Table 3
Sediment Grain Size.
Investigators: Dr. Jong Jeel Je, Dr. Colin Levings

Site	Core Number	Depth In Core*	Gravel	Sand	Silt	Clay	Sediment Type**	mm	MZ(Phi)	Standard Deviation	Skewness	Kurtosis
B3A	5	1		10.45	48.33	41.23	sM	0.0039	7.53	2.73	-0.02	2.11
B3A	5	2		7.12	45.55	47.33	M	0.0039	7.95	2.77	-0.20	2.16
B3A	5	3	1.07	12.08	41.34	45.50	(g)sM	0.0039	7.58	3.13	-0.50	2.78
B3A	5	4	21.24	11.23	31.80	35.72	sM	0.0156	5.50	4.95	-0.44	1.90
B3A	5	5	1.37	16.63	37.96	44.03	(g)sM	0.0078	7.38	3.32	-0.36	2.35
B3A	5	6		22.76	32.41	44.83	sM	0.0078	7.44	3.36	-0.08	1.59
B3A	5	7	0.67	33.22	33.56	32.55	(g)sM	0.0156	6.37	3.42	0.19	1.88
B11	5	1		55.81	20.62	23.57	mS	0.0031	5.28	3.40	0.83	2.18
B11	5	2		57.89	20.06	22.05	mS	0.0031	5.15	3.29	0.90	2.36
B11	5	3		58.28	21.27	20.45	mS	0.0031	4.99	3.24	0.95	2.49
B11	5	4		59.33	18.81	21.85	mS	0.0031	5.08	3.35	0.94	2.39
B11	5	5		61.45	17.45	21.09	mS	0.0031	4.97	3.34	1.01	2.51
B11	5	6		62.74	18.40	18.86	mS	0.0031	4.82	3.19	1.09	2.77
B11	5	7		57.40	19.88	22.72	mS	0.0031	5.17	3.32	0.85	2.28
B38	1	1		2.97	40.25	56.78	M	0.0020	8.83	2.49	-0.26	1.75
B38	1	2		3.36	51.54	45.10	M	0.0039	7.86	2.57	0.07	1.89
B38	1	3		3.78	40.76	55.46	M	0.0020	8.64	2.49	-0.23	1.85
B38	1	4		2.86	44.13	53.02	M	0.0020	8.52	2.44	-0.10	1.82
B38	1	5		3.58	44.18	52.24	M	0.0020	8.49	2.44	-0.09	1.85
B38	1	6		3.56	45.06	51.38	M	0.0020	8.43	2.40	-0.04	1.88
B38	1	7		2.63	43.34	54.03	M	0.0020	8.57	2.41	-0.10	1.82
B41B	1	1		3.32	35.22	61.46	M	0.0020	8.92	2.33	-0.35	2.10
B41B	1	2		2.75	34.12	63.14	M	0.0020	9.03	2.30	-0.38	2.10
B41B	1	3		3.50	33.57	62.94	M	0.0020	9.02	2.37	-0.43	2.11
B41B	1	4		3.09	33.51	63.40	M	0.0020	9.11	2.37	-0.46	2.05
B41B	1	5		3.09	35.05	61.86	M	0.0020	8.96	2.37	-0.38	2.05
B41B	1	6		2.47	32.72	64.81	M	0.0020	9.14	2.32	-0.46	2.08
B41B	1	7		2.33	33.46	64.20	M	0.0020	9.14	2.29	-0.41	2.02
B48	1	1		40.81	30.92	28.27	sM	0.0016	6.14	3.21	0.66	1.93
B48	1	2		40.55	30.25	29.20	sM	0.0016	6.22	3.25	0.61	1.85
B48	1	3		43.38	29.71	26.91	sM	0.0016	5.99	3.18	0.71	2.02
B48	1	4		46.19	28.81	25.00	sM	0.0016	5.78	3.20	0.79	2.17
B48	1	5		39.45	35.66	24.89	sM	0.0016	5.94	3.01	0.72	2.21
B48	1	6		39.29	35.57	25.14	sM	0.0016	5.93	3.00	0.76	2.22
B48	1	7		46.06	31.78	22.16	sM	0.0016	5.64	3.01	0.91	2.49
B49	1	1		7.25	46.81	45.93	M	0.0039	7.95	2.64	0.01	1.82
B49	1	2		7.47	45.64	46.89	M	0.0039	8.07	2.64	-0.06	1.90
B49	1	3		7.63	49.05	43.32	M	0.0039	7.90	2.57	0.05	1.99
B49	1	4		11.11	43.64	45.25	sM	0.0039	7.91	2.85	-0.13	1.92
B49	1	5		2.72	48.19	49.09	M	0.0039	8.30	2.48	-0.03	1.91
B49	1	6		7.77	43.52	48.70	M	0.0039	8.24	2.76	-0.11	1.68
B50	4	1		96.80	3.20		S	0.2500	1.97	0.95	0.53	3.27
B50	4	2		97.43	2.57		S	0.2500	1.97	0.92	0.52	3.36
B50	4	3		96.87	3.13		S	0.2500	2.07	0.94	0.47	3.06
B50	4	4		97.06	2.94		S	0.2500	1.96	0.94	0.51	3.38
B50	4	5		97.24	2.76		S	0.2500	1.93	0.94	0.58	3.34
B50	4	6		97.30	2.70		S	0.2500	1.97	0.90	0.57	3.50
B50	4	7		97.29	2.71		S	0.2500	1.99	0.93	0.50	3.28

