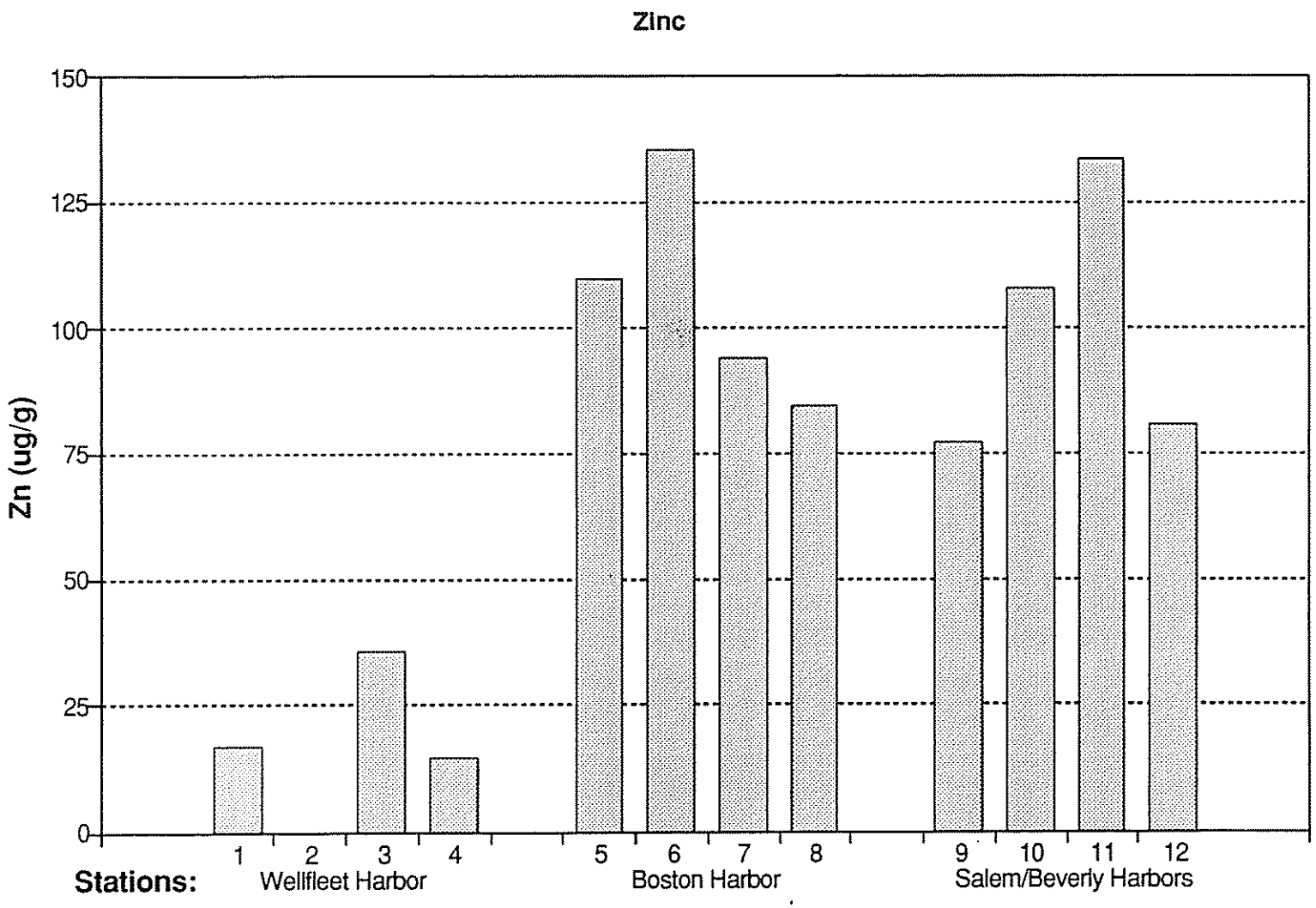

Chromium
Cr (ug/g)
800
700
600
500
400
300
200
100
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

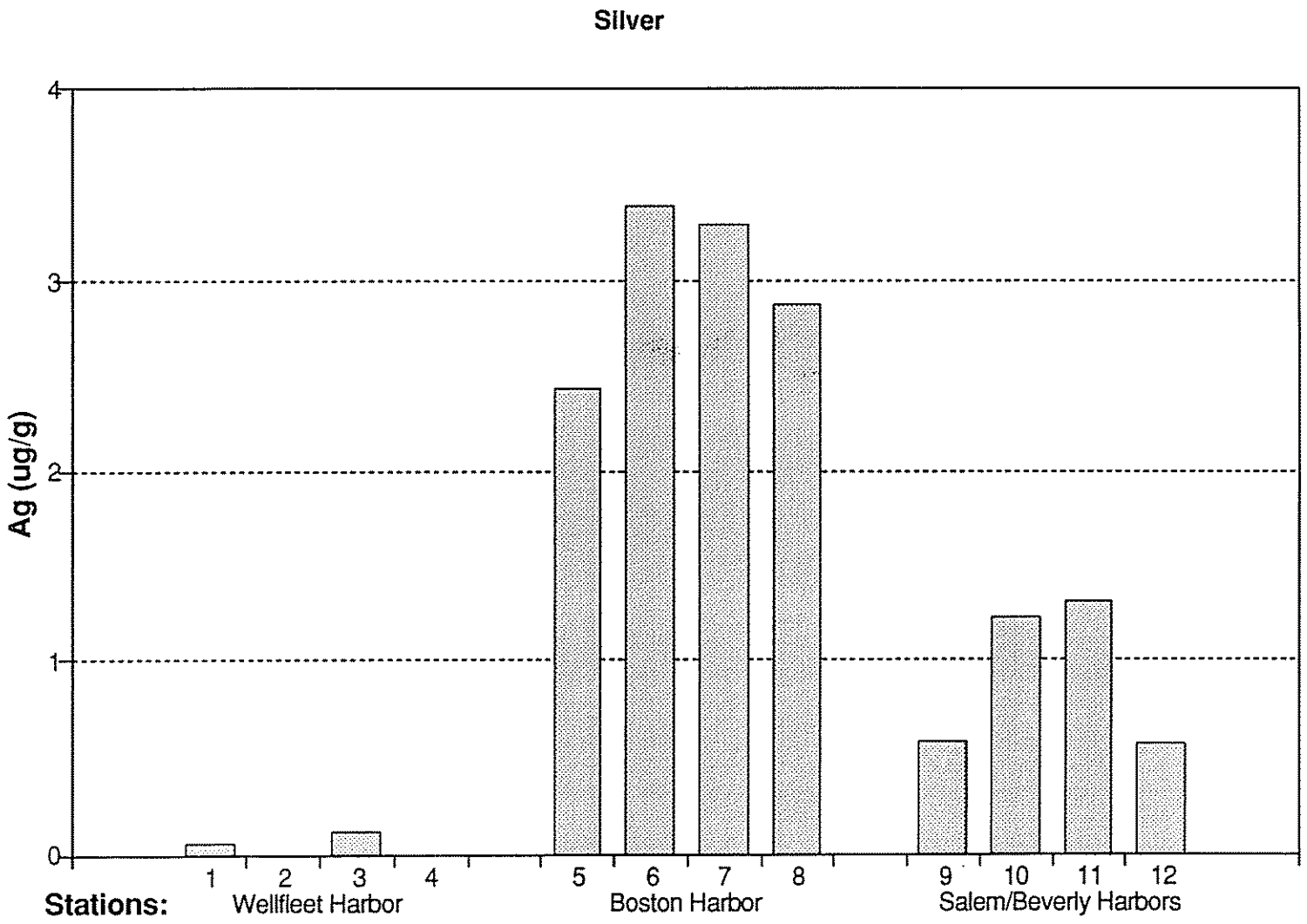

Copper
Cu (ug/g)
100
90
80
70
60
50
40
30
20
10
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

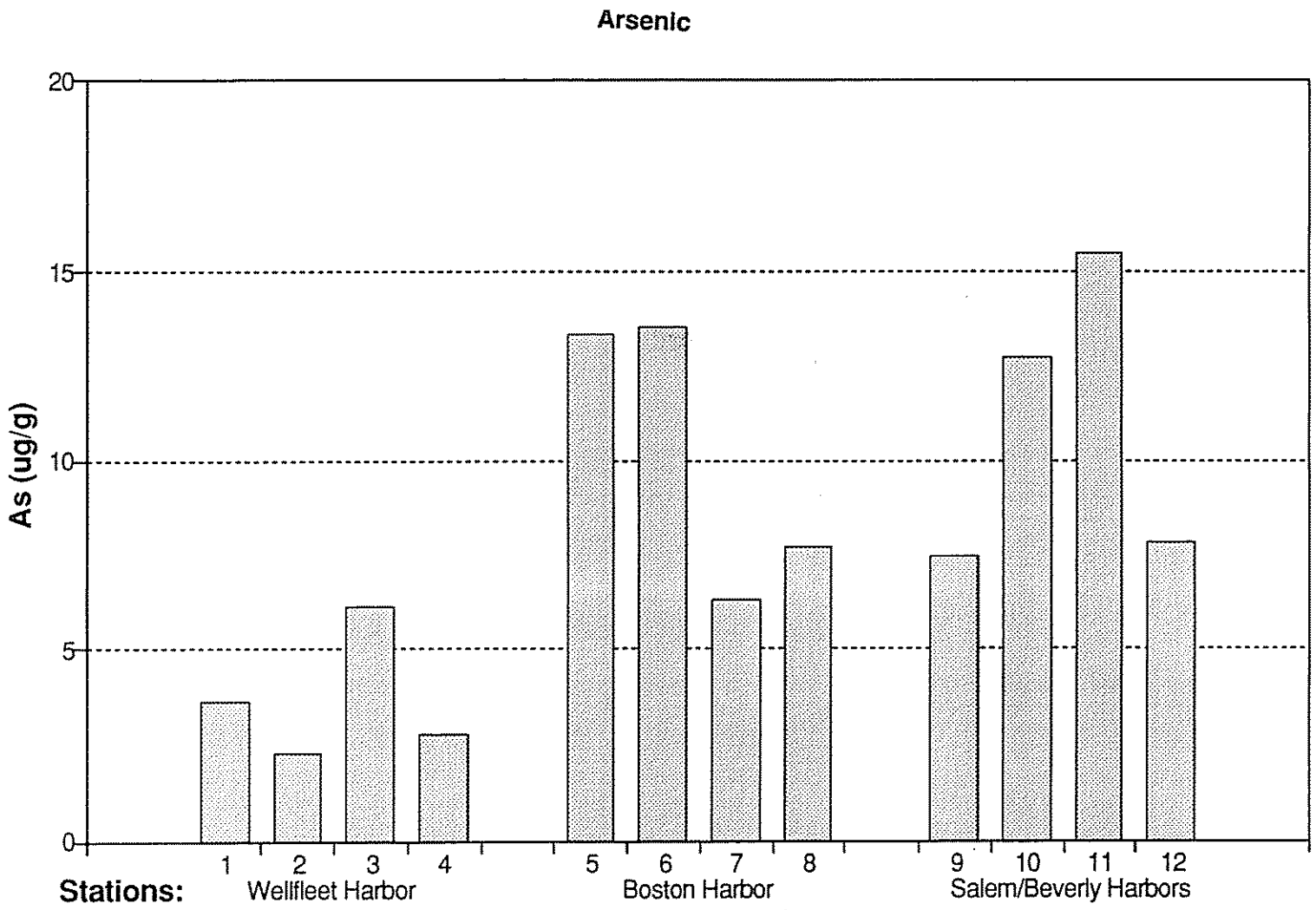

Manganese
Mn (ug/g)
400
300
200
100
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

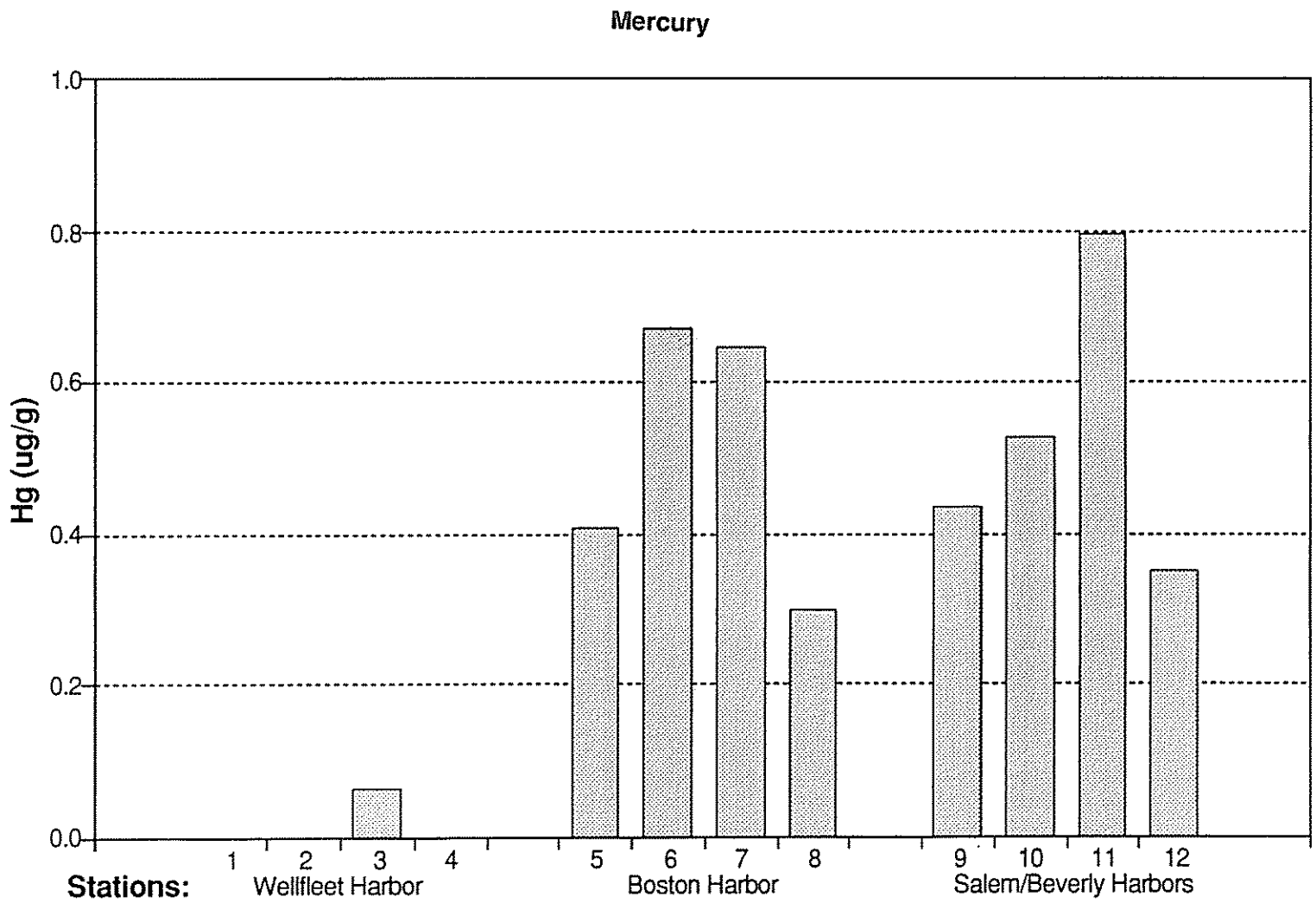

Nickel
Ni (ug/g)
0
1
2
3
4
5
Stations:
1
2
3
4
5
6
7
8
9
10
11
12
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

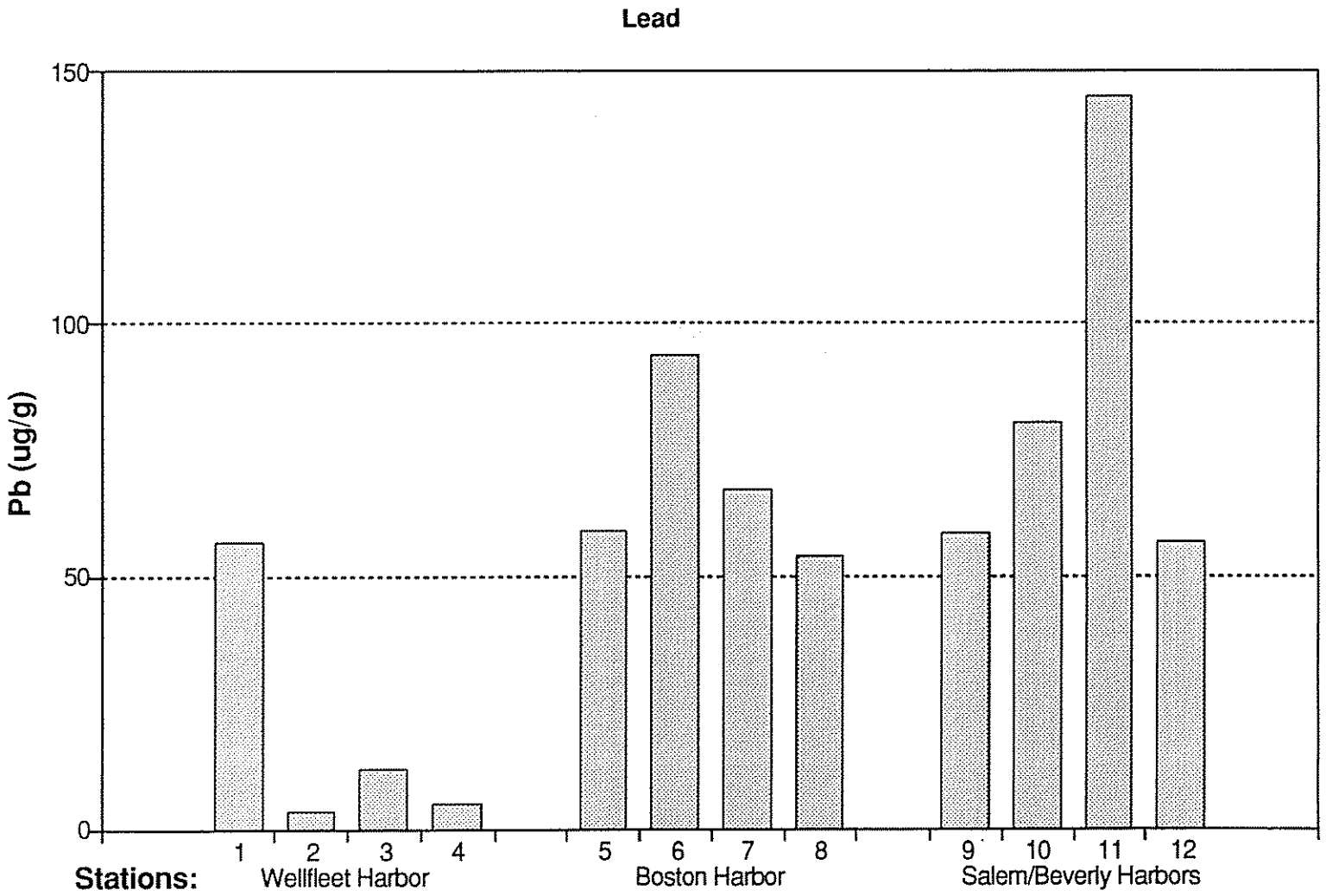

Vanadium
V (ug/g)
100
80
60
40
20
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

