Appendix A3

List of Samples and Analyses Conducted by Hiyoshi and AXYS

Table A3.1-1 Dioxin-like PCBs and TCDD/TCDF concentrations in tissue samples; CALUX Analysis.

Sample No.	Sample Type	Sample Volume (g)	CALUX Raw Date					WHO-TEF1998			WHO-TEF2006		
			PCDDs/Fs	DL-PCBs	DXNs	LOD	LOQ	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs	DL-PCBs	DXNs
			pgCALUX-TEQ/gwet					pg-TEQ$_{(WHO1998)}$/gwet			pg-TEQ$_{(WHO2006)}$/gwet		
1	08CAM025B fishmuscle ①	5.6409	<	<	<	0.28	0.55	<	<	<	<	<	<
2	08CAM027B fishmuscle ①	7.7381	<	<	<	0.20	0.40	<	<	<	<	<	<
3	08CAM029B crab ②	8.2992	1.0	<	1.0	0.19	0.38	0.21	<	0.21	0.34	<	0.34
4	08CAM030B snail ③	9.7311	<	<	<	0.16	0.32	<	<	<	<	<	<

Sample No.	Sample type	Sample volume(fat)	CALUX Raw Date					WHO-TEF1998			WHO-TEF2006		
			PCDDs/Fs	DL-PCBs	DXNs	LOD	LOQ	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs	DL-PCBs	DXNs
			pgCALUX-TEQ/fat					pg-TEQ$_{(WHO1998)}$/gfat			pg-TEQ$_{(WHO2006)}$/gfat		
1	08CAM025B fishmuscle ①	0.56	<	<	<	49	99	<	<	<	<	<	<
2	08CAM027B fishmuscle ①	0.34	<	<	<	60	120	<	<	<	<	<	<
3	08CAM029B crab ②	1.2	85	<	85	16	32	18	<	18	29	<	29
4	08CAM030B snail ③	0.84	<	<	<	19	38	<	<	<	<	<	<

	①PCDD/Fs	②DL-PCBs	③DXNs	④PCDD/Fs	⑤DL-PCBs	⑥DXNs
Conversion factor	0.214	2.63	①＋②	0.344	2.52	④＋⑤

* "<" represent below detection limit (LOD)

** number in bracket represent the number below quantification limit and above detection limit which has been converted into DXNs

*** Average of quantified and measured toxic equivalent value and calculate standard deviation and coefficient of variation(CV) from standard curve obtained from 5 time measured adjusted standard for detection limit and create quality profile. Detection limit (LOD) should be within CV 30% and quantification limit (LOQ) should be within CV 20%

**** Guideline for quality control of dioxin environmental measurement, March 3, 2006 by Ministry of the Environment, was used to set quantification limit and detection limit as shown in the table above.

① All sample were used and homogenized and applied for the analysis

② All parts including shell were used and pestled in morter and homogenized and total of less than 10g were used.

③ Removed shell and homogenized all the meat, less than 10g

Table A 3.1-2 Dioxin-like PCBs and PCDD/PCDF concentrations in soil/sediment samples; CALUX Analysis.

Sample No.	Sample Type	Sample Volume (g)	CALUX Raw Date					WHO-TEF1998			WHO-TEF2006		
			PCDDs/Fs	DL-PCBs	DXNs	LOD	LOQ	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs	DL-PCBs	DXNs
			pgCALUX-TEQ/g					$pg\text{-}TEQ_{(WHO1998)}/g$			$pg\text{-}TEQ_{(WHO2006)}/g$		
1	08CAM001B	3.50	1.3	<	1.3	0.45	0.89	0.30	<	0.30	0.28	<	0.28
2	08CAM002B	3.50	1.5	<	1.5	0.45	0.89	0.35	<	0.35	0.32	<	0.32
3	08CAM003B	3.50	1.0	<	1.0	0.45	0.89	0.23	<	0.23	0.22	<	0.22
4	08CAM004B	3.50	<	<	<	0.45	0.89	<	<	<	<	<	<
5	08CAM005B	3.50	(0.86)	<	0.86	0.45	0.89	(0.20)	<	0.20	(0.18)	<	0.18
6	08CAM006B	3.50	1.9	<	1.9	0.45	0.89	0.43	<	0.43	0.40	<	0.40
7	08CAM007B	3.50	<	<	<	0.45	0.89	<	<	<	<	<	<
8	08CAM008B	3.50	1.2	<	1.2	0.45	0.89	0.28	<	0.28	0.26	<	0.26
9	08CAM009B	3.50	1.1	(0.56)	1.7	0.45	0.89	0.26	(1.4)	1.7	0.24	(1.5)	1.7
10	08CAM010B	3.50	2.1	(0.78)	2.9	0.45	0.89	0.48	(2.0)	2.5	0.44	(2.1)	2.5
11	08CAM011B	3.50	2.1	<	2.1	0.45	0.89	0.49	<	0.49	0.46	<	0.46
12	08CAM012B	3.50	2.2	(0.49)	2.7	0.45	0.89	0.51	(1.2)	1.7	0.47	(1.3)	1.8
13	08CAM013B	3.50	2.1	<	2.1	0.45	0.89	0.49	<	0.49	0.45	<	0.45
14	08CAM014B	3.50	1.5	<	1.5	0.45	0.89	0.35	<	0.35	0.32	<	0.32
15	08CAM015B	3.50	0.98	<	1.0	0.45	0.89	0.23	<	0.23	0.21	<	0.21
16	08CAM016B	3.50	<	<	<	0.45	0.89	<	<	<	<	<	<
17	08CAM017B	3.50	<	<	<	0.45	0.89	<	<	<	<	<	<
18	08CAM018B	3.50	1.2	<	1.2	0.45	0.89	0.29	<	0.29	0.26	<	0.26
19	08CAM019B	3.50	44	(0.76)	45	0.45	0.89	10	(1.9)	12	9.4	(2.0)	11
20	08CAM020B	3.50	6.5	<	6.5	0.45	0.89	1.5	<	1.5	1.4	<	1.4
21	08CAM021B	3.50	55	5.5	61	0.45	0.89	13	14	27	12	14	26
22	08CAM022B ①	1.13	9.1	17	26	1.4	2.8	2.1	42	44	2.0	44	46
23	08CAM023B ①	1.25	5.6	6.0	12	1.3	2.5	1.3	15	16	1.2	16	17

	①PCDD/Fs	②DL-PCBs	③DXNs	④PCDD/Fs	⑤DL-PCBs	⑥DXNs
Conversion factor	0.231	2.53	①+②	0.214	2.63	④+⑤

* "<" represent below detection limit (LOD)

** number in bracket represent the number below quantification limit and above detection limit which has been converted into DXNs

*** Average of quantified and measured toxic equivalent value and calculate standard deviation and coefficient of variation(CV) from standard curve obtained from 5 time measured adjusted standard for detection limit and create quality profile. Detection limit (LOD) should be within CV 30% and quantification limit (LOQ) should be within CV 20%

**** Guideline for quality control of dioxin environmental measurement, March 3, 2006 by Ministry of the Environment, was used to set quantification limit and detection limit as shown in the table above.