sM = Sandy mud; M = Mud; (g)sM = sandy mud with gravel; mS = muddy sand; S = Sand.

* each number represents 1 cm of sediment in the core. For instance, 1 = sediment from surface to 1 cm in depth, 2 = sediment 1-2 cm deep, 3= sediment 2-3 cm deep, etc.

**sediment type according to Folk, R.L., 1974. The Petrology of sedimentary rocks. Austin, Tex., USA, Hemphill Publishing, Co. 182p.

Table 4

Total organic carbon in sediment.

Investigator: Ms. Carla Stehr (analyses done by Columbia Analytical Services, Inc.)

Site	Matrix	Basis	Units	Result
B49	Sediment	Dry	PERCENT	2.04
B41B	Sediment	Dry	PERCENT	4.36
B3A	Sediment	Dry	PERCENT	3.96
B50	Sediment	Dry	PERCENT	0.20
B11B	Sediment	Dry	PERCENT	1.99
B38	Sediment	Dry	PERCENT	3.69
B48	Sediment	Dry	PERCENT	2.69
Method Blank	Sediment	Dry	PERCENT	ND

ND= not detected

One composite sample was analyzed for each site. Three sediment grabs were collected at each site, and equal amounts of sediment from each grab were combined for the composite sample.

Table 5

Polycyclic aromatic hydrocarbons in sediment from Vancouver Harbour (ng/g, dry weight).

Investigators: Ms. Jennie Bolton, Ms. Carla Stehr

Site	B3-A	B41-B	T11-B	T38	T48	T49	T50
Location	Sulfur Dock	Pt. Moody IOCO	Lonsdale Quay	Port Moody	Indian Arm	West Van Lab	Howe Sound
Dry Weight (%)	44.5%	24.0%	43.7%	28.4%	42.8%	42.0%	78.9%
naphthalene	200	260	64	440	200	62	bd
2-methylnaphthalene	110	170	94	150	120	61	bd
1-methylnaphthalene	66	95	51	82	65	43	bd
biphenyl	48	77	27	73	42	20	bd
2,5-dimethylnaphthalene	71	130	71	110	89	42	bd
acenaphthylene	19	56	10	120	39	12	bd
acenaphthene	170	37	41	37	43	20	bd
2,3,5-trimethylnaphthalene	26	43	17	39	20	25	bd
fluorene	150	88	53	74	69	42	bd
dibenzothiophene	45	29	18	27	23	12	68
phenanathrene	810	430	350	530	500	240	2.1
anthracene	360	140	90	140	110	62	bd
1-methylphenanathrene	94	75	59	76	75	43	bd
fluoranthene	1900	690	550	820	1000	340	8.6
pyrene	1700	970	550	1000	920	350	6
benz[a]anthracene	780	250	280	250	290	170	2
chrysene + triphenylene	1100	480	330	370	480	230	3.9
benzo[b]fluoranthene	710	410	300	360	460	170	2.3
benzo[j+k]fluoranthene	630	310	260	310	350	150	1.8
benzo[e]pyrene	490	350	230	320	330	140	1.7
benzo[a]pyrene	600	300	300	300	350	170	1.6
perylene	170	150	110	130	110	81	1.6
indeno[1,2,3-c,d]pyrene	340	220	210	230	240	110	bd
dibenz[a,h]anthacene	64	46	43	41	52	23	bd
benzo[g,h,i]perylene	340	270	210	290	260	130	bd
LMWAH	2200	1600	950	1900	1400	690	70
HMWAH	8800	4400	3400	4500	4800	2000	29

Table 5

Polycyclic aromatic hydrocarbons in sediment from Vancouver Harbour (ng/g, dry weight).