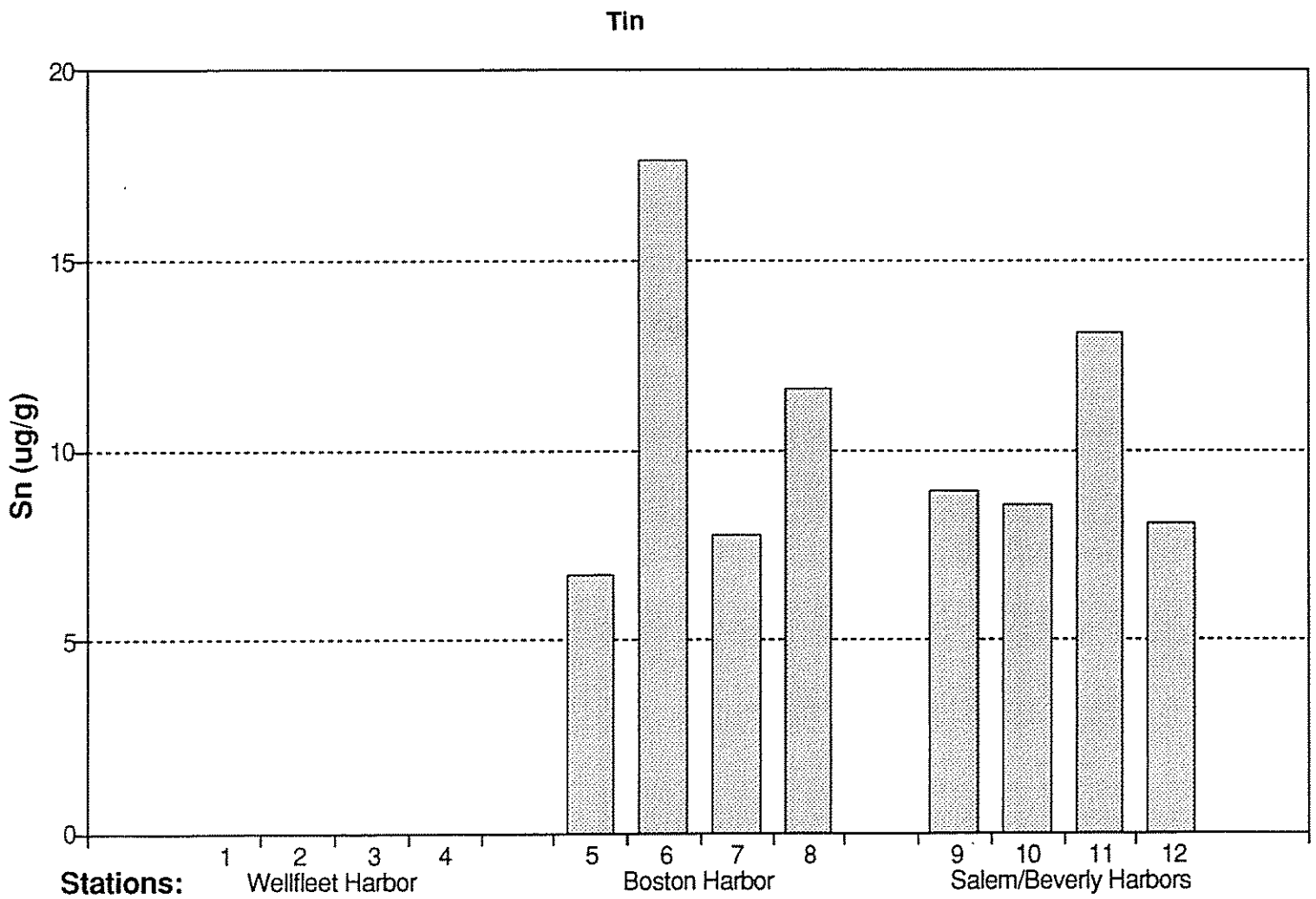

Zinc
Zn (ug/g)
150
125
100
75
50
25
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

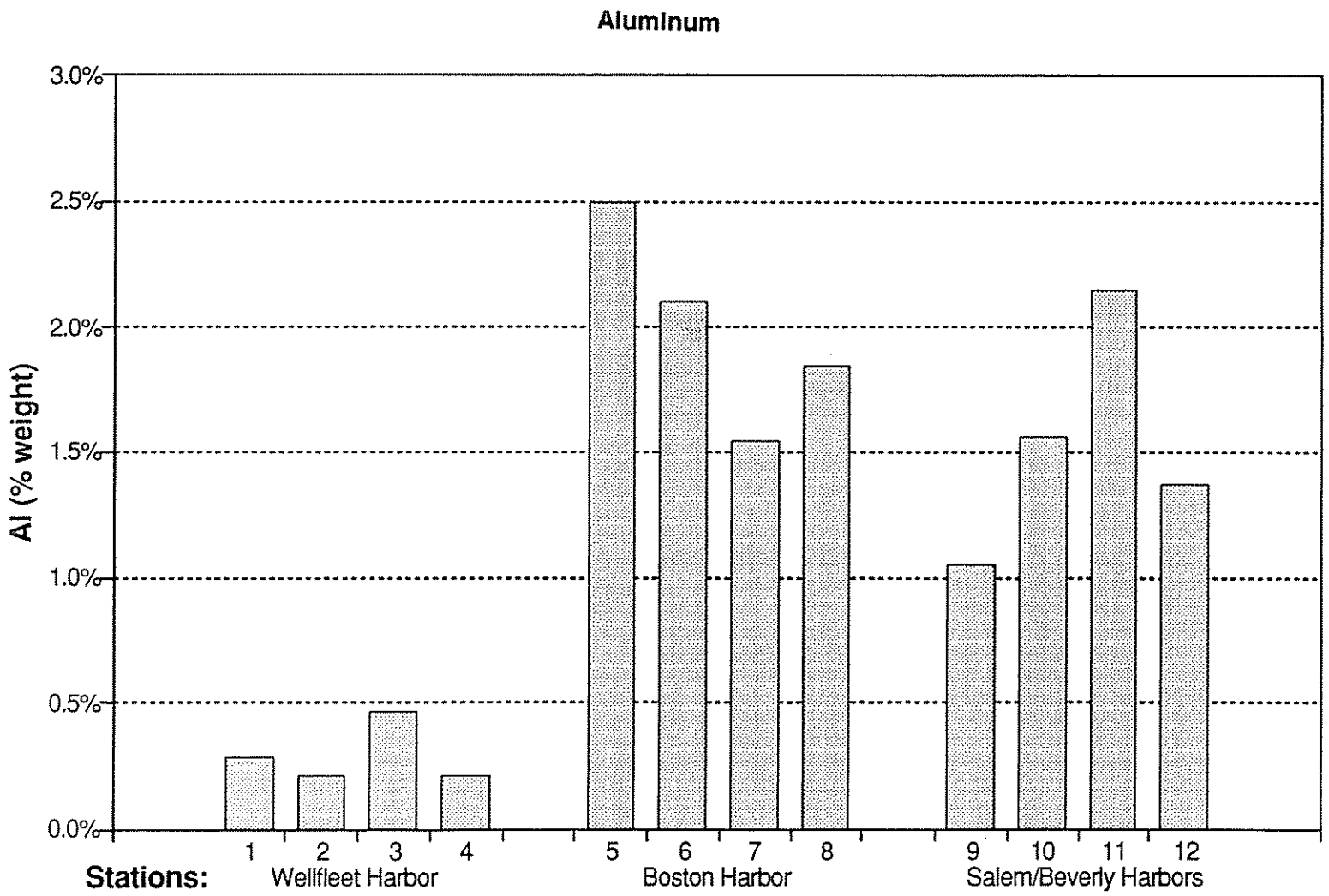

Silver
Ag (ug/g)
0
1
2
3
4
Stations:
1
2
3
4
Wellfleet Harbor
5
6
7
8
Boston Harbor
9
10
11
12
Salem/Beverly Harbors

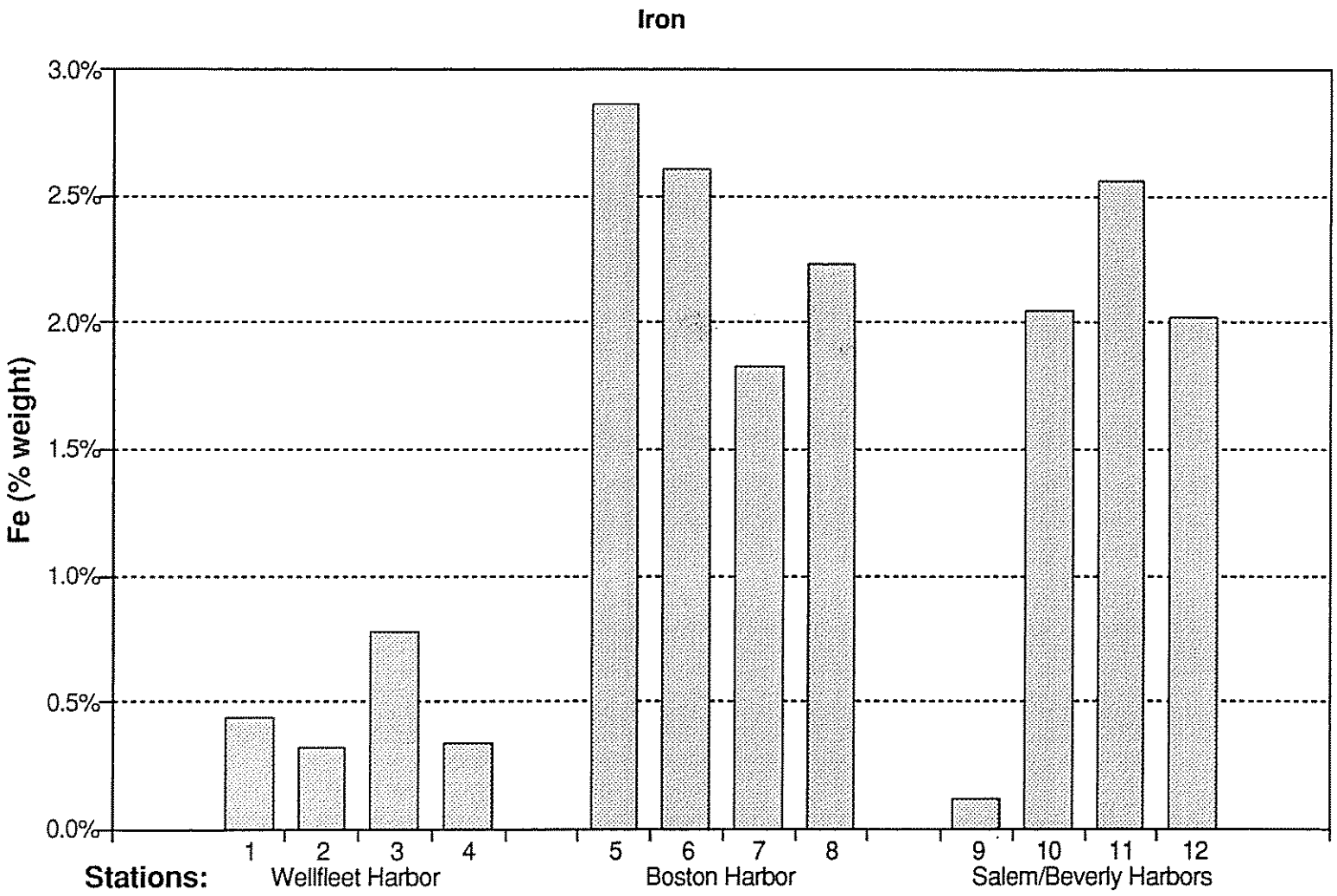

Arsenic
As (ug/g)
20
15
10
5
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

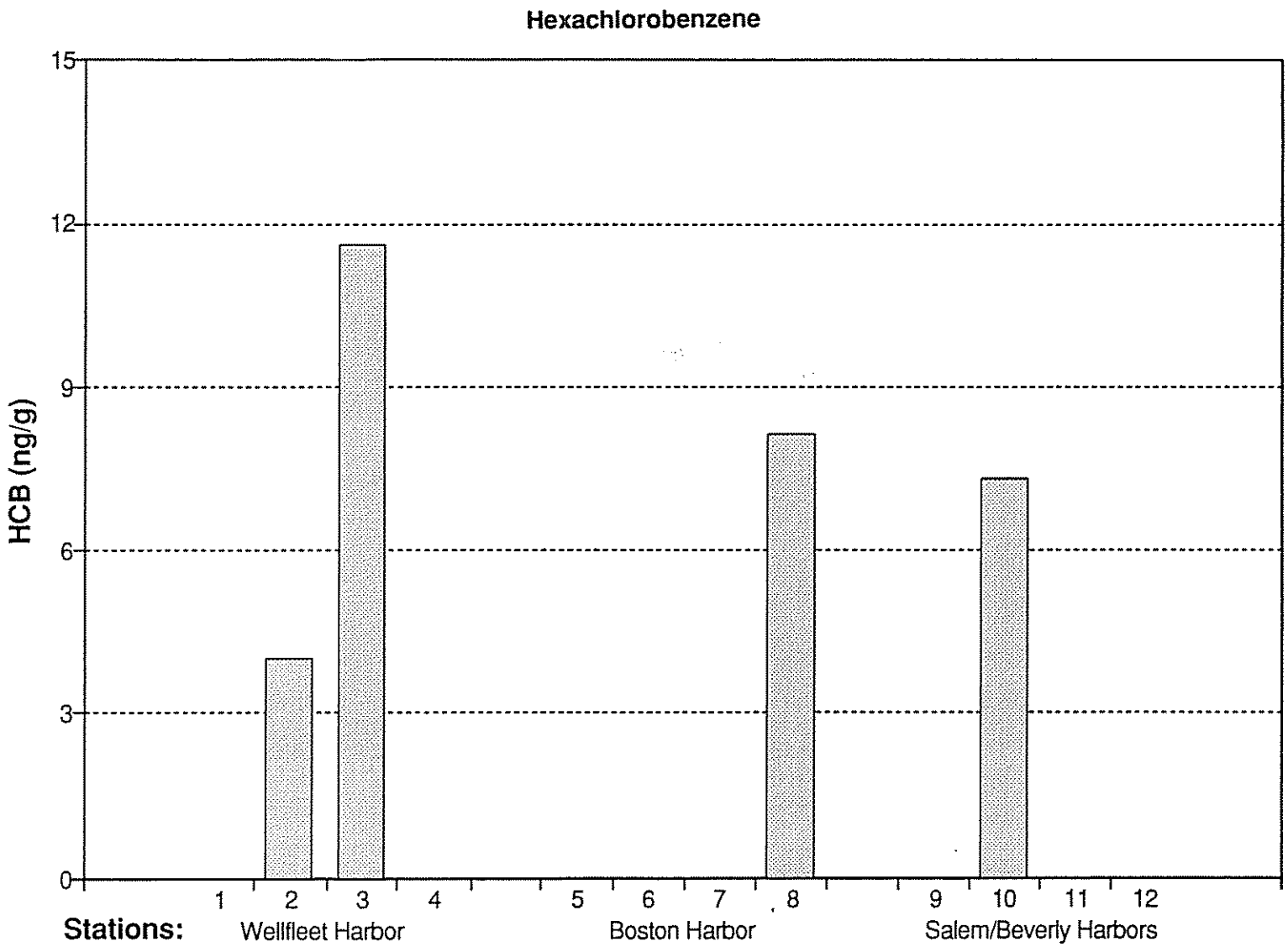

Mercury
Hg (ug/g)
1.0
0.8
0.6
0.4
0.2
0.0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

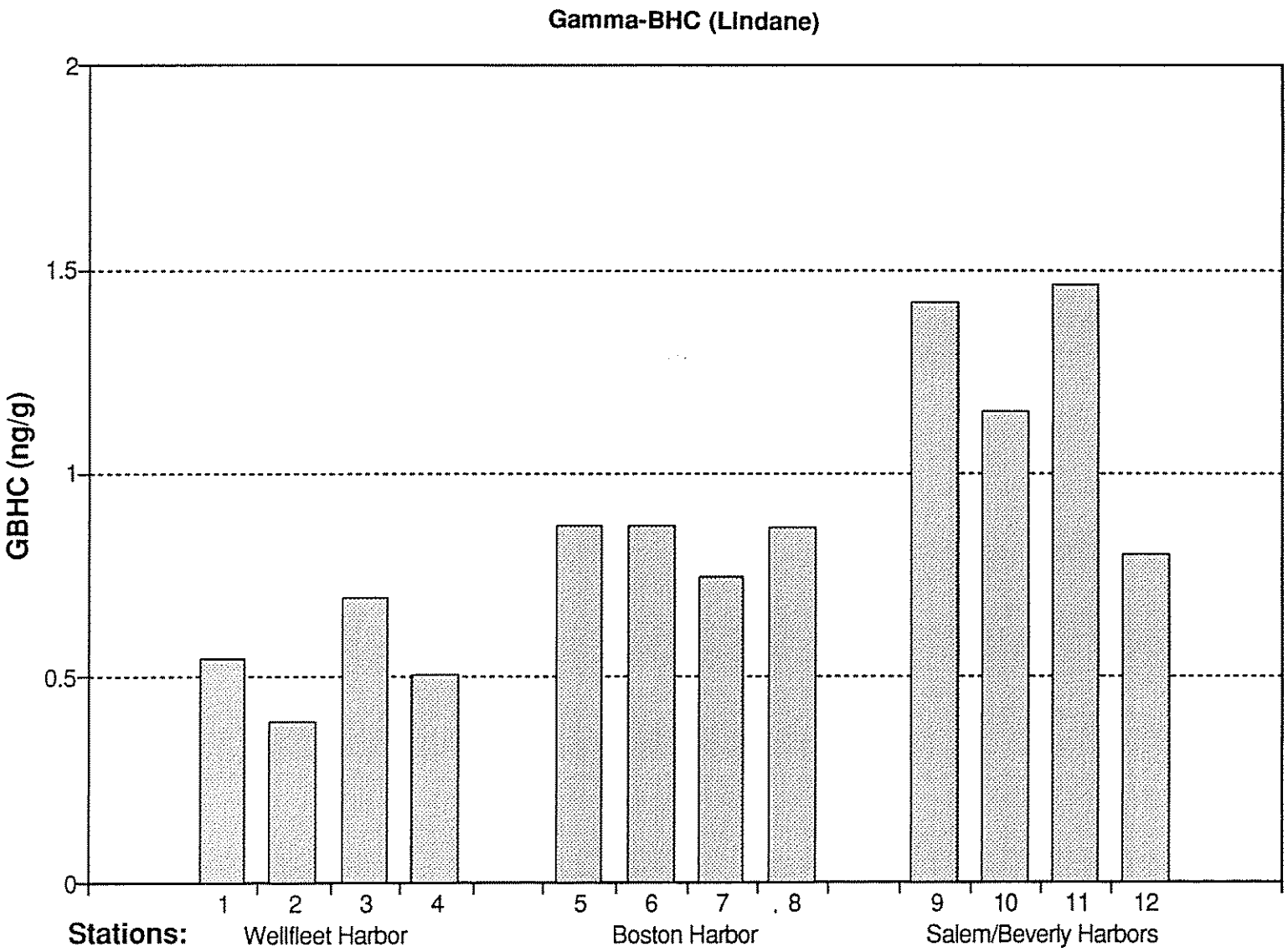

Lead
150
100
50
0
Pb (ug/g)
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