① Because there were large amount of alloy, analysis was done with less sample amount then normal.

Table A3.1-3 PCBs concentrations in tissue samples; high resolution GCMS analysis.

Client ID		08CAM029A
AXYS ID		L11831-2
Matrix		Tissue
Conc Units		pg/g
SAMPLE SIZE		10.1 g
INJECTION INFORMATION		1.0/20µL
CL1-PCB-1		0.123
CL1-PCB-2		0.136
CL1-PCB-3	NDR	0.236
CL2-PCB-4		0.587
CL2-PCB-5		0.416
CL2-PCB-6		0.351
CL2-PCB-7		0.357
CL2-PCB-8		0.323
CL2-PCB-9		0.349
CL2-PCB-10		0.338
CL2-PCB-11	NDR	1.5
CL2-PCB-12/13		0.417
CL2-PCB-14		0.381
CL2-PCB-15	NDR	0.669
CL3-PCB-16		0.193
CL3-PCB-17		0.168
CL3-PCB-30/18	NDR	0.227
CL3-PCB-19		0.212
CL3-PCB-28/20		2.95
CL3-PCB-21/33		0.166
CL3-PCB-22	NDR	0.325
CL3-PCB-23		0.171
CL3-PCB-24		0.123
CL3-PCB-25		0.151
CL3-PCB-26/29		0.168
CL3-PCB-27		0.122
CL3-PCB-31		0.495
CL3-PCB-32		0.16
CL3-PCB-34		0.176
CL3-PCB-35		0.201
CL3-PCB-36		0.177
CL3-PCB-37		1.73
CL3-PCB-38		0.186
CL3-PCB-39		0.196
CL4-PCB-41/40/71	NDR	0.237
CL4-PCB-42		0.17
CL4-PCB-43		0.194
CL4-PCB-44/47/65		2.01
CL4-PCB-45/51		0.168
CL4-PCB-46		0.191
CL4-PCB-48		0.17
CL4-PCB-69/49		0.355
CL4-PCB-50/53		0.161
CL4-PCB-52		4.72
CL4-PCB-54		0.148
CL4-PCB-55		0.148
CL4-PCB-56		1.35
CL4-PCB-57		0.139
CL4-PCB-58		0.154
CL4-PCB-59/62/75	NDR	0.176
CL4-PCB-60		4.33
CL4-PCB-61/70/74/76		9.8
CL4-PCB-63		0.343
CL4-PCB-64		1.04
CL4-PCB-66		15
CL4-PCB-67		0.131
CL4-PCB-68		0.138
CL4-PCB-72		0.131
CL4-PCB-73		0.126
CL4-PCB-77		6.73
CL4-PCB-78		0.152
CL4-PCB-79		0.328
CL4-PCB-80		0.133
CL4-PCB-81	NDR	0.506
CL5-PCB-82		0.307
CL5-PCB-83/99		53.6
CL5-PCB-84		0.292
CL5-PCB-117/116/85		20.8
CB-108/119/86/97/125/87		8.35

Client ID		08CAM029A
AXYS ID		L11831-2
Matrix		Tissue
Conc Units		pg/g
SAMPLE SIZE		10.1 g
INJECTION INFORMATION		1.0/20µL
CL5-PCB-88/91		0.713
CL5-PCB-89		0.277
CL5-PCB-113/90/101		45.3
CL5-PCB-92		5.82
L5-PCB-95/100/93/102/98		3.45
CL5-PCB-94		0.282
CL5-PCB-96		0.182
CL5-PCB-103		0.233
CL5-PCB-104		0.211
CL5-PCB-105		119
CL5-PCB-106		0.363
CL5-PCB-107/124		1.1
CL5-PCB-109		7.63
CL5-PCB-110/115		34.9
CL5-PCB-111		0.208
CL5-PCB-112		0.194
CL5-PCB-114		7.62
CL5-PCB-118		203
CL5-PCB-120	NDR	0.202
CL5-PCB-121		0.198
CL5-PCB-122		0.804
CL5-PCB-123		3.38
CL5-PCB-126	NDR	5.18
CL5-PCB-127		0.587
CL6-PCB-128/166		90.8
CL6-PCB-138/163/129/160		305
CL6-PCB-130	NDR	5.08
CL6-PCB-131		0.339
CL6-PCB-132		1.89
CL6-PCB-133		1.8
CL6-PCB-134/143		0.33
CL6-PCB-151/135/154		5.18
CL6-PCB-136		0.14
CL6-PCB-137		27.2
CL6-PCB-139/140		3.22
CL6-PCB-141		19.7
CL6-PCB-142		0.323
CL6-PCB-144	NDR	0.638
CL6-PCB-145		0.147
CL6-PCB-146		22
CL6-PCB-147/149		29.3
CL6-PCB-148		0.186
CL6-PCB-150		0.14
CL6-PCB-152		0.136
CL6-PCB-153/168		224
CL6-PCB-155		0.282
CL6-PCB-156/157		112
CL6-PCB-158		36.6
CL6-PCB-159		0.24
CL6-PCB-161		0.226
CL6-PCB-162		1.16
CL6-PCB-164		12
CL6-PCB-165		0.257
CL6-PCB-167		25.7
CL6-PCB-169		0.433
CL7-PCB-170		142
CL7-PCB-171/173		13.9
CL7-PCB-172		6.3
CL7-PCB-174		5.69
CL7-PCB-175		0.498
CL7-PCB-176		0.097
CL7-PCB-177		2.59
CL7-PCB-178		1.91
CL7-PCB-179		0.151
CL7-PCB-180/193		205
CL7-PCB-181		1.38
CL7-PCB-182		0.237
CL7-PCB-183/185		26.4
CL7-PCB-184		0.389
CL7-PCB-186		0.0571