Investigators: Ms. Jennie Bolton, Ms. Carla Stehr

bd = below detection limits. Dectection limits vary depending on the analyte and sample weight. If detection limits are needed, please contact Carla Stehr at carla.m.stehr@noaa.gov

LMWAH = Low molecular weight aromatic hydrocarbons = naphthalene + 2-methylnaphthalene +1-methylnaphthalene + biphenyl + 2,6-dimethylnaphthalene + acenaphthylene + acenaphthene + 2,3,5-trimethylnaphthalene + fluorene + dibenzothlophene + phenanthrene + anthracene + 1-methylphenanthrene.

HMWAH = high molecular weight aromatic hydrocarbons = fluoranthene + pyrene + benz[a]anthracene + chrysene + triphenylene + benzo[b]fluoranthene + benzo[j]fluoranthene + benzo[k]fluoranthene + benzo[e]pyrene + benzo[a]pyrene + perylene + indeno[1,2,3-cd]pyrene + dibenz[a,h]anthracene + dibenz[a,c]anthracene + benzo[ghl]perylene.

Chrysene is not resolved from triphenylene using our gas chromatographic procedure. In addition, the compounds have very similar mass spectra, therefore we report their combined concentrations as Chrysene. Benzo[k]fluoranthene is not resolved from benzo[j]fluoranthene using our gas chromatographic procedure. In addition, the compounds have very similar mass spectra, therefore we report their combined concentrations as Benzo[k]fluoranthene. Dibenz[a,h]anthracene is not resolved from dibenz[a,c]anthracene using our gas chromatographic procedure. In addition, the compounds have very similar mass spectra, therefore we report their combined concentrations as Dibenz[a,h]anthracene.

Each value represents the data from the analysis of one sample. Three grabs were made at each site. Equal amounts of sediment from each grab were combined into a single sample (composite) and analyzed.

Methods are published by Sloan et al. 1993, NOS/ORCA/CMBAD Tech memo 71 Vol III. Methods include extraction with methylene chloride, high performance liquid chromatography – size exclusion chromatography clean up, and analysis by gas chromatograph/mass spectrometry using scan mode.

all analytes are reported as if two figures are significant

Table 6

Quality assurance data for polycyclic aromatic hydrocarbons in sediment (ng/g dry weight).

Investigators: Ms. Jennie Bolton, Ms. Carla Stehr

Sample #	100-1998	100-1999	100-2000	100-2006	100-2007	100-2008
SampleType	SRM 1941a	SRM 1941a	Method Blank	SRM 1941a	SRM 1941a	Method Blank
Sample Weight (g)	2.81	2.16	10.35	2.07	2.45	10.43
Dry Wt (%)	49.7	49.7	36.8	50.0	50.2	48.5
naphthalene	1100	1100	bd	1100	1100	bd
2-methylnaphthalene	360	360	bd	350	360	bd
1-methylnaphthalene	200	200	bd	200	200	bd
biphenyl	100	100	bd	110	110	bd
2,5-dimethylnaphthalene	180	170	bd	180	180	bd
acenaphthylene	59	53	bd	56	60	bd
acenaphthene	53	45	bd	43	50	bd
2,3,5-trimethylnaphthalene	72	91	bd	58	74	bd
fluorene	97	98	bd	94	110	bd
dibenzothiophene	55	54	bd	54	56	bd
phenanathrene	640	620	bd	600	620	bd
anthracene	220	220	bd	230	220	bd
1-methylphenanathrene	120	120	bd	110	110	bd
fluoranthene	1300	1300	bd	1200	1200	bd
pyrene	1100	1000	bd	980	1000	bd
benz[a]anthracene	570	530	bd	510	540	bd
chrysene + triphenylene	760	730	bd	720	750	bd
benzo[b]fluoranthene	920	870	bd	880	930	bd
benzo[j+k]fluoranthene	780	740	bd	720	720	bd
benzo[e]pyrene	700	630	bd	680	680	bd
benzo[a]pyrene	700	650	bd	650	680	bd
perylene	450	440	bd	440	450	bd
indeno[1,2,3-c,d]pyrene	610	540	bd	570	590	bd
dibenz[a,h]anthacene	110	100	bd	120	120	bd
benzo[g,h,i]perylene	620	600	bd	570	620	bd
LMWAHs	3300	3200	bd	3200	3200	bd
HMWAHs	8500	8100	bd	8000	8300	bd