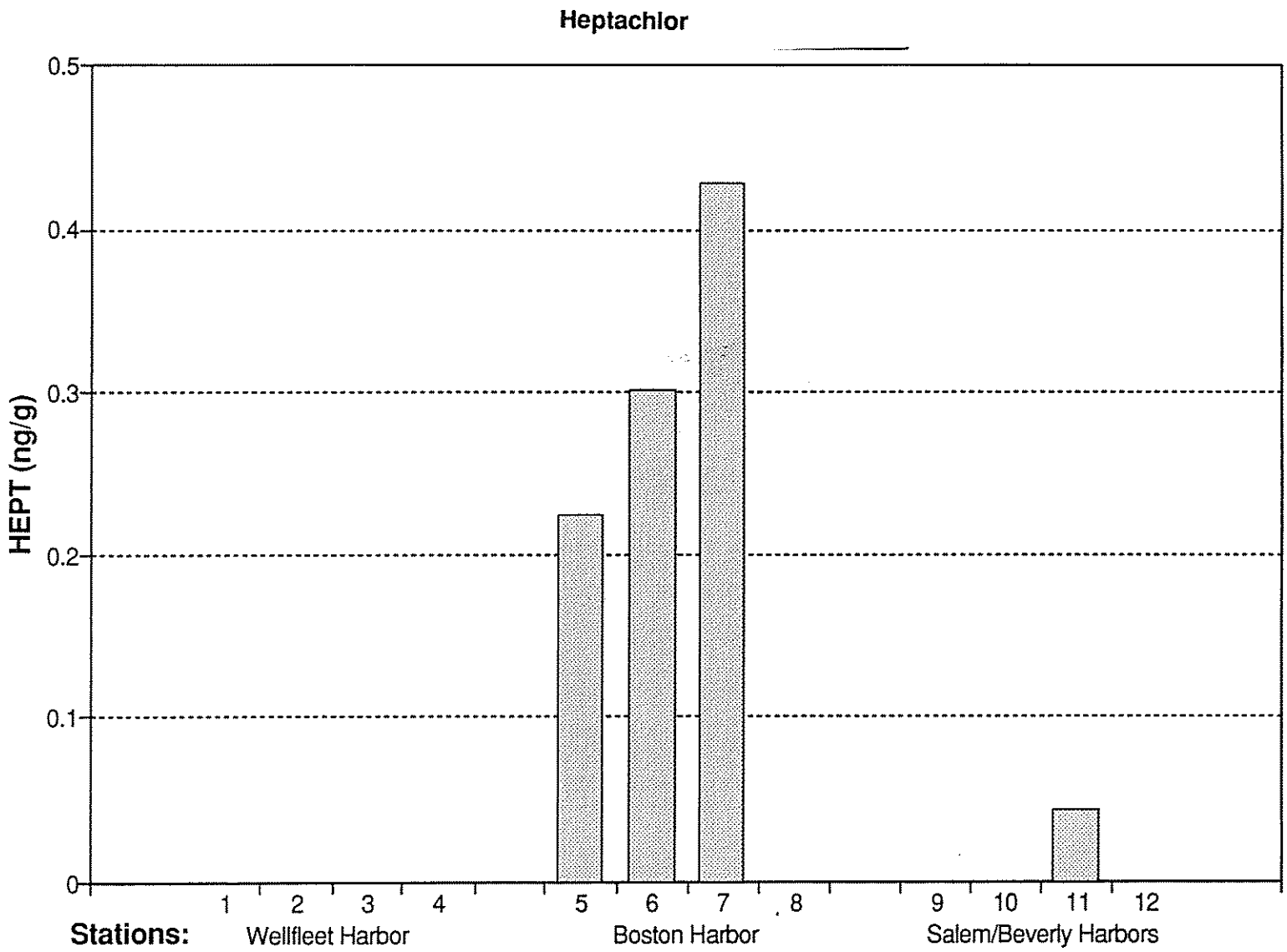

Tin
Sn (ug/g)
20
15
10
5
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

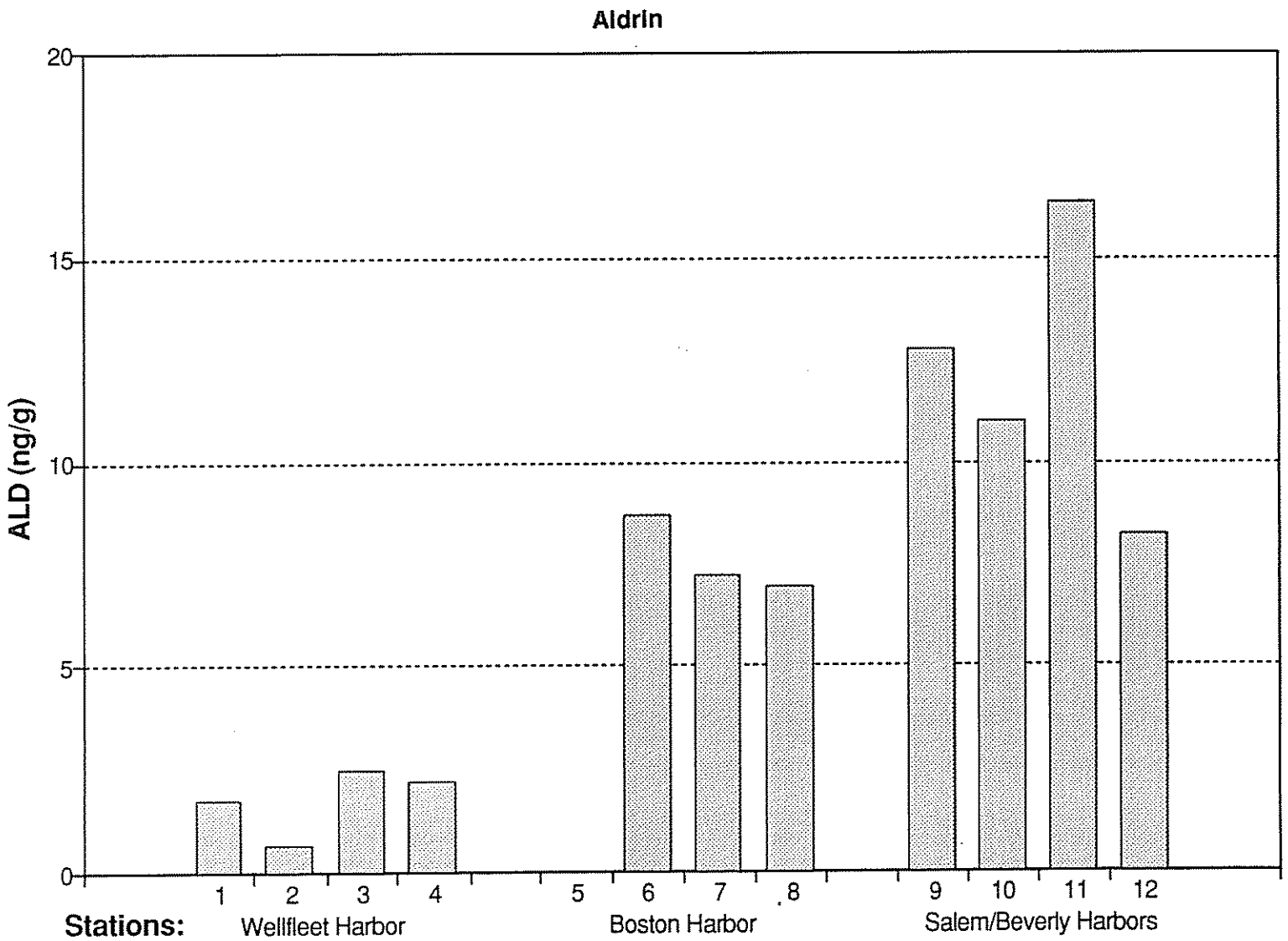

Aluminum
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%
Al (% weight)
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

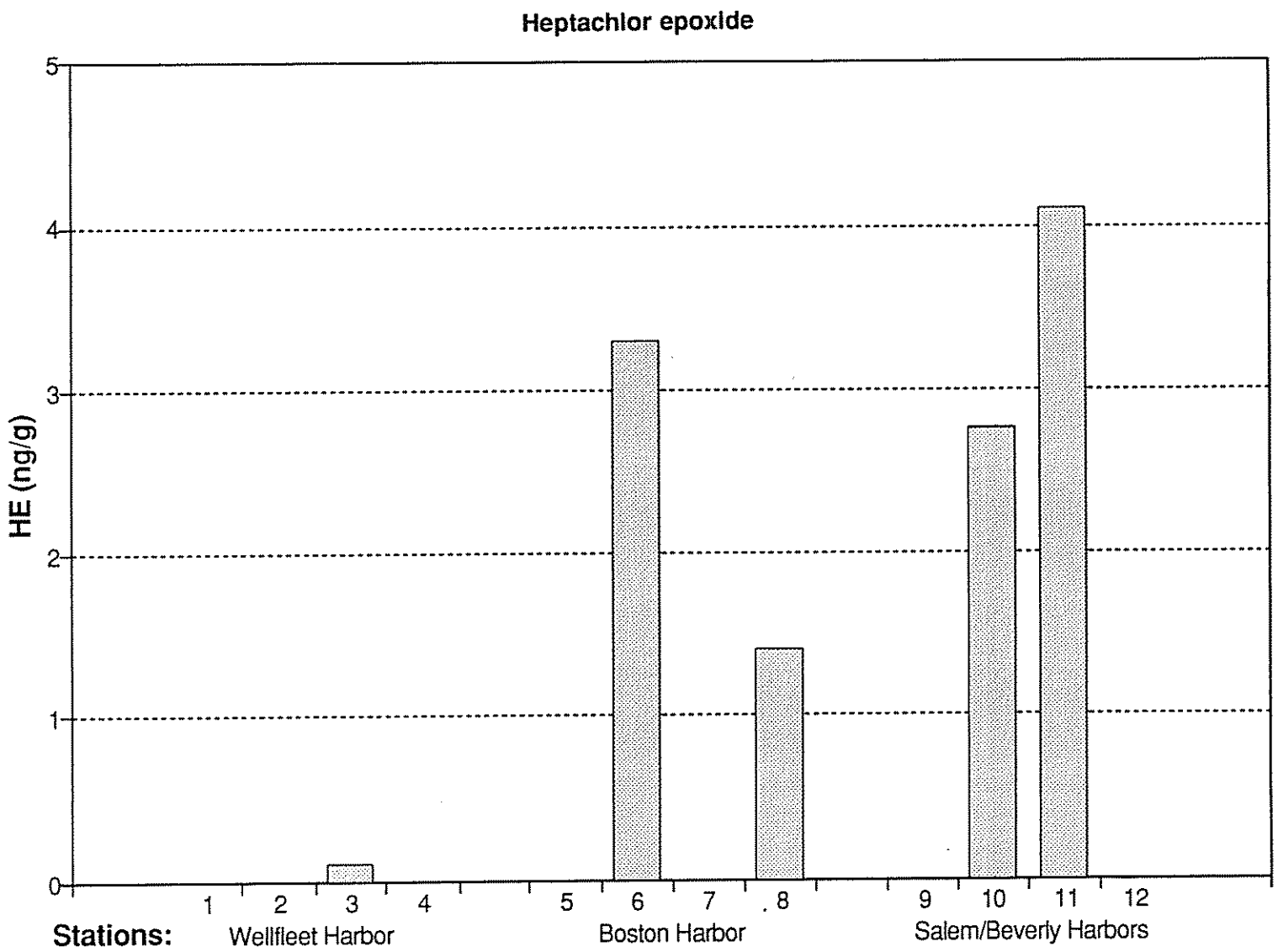

Iron
Fe (% weight)
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

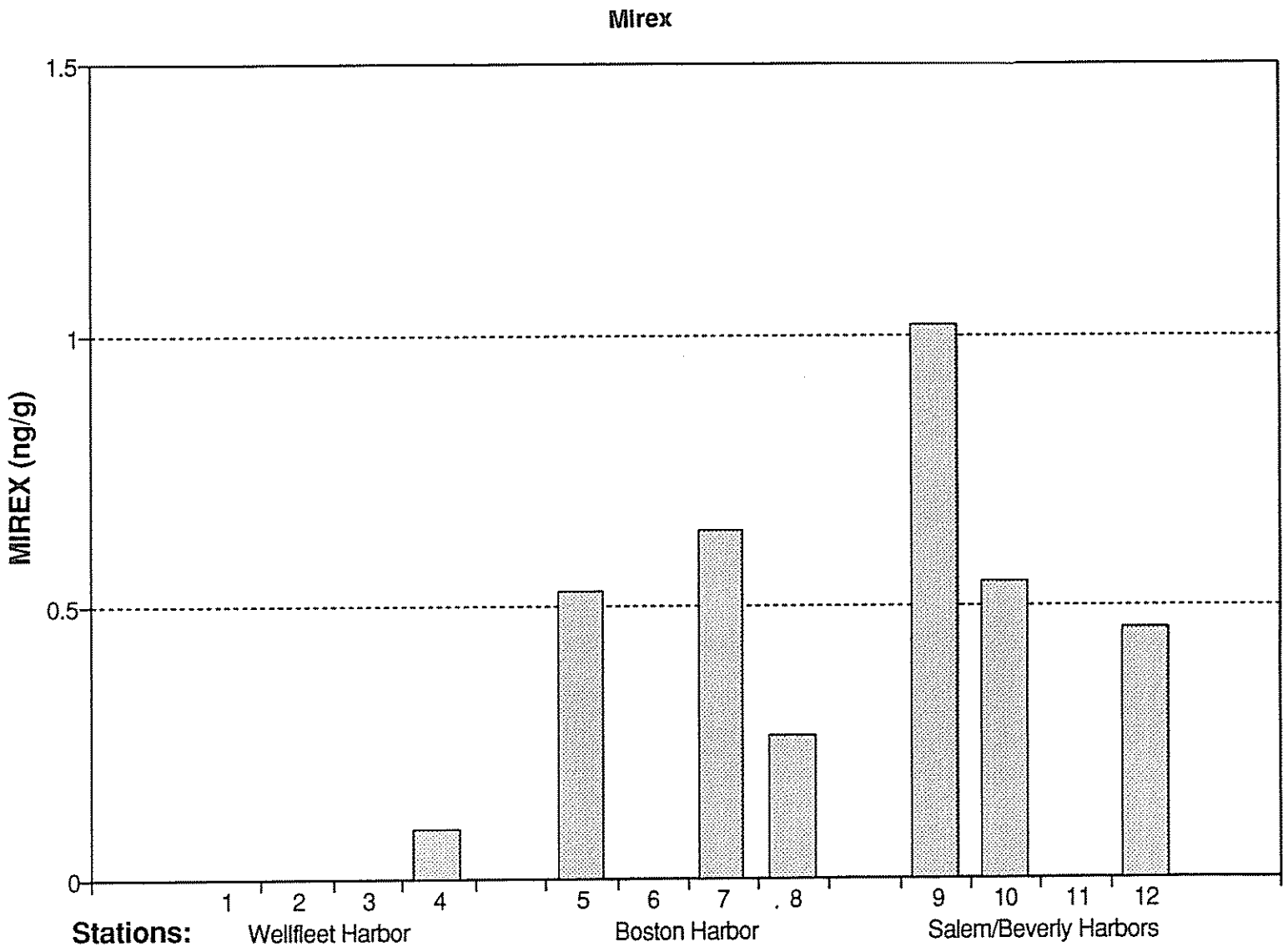

Hexachlorobenzene
HCB (ng/g)
15
12
9
6
3
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

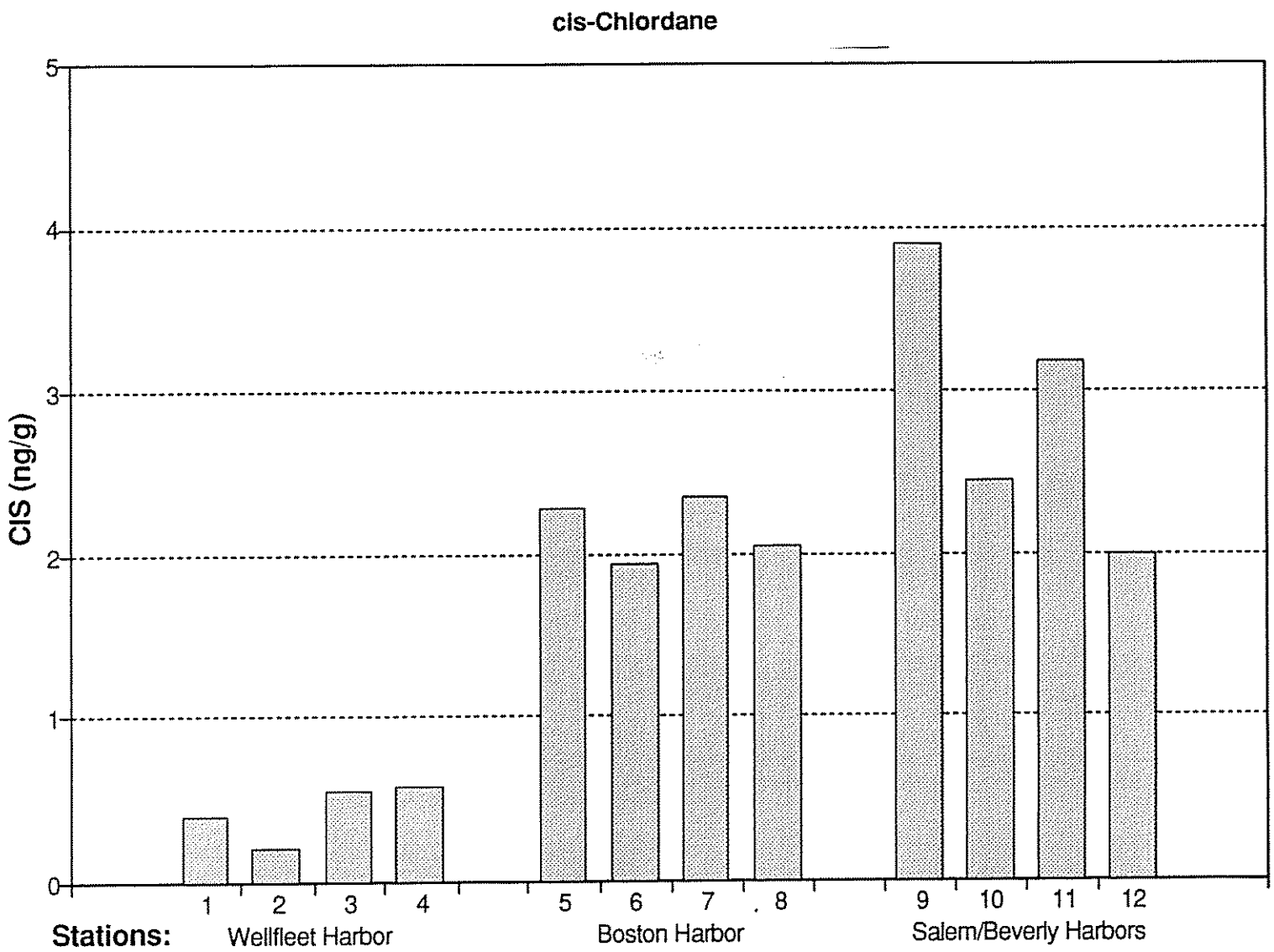

Gamma-BHC (Lindane)
GBHC (ng/g)
2
1.5
1
0.5
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

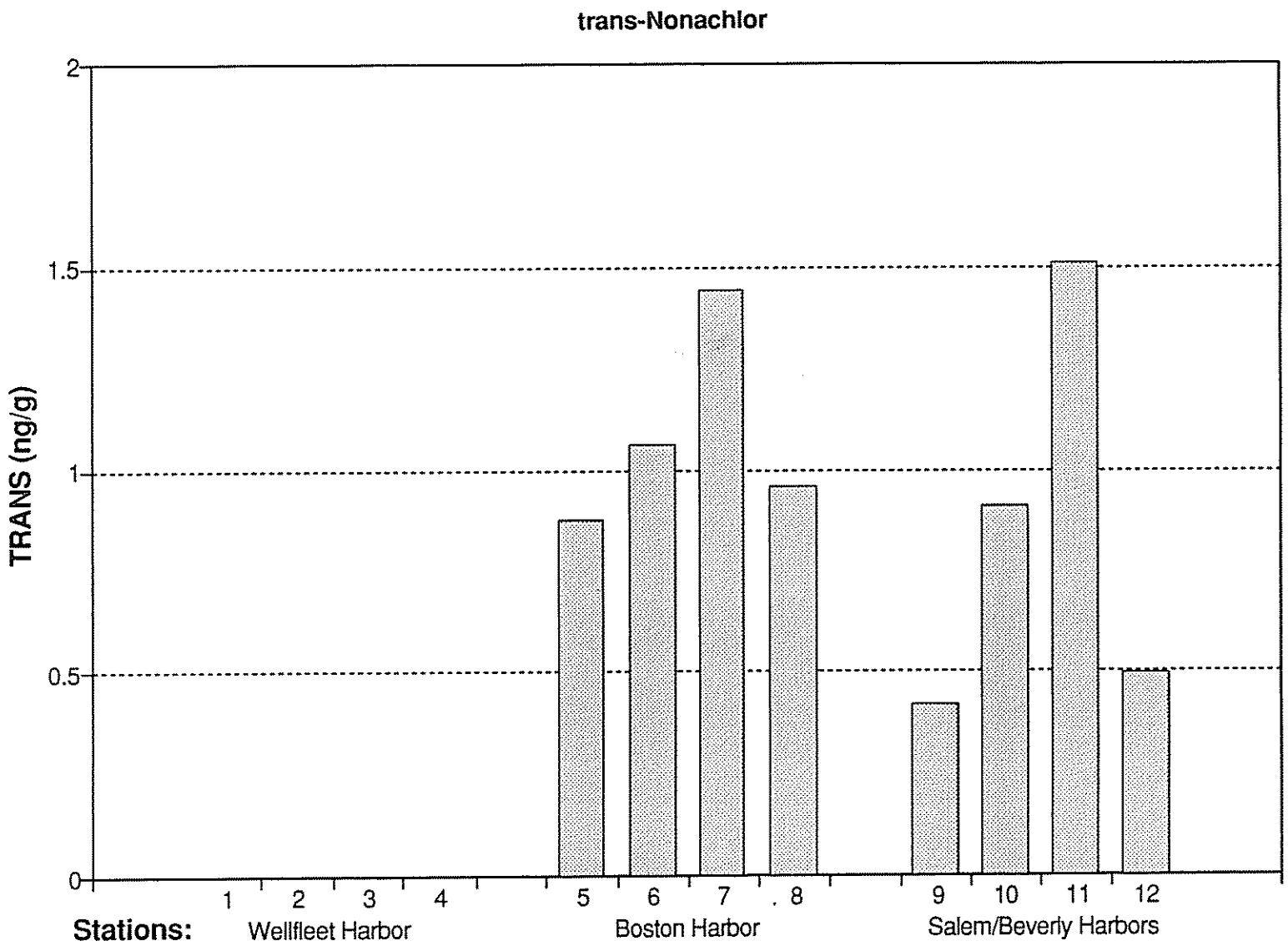

Heptachlor
HEPT (ng/g)
0.5
0.4
0.3
0.2
0.1
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