Client ID		08CAM029A
AXYS ID		L11831-2
Matrix		Tissue
Conc Units		pg/g
SAMPLE SIZE		10.1 g
INJECTION INFORMATION		1.0/20µL
CL7-PCB-187		16.1
CL7-PCB-188		0.0499
CL7-PCB-189		5.57
CL7-PCB-190		27.7
CL7-PCB-191		3.86
CL7-PCB-192		0.0652
CL8-PCB-194		25.7
CL8-PCB-195		8.73
CL8-PCB-196		8.91
CL8-PCB-197/200		0.564
CL8-PCB-198/199		5.9
CL8-PCB-201		0.28
CL8-PCB-202		0.411
CL8-PCB-203		15.3
CL8-PCB-204		0.0495
CL8-PCB-205		1.43
CL9-PCB-206		6.42
CL9-PCB-207		0.653
CL9-PCB-208	NDR	0.47
CL10-PCB-209		0.996
13C-CL1-PCB-1		31.7
13C-CL1-PCB-3		37.507
13C-CL2-PCB-4		41.607
13C-CL2-PCB-15		51.624
13C-CL3-PCB-19		51.951
13C-CL3-PCB-37		63.469
13C-CL4-PCB-54		52.194
13C-CL4-PCB-77		82.652
13C-CL4-PCB-81		80.23
13C-CL5-PCB-104		63.637
13C-CL5-PCB-105		86.893
13C-CL5-PCB-114		80.647
13C-CL5-PCB-118		82.52
13C-CL5-PCB-123		83.279
13C-CL5-PCB-126		92.4
13C-CL6-PCB-155		68.263
13C-CL6-PCB-156/157		89.243
13C-CL6-PCB-167		89.969
13C-CL6-PCB-169		92.556
13C-CL7-PCB-170		103.108
13C-CL7-PCB-180		99.258
13C-CL7-PCB-188		74.983
13C-CL7-PCB-189		94.445
13C-CL8-PCB-202		85.189
13C-CL8-PCB-205		87.826
13C-CL9-PCB-206		86.837
13C-CL9-PCB-208		85.606
13C-CL10-PCB-209		84.765
13C-CL3-PCB-28		59.379
13C-CL5-PCB-111		83.997
13C-CL7-PCB-178		87.577
13C-CL6-PCB-153		
PCB TOTAL 68T AND 68F		
PCB MAX CONG 68T AND 68F		
% Lipid		1.26
Total Monochloro Biphenyl		0.123
Total Dichloro Biphenyl		<
Total Trichloro Biphenyl		5.18
Total Tetrachloro Biphenyl		46.1
Total Pentachloro Biphenyl		516
Total Hexachloro Biphenyl		918
Total Heptachloro Biphenyl		460
Total Octachloro Biphenyl		67.2
Total Nonachloro Biphenyl		7.07
Decachloro Biphenyl		0.996
TOTAL PCBs		2020
TEQ (WHO 2005) ND=0		0.015
TEQ (WHO 2005) ND=1/2DL		0.0404
TEQ (WHO 1998) ND=0		0.0938
TEQ (WHO 1998) ND=1/2DL		0.115

NDR = peak detected but did not meet quantification criteria
number following this flag represents the estimated maximum possible concentration

< = less than the detection limit
number following this symbol represents the detection limit
For homologue totals sums, please see the individual congener data for the detection limit.

Table A3.1-4 PCBs concentrations in soil/sediment samples; high resolution GCMS analysis.

CLIENT ID	'08CAM021A	'08CAM022A	'08CAM010A
AXYS ID	L11830-9	L11830-10 (A)	L11830-6
WORKGROUP	SOIL	SOIL	SOIL
Sample Size	10.6 g (dry)	9.89 g (dry)	10.1 g (dry)
UNITS	pg/g	pg/g	pg/g
Analysis Type	WHO Toxic[1]	USEPA 1668A[2]	WHO Toxic[1]
CL1-PCB-1		< 0.568	
CL1-PCB-2		2.76	
CL1-PCB-3		2.69	
CL2-PCB-4		29.2	
CL2-PCB-5		5.07	
CL2-PCB-6		81.2	
CL2-PCB-7		< 1.76	
CL2-PCB-8		86	
CL2-PCB-9		3.78	
CL2-PCB-10		< 1.72	
CL2-PCB-11		500	
CL2-PCB-12/13		33	
CL2-PCB-14		< 1.84	
CL2-PCB-15		197	
CL3-PCB-16		264	
CL3-PCB-17		291	
CL3-PCB-30/18		572	
CL3-PCB-19		55.6	
CL3-PCB-28/20		2110	
CL3-PCB-21/33		846	
CL3-PCB-22		712	
CL3-PCB-23		14.6	
CL3-PCB-24		9.61	
CL3-PCB-25		167	
CL3-PCB-26/29		333	
CL3-PCB-27		46.2	
CL3-PCB-31		2270	
CL3-PCB-32		277	
CL3-PCB-34		8.06	
CL3-PCB-35		38.8	
CL3-PCB-36		731	
CL3-PCB-37		745	
CL3-PCB-38		NDR 1.66	
CL3-PCB-39		32.4	
CL4-PCB-41/40/71		3940	
CL4-PCB-42		< 1.56	
CL4-PCB-43		172	
CL4-PCB-44/47/65		13400	
CL4-PCB-45/51		350	
CL4-PCB-46		124	
CL4-PCB-48		1010	
CL4-PCB-69/49		8800	
CL4-PCB-50/53		537	
CL4-PCB-52		< 1.4	
CL4-PCB-54		< 1.08	
CL4-PCB-55		< 7.82	
CL4-PCB-56		8160	
CL4-PCB-57		1940	
CL4-PCB-58		< 7.33	
CL4-PCB-59/62/75		1230	
CL4-PCB-60		7310	
CL4-PCB-61/70/74/76		59900	
CL4-PCB-63		1470	
CL4-PCB-64		7720	
CL4-PCB-66		38400	
CL4-PCB-67		678	
CL4-PCB-68		< 7.33	
CL4-PCB-72		< 7.36	
CL4-PCB-73		17200	
CL4-PCB-77	380	2390	7.03
CL4-PCB-78		< 7.35	
CL4-PCB-79		727	
CL4-PCB-80		< 7.01	
CL4-PCB-81	19	NDR 133	0.474
CL5-PCB-82		8130	
CL5-PCB-83/99		82100	
CL5-PCB-84		12100	
CL5-PCB-117/116/85		26100	
CB-108/119/86/97/125/87		46100	
CL5-PCB-88/91		9050	
CL5-PCB-89		672	
CL5-PCB-113/90/101		79300	
CL5-PCB-92		8860	
L5-PCB-95/100/93/102/98		40500	
CL5-PCB-94		156	
CL5-PCB-96		165	
CL5-PCB-103		207	
CL5-PCB-104		NDR 1.34	
CL5-PCB-105	5120	56800	113
CL5-PCB-106		8350	
CL5-PCB-107/124		< 7.21	
CL5-PCB-109		3900	
CL5-PCB-110/115		98400	
CL5-PCB-111		< 2.24	
CL5-PCB-112		< 2.2	
CL5-PCB-114	305	4820	7.43
CL5-PCB-118	11700	122000	223
CL5-PCB-120		1000	
CL5-PCB-121		< 2.27	
CL5-PCB-122		1200	
CL5-PCB-123	173	2770	4.98
CL5-PCB-126	82.5	NDR 590	1.5
CL5-PCB-127		206	
CL6-PCB-128/166		36200	
CL6-PCB-138/163/129/160		402000	
CL6-PCB-130		9170	
CL6-PCB-131		1520	
CL6-PCB-132		54000	
CL6-PCB-133		1620	
CL6-PCB-134/143		5780	
CL6-PCB-151/135/154		37000	
CL6-PCB-136		12200	
CL6-PCB-137		13300	
CL6-PCB-139/140		3770	