nd = below detection limits. Detection limits vary depending on the analyte and sample weight. If detection limit data is needed, please contact Carla Stehr at carla.m.stehr@noaa.gov.

LMWAH = Low molecular weight aromatic hydrocarbons = naphthalene + 2-methylnaphthalene +1-methylnaphthalene + biphenyl + 2,6-dimethylnaphthalene + acenaphthylene + acenaphthene + 2,3,5-trimethylnaphthalene + fluorene + dibenzothlophene + phenanthrene + anthracene + 1-methylphenanthrene.

HMWAH = high molecular weight aromatic hydrocarbons = fluoranthene + pyrene + benz[a]anthracene + chrysene + triphenylene + benzo[b]fluoranthene +benzo[j]fluoranthene + benzo[k]fluoranthene + benzo[e]pyrene + benzo[a]pyrene + perylene + indeno[1,2,3-cd]pyrene + dibenz[a,h]anthracene + dibenz[a,c]anthracene + benzo[ghl]perylene.

Chrysene is not resolved from triphenylene using our gas chromatographic procedure. In addition, the compounds have very similar mass spectra, therefore we report their combined concentrations as Chrysene. Benzo[k]fluoranthene is not resolved from benzo[j]fluoranthene using our gas chromatographic procedure. In addition, the compounds have very similar mass spectra, therefore we report their combined concentrations as Benzo[k]fluoranthene. Dibenz[a,h]anthracene is not resolved from dibenz[a,c]anthracene using our gas chromatographic procedure. In addition, the compounds have very similar mass spectra, therefore we report their combined concentrations as Dibenz[a,h]anthracene

Table 6

Quality assurance data for polycyclic aromatic hydrocarbons in sediment (ng/g dry weight).

Investigators: Ms. Jennie Bolton, Ms. Carla Stehr

The sample weight used to calculate concentrations for the method blank is the mean sample weight calculated for the field samples in the same set.

The concentrations of naphthalene, 2-methylnaphthalene, and 1-methylnaphthalene were calculated using naphthalene-d8 as the surrogate standard; biphenyl, 2,6-dimethynaphthalene, acenaphthylene, acenaphthene, 2,3,6-trimethylnaphthalene, fluorene, dibenzothiophene, phenanthrene, anthracene, 1-methylphenanthrene, fluoranthene and pyrene were calculated using acenaphthene-d10 as the surrogate standard; benz[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[e]pyrene, benzo[a]pyrene, perylene, indenopyrene, dibenz[g,h,i]perylene were calculated using benzo[a]pyrene-d12 as the surrogate standard.

Methods are published by Sloan et al. 1993, NOS/ORCA/CMBAD Tech memo 71 Vol III. Methods include extraction with methylene chloride, high performance liquid chromatography – size exclusion chromatography clean up, and analysis by gas chromatograph/mass spectrometry using scan mode.

All analytes are reported as if two figures are significant.

Table 7

PCB (chlorobiphenyl) congeners in sediment from Vancouver Harbour (ng/g dry weight).