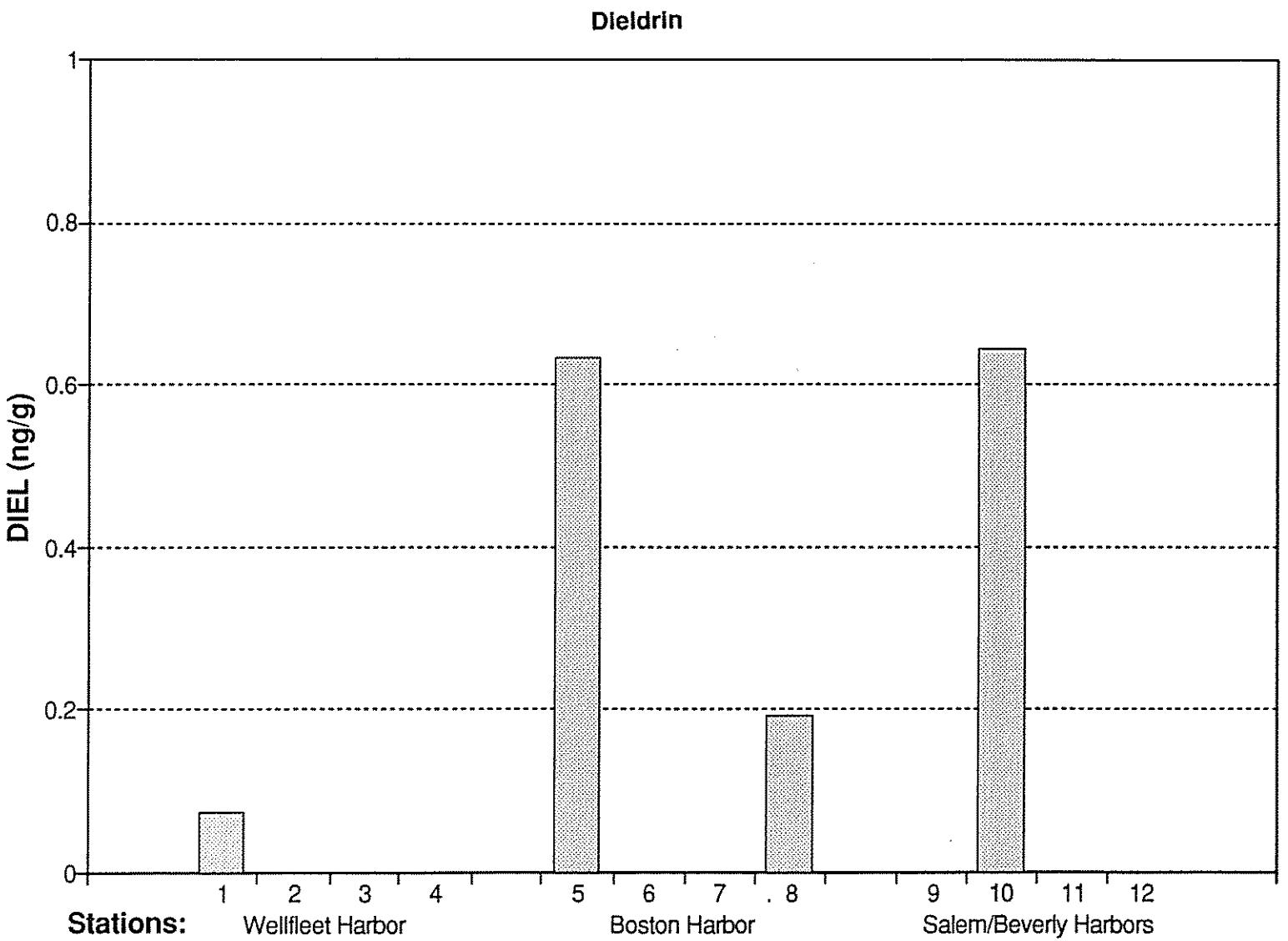

Aldrin
ALD (ng/g)
20
15
10
5
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

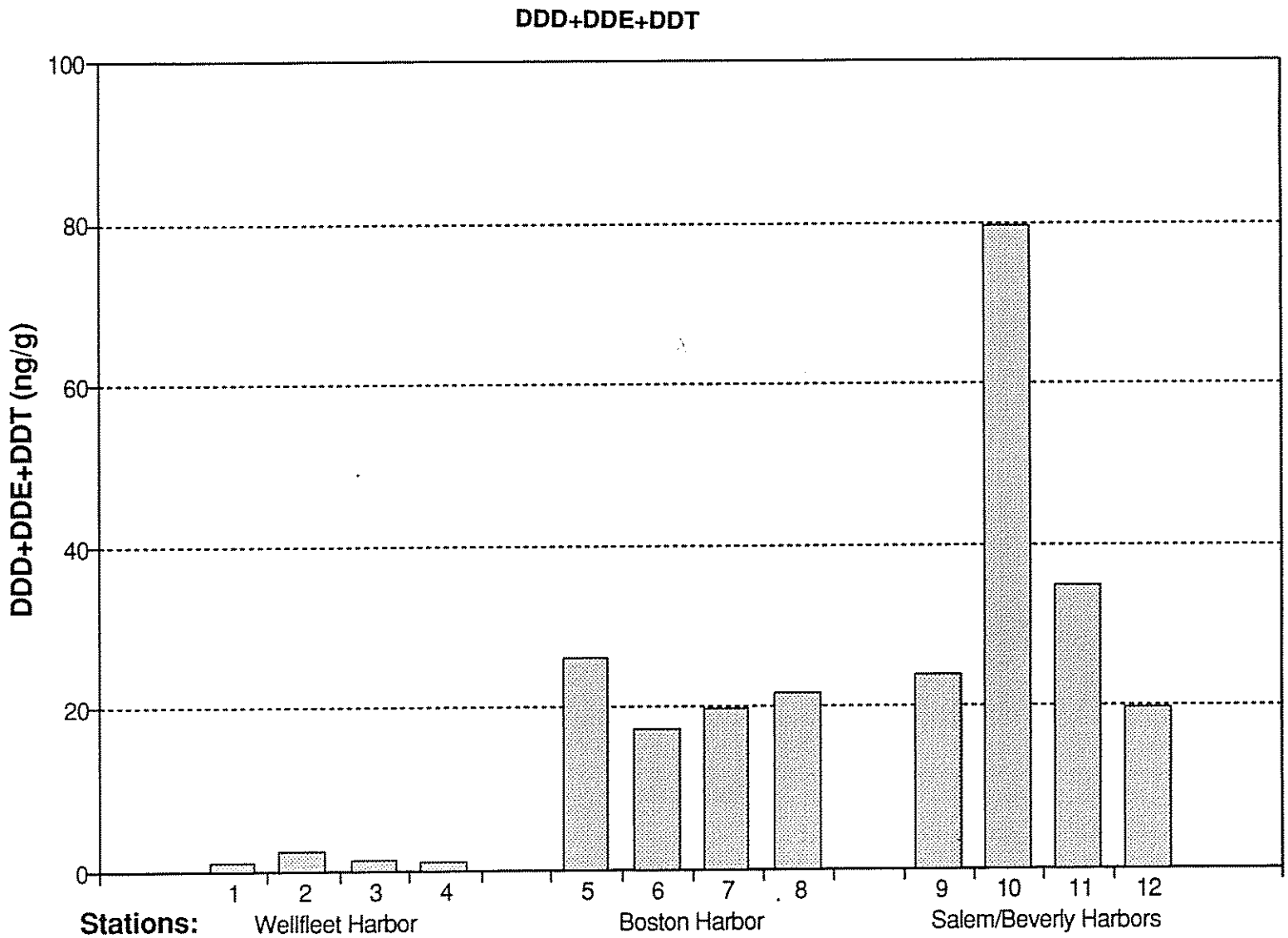

Heptachlor epoxide
HE (ng/g)
0
1
2
3
4
5
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

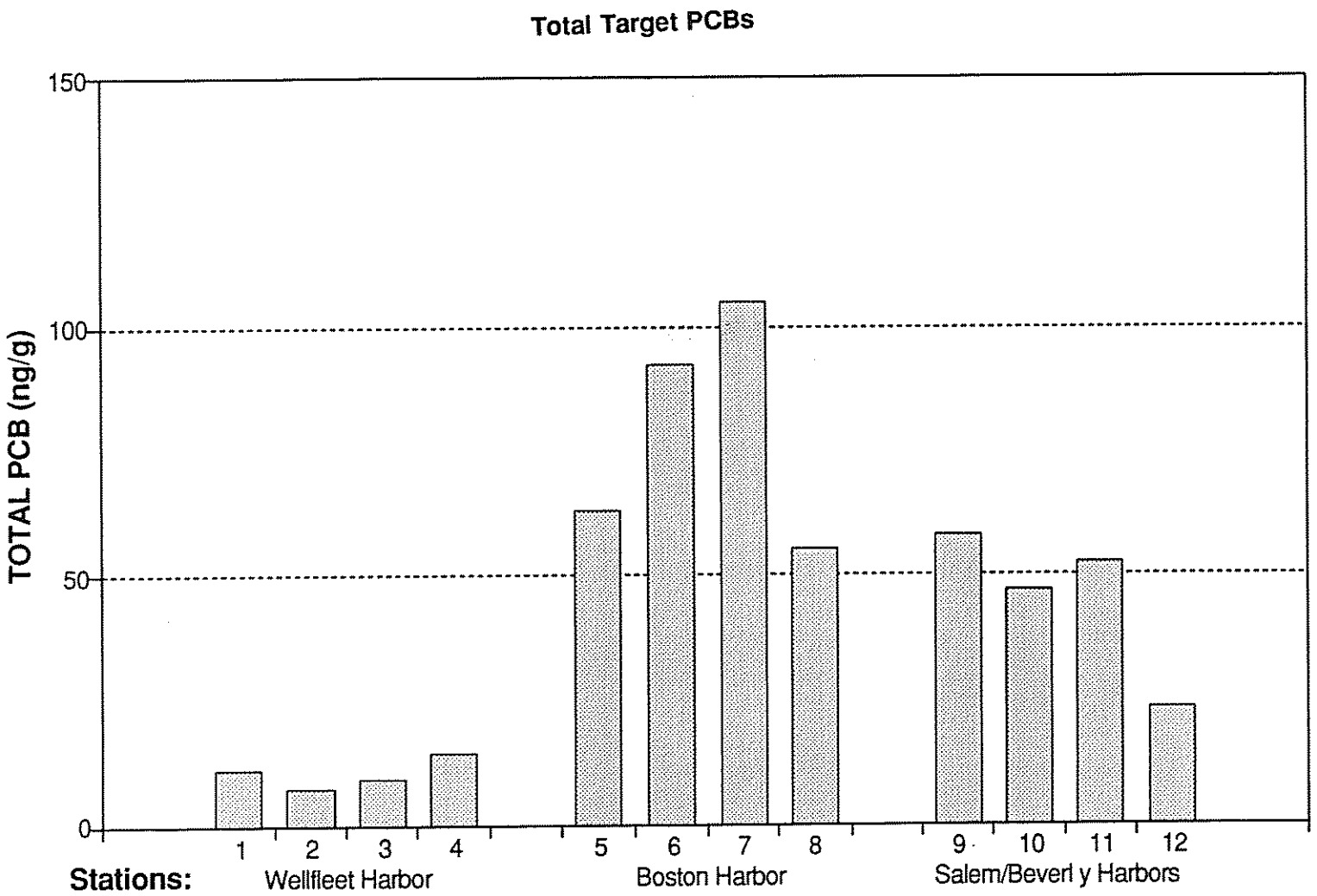

Mirex
1.5
1
0.5
0
MIREX (ng/g)
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

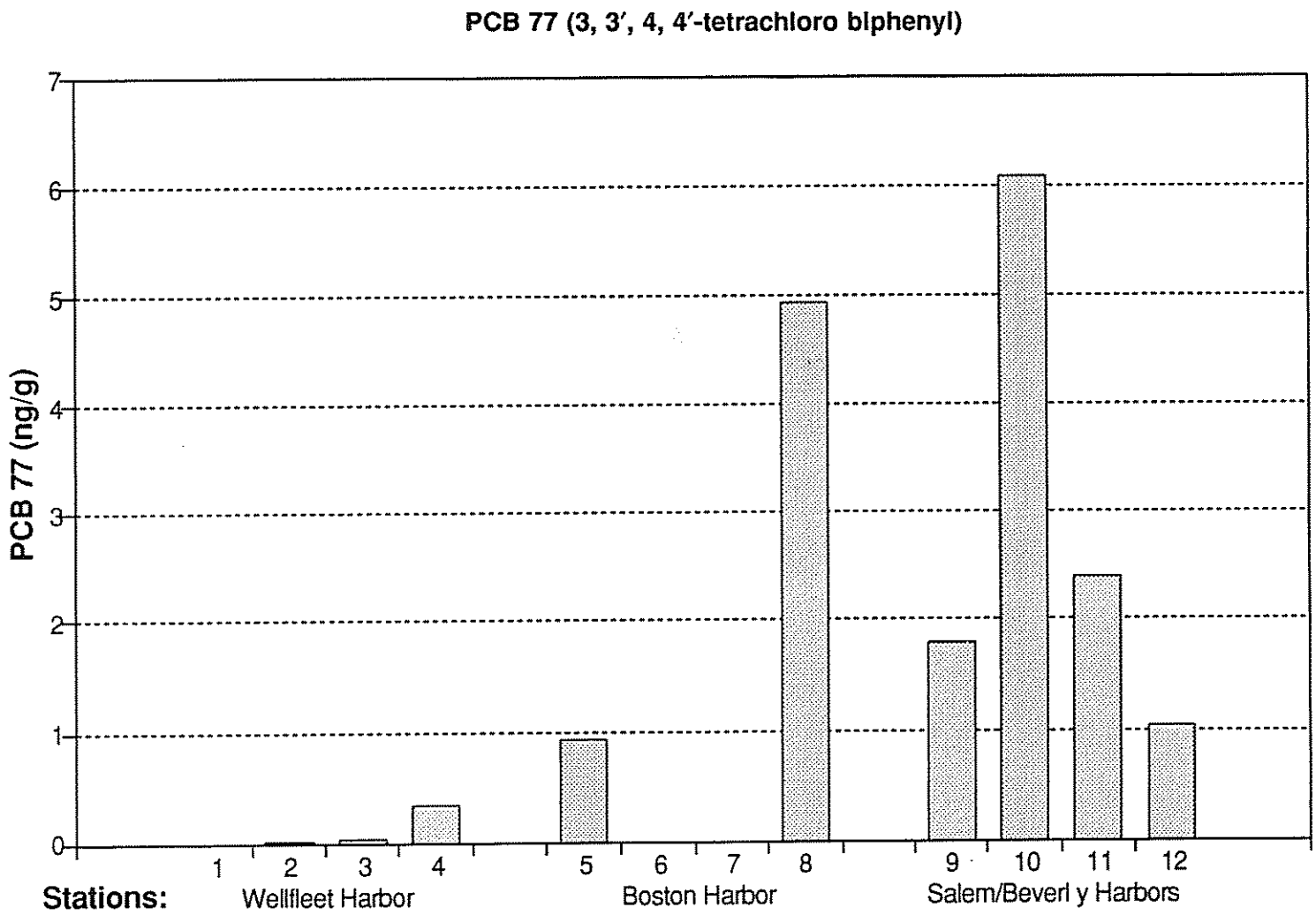

cis-Chlordane
CIS (ng/g)
0
1
2
3
4
5
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors


trans-Nonachlor
TRANS (ng/g)
2
1.5
1
0.5
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors

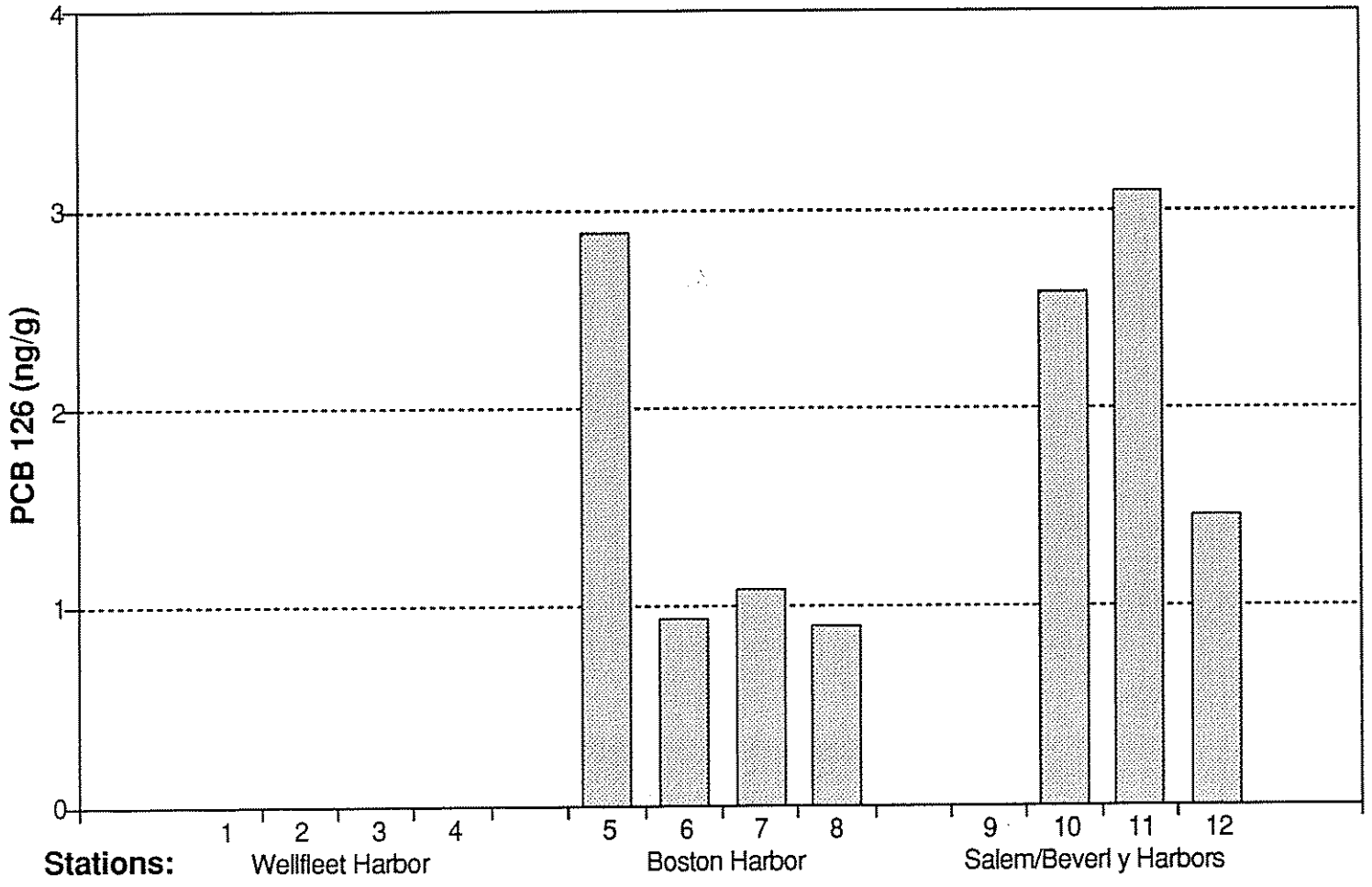

Dieldrin
DIEL (ng/g)
1
0.8
0.6
0.4
0.2
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors


DDD+DDE+DDT
DDD+DDE+DDT (ng/g)
100
80
60
40
20
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverly Harbors


Total Target PCBs
TOTAL PCB (ng/g)
150
100
50
0
1
2
3
4
5
6
7
8
9
10
11
12
Stations:
Wellfleet Harbor
Boston Harbor
Salem/Beverl y Harbors


PCB 77 (3, 3′, 4, 4′-tetrachloro biphenyl)
PCB 77 (ng/g)
0
1
2
3
4
5
6
7
Stations:
1
2
3
4
5
6
7
8
9
10
11
12
Wellfleet Harbor
Boston Harbor
Salem/Beverl y Harbors