CLIENT ID	'08CAM021A	'08CAM022A	'08CAM010A
AXYS ID	L11830-9	L11830-10 (A)	L11830-6
WORKGROUP	SOIL	SOIL	SOIL
Sample Size	10.6 g (dry)	9.89 g (dry)	10.1 g (dry)
UNITS	pg/g	pg/g	pg/g
Analysis Type	WHO Toxic[1]	USEPA 1668A[2]	WHO Toxic[1]
CL6-PCB-141		35700	
CL6-PCB-142		< 13.7	
CL6-PCB-144		8950	
CL6-PCB-145		40	
CL6-PCB-146		21200	
CL6-PCB-147/149		126000	
CL6-PCB-148		36.9	
CL6-PCB-150		75.1	
CL6-PCB-152		48.2	
CL6-PCB-153/168		362000	
CL6-PCB-155		< 2.61	
CL6-PCB-156/157	3000	20200	29.9
CL6-PCB-158		25900	
CL6-PCB-159		1630	
CL6-PCB-161		< 9.79	
CL6-PCB-162		1390	
CL6-PCB-164		12500	
CL6-PCB-165		< 10.6	
CL6-PCB-167	1100	8010	9.52
CL6-PCB-169	< 29.2	< 130	< 0.356
CL7-PCB-170	16200	37700	26.7
CL7-PCB-171/173		10400	
CL7-PCB-172		5450	
CL7-PCB-174		34200	
CL7-PCB-175		1410	
CL7-PCB-176		4030	
CL7-PCB-177		17500	
CL7-PCB-178		6340	
CL7-PCB-179		12000	
CL7-PCB-180/193	40300	98000	51.2
CL7-PCB-181		204	
CL7-PCB-182		108	
CL7-PCB-183/185		24200	
CL7-PCB-184		< 1.91	
CL7-PCB-186		< 2.04	
CL7-PCB-187		37400	
CL7-PCB-188		19	
CL7-PCB-189	524	2140	1.17
CL7-PCB-190		7140	
CL7-PCB-191		1360	
CL7-PCB-192		< 2.23	
CL8-PCB-194		25100	
CL8-PCB-195		9720	
CL8-PCB-196		9110	
CL8-PCB-197/200		2120	
CL8-PCB-198/199		15300	
CL8-PCB-201		1630	
CL8-PCB-202		2620	
CL8-PCB-203		10300	
CL8-PCB-204		< 0.991	
CL8-PCB-205		1040	
CL9-PCB-206		2820	
CL9-PCB-207		419	
CL9-PCB-208		467	
CL10-PCB-209		63.3	
13C-CL1-PCB-1	55.56	55.215	
13C-CL1-PCB-3	65.359	57.998	
13C-CL2-PCB-4	74.359	67.723	
13C-CL2-PCB-15	99.934	94.651	
13C-CL3-PCB-19	85.368	90.924	
13C-CL3-PCB-37	105.332	111.391	
13C-CL4-PCB-54	89.568	81.729	
13C-CL4-PCB-77	94.261	121.493	
13C-CL4-PCB-81	90.039	116.723	
13C-CL5-PCB-104	87.99	80.632	
13C-CL5-PCB-105	110.082	127.533	
13C-CL5-PCB-114	124.215	124.888	
13C-CL5-PCB-118	113.239	133.657	
13C-CL5-PCB-123	123.311	122.191	
13C-CL5-PCB-126	103.729	142.036	
13C-CL6-PCB-155	74.635	55.182	
13C-CL6-PCB-156/157	76.049	53.678	
13C-CL6-PCB-167	81.171	68.797	
13C-CL6-PCB-169	87.626	76.91	
13C-CL7-PCB-170	64.045	76.474	
13C-CL7-PCB-180	67.905	67.296	
13C-CL7-PCB-188	70.034	72.401	
13C-CL7-PCB-189	110.503	149.198	
13C-CL8-PCB-202	62.964	70.021	
13C-CL8-PCB-205	89.515	90.287	
13C-CL9-PCB-206	78.717	82.818	
13C-CL9-PCB-208	77.466	80.074	
13C-CL10-PCB-209	82.03	71.552	
13C-CL3-PCB-28	99.5	87.595	
13C-CL5-PCB-111	84.215	83.665	
13C-CL7-PCB-178	82.476	67.648	
13C-CL6-PCB-153			
PCB TOTAL 68T AND 68F			
PCB MAX CONG 68T AND 68F			
% Moisture	4.2	6.06	1.41
Total Monochloro Biphenyl		5.45	
Total Dichloro Biphenyl		931	
Total Trichloro Biphenyl		9520	
Total Tetrachloro Biphenyl		175000	
Total Pentachloro Biphenyl		613000	
Total Hexachloro Biphenyl		1200000	
Total Heptachloro Biphenyl		300000	
Total Octachloro Biphenyl		76900	
Total Nonachloro Biphenyl		3710	
Decachloro Biphenyl		63.3	
TOTAL PCBs		2380000	476
TEQ (WHO 1998) ND=0	11.7	31.2	0.204
TEQ (WHO 1998) ND=1/2DL	11.9	32.2	0.206
TEQ (WHO 2005) ND=0	8.95	6.74	0.163
TEQ (WHO 2005) ND=1/2DL	9.39	9.02	0.168

NDR = peak detected but did not meet quantification criteria.