Investigators: Ms. Jennie Bolton and Ms. Carla Stehr

Site	B3-A	B41-B	T11-B	T38	T48	T49	T50
Location	Sulfur Dock	Port Moody IOCO	Lonsdale Quay	Port Moody	Indian Arm	West Van Lab.	Gibsons
Congener #							Howe Sound
28	0.48	0.96	bd	bd	1.5	0.56	bd
44	bd	bd	bd	bd	0.74	0.44	bd
52	bd	bd	bd	2.1	4.7	bd	bd
66	0.62	0.73	bd	bd	0.96	bd	bd
101	1.6	1.5	bd	1.9	2.7	0.37	bd
105	0.31	0.52	bd	bd	0.51	bd	bd
118	0.36	1.2	0.48	1.3	1.4	0.42	bd
128	0.37	0.5	bd	bd	0.54	0.22	bd
138/163/164	1.6	2.8	0.99	3.4	2.8	0.73	bd
153	1.9	3.4	1.3	3	2.4	0.95	bd
170/190	0.63	1	bd	1.1	0.65	0.37	bd
187	1.6	3.2	1.2	4.2	3.8	0.49	bd
195	0.83	0.67	bd	bd	0.65	0.19	bd
206	bd	bd	bd	bd	bd	bd	bd
209	1.4	0.97	bd	bd	0.48	bd	bd
Total PCBs	23	35	7.8	34	48	9.5	bd

bd = below detection limits. Detection limits vary depending on the analyte and sample weight. If detection limit data is needed, please contact Carla Stehr at carla.m.stehr@noaa.gov.

CB Numbers refer to PCB congeners as identified by the IUPAC (International Union of Pure and Applied Chemistry) number.

*PCBs 101 and 90 are not resolved by our gas chromatographic procedure, therefore we report their combined concentrations as "101". PCBs 138,163, and 164 are not resolved by our gas chromatographic procedure, therefore we report their combined concentrations as "138/163/164". PCBs 153 and 132 are not resolved by our gas chromatographic procedure, therefore we report their combined concentrations as "153". PBCs 170 and 190 are not resolved by our gas chromatographic methods, therefore we report their combined concentrations as "170/190".

The concentrations of analytes were calculated using CB103 as the surrogate standard.

The concentrations reported for "Total PCBs" is an estimate of the total PCB concentration, obtained by taking the sum of the concentrations of 17 selected congeners (CBs 18, 28, 44, 52, 95, 101, 105, 118, 128, 138, 153, 170, 180, 187,195, 206, and 209), and multiplying by 2.

Each value represents the data from the analysis of one sample. Three grabs were made at each site. Equal amounts of sediment from each grab were combined into a single sample (composite) and analyzed.

Methods are published by Sloan et al. 1993, NOS/ORCA/CMBAD Tech memo 71 Vol III. Methods include extraction with methylene chloride, high performance liquid chromatography – size exclusion chromatography clean up, and analysis by gas chromatograph/electron capture detection.

Table 8

Chlorinated pesticides in sediment from Vancouver Harbour (ng/g, dry weight).

Investigators: Ms. Jennie Bolton, Ms. Carla Stehr

Site	B3-A	B41-B	T11-B	T38	T48	T49	T50
Location	Sulfur Dock	Port Moody IOCO	Londsdale Quay	Port Moody	Indian Arm	West Van. Lab	Gibsons Howe Sound
***cis*- chlordane**	0.17	bd	bd	bd	bd	bd	bd
***trans* -chlordane**	bd	bd	bd	bd	0.36	bd	bd
heptachlor	bd	bd	bd	bd	bd	bd	bd
heptachlor epoxid	bd	bd	bd	bd	bd	bd	bd
oxychlordane	bd	bd	bd	bd	bd	bd	bd
***trans* -nonachlor**	0.13	bd	bd	bd	bd	bd	bd
***cis* -nonachlor**	bd	bd	bd	bd	bd	bd	bd
HCB	0.21	0.44	bd	0.51	2.5	0.17	bd
γ-HCH	0.18	0.57	bd	bd	bd	bd	bd
aldrin	bd	bd	bd	bd	bd	bd	bd
dieldrin	bd	0.49	bd	0.77	0.32	bd	bd
mirex	bd	bd	bd	bd	bd	bd	bd
o,p'-DDD	bd	bd	bd	bd	bd	bd	bd
o,p'-DDE	bd	bd	bd	bd	bd	bd	bd
o,p'-DDT	bd	bd	bd	bd	bd	bd	bd
p,p'-DDD	0.76	2	0.76	2	1.3	0.55	bd
p,p'-DDE	0.29	0.52	bd	bd	0.37	0.26	bd
p,p'-DDT	bd	bd	bd	bd	bd	bd	bd

bd = below detection limits. Detection limits vary depending on the analyte and sample weight. If detection limit data is needed, please contact Carla Stehr at carla.m.stehr@noaa.gov.