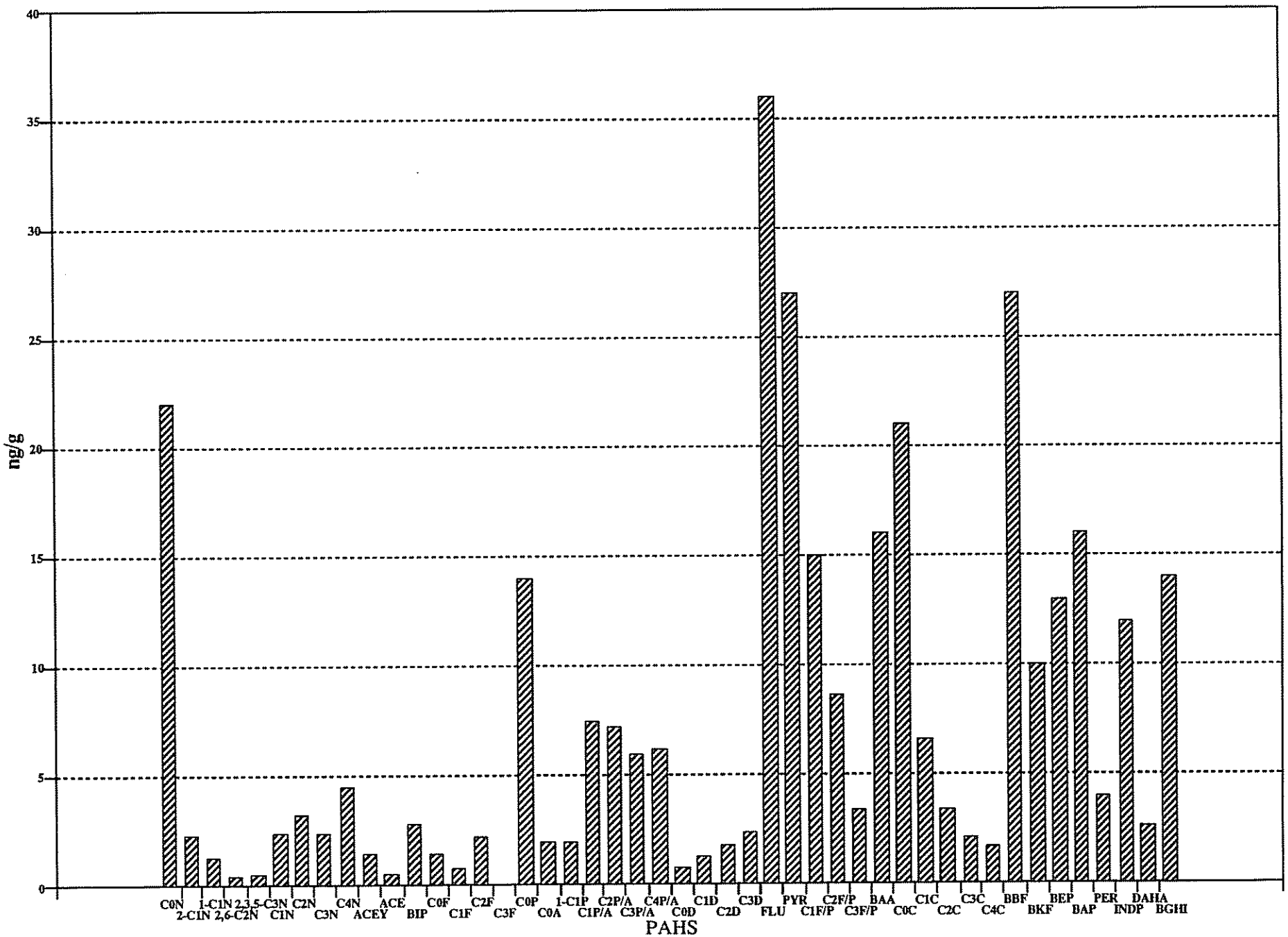
PCB 126 (3, 3′, 4, 4′, 5-pentachloro biphenyl)



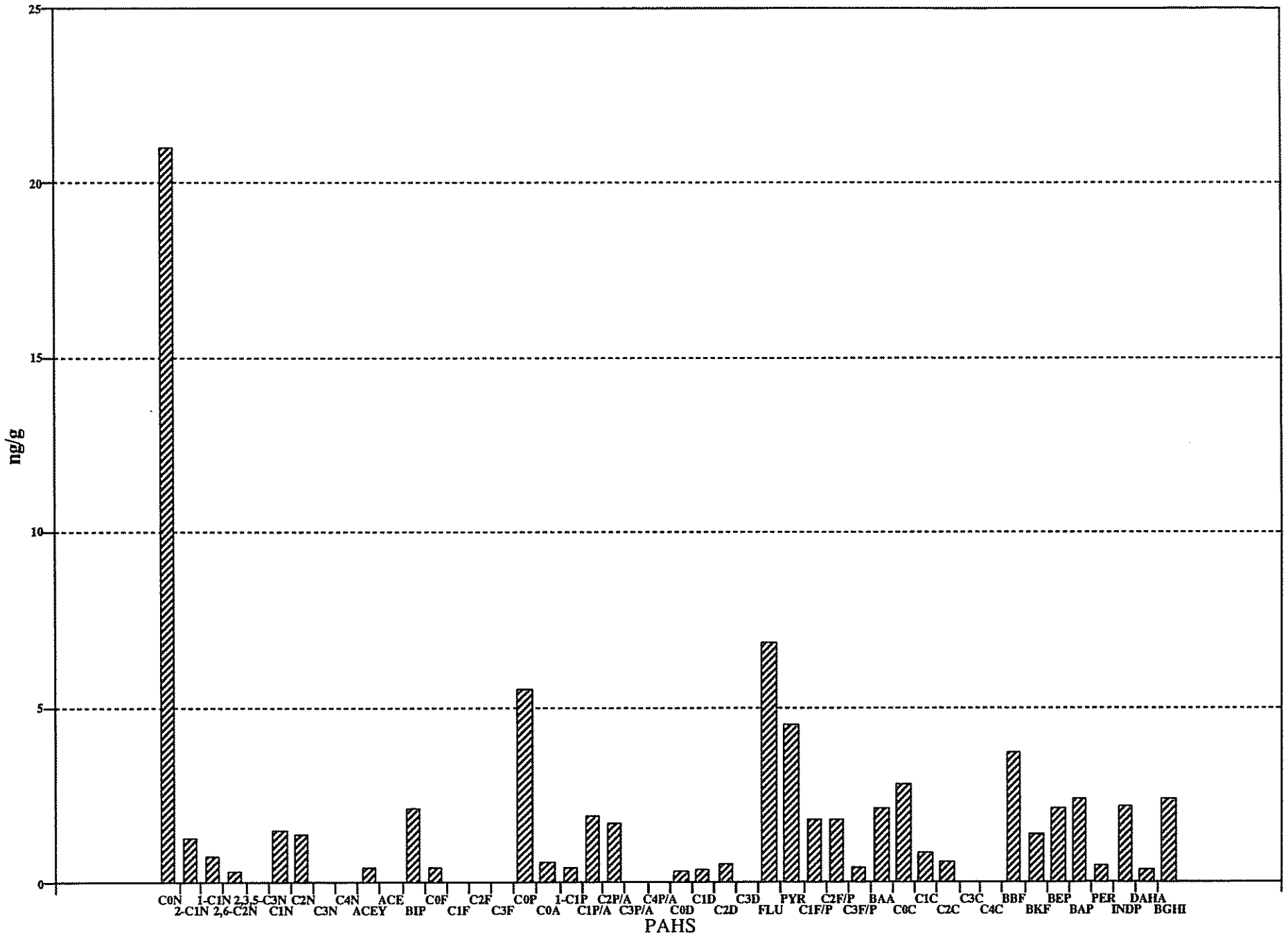
Appendix D

Plots of PAH Distributions in Sediment Samples

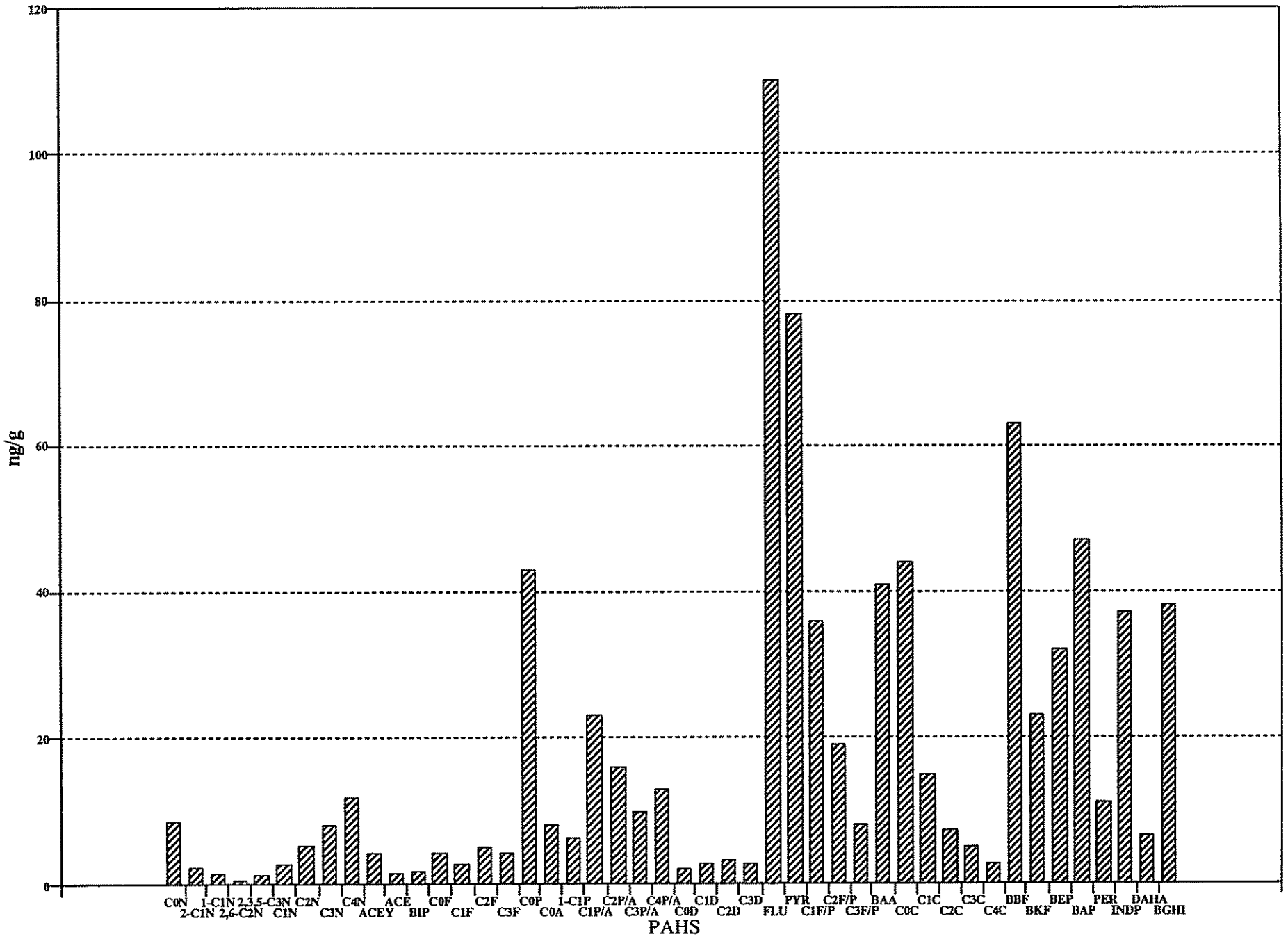
Station 1 (Lab ID MBT012)



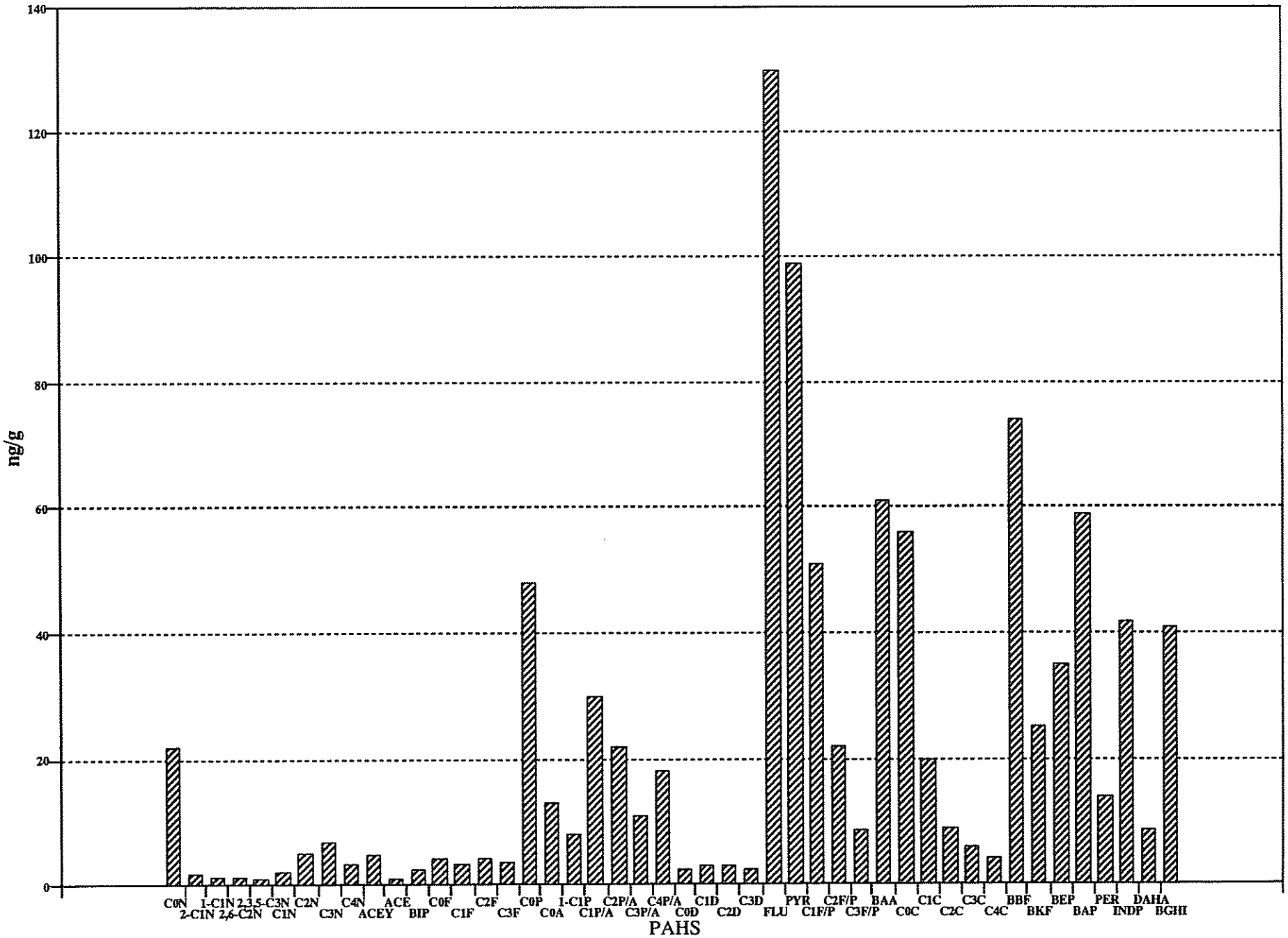
Station 2 (Lab ID MBT013)



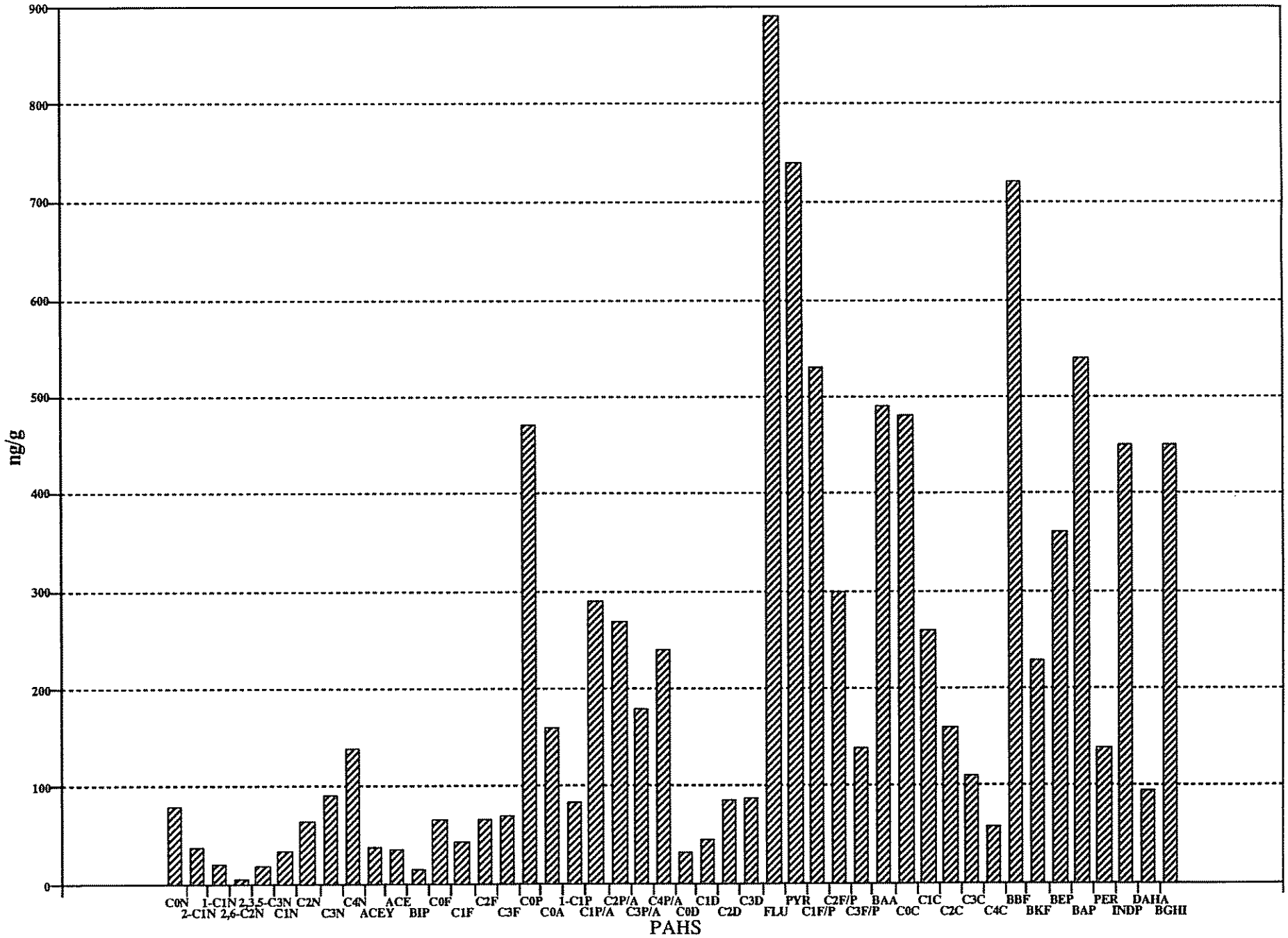
Station 3 (Lab ID MBT014)

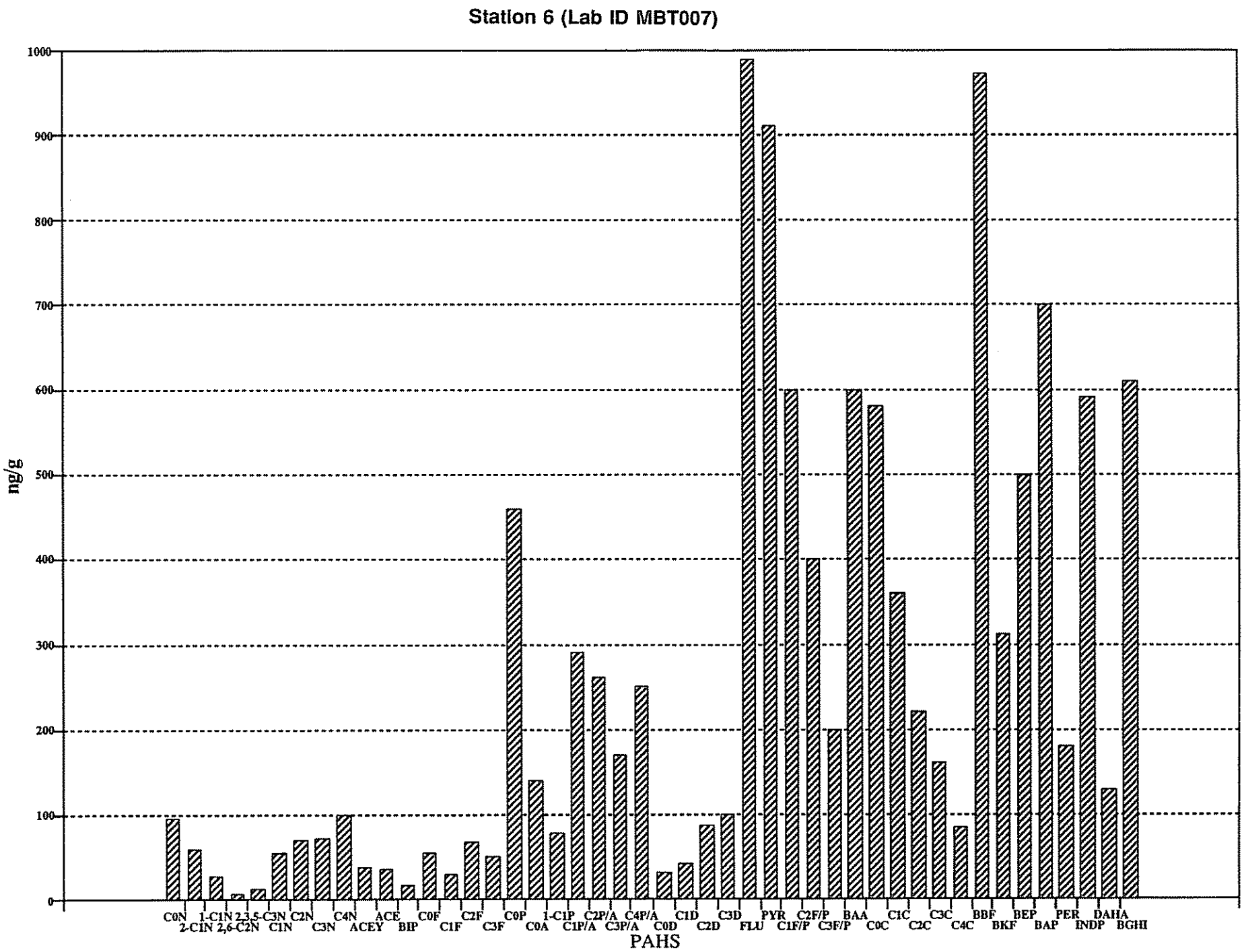


Station 4 (Lab ID MBT017)