< = less than the detection limit

For homologue totals sums, please see the individual congener data for the detection limit.

[1] Analysis of WHO toxic PCBs only. Can be used to calculated 2378 TCDD toxic equivalence concentrations.

[2] Analysis of PCBs following USEPA method 1668A. Includes all 209 congeners. Also permits calcualtion of homologues, total PCB and TEQ concentrations.

Table A3.1-5 PCBs concentrations in blood samples; high resolution GCMS analysis.

CLIENT ID	'08CAM-B01	'08CAM-B02	'08CAM-B03	'08CAM-B04	'08CAM-B05	'08CAM-B06	'08CAM-B07	'08CAM-B08	'08CAM-B09	'08CAM-B10	'08CAM-B11	'08CAM-B12	'08CAM-B13	'08CAM-B14
Sample Size	0.141 g	0.158 g	0.137 g	0.119 g	0.144 g	0.134 g	0.133 g	0.165 g	0.180 g	0.181 g	0.173 g	0.139 g	0.170 g	0.112 g
UNITS	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g
Total Monochloro Biphenyl	692	<	15.5	12.8	20.4	<	22	<	<	8.81	12.5	<	<	<
Total Dichloro Biphenyl	1100	332	164	188	133	148	157	<	111	<	29.2	162	<	2550
Total Trichloro Biphenyl	3140	598	620	635	642	302	453	2900	501	342	25700	1300	822	727
Total Tetrachloro Biphenyl	5030	1630	1600	2100	1320	848	1550	4950	1510	965	14900	3270	10700	1510
Total Pentachloro Biphenyl	8340	5410	4570	4760	3460	3780	3140	7880	4780	3450	12900	11000	47900	6580
Total Hexachloro Biphenyl	13400	16000	16600	15500	14200	16900	17400	20900	18100	9090	32900	22000	79600	21000
Total Heptachloro Biphenyl	9260	9140	11600	11200	10500	13100	13800	18100	14500	6490	21100	11000	34600	20100
Total Octachloro Biphenyl	3710	2680	2710	2820	2470	2520	3410	6640	4570	2470	7900	1990	8620	4800
Total Nonachloro Biphenyl	882	<	269	<	<	<	264	199	288	<	1100	<	890	391
Decachloro Biphenyl	<	126	229	209	<	<	<	230	185	157	358		223	<
TOTAL PCBs	45600	35900	38400	37400	32700	37700	40200	61800	44500	23000	117000	50800	183000	57700
TEQ (WHO 2005) ND=0	57.4	3.55	2.32	1.48	3.59	2.59	1.95	0.214	0.139	1.75	6.29	5.46	1.38	0.205
TEQ (WHO 2005) ND=1/2DL	63.1	3.72	2.56	2.09	3.93	2.9	2.3	1.37	0.884	1.93	6.66	6	4.24	2.08
CL1-PCB-1	310	NDR 10.2	NDR 11.8	NDR 9.12	8.53	NDR 7.24	NDR 10.2	NDR 7.30	NDR 6.89	NDR 6.55	NDR 7.96	NDR 6.68	NDR 7.11	NDR 48.5
CL1-PCB-2	< 8.37	< 8.73	< 8.92	NDR 9.12	< 7.22	NDR 9.54	8.94	NDR 6.52	NDR 6.18	< 5.46	< 6.29	< 4.93	< 6.46	< 27.2
CL1-PCB-3	382	< 9.67	15.5	12.8	11.9	NDR 12.5	13.1	NDR 9.13	NDR 7.84	8.81	12.5	NDR 11.1	NDR 9.75	< 28.9
CL2-PCB-4	317	< 25.6	< 27.6	< 15.0	< 24.7	< 21.5	< 149	< 114	< 149	< 197	< 208	< 136	< 165	< 227
CL2-PCB-5	< 16.6	< 14.8	< 11.7	< 9.39	< 12.6	< 11.2	< 82.4	< 64.7	< 78.2	< 118	< 123	< 84.3	< 102	< 137
CL2-PCB-6	< 14.8	< 13.5	< 10.7	< 8.58	< 11.5	NDR 11.5	< 76.6	< 59.2	< 71.8	< 109	< 113	< 77.3	< 93.5	< 121
CL2-PCB-7	< 15.8	< 13.7	< 10.8	< 8.71	< 11.7	< 10.3	< 77.9	< 61.3	< 74.1	< 112	< 116	< 79.8	< 96.7	< 122
CL2-PCB-8	389	< 12.6	NDR 24.3	NDR 30.7	NDR 30.5	NDR 22.4	< 70.9	< 56.3	< 68.2	< 103	< 107	< 73.5	< 89.1	< 110
CL2-PCB-9	< 15.3	< 13.1	< 10.3	< 8.31	< 11.1	< 9.84	< 74.4	< 57.9	< 70.3	< 106	< 110	< 75.7	< 91.7	< 113
CL2-PCB-10	< 16.7	< 13.6	< 10.7	< 8.64	< 11.6	< 10.3	< 78.9	< 60.3	< 73.2	< 111	< 115	< 78.9	< 95.4	< 107
CL2-PCB-11	NDR 175	332	164	188	133	148	157	NDR 114	111	NDR 144	NDR 208	162	< 102	2550
CL2-PCB-12/13	< 14.7	< 14.5	< 11.5	< 9.22	< 12.4	< 10.9	< 79.5	< 65.5	< 79.1	< 120	< 124	< 85.6	< 104	< 144