HCB = hexachlorobenzene; γ-HCH = gamma-hexachlorocyclohexane

Each value represents the data from the analysis of one sample. Three grabs were made at each site. Equal amounts of sediment from each grab were combined into a single sample (composite) and analyzed.

Methods are published by Sloan et al. 1993, NOS/ORCA/CMBAD Tech memo 71 Vol III. Methods include extraction with methylene chloride, high performance liquid chromatography – size exclusion chromatography clean up, and analysis by gas chromatograph/electron capture detection.

Table 9

Quality assurance data for chlorinated hydrocarbon analyses of sediment (ng/g dry weight).

Investigators: Ms. Jennie Bolton and Ms. Carla Stehr

Sample	100-1998	100-1999	100-2000	100-2006	100-2007	100-2008
Sample Type	SRM 1941a	SRM 1941a	Method Blank	SRM 1941a	SRM 1941a	Method Blank
Sample wt (g)	2.81	2.16	10.35	2.07	2.45	10.43
Dry wt (g)	49.70	49.73	36.83	49.97	50.19	48.45
CB18	NR	NR	bd	NR	NR	bd
CB28	8.4	9.7	bd	8.4	8.3	bd
CB44	6.5	6.7	1	5.5	5.3	bd
CB52	10	12	bd	11	10	bd
CB66	9.2	10	bd	9.5	9.2	bd
CB101	17	19	bd	17	17	bd
CB105	2	2.5	bd	3.2	3.2	bd
CB118	8.3	9.5	bd	8.1	8.6	bd
CB128	1.7	2	bd	1.9	1.9	bd
CB138	14	16	bd	16	15	bd
CB153	17	19	bd	20	19	bd
CB170	4.2	4.6	bd	4.3	4	bd
CB180	NR	NR	bd	NR	NR	bd
CB187	13	13	bd	14	14	bd
CB195	2.4	2.4	bd	2.7	2.6	bd
CB206	4	4.3	bd	4.6	4.6	bd
CB209	10	11	bd	12	12	bd
PCB Est. total	260	280	2	280	270	0
***cis* -chlordane**	1.8	2.1	bd	2.1	2	bd
***trans* –chlordane**	2.3	2.3	bd	2.4	2.3	bd
oxychlordane	bd	bd	bd	bd	bd	bd
heptachlor	bd	bd	bd	bd	bd	bd
heptachlor epoxide	bd	bd	bd	bd	bd	bd
***cis* -nonachlor**	0.53	0.87	bd	bd	1.1	bd
***trans* -nonachlor**	0.56	0.76	bd	0.91	0.93	bd
hexachlorobenzene	71	75	bd	74	72	bd
lindane (γ-HCH)	1.4	1.4	bd	1.3	1.3	bd
aldrin	bd	bd	1.4	bd	bd	0.96
dieldrin	2.1	2.1	bd	2.1	2.1	bd
mirex	bd	bd	0.29	bd	bd	bd
o,p'-DDD	bd	bd	bd	bd	bd	bd
o,p'-DDE	0.83	0.81	bd	bd	bd	bd
o,p'-DDT	bd	bd	bd	bd	bd	bd
p,p'-DDD	5.7	6.3	bd	6.6	6.7	bd
p,p'-DDE	4.3	4.6	bd	4.4	4.2	bd
p,p'-DDT	bd	bd	bd	bd	bd	bd

SRM = standard reference material

bd = below detection limits. Detection limits vary depending on the analyte and sample weight. If detection limit data is needed, please contact Carla Stehr at Carla.m.stehr@noaa.gov.

NR = the concentrations of these analytes could not be reported, due to an analytical interference.

Table 9

Quality assurance data for chlorinated hydrocarbon analyses of sediment (ng/g dry weight).

Investigators: Ms. Jennie Bolton and Ms. Carla Stehr

CB Numbers refer to PCB congeners as identified by the IUPAC (International Union of Pure and Applied Chemistry) number.

lindane is the same as γ-HCH; γ-HCH =gamma-hexachlordane;

*PCBs 101 and 90 are not resolved by our gas chromatographic procedure, therefore we report their combined concentrations as "101". PCBs 138,163, and 164 are not resolved by our gas chromatographic procedure, therefore we report their combined concentrations as "138". PCBs 153 and 132 are not resolved by our gas chromatographic procedure, therefore we report their combined concentrations as "153". PBCs 170 and 190 are not resolved by our gas chromatographic methods, therefore we report their combined concentrations as "170".