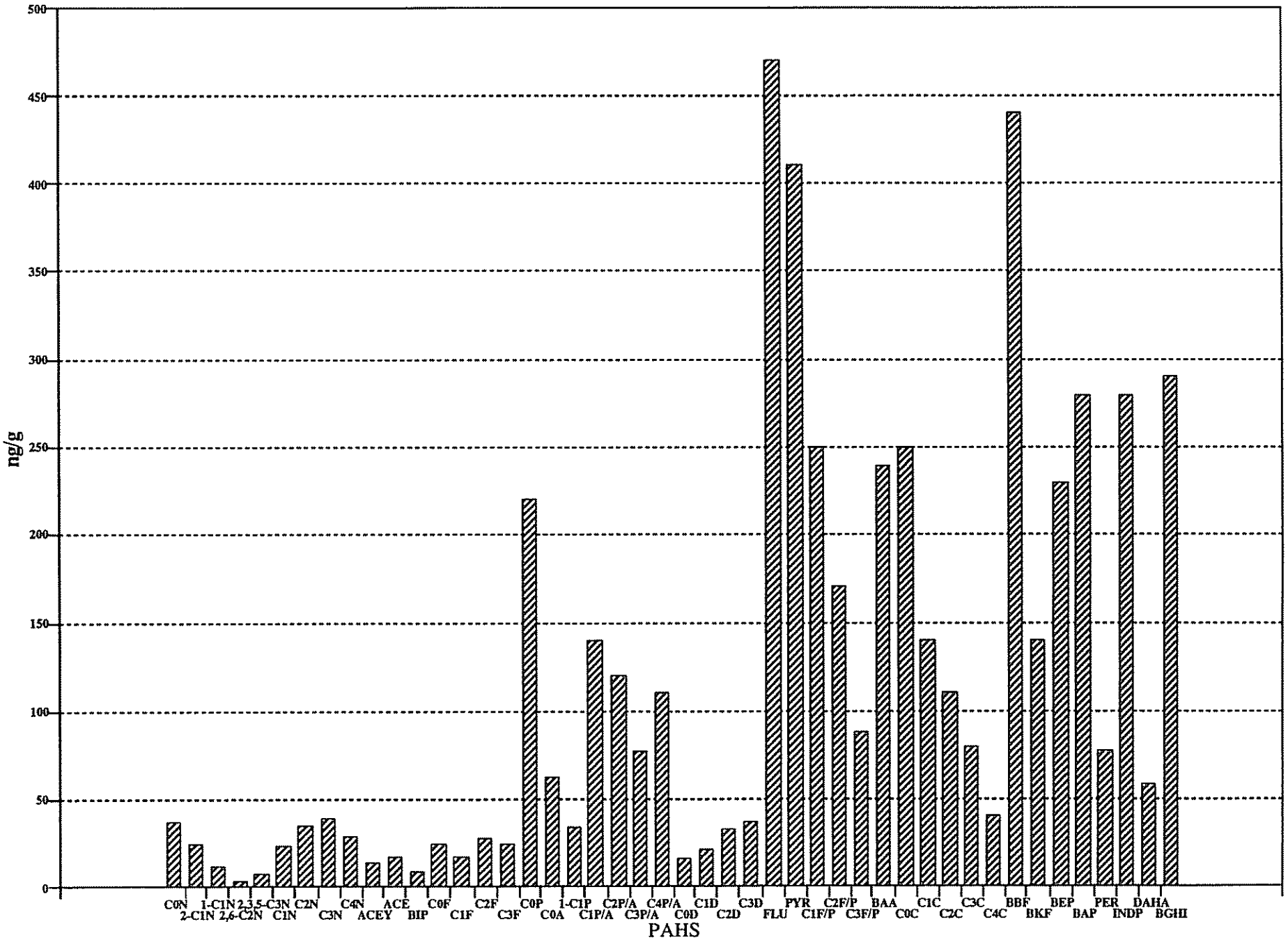


Station 5 (Lab ID MBT011)

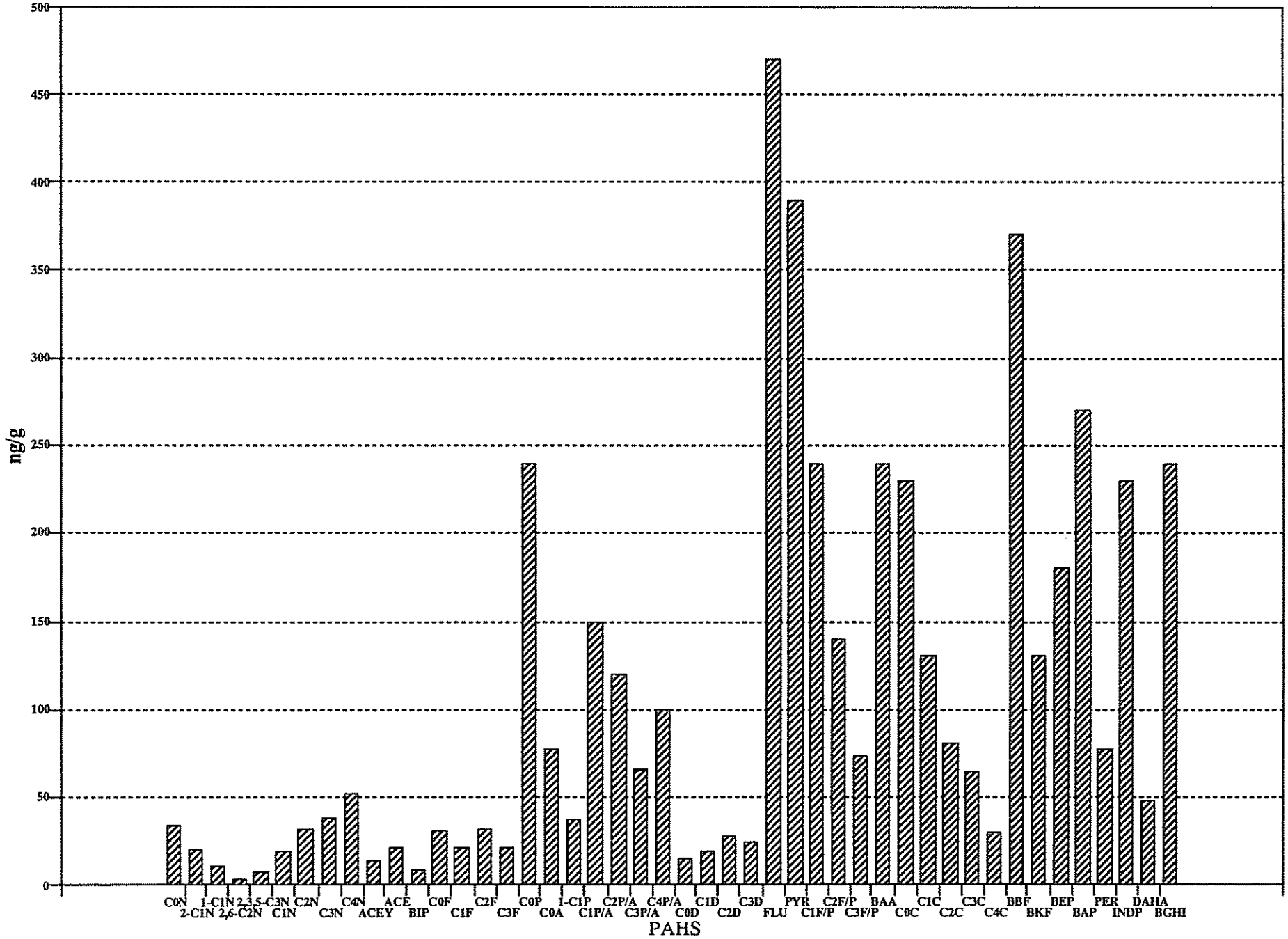



Station 6 (Lab ID MBT007)
ng/g
1000
900
800
700
600
500
400
300
200
100
0
C0N
2-C1N
1-C1N
2,6-C2N
2,3,5-C3N
C1N
C2N
C3N
C4N
ACEY
ACE
BIP
C0F
C1F
C2F
C3F
C0P
C0A
1-C1P
C1P/A
C2P/A
C3P/A
C4P/A
C0D
C1D
C2D
C3D
FLU
PYR
C1F/P
C2F/P
C3F/P
BAA
C0C
C1C
C2C
C3C
C4C
BBF
BKF
BEP
BAP
PER
INDP
DAHA
BGHI
PAHS

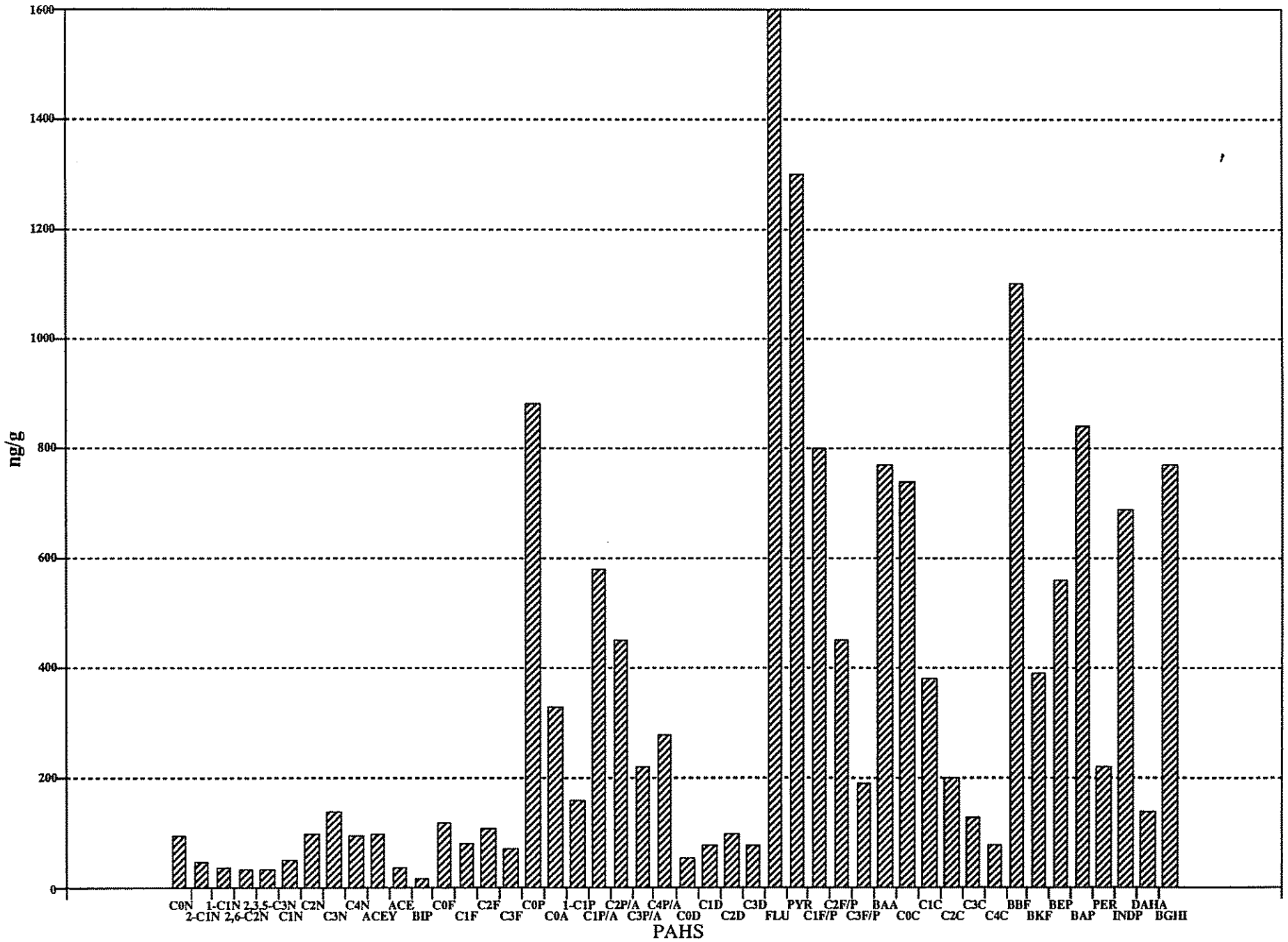
Station 7 (Lab ID MBT018)



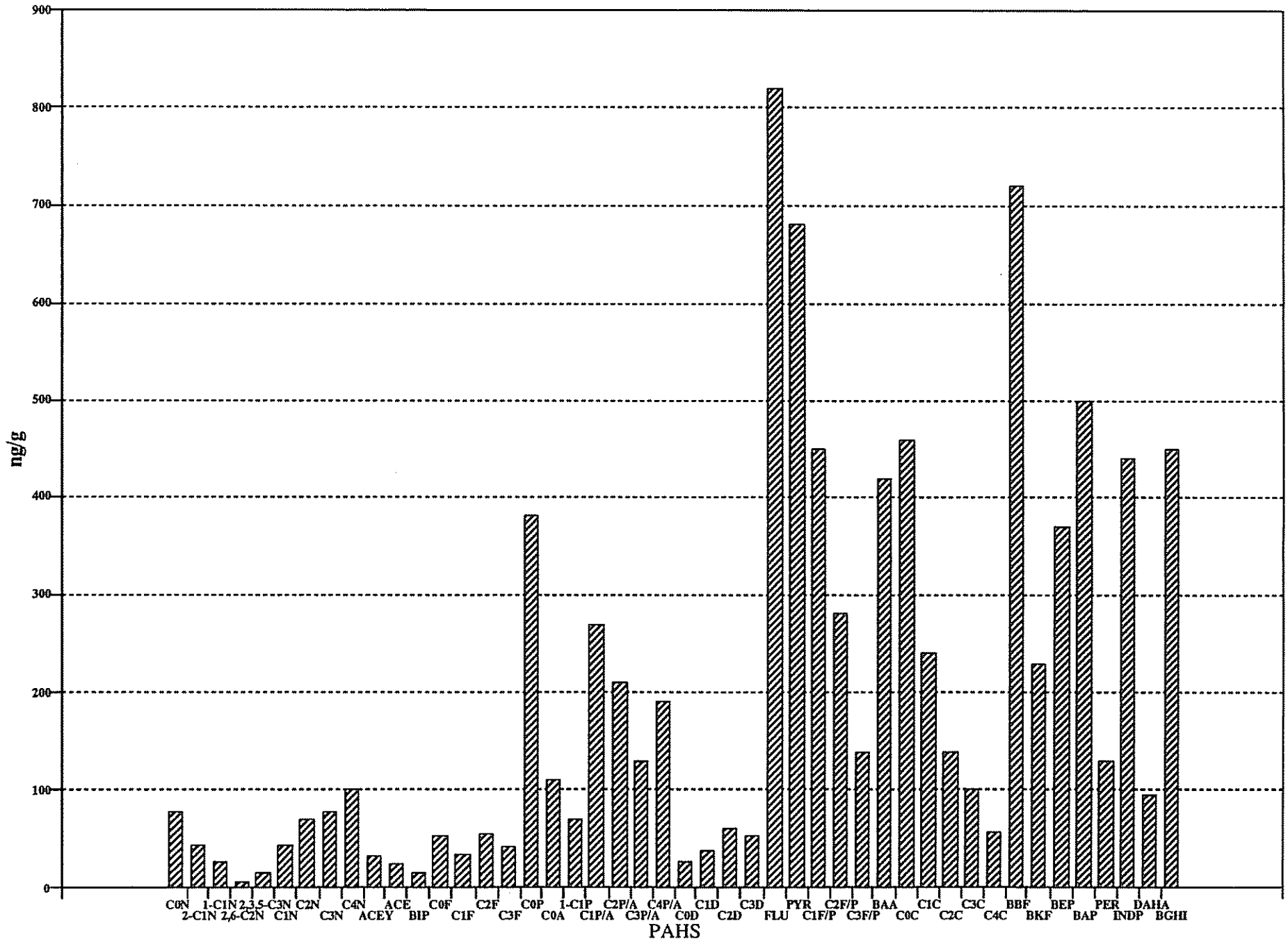
Station 8 (Lab ID MBT009)



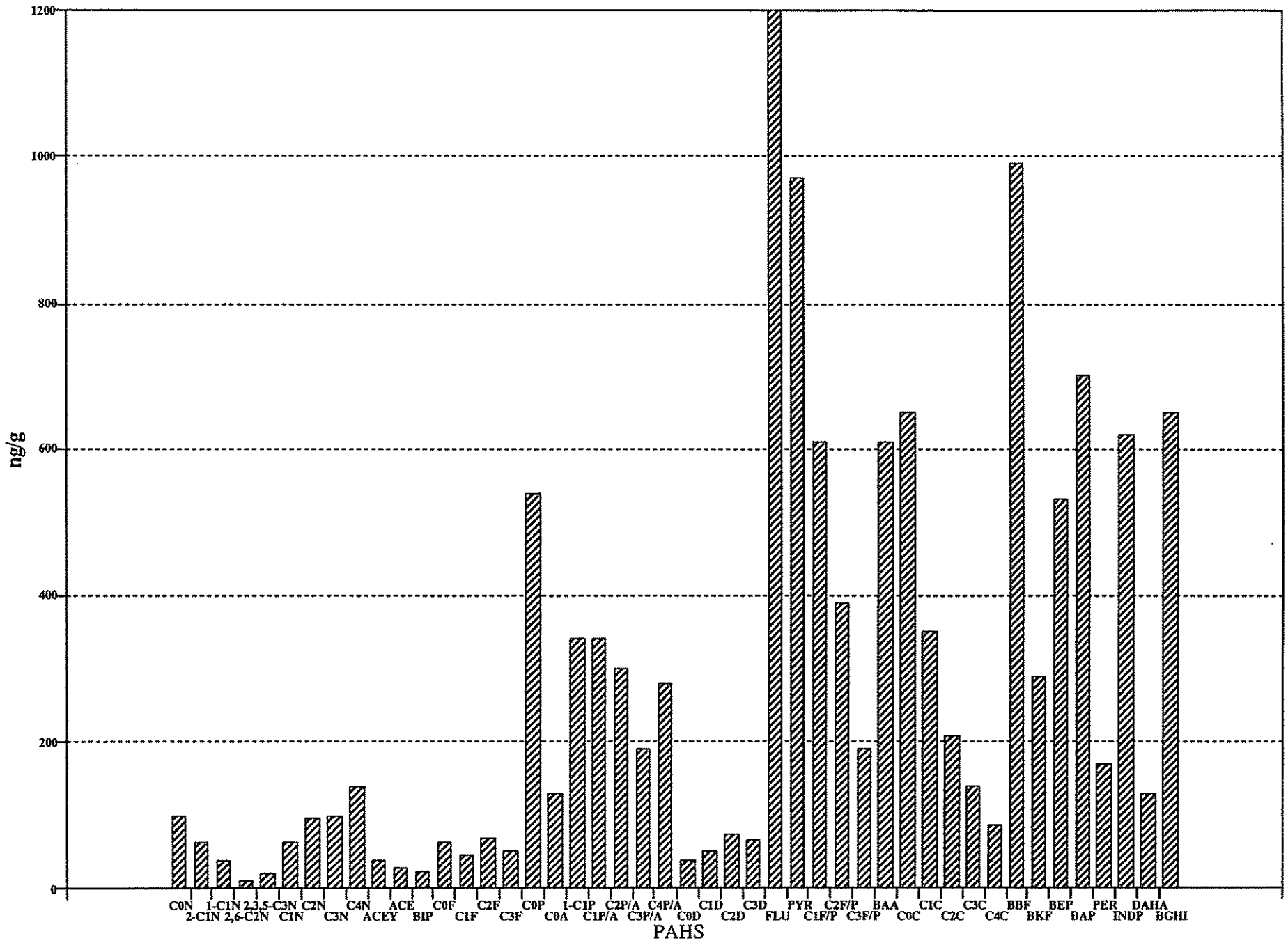
Station 9 (Lab ID MBT016)