CL2-PCB-14	< 14.7	< 13.7	< 10.8	< 8.71	< 11.6	< 10.3	< 75.7	< 59.7	< 72.5	< 110	< 113	< 77.9	< 94.6	< 138
CL2-PCB-15	395	< 16.0	NDR 14.6	NDR 12.8	NDR 14.0	< 11.5	NDR 13.4	< 14.9	< 10.6	< 14.6	29.2	< 10.8	< 20.7	< 144
CL3-PCB-16	NDR 12.9	< 10.1	NDR 10.9	NDR 10.5	10.4	6.25	NDR 12.1	NDR 10.2	NDR 6.89	NDR 6.04	24.7	NDR 9.22	< 9.01	< 13.3
CL3-PCB-17	NDR 14.1	9.94	12.4	NDR 9.45	NDR 11.6	NDR 9.54	15.3	NDR 10.2	NDR 6.89	NDR 6.30	20.2	NDR 7.32	< 7.64	NDR 15.4
CL3-PCB-18/30	307	NDR 20.9	21.9	23.6	20.1	NDR 22.7	NDR 28.7	NDR 36.8	13.5	17.1	80.2	15.6	NDR 16.1	NDR 35.6
CL3-PCB-19	351	< 9.39	< 6.43	NDR 6.42	< 6.83	< 5.76	NDR 7.02	< 5.58	< 5.73	< 5.51	NDR 9.56	< 4.83	< 7.88	< 12.3
CL3-PCB-20/28	868	588	558	537	536	253	351	2760	440	310	24700	1230	790	618
CL3-PCB-21/33	NDR 33.2	NDR 15.7	NDR 15.2	19.6	14.6	NDR 13.5	20.8	50.6	12.8	NDR 12.8	248	24.5	18.7	NDR 36.6
CL3-PCB-22	NDR 18.5	NDR 12.8	NDR 13.4	NDR 11.5	16.8	NDR 10.5	14.7	NDR 23.7	9.03	9.07	148	NDR 9.54	13.2	26.2
CL3-PCB-23	323	< 7.53	< 5.43	< 6.21	< 4.88	< 5.17	< 5.97	< 4.12	< 4.06	< 5.19	< 3.88	< 3.85	< 6.35	< 11.2
CL3-PCB-24	< 6.08	< 6.41	< 3.64	< 4.22	< 4.02	< 3.75	< 3.77	< 3.65	< 3.59	< 3.48	< 3.90	< 3.59	< 5.66	9.77
CL3-PCB-25	< 7.99	< 6.41	< 4.61	< 5.30	< 4.15	< 4.41	< 5.08	< 3.55	< 3.49	< 4.46	NDR 17.3	< 3.59	< 5.45	< 9.32
CL3-PCB-26/29	< 9.06	< 7.22	< 5.19	6.08	6.71	6.58	NDR 7.02	NDR 13.6	< 3.92	< 4.99	71.2	NDR 3.82	< 6.11	< 10.9
CL3-PCB-27	< 5.89	< 6.01	< 3.64	< 4.19	< 3.78	< 3.72	< 3.77	NDR 3.65	< 3.33	< 3.25	9.56	< 3.59	< 5.27	< 7.22
CL3-PCB-31	436	NDR 25.4	27.3	37.5	28.3	29.3	31.6	85	20.4	NDR 18.6	292	26.4	NDR 30.3	64.2
CL3-PCB-32	< 8.68	< 6.82	NDR 8.50	11.1	8.84	7.24	9.26	NDR 13.6	5.7	6.04	28.7	6.68	NDR 6.32	8.73
CL3-PCB-34	335	< 7.27	< 5.25	< 6.01	< 4.69	< 5.00	< 5.78	< 3.96	< 3.92	< 4.99	< 3.74	< 3.72	< 6.11	< 10.9
CL3-PCB-35	< 8.53	< 7.87	< 5.68	< 6.52	< 5.09	< 5.40	< 6.23	< 4.25	< 4.21	< 5.36	< 4.01	< 3.98	< 6.56	NDR 23.0
CL3-PCB-36	< 8.65	< 6.98	< 5.04	< 5.77	< 4.51	< 4.80	< 5.52	< 3.78	< 3.73	< 4.73	< 3.56	< 3.59	< 5.82	< 12.2
CL3-PCB-37	517	NDR 9.15	< 6.10	< 7.70	NDR 7.92	< 6.12	10.5	NDR 13.0	< 5.04	< 6.25	49.1	NDR 5.09	NDR 13.7	NDR 14.3
CL3-PCB-38	< 8.62	< 7.19	< 5.19	< 5.94	< 4.66	< 4.94	< 5.71	< 3.81	< 3.78	< 4.81	< 3.58	< 3.59	< 5.88	< 11.0
CL3-PCB-39	< 8.81	< 7.16	< 5.16	< 5.94	< 4.63	< 4.94	< 5.68	< 3.91	< 3.87	< 4.94	< 3.69	< 3.66	< 6.03	< 12.3
CL4-PCB-40/41/71	332	18	16.7	22.3	14	NDR 17.4	NDR 17.2	39.6	NDR 11.6	11.3	134	NDR 15.3	13.4	77.5
CL4-PCB-42	< 6.21	6.8	NDR 8.80	NDR 13.8	7.32	NDR 6.91	NDR 9.26	29	NDR 9.03	6.3	81.8	NDR 9.54	NDR 9.75	< 74.0
CL4-PCB-43	< 6.93	< 7.01	< 5.28	< 5.54	< 5.76	< 4.41	< 5.49	< 4.15	< 4.85	< 5.29	< 5.71	< 4.20	< 7.27	< 87.3
CL4-PCB-44/47/65	464	126	145	129	102	71.1	91	276	115	62.7	913	124	97.5	151
CL4-PCB-45/51	21.3	NDR 10.2	8.19	NDR 6.75	NDR 7.62	NDR 7.24	10.9	NDR 7.30	7.6	7.3	15.7	NDR 7.63	8.69	< 71.2
CL4-PCB-46	< 6.96	< 7.06	< 5.31	< 5.57	< 5.79	< 4.44	< 5.52	< 4.15	< 4.85	< 5.29	< 5.71	< 4.20	< 7.27	< 81.7
CL4-PCB-48	NDR 8.15	< 6.14	NDR 6.68	NDR 7.43	< 5.06	NDR 6.58	7.66	NDR 7.04	< 4.16	< 4.56	NDR 9.82	5.09	< 6.24	< 71.5
CL4-PCB-49/69	342	19.1	25.2	34.1	16.5	NDR 20.4	NDR 27.1	65.7	NDR 39.0	15.1	91.1	26.7	29.2	< 59.7
CL4-PCB-50/53	7.21	< 5.80	< 4.37	NDR 5.74	< 4.79	< 3.72	NDR 5.11	11.5	NDR 4.75	< 4.51	20.2	NDR 4.77	< 6.17	< 67.4