The concentrations of analytes were calculated using CB103 as the surrogate standard.

The concentrations reported for "PCBs Est. Total" is an estimate of the total PCB concentration, obtained by taking the sum of the concentrations of 17 selected congeners (CBs 18, 28, 44, 52, 95, 101, 105, 118, 128, 138, 153, 170, 180, 187, 195, 206, and 209), and multiplying by 2.

The sample weight used to calculate analyte concentrations for method and field blanks is the mean sample weight of all field samples (excluding field blanks) in the same sample set.

Methods are published by Sloan et al. 1993, NOS/ORCA/CMBAD Tech memo 71 Vol III. Methods include extraction with methylene chloride, high performance liquid chromatography – size exclusion chromatography clean up, and analysis by gas chromatograph/electron capture detection.

Table 10
Metals in sediment (dry weight).
Investigators: Dr. Alexander Tkalin and Dr. Tatiana Lishavskaya

Sample	Site	Al	Cu	Co	Cr	Ni	Cd	Pb	Zn	Mn	Fe	Laboratory
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
1B49	B49	65000	180.0	13.0	57.5	38.0	0.3	27.5	138	500	4.4	TINRO-Centre
2B49	B49	65000	167.5	13.0	62.5	21.0	0.3	27.5	140	500	4.4	TINRO-Centre
3B49	B49	65000	170.0	13.0	65.0	43.0	0.4	27.5	138	500	4.3	TINRO-Centre
1B11B	B11B	65000	132.5	11.0	42.5	27.5	0.5	30.0	125	500	3.8	TINRO-Centre
2B11B	B11B	65000	125.0	12.5	47.5	29.0	0.5	32.5	130	520	3.9	TINRO-Centre
3B11B	B11B	65000	112.5	12.0	47.5	24.0	0.4	25.0	120	510	3.7	TINRO-Centre
1B38	B 38	62500	127.5	12.5	55.0	30.0	0.8	62.5	165	450	4.1	TINRO-Centre
2B38	B 38	65000	127.5	12.0	57.5	27.0	0.6	65.0	170	450	4.1	TINRO-Centre
3B38	B 38	60000	125.5	11.5	57.5	30.0	0.8	70.0	165	420	4.2	TINRO-Centre
1B41B	B41B	60000	105.0	11.5	65.0	29.5	0.9	70.0	165	450	3.9	TINRO-Centre
2B41B	B41B	57500	105.0	9.5	65.0	30.0	1.2	67.5	165	450	3.7	TINRO-Centre
3B41B	B41B	60000	105.0	10.0	75.0	30.0	1.1	75.0	165	450	4.0	TINRO-Centre
1B3A	B3A	67500	400.0	13.0	50.0	30.0	1.2	77.5	375	560	3.8	TINRO-Centre
2B3A	B3A	70000	300.0	12.0	52.5	31.0	1.1	85.0	420	575	3.8	TINRO-Centre
3B3A	B3A	70000	300.0	12.0	50.0	21.5	1.2	65.0	425	625	3.8	TINRO-Centre
1B48	B48	65000	100.0	9.0	45.0	19.5	0.5	30.0	100	625	3.6	TINRO-Centre
2B48	B48	65000	95.0	9.0	47.5	19.5	0.6	30.0	130	525	3.7	TINRO-Centre
3B48	B48	62500	135.0	10.0	50.0	20.0	0.6	35.0	130	576	3.7	TINRO-Centre
1B50	B50	70000	10.0	7.5	25.0	11.5	0.2	4.0	33	450	2.4	TINRO-Centre
2B50	B50	70000	12.5	7.5	25.0	11.0	0.2	4.0	40	425	2.2	TINRO-Centre
3B50	B50	70000	10.0	7.5	25.0	11.5	0.2	4.0	33	425	2.3	TINRO-Centre
1B49	B49		168.5			49.0		38.1	139	493	4.14	PGI RAS