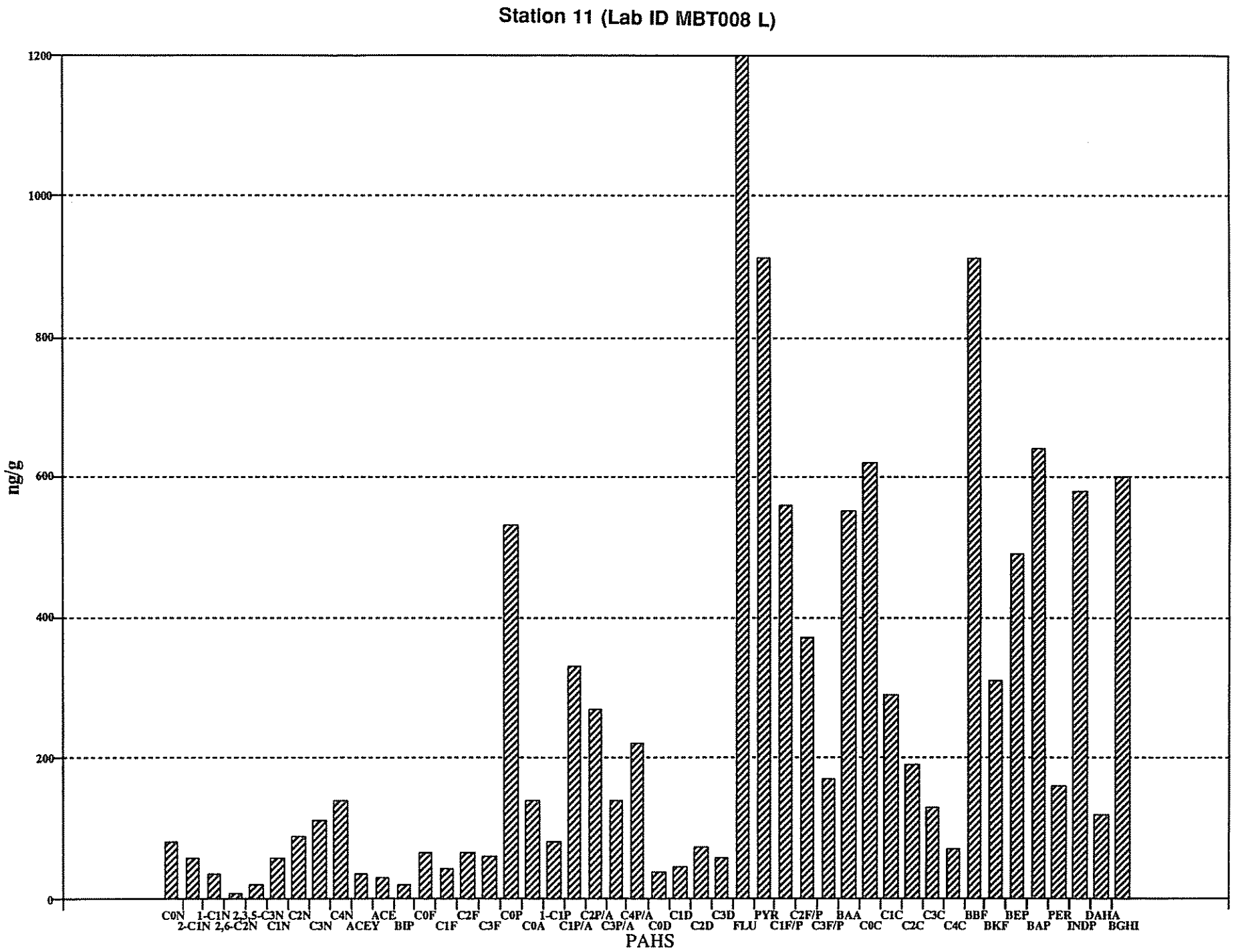


Station 10 (Lab ID MBT010)

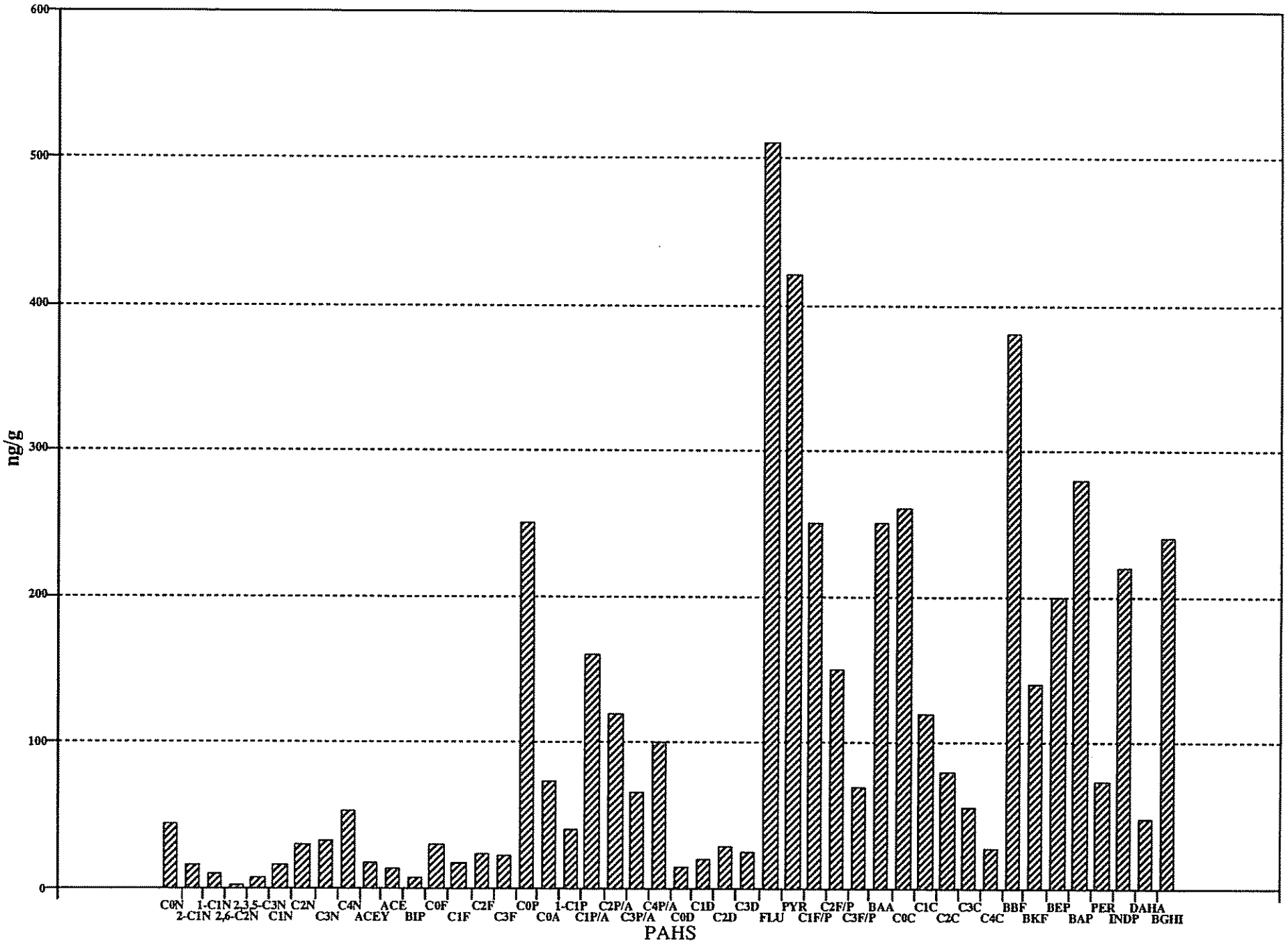


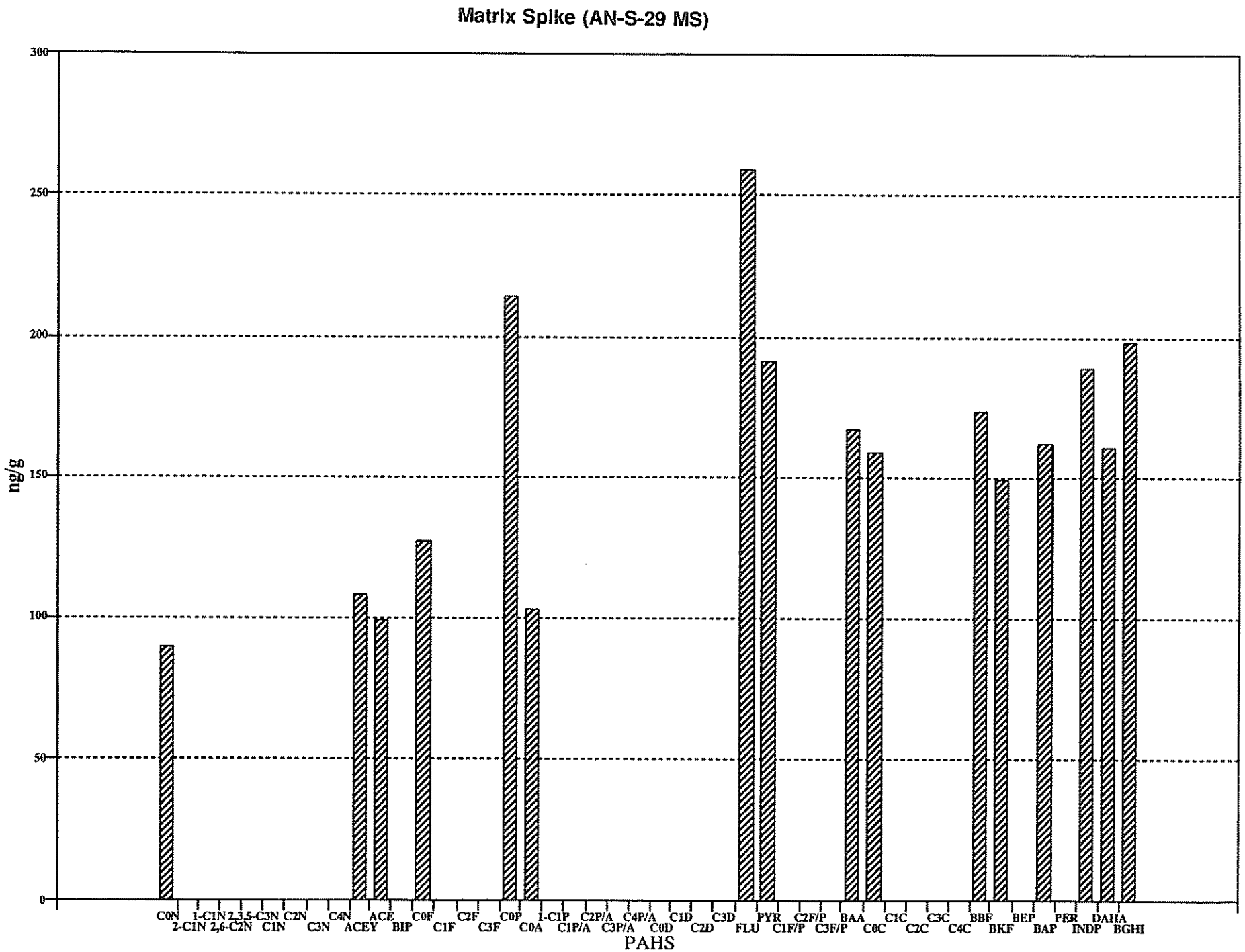
Station 11 (Lab ID MBT008)



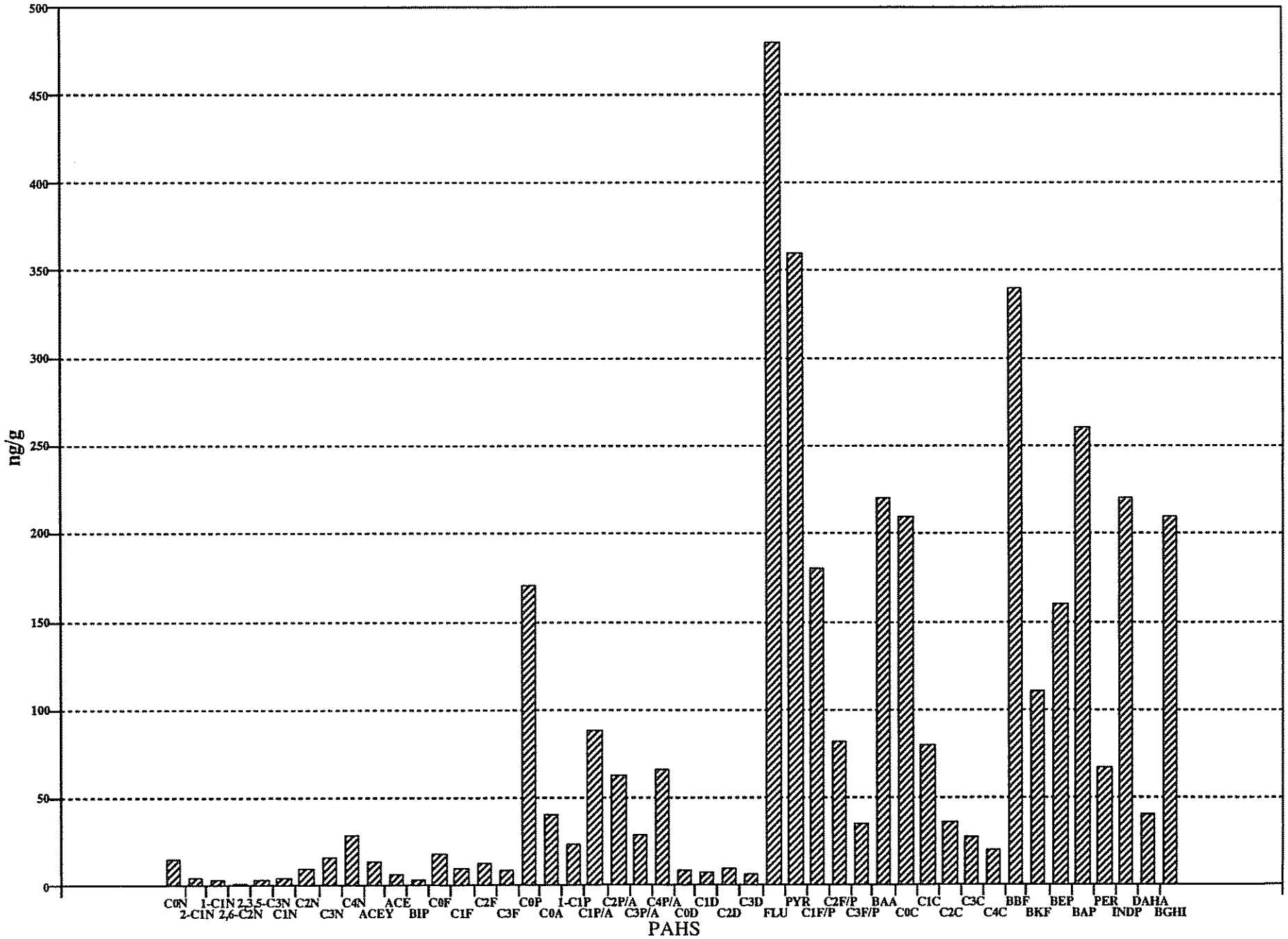

Station 11 (Lab ID MBT008 L)
ng/g
1200
1000
800
600
400
200
0
C0N
2-C1N
1-C1N
2,6-C2N
2,3,5-C3N
C1N
C2N
C3N
C4N
ACEY
ACE
BIP
C0F
C1F
C2F
C3F
C0P
C0A
1-C1P
C1P/A
C2P/A
C3P/A
C4P/A
C0D
C1D
C2D
C3D
FLU
PYR
C1F/P
C2F/P
C3F/P
BAA
C0C
C1C
C2C
C3C
C4C
BBF
BKF
BEP
BAP
PER
INDP
DAHA
BGHI
PAHS

Station 12 (Lab ID MBT015)




Matrix Spike (AN-S-29 MS)
ng/g
300
250
200
150
100
50
0
C0N
2-C1N
1-C1N
2,6-C2N
2,3,5-C3N
C1N
C2N
C3N
C4N
ACEY
ACE
BIP
C0F
C1F
C2F
C3F
C0P
C0A
1-C1P
C1P/A
C2P/A
C3P/A
C4P/A
C0D
C1D
C2D
C3D
FLU
PYR
C1F/P
C2F/P
C3F/P
BAA
C0C
C1C
C2C
C3C
C4C
BBF
BKF
BEP
BAP
PER
INDP
DAHA
BGHI
PAHS

Toxicity Reference Sediment (AN-S-30-TRS)



Appendix E

Pearson's Product Moment Correlation Coefficients (*r*) and Associated Type I Error Probabilities (*P*) Between Selected Chemical/Physical, Biological, and Toxicological Variables

Table E-1. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between infaunal density and other measured environmental variables. n=12 observations (station means) for each variable; S=significant correlation at P=0.0017, i.e., the Dunn-Sidák adjusted significance level (based on k=30 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with Infaunal Density[a]	P	Significance
DO[a]	0.595	0.041	NS
Sed Temp[a]	-0.608	0.036	NS
TOC[a]	0.267	0.401	NS
% Sand[b]	-0.653	0.021	NS
% Silt and Clay[b]	0.627	0.029	NS
TAN[a]	-0.186	0.562	NS
UAN[a]	0.205	0.523	NS
PCBs[a]	0.264	0.408	NS
Acenaphthene[a]	0.709	0.010	NS
Anthracene[a]	0.694	0.012	NS
Fluorene[a]	0.681	0.015	NS
Phenanthrene[a]	0.688	0.013	NS
Benz(a)anthracene[a]	0.675	0.016	NS
Fluoranthene[a]	0.667	0.018	NS
Pyrene[a]	0.699	0.017	NS
Σ PAHs[a]	0.677	0.016	NS
THC[a]	0.669	0.017	NS
Dieldrin[a]	0.434	0.159	NS
Chlordane[a]	0.676	0.016	NS
DDT[a]	0.860	0.000	S
DDE[a]	0.771	0.003	NS (marginal)
DDD[a]	0.624	0.030	NS
Σ DDT[a]	0.717	0.009	NS
As[a]	0.647	0.023	NS
Ag[a]	0.683	0.014	NS
Cr[a]	0.620	0.032	NS
Cu[a]	0.637	0.026	NS
Pb[a]	0.443	0.150	NS
Hg[a]	0.645	0.023	NS
Zn[a]	0.620	0.032	NS

[a]$\log_{10}$ transformed
[b]arcsine transformed

Table E-2. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between infaunal species richness and other measured environmental variables. n=12 observations (station means) for each variable; S=significant correlation at P=0.0017, i.e., the Dunn-Sidák adjusted significance level (based on k=30 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with Infaunal Species Richness[a]	P	Significance
DO[a]	0.595	0.051	NS
Sed Temp[a]	-0.534	0.074	NS
TOC[a]	0.267	0.873	NS
% Sand[b]	-0.653	0.718	NS
% Silt and Clay[b]	0.053	0.870	NS
TAN[a]	-0.141	0.663	NS
UAN[a]	-0.027	0.935	NS
PCBs[a]	-0.004	0.991	NS
Acenaphthene[a]	0.464	0.129	NS
Anthracene[a]	0.515	0.087	NS
Fluorene[a]	0.506	0.093	NS
Phenanthrene[a]	0.488	0.108	NS
Benz(a)anthracene[a]	0.443	0.149	NS
Fluoranthene[a]	0.447	0.145	NS
Pyrene[a]	0.439	0.154	NS
Σ PAHs[a]	0.433	0.159	NS
THC[a]	0.210	0.512	NS
Dieldrin[a]	0.331	0.294	NS
Chlordane[a]	0.207	0.518	NS
DDT[a]	0.546	0.066	NS
DDE[a]	0.305	0.335	NS
DDD[a]	0.280	0.379	NS
Σ DDT[a]	0.356	0.257	NS
As[a]	0.264	0.406	NS
Ag[a]	0.112	0.728	NS
Cr[a]	0.359	0.251	NS
Cu[a]	0.171	0.594	NS
Pb[a]	0.078	0.809	NS
Hg[a]	0.121	0.708	NS
Zn[a]	0.243	0.447	NS

[a]$\log_{10}$ transformed
[b]arcsine transformed

Table E-3. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between amphipod percent survival and other measured environmental variables. n=12 observations (station means) for each variable; S=significant correlation at P=0.0018, i.e., the Dunn-Sidák adjusted significance level (based on k=28 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with % Survival[c]	P	Significance
TOC[a]	-0.198	0.071	NS
% Sand[b]	-0.269	0.398	NS
% Silt and Clay[b]	0.297	0.348	NS
TAN[a]	-0.104	0.749	NS
UAN[a]	0.205	0.522	NS
PCBs[a]	0.147	0.649	NS
Acenaphthene[a]	0.300	0.344	NS
Anthracene[a]	0.317	0.315	NS
Fluorene[a]	0.297	0.349	NS
Phenanthrene[a]	0.318	0.313	NS
Benz(a)anthracene[a]	0.292	0.357	NS
Fluoranthene[a]	0.301	0.342	NS
Pyrene[a]	0.300	0.343	NS
Σ PAHs[a]	0.302	0.340	NS
THC[a]	0.350	0.264	NS
Dieldrin[a]	0.251	0.431	NS
Chlordane[a]	0.394	0.205	NS
DDT[a]	0.432	0.161	NS
DDE[a]	0.614	0.034	NS
DDD[a]	0.482	0.112	NS
Σ DDT[a]	0.522	0.082	NS
As[a]	0.395	0.204	NS
Ag[a]	0.305	0.336	NS
Cr[a]	0.481	0.114	NS
Cu[a]	0.312	0.324	NS
Pb[a]	0.088	0.785	NS
Hg[a]	0.392	0.208	NS
Zn[a]	0.297	0.349	NS