CL4-PCB-52	451	58.3	116	140	61.6	97.1	93.9	228	229	50.6	321	113	146	129
CL4-PCB-54	376	< 4.13	< 3.64	< 4.19	< 3.78	< 3.72	< 3.77	< 3.03	< 2.85	< 3.30	< 3.56	< 3.59	< 4.22	< 4.47
CL4-PCB-55	< 18.2	< 10.2	< 7.10	< 7.02	< 9.94	< 6.35	< 6.74	< 10.1	< 7.41	< 7.40	< 9.29	< 6.49	< 7.17	< 87.3
CL4-PCB-56	439	< 10.2	< 7.07	< 6.96	< 9.88	< 6.32	10.5	< 10.2	< 7.48	< 7.48	27.1	< 6.55	< 7.25	< 86.2
CL4-PCB-57	< 17.6	< 9.57	< 6.65	< 6.58	< 9.33	< 5.96	< 6.32	< 9.76	< 7.18	< 7.18	< 9.00	< 6.27	< 6.93	< 82.4
CL4-PCB-58	< 18.6	< 9.75	< 6.77	< 6.69	< 9.48	< 6.05	< 6.42	< 9.78	< 7.20	< 7.18	< 9.03	< 6.30	< 6.93	< 82.0
CL4-PCB-59/62/75	< 4.54	9.15	10.3	12.8	8.53	NDR 5.92	NDR 6.38	25	NDR 9.98	NDR 5.29	99.6	10.2	NDR 7.38	< 52.7
CL4-PCB-60	NDR 135	149	120	96.6	143	62.2	63.8	496	80.3	80.8	1910	199	477	NDR 111
CL4-PCB-61/70/74/76	890	774	832	1400	640	401	1100	2630	863	546	5810	2230	9040	1090
CL4-PCB-63	< 17.3	NDR 15.9	NDR 12.1	NDR 17.6	NDR 13.7	10.9	7.66	45.1	NDR 15.4	9.32	179	21.3	NDR 35.3	< 79.2
CL4-PCB-64	18.8	16.7	20	30.1	14.3	19.7	17.2	72.8	16.6	NDR 10.1	166	21.3	NDR 20.0	59
CL4-PCB-66	693	439	293	231	317	186	149	1030	195	176	5120	509	898	NDR 270
CL4-PCB-67	< 16.0	< 9.07	< 6.31	< 6.21	< 8.81	< 5.63	< 5.97	< 8.76	< 6.42	< 6.42	< 8.07	< 5.63	< 6.22	< 74.0
CL4-PCB-68	NDR 21.3	14.6	17.9	NDR 7.43	NDR 9.75	NDR 6.58	NDR 8.94	NDR 13.3	< 7.20	< 7.18	NDR 36.1	12.4	NDR 11.3	< 83.4
CL4-PCB-72	< 17.3	< 9.18	< 6.37	< 6.28	< 8.93	< 5.69	< 6.07	< 9.18	< 6.75	< 6.72	< 8.44	< 5.88	< 6.51	< 81.7
CL4-PCB-73	< 4.67	< 4.60	< 3.64	< 4.19	< 3.78	< 3.72	< 3.77	< 3.03	NDR 5.23	< 3.48	< 3.77	< 3.59	< 4.77	< 53.4
CL4-PCB-77	514	< 11.9	< 7.86	< 8.24	< 10.8	< 7.11	< 7.37	NDR 13.8	< 9.24	< 8.81	NDR 13.0	< 8.30	19.2	NDR 22.7
CL4-PCB-78	< 17.0	< 9.83	< 6.83	< 6.75	< 9.57	< 6.12	< 6.48	< 10.0	< 7.37	< 7.35	< 9.24	< 6.42	NDR 14.2	< 86.6
CL4-PCB-79	< 14.6	< 8.45	< 5.86	< 5.77	< 8.20	< 5.23	< 5.55	< 8.35	< 6.13	< 6.12	< 7.70	< 5.38	< 5.93	< 73.3
CL4-PCB-80	< 16.1	< 8.76	< 6.10	< 6.01	< 8.53	< 5.43	< 5.78	< 8.82	< 6.49	< 6.47	< 8.12	< 5.66	< 6.24	< 74.0
CL4-PCB-81	486	< 11.4	< 7.77	< 7.83	< 11.1	< 7.07	< 7.41	< 12.4	< 9.08	< 9.12	13	< 8.17	< 8.80	< 96.7
CL5-PCB-82	NDR 9.40	< 7.58	< 5.80	< 5.60	< 6.07	< 5.49	< 6.13	14.1	< 5.66	< 5.29	NDR 9.56	< 5.03	< 7.72	NDR 14.0
CL5-PCB-83/99	1410	1310	1010	1150	667	642	798	1740	1190	808	3030	2040	9270	1650
CL5-PCB-84	< 9.69	NDR 8.89	NDR 13.7	NDR 10.5	< 5.97	12.2	NDR 7.66	21.7	NDR 6.65	< 5.57	17.8	NDR 8.91	NDR 10.0	NDR 15.4
CL5-PCB-85/116/117	NDR 66.1	91.5	103	95.2	53.3	65.5	NDR 58.7	145	110	52.4	167	151	711	127
CB-86/87/97/108/119/125	423	52	NDR 60.7	54.7	39.9	45.4	48.2	91.8	39.4	NDR 25.9	82.6	55	56.4	85.9
CL5-PCB-88/91	< 8.90	< 6.61	NDR 9.71	NDR 6.42	< 5.30	7.24	NDR 8.30	NDR 15.1	< 5.23	< 4.89	NDR 13.3	7.63	< 7.14	NDR 8.73
CL5-PCB-89	< 9.21	< 6.98	< 5.34	< 5.20	< 5.61	< 5.07	< 5.65	< 4.23	< 5.51	< 5.16	< 6.05	< 4.93	< 7.54	NDR 5.24
CL5-PCB-90/101/113	464	110	229	167	93.3	152	NDR 96.7	318	178	91.9	281	212	356	198
CL5-PCB-92	50.5	35.6	NDR 75.0	58.1	31.1	56.9	33.8	107	74.8	32.5	104	77.6	204	62.5
CL5-PCB-93/95/98/100/102	448	NDR 63.3	132	102	60	91.1	NDR 61.3	214	132	56.7	177	122	128	142
CL5-PCB-94	< 9.78	< 7.29	< 5.58	< 5.40	< 5.85	< 5.30	< 5.87	< 4.38	< 5.73	< 5.36	< 6.29	< 5.12	< 7.83	< 4.47