2B49	B49		162.1			50.5		38.2	133	491	4.15	PGI RAS
3B49	B49		164.8			50.7		38.1	143	481	3.98	PGI RAS
1B11B	B11B		116.7			40.1		33.1	133	502	3.48	PGI RAS
2B11B	B11B		121.5			36.1		39.7	126	503	3.48	PGI RAS
3B11B	B11B		110.7			31.1		39.7	129	488	3.31	PGI RAS
1B38	B38		116.9			43.2		63.1	156	432	3.99	PGI RAS
2B38	B38		118.2			40.1		66.2	159	431	3.97	PGI RAS
3B38	B38		117.4			40.3		69.4	159	431	3.97	PGI RAS
1B41B	B41B		102.4			38.8		66.2	156	403	3.64	PGI RAS
2B41B	B41B		95.5			36.4		69.4	152	386	3.47	PGI RAS
3B41B	B41B		97.3			38.2		69.7	156	388	3.49	PGI RAS
1B3A	B3A		550.1			46.5		83.0	432	529	3.82	PGI RAS
2B3A	B3A		533.5			41.1		92.8	398	511	3.60	PGI RAS
3B3A	B3A		533.5			41.1		92.0	432	529	3.82	PGI RAS
1B48	B48		92.7			30.6		34.9	123	534	3.49	PGI RAS
2B48	B48		87.6			29.5		34.8	126	519	3.32	PGI RAS
3B48	B48		106.6			33.0		42.9	129	497	3.14	PGI RAS
1B50	B50		11.3			22.9		6.6	40	459	2.49	PGI RAS
2B50	B50		11.9			22.5		6.6	40	397	2.15	PGI RAS
3B50	B50		10.9			19.5		13.2	40	408	2.15	PGI RAS
1B49	B49		179.0	16.0	2.1	39.0			131	520	3.7	POI FEB RAS
2B49	B49		138.0	14.5	2.4	36.0			122	470	3.5	POI FEB RAS
3B49	B49		154.0	12.0	2.6	38.0			111	483	2.6	POI FEB RAS
1B11B	B11B		76.0	11.5	2.2	32.0			91	379	2.1	POI FEB RAS
2B11B	B11B		100.0	14.0	2.2	31.0			106	431	2.9	POI FEB RAS
3B11B	B11B		84.0	13.5	1.6	28.0			76	477	1.9	POI FEB RAS
1B38	B38		100.0	12.0	2.2	31.0			133	392	2.4	POI FEB RAS
2B38	B38		73.0	12.0	1.7	30.0			104	340	2.3	POI FEB RAS
3B38	B38		105.0	11.5	2.9	34.0			123	379	2.5	POI FEB RAS
1B41B	B41B		74.0	10.0	3.4	31.0			114	340	2.1	POI FEB RAS
2B41B	B41B		74.0	10.0	2.2	31.0			110	366	2.1	POI FEB RAS
3B41B	B41B		72.0	9.8	3.0	27.0			89	287	2.6	POI FEB RAS
1B3A	B3A		296.0	10.5	2.1	28.0			174	392	1.7	POI FEB RAS
2B3A	B3A		330.0	10.5	2.1	24.0			199	431	2.3	POI FEB RAS
3B3A	B3A		432.0	12.0	3.2	33.0			313	549	3.1	POI FEB RAS
1B48	B48		78.0	11.0	1.8	30.0			93	477	1.9	POI FEB RAS
2B48	B48		63.0	11.5	2.2	31.0			89	520	1.9	POI FEB RAS
3B48	B48		49.0	11.0	1.8	25.0			59	327	1.8	POI FEB RAS
1B50	B50		12.0	9.8	1.3	20.0			46	455	1.7	POI FEB RAS
2B50	B50		9.0	11.0	1.9	30.0			42	418	1.6	POI FEB RAS
3B50	B50		7.0	11.0	1.8	28.0			34	346	1.5	POI FEB RAS

TINRO-Centre = Pacific Research Centre of Fisheries and Oceanography , Vladivostok, Russia
PGI FEB RAS = Pacific Geographical Institute, Far East Branch, Russian Academy of Sciences, Vladivostok, Russia
POI FEB RAS = Pacific Oceanological Institute, Far East Branch, Russian Academy of Sciences, Vladivostok, Russia

Each value is an analysis of one sediment grab. Three sediment grabs were collected at each site.