[a]$\log_{10}$ transformed
[b]arcsine transformed
[c]arcsine square-root transformed

Table E-4. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between sea urchin percent fertilization and other measured environmental variables. n=12 observations (station means) for each variable; S=significant correlation at P=0.0018, i.e., the Dunn-Sidák adjusted significance level (based on k=28 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with % Fertilization[c]	P	Significance
TOC[a]	0.265	0.405	NS
% Sand[b]	-0.756	0.004	NS (marginal)
% Silt and Clay[b]	0.689	0.013	NS
TAN[a]	-0.338	0.283	NS
UAN[a]	0.089	0.783	NS
PCBs[a]	0.724	0.008	NS
Acenaphthene[a]	0.916	0.000	S
Anthracene[a]	0.892	0.000	S
Fluorene[a]	0.901	0.000	S
Phenanthrene[a]	0.878	0.000	S
Benz(a)anthracene[a]	0.841	0.001	S
Fluoranthene[a]	0.830	0.001	S
Pyrene[a]	0.837	0.001	S
Σ PAHs[a]	0.855	0.000	S
THC[a]	0.757	0.004	NS (marginal)
Dieldrin[a]	0.298	0.348	NS
Chlordane[a]	0.890	0.000	S
DDT[a]	0.678	0.015	NS
DDE[a]	0.856	0.000	S
DDD[a]	0.918	0.000	S
Σ DDT[a]	0.938	0.000	S
As[a]	0.768	0.004	NS (marginal)
Ag[a]	0.708	0.010	NS
Cr[a]	0.897	0.000	S
Cu[a]	0.783	0.003	NS (marginal)
Pb[a]	0.631	0.028	NS
Hg[a]	0.884	0.000	S
Zn[a]	0.681	0.015	NS

[a]$\log_{10}$ transformed
[b]arcsine transformed
[c]arcsine square-root transformed

Table E-5. Pearson's product moment correlation coefficients(*r*) and Type I error probabilities (*P*) between sea urchin percent normal embryological development and other measured environmental variables. *n*=12 observations (station means) for each variable; S=significant correlation at *P*=0.0018, i.e., the Dunn-Sidák adjusted significance level (based on *k*=28 comparisons and unadjusted *P* of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with % Normal Development[c]	*P*	Significance
TOC[a]	-0.206	0.521	NS
% Sand[b]	-0.141	0.661	NS
% Silt and Clay[b]	0.093	0.774	NS
TAN[a]	-0.972	0.000	S
UAN[a]	-0.804	0.002	S
PCBs[a]	0.553	0.062	NS
Acenaphthene[a]	0.316	0.317	NS
Anthracene[a]	0.330	0.295	NS
Fluorene[a]	0.276	0.386	NS
Phenanthrene[a]	0.283	0.373	NS
Benz(a)anthracene[a]	0.252	0.429	NS
Fluoranthene[a]	0.235	0.462	NS
Pyrene[a]	0.252	0.429	NS
Σ PAHs[a]	0.255	0.425	NS
THC[a]	0.079	0.806	NS
Dieldrin[a]	-0.185	0.566	NS
Chlordane[a]	0.213	0.506	NS
DDT[a]	0.156	0.628	NS
DDE[a]	0.233	0.466	NS
DDD[a]	0.152	0.637	NS
Σ DDT[a]	0.198	0.537	NS
As[a]	-0.018	0.956	NS
Ag[a]	0.476	0.117	NS
Cr[a]	0.054	0.867	NS
Cu[a]	0.194	0.546	NS
Pb[a]	-0.106	0.743	NS
Hg[a]	0.296	0.350	NS
Zn[a]	0.092	0.777	NS

[a]$\log_{10}$ transformed
[b]arcsine transformed
[c]arcsine square-root transformed

Table E-6. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between infaunal density and other measured sediment chemistry variables (all normalized to silt & clay). n=12 observations (station means) for each variable; S=significant correlation at P=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on k=23 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with Infaunal Density[a]	P	Significance
PCBs[a]	-0.336	0.286	NS
Acenaphthene[a]	0.245	0.443	NS
Anthracene[a]	0.260	0.414	NS
Fluorene[a]	0.151	0.639	NS
Phenanthrene[a]	0.280	0.378	NS
Benz(a)anthracene[a]	0.328	0.298	NS
Fluoranthene[a]	0.292	0.356	NS
Pyrene[a]	0.320	0.311	NS
Σ PAHs[a]	0.384	0.217	NS
THC[a]	-0.741	0.006	NS
Dieldrin[a]	0.085	0.794	NS
Chlordane[a]	0.178	0.580	NS
DDT[a]	0.798	0.002	S
DDE[a]	-0.115	0.723	NS
DDD[a]	0.165	0.607	NS
Σ DDT[a]	0.353	0.260	NS
As[a]	-0.667	0.018	NS
Ag[a]	0.477	0.117	NS
Cr[a]	0.429	0.164	NS
Cu[a]	0.360	0.250	NS
Pb[a]	-0.401	0.197	NS
Hg[a]	0.451	0.141	NS
Zn[a]	0.282	0.375	NS

[a]$\log_{10}$ transformed

Table E-7. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between infaunal species richness and other measured sediment chemistry variables (all normalized to silt & clay). n=12 observations (station means) for each variable; S=significant correlation at P=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on k=23 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with Infaunal Species Richness[a]	P	Significance
PCBs[a]	-0.063	0.845	NS
Acenaphthene[a]	0.531	0.075	NS
Anthracene[a]	0.591	0.043	NS
Fluorene[a]	0.521	0.083	NS
Phenanthrene[a]	0.608	0.036	NS
Benz(a)anthracene[a]	0.571	0.052	NS
Fluoranthene[a]	0.568	0.054	NS
Pyrene[a]	0.563	0.057	NS
Σ PAHs[a]	0.577	0.049	NS
THC[a]	-0.146	0.650	NS
Dieldrin[a]	0.047	0.885	NS
Chlordane[a]	0.323	0.306	NS
DDT[a]	0.722	0.008	NS
DDE[a]	0.070	0.828	NS
DDD[a]	0.217	0.498	NS
Σ DDT[a]	0.388	0.213	NS
As[a]	0.024	0.941	NS
Ag[a]	0.363	0.246	NS
Cr[a]	0.549	0.064	NS
Cu[a]	0.178	0.580	NS
Pb[a]	-0.047	0.884	NS
Hg[a]	0.463	0.130	NS
Zn[a]	0.225	0.483	NS

[a]$\log_{10}$ transformed

Table E-8. Pearson's product moment correlation coefficients(*r*) and Type I error probabilities (*P*) between amphipod percent survival and other measured sediment chemistry variables (all normalized to silt & clay). *n*=12 observations (station means) for each variable; S=significant correlation at *P*=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on *k*=23 comparisons and unadjusted *P* of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with % Survival[b]	*P*	Significance
PCBs[a]	-0.420	0.174	NS
Acenaphthene[a]	-0.082	0.799	NS
Anthracene[a]	-0.037	0.909	NS
Fluorene[a]	-0.117	0.718	NS
Phenanthrene[a]	-0.023	0.944	NS
Benz(a)anthracene[a]	0.024	0.941	NS
Fluoranthene[a]	0.033	0.920	NS
Pyrene[a]	0.042	0.896	NS
Σ PAHs[a]	0.081	0.803	NS
THC[a]	-0.433	0.160	NS
Dieldrin[a]	-0.050	0.878	NS
Chlordane[a]	0.076	0.814	NS
DDT[a]	0.363	0.246	NS
DDE[a]	0.162	0.614	NS
DDD[a]	0.348	0.268	NS
Σ DDT[a]	0.432	0.161	NS
As[a]	-0.342	0.276	NS
Ag[a]	0.229	0.474	NS
Cr[a]	0.434	0.158	NS
Cu[a]	0.120	0.711	NS
Pb[a]	-0.509	0.091	NS
Hg[a]	0.199	0.534	NS
Zn[a]	0.019	0.953	NS

[a]$\log_{10}$ transformed
[b]arcsine square-root transformed

Table E-9. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between sea urchin percent fertilization and other measured sediment chemistry variables (all normalized to silt and clay). n=12 observations (station means) for each variable; S=significant correlation at P=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on k=23 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with % Fertilization[b]	P	Significance
PCBs[a]	-0.141	0.661	NS
Acenaphthene[a]	0.556	0.060	NS
Anthracene[a]	0.542	0.069	NS
Fluorene[a]	0.477	0.117	NS
Phenanthrene[a]	0.556	0.061	NS
Benz(a)anthracene[a]	0.557	0.050	NS
Fluoranthene[a]	0.523	0.081	NS
Pyrene[a]	0.565	0.056	NS
Σ PAHs[a]	0.642	0.024	NS
THC[a]	-0.757	0.004	NS (marginal)
Dieldrin[a]	-0.028	0.932	NS
Chlordane[a]	0.565	0.560	NS
DDT[a]	0.538	0.071	NS
DDE[a]	-0.063	0.846	NS
DDD[a]	0.566	0.055	NS
Σ DDT[a]	0.661	0.019	NS
As[a]	-0.590	0.044	NS
Ag[a]	0.727	0.007	NS
Cr[a]	0.590	0.043	NS
Cu[a]	-0.530	0.076	NS
Pb[a]	-0.253	0.428	NS
Hg[a]	0.614	0.034	NS
Zn[a]	0.241	0.450	NS

[a]$\log_{10}$ transformed
[b]arcsine square-root transformed

Table E-10. **Pearson's product moment correlation coefficients(*r*) and Type I error probabilities (*P*) between sea urchin percent normal embryological development and other measured sediment chemistry variables (all normalized to silt and clay). *n*=12 observations (station means) for each variable; S=significant correlation at *P*=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on *k*=23 comparisons and unadjusted *P* of 0.05); NS=Not Significant.**

Chemical/Physical Variable	Correlation with % Normal Development[b]	*P*	Significance
PCBs[a]	0.504	0.095	NS
Acenaphthene[a]	0.281	0.376	NS
Anthracene[a]	0.292	0.357	NS
Fluorene[a]	0.231	0.470	NS
Phenanthrene[a]	0.264	0.407	NS
Benz(a)anthracene[a]	0.245	0.444	NS
Fluoranthene[a]	0.203	0.527	NS
Pyrene[a]	0.240	0.452	NS
Σ PAHs[a]	0.260	0.415	NS
THC[a]	-0.323	0.306	NS
Dieldrin[a]	-0.485	0.110	NS
Chlordane[a]	0.209	0.514	NS
DDT[a]	0.152	0.638	NS
DDE[a]	0.137	0.671	NS
DDD[a]	-0.014	0.965	NS
Σ DDT[a]	0.165	0.608	NS
As[a]	-0.134	0.679	NS
Ag[a]	0.426	0.168	NS
Cr[a]	0.032	0.922	NS
Cu[a]	0.047	0.885	NS
Pb[a]	-0.294	0.354	NS
Hg[a]	0.503	0.096	NS
Zn[a]	-0.057	0.859	NS

[a]$\log_{10}$ transformed
[b]arcsine square-root transformed

Table E-11. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between infaunal density and other measured sediment chemistry variables (organic variables normalized to TOC; inorganic variables normalized to Al). n=12 observations (station means) for each variable; S=significant correlation at P=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on k=23 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with Infaunal Density[a]	P	Significance
PCBs[a]	0.142	0.659	NS
Acenaphthene[a]	0.689	0.013	NS
Anthracene[a]	0.684	0.014	NS
Fluorene[a]	0.645	0.023	NS
Phenanthrene[a]	0.675	0.016	NS
Benz(a)anthracene[a]	0.695	0.012	NS
Fluoranthene[a]	0.687	0.014	NS
Pyrene[a]	0.690	0.013	NS
Σ PAHs[a]	0.697	0.012	NS
THC[a]	0.446	0.146	NS
Dieldrin[a]	0.330	0.295	NS
Chlordane[a]	0.582	0.047	NS
DDT[a]	0.798	0.002	S
DDE[a]	0.380	0.223	NS
DDD[a]	0.484	0.111	NS
Σ DDT[a]	0.600	0.039	NS
As[a]	-0.769	0.003	NS (marginal)
Ag[a]	0.536	0.073	NS
Cr[a]	0.391	0.209	NS
Cu[a]	0.365	0.244	NS
Pb[a]	-0.312	0.323	NS
Hg[a]	0.629	0.029	NS
Zn[a]	0.313	0.322	NS

[a]$\log_{10}$ transformed

Table E-12. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between infaunal species richness and other measured sediment chemistry variables (organic variables normalized to TOC; inorganic variables normalized to Al). n=12 observations (station means) for each variable; S=significant correlation at P=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on k=23 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with Infaunal Species Richness[a]	P	Significance
PCBs[a]	-0.090	0.781	NS
Acenaphthene[a]	0.489	0.107	NS
Anthracene[a]	0.578	0.049	NS
Fluorene[a]	0.556	0.061	NS
Phenanthrene[a]	0.551	0.063	NS
Benz(a)anthracene[a]	0.518	0.084	NS
Fluoranthene[a]	0.530	0.076	NS
Pyrene[a]	0.520	0.083	NS
Σ PAHs[a]	0.515	0.087	NS
THC[a]	0.173	0.591	NS
Dieldrin[a]	0.163	0.612	NS
Chlordane[a]	0.171	0.594	NS
DDT[a]	0.532	0.075	NS
DDE[a]	0.155	0.630	NS
DDD[a]	0.229	0.475	NS
Σ DDT[a]	0.340	0.280	NS
As[a]	-0.373	0.233	NS
Ag[a]	0.094	0.771	NS
Cr[a]	0.310	0.326	NS
Cu[a]	0.040	0.902	NS
Pb[a]	-0.347	0.270	NS
Hg[a]	0.239	0.455	NS
Zn[a]	0.118	0.715	NS

[a]$\log_{10}$ transformed

Table E-13. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between amphipod percent survival and other measured environmental variables (organic variables normalized to TOC; inorganic variables normalized to Al). n=12 observations (station means) for each variable; S=significant correlation at P=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on k=23 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with % Survival[b]	P	Significance
PCBs[a]	0.356	0.256	NS
Acenaphthene[a]	0.374	0.231	NS
Anthracene[a]	0.412	0.183	NS
Fluorene[a]	0.386	0.215	NS
Phenanthrene[a]	0.478	0.116	NS
Benz(a)anthracene[a]	0.451	0.141	NS
Fluoranthene[a]	0.493	0.103	NS
Pyrene[a]	0.480	0.114	NS
Σ PAHs[a]	0.491	0.105	NS
THC[a]	0.651	0.022	NS
Dieldrin[a]	0.378	0.225	NS
Chlordane[a]	0.578	0.049	NS
DDT[a]	0.475	0.119	NS
DDE[a]	0.604	0.038	NS
DDD[a]	0.572	0.052	NS
Σ DDT[a]	0.636	0.026	NS
As[a]	-0.403	0.194	NS
Ag[a]	0.235	0.463	NS
Cr[a]	0.406	0.190	NS
Cu[a]	0.118	0.715	NS
Pb[a]	-0.477	0.117	NS
Hg[a]	0.508	0.091	NS
Zn[a]	0.035	0.914	NS

[a]$\log_{10}$ transformed
[b]arcsine square-root transformed

Table E-14. **Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between sea urchin percent fertilization and other measured environmental variables (organic variables normalized to TOC; inorganic variables normalized to Al). n=12 observations (station means) for each variable; S=significant correlation at P=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on k=23 comparisons and unadjusted P of 0.05); NS=Not Significant.**

Chemical/Physical Variable	Correlation with % Fertilization[b]	P	Significance
PCBs[a]	0.568	0.054	NS
Acenaphthene[a]	0.898	0.000	S
Anthracene[a]	0.896	0.000	S
Fluorene[a]	0.895	0.000	S
Phenanthrene[a]	0.907	0.000	S
Benz(a)anthracene[a]	0.888	0.000	S
Fluoranthene[a]	0.896	0.000	S
Pyrene[a]	0.898	0.000	S
Σ PAHs[a]	0.923	0.000	S
THC[a]	0.570	0.053	NS
Dieldrin[a]	0.328	0.298	NS
Chlordane[a]	0.827	0.001	S
DDT[a]	0.615	0.033	NS
DDE[a]	0.470	0.123	NS
DDD[a]	0.800	0.002	S
Σ DDT[a]	0.840	0.001	S
As[a]	-0.787	0.002	S
Ag[a]	0.634	0.027	NS
Cr[a]	0.759	0.004	NS (marginal)
Cu[a]	0.485	0.110	NS
Pb[a]	-0.106	0.744	NS
Hg[a]	0.833	0.001	S
Zn[a]	0.258	0.419	NS

[a]$\log_{10}$ transformed
[b]arcsine square-root transformed

Table E-15. Pearson's product moment correlation coefficients(r) and Type I error probabilities (P) between sea urchin percent normal embryological development and other measured environmental variables (organic variables normalized to TOC; inorganic variables normalized to Al). n=12 observations (station means) for each variable; S=significant correlation at P=0.0022, i.e., the Dunn-Sidák adjusted significance level (based on k=23 comparisons and unadjusted P of 0.05); NS=Not Significant.

Chemical/Physical Variable	Correlation with % Normal Development[b]	P	Significance
PCBs[a]	0.569	0.053	NS
Acenaphthene[a]	0.335	0.287	NS
Anthracene[a]	0.419	0.175	NS
Fluorene[a]	0.348	0.268	NS
Phenanthrene[a]	0.449	0.143	NS
Benz(a)anthracene[a]	0.395	0.203	NS
Fluoranthene[a]	0.405	0.192	NS
Pyrene[a]	0.419	0.175	NS
Σ PAHs[a]	0.441	0.152	NS
THC[a]	0.381	0.222	NS
Dieldrin[a]	-0.212	0.508	NS
Chlordane[a]	0.273	0.390	NS
DDT[a]	0.140	0.665	NS
DDE[a]	0.247	0.439	NS
DDD[a]	0.177	0.582	NS
Σ DDT[a]	0.338	0.283	NS
As[a]	-0.540	0.070	NS
Ag[a]	0.157	0.627	NS
Cr[a]	-0.074	0.820	NS
Cu[a]	-0.088	0.786	NS
Pb[a]	-0.528	0.077	NS
Hg[a]	0.295	0.352	NS
Zn[a]	-0.109	0.737	NS

[a]$\log_{10}$ transformed
[b]arcsine square-root transformed

Appendix F

Updated ER-L and ER-M Concentrations

Table F-1. No-observed-effect level and probable effects level (NOEL and PEL, respectively; MacDonald 1992[a]) and effects range-low and effects range-median (ER-L and ER-M, respectively; Long and Morgan 1990[b]; Long et al., 1995[c], in press) for key contaminants.

Contaminant	NOEL[a]	PEL[a]	ER-L[b]	ER-M[b]	ER-L[c]	ER-M[c]
PCBs (ng/g)						
Total PCBs	24	260	50	400	22.7	180
Chlorinated Pesticides (ng/g)						
Total Chlordane	-	-	0.5	6.0	-	-
Dieldrin	-	-	0.02	8	-	-
Total DDT	4 to 5	270	1.0	7.0	1.58	46.1
Total DDE	1.7	130	2.0	15.0	-	-
Total DDD	-	-	2.0	20.0	-	-
Total DDT, DDE, DDD	-	-	3.0	350	-	-
Polynuclear Aromatic Hydrocarbons (ng/g)						
Acenaphthene	22	450	150	650	16	500
Anthracene	85	740	960	960	85.3	1100
Fluorene	18	460	35	640	19	540
Naphthalene	130	1100	340	2100	160	2100
Phenanthrene	140	1200	225	1280	240	1500
Benz(a)anthracene	160	1300	230	1600	261	1600
Benzo(a)pyrene	230	1700	400	2500	430	1600
Chrysene	220	1700	400	2800	384	2800
Dibenzo(a,h)-anthracene	31	320	60	260	63.4	260
Fluoranthene	380	3200	600	3600	600	5100
Pyrene	290	1900	350	2200	665	2600
Σ PAHs	-	-	4000	35000	4022	44,792

Table F-1. No-observed-effect level and probable effects level (NOEL and PEL, respectively; MacDonald 1992[a]) and effects range-low and effects range-median (ER-L and ER-M, respectively; Long and Morgan 1990[b]; Long et al., 1995[c], in press) for key contaminants. (continued)

Contaminant	NOEL[a]	PEL[a]	ER-L[b]	ER-M[b]	ER-L[c]	ER-M[c]
Metals (µg/g)						
As	8	64	33	85	8.2	70
Cd	1	7.5	5	9	1.2	9.6
Ag	0.5	2.5	1	2.2	1.0	3.7
Sb	-	-	2	25	-	-
Cr	33	240	80	145	81	380
Cu	28	170	70	390	34	270
Pb	21	160	35	110	46.7	218
Hg	0.1	1.4	0.15	1.3	0.15	0.71
Ni	-	-	30	50	20.9	51.6
Zn	68	300	120	270	150	440