CL5-PCB-96	< 3.67	< 4.84	< 4.31	< 4.19	< 3.84	< 4.11	< 4.18	< 3.39	< 4.32	< 4.71	< 4.30	< 3.59	< 6.27	< 4.47
CL5-PCB-103	< 8.06	< 5.88	< 4.49	< 4.36	< 4.72	< 4.28	< 4.76	< 3.55	< 4.61	< 4.33	< 5.07	< 4.13	< 6.32	NDR 4.54
CL5-PCB-104	258	< 4.18	< 3.70	< 4.19	< 3.51	< 3.72	< 3.77	< 3.03	< 3.68	< 4.13	< 3.72	< 3.59	< 5.11	< 4.47
CL5-PCB-105	1070	782	637	577	543	582	393	1140	620	519	1770	1770	6560	974
CL5-PCB-106	< 12.4	< 10.3	< 7.56	< 6.72	< 7.89	< 5.86	< 9.00	< 10.6	< 7.20	< 5.69	< 14.2	< 11.9	< 32.7	< 12.7
CL5-PCB-107/124	< 13.4	< 11.0	< 8.07	< 7.16	< 8.44	< 6.28	< 9.61	< 11.4	< 7.70	< 6.07	< 15.2	< 12.7	< 35.0	< 13.0
CL5-PCB-109	48.9	NDR 63.3	56.8	32.1	29.9	NDR 45.1	28.1	NDR 81.4	32.1	38	128	109	300	49.6
CL5-PCB-110/115	461	127	156	130	80.5	81.6	75.7	219	101	72.5	240	177	306	NDR 206
CL5-PCB-111	< 6.36	< 5.12	NDR 8.50	NDR 8.10	4.57	NDR 6.25	NDR 6.38	7.83	NDR 6.42	NDR 4.53	13	7	NDR 12.1	NDR 12.2
CL5-PCB-112	< 6.21	< 4.97	< 3.79	< 4.19	< 3.99	< 3.72	< 4.02	< 3.03	< 3.56	< 3.35	< 3.90	< 3.59	< 4.87	< 4.47
CL5-PCB-114	480	128	93.2	157	70.1	75.3	209	207	145	75.5	372	202	1330	176
CL5-PCB-118	2270	2670	2120	2220	1720	1940	1510	3600	2110	1670	6320	5950	28200	3070
CL5-PCB-120	< 6.05	< 4.84	9.41	NDR 5.06	< 3.87	NDR 6.25	< 3.89	NDR 9.13	< 3.54	NDR 4.53	NDR 16.5	8.91	NDR 14.5	NDR 6.28
CL5-PCB-121	NDR 7.52	6.54	NDR 6.37	NDR 5.06	NDR 4.88	5.26	< 4.02	NDR 7.56	7.6	5.54	NDR 8.23	< 3.59	6.85	NDR 8.38
CL5-PCB-122	< 13.6	< 11.6	< 8.47	< 7.53	< 8.87	< 6.58	< 10.1	< 12.1	< 8.17	< 6.47	< 16.1	< 13.5	< 37.1	< 14.2
CL5-PCB-123	389	50.5	NDR 35.8	NDR 32.8	27.1	NDR 28.0	22.3	57.6	31.1	NDR 31.0	115	85.2	385	46.4
CL5-PCB-126	570	34	21.9	13.5	34.7	24.7	18.2	NDR 26.1	NDR 16.9	16.6	59.2	51.5	NDR 61.9	NDR 27.9
CL5-PCB-127	< 12.5	11	< 7.77	< 6.92	9.14	< 6.05	< 9.29	< 10.9	10.7	7.05	< 14.5	< 12.1	86.7	< 13.6
CL6-PCB-128/166	NDR 106	301	296	NDR 271	286	204	218	287	235	136	385	366	522	299
CL6-PCB-129/138/160/163	4390	5540	5680	5880	5120	6120	5840	7150	6440	3320	11200	8680	31100	8170
CL6-PCB-130	155	169	184	209	109	156	169	256	290	117	319	NDR 238	1360	NDR 269
CL6-PCB-131	< 40.4	< 9.46	< 8.01	< 54.0	< 9.54	< 7.11	< 9.13	< 15.0	< 8.36	< 6.90	< 11.9	< 47.4	< 48.2	< 96.7
CL6-PCB-132	< 42.6	30.6	66.8	< 55.7	21	NDR 27.3	NDR 17.2	NDR 62.9	34.2	13.6	48.1	< 49.6	< 50.6	< 102
CL6-PCB-133	NDR 62.1	98	107	87.1	78.3	81.6	135	147	129	64.2	215	NDR 141	466	134

NDR = peak detected but did not meet quantification criteria.

< = less than the detection limit

For homologue totals sums, please see the individual congener data for the detection limit.

Number following this flag represents the estimated maximum possible concentration

Number following this symbol represents the detection limit

Table A3.1-5 (Cont'd.)

CLIENT ID	'08CAM-B01	'08CAM-B02	'08CAM-B03	'08CAM-B04	'08CAM-B05	'08CAM-B06	'08CAM-B07	'08CAM-B08	'08CAM-B09	'08CAM-B10	'08CAM-B11	'08CAM-B12	'08CAM-B13	'08CAM-B14
Sample Size	0.141 g	0.158 g	0.137 g	0.119 g	0.144 g	0.134 g	0.133 g	0.165 g	0.180 g	0.181 g	0.173 g	0.139 g	0.170 g	0.112 g
UNITS	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g	pg/g
CL6-PCB-134/143	< 40.4	< 9.23	< 7.80	< 54.7	< 9.33	< 6.94	< 8.91	< 14.8	< 8.27	< 6.82	< 11.7	< 48.0	< 49.0	< 98.4
CL6-PCB-135/151/154	476	149	276	NDR 188	99.1	114	75.3	271	143	99.5	NDR 233	NDR 284	NDR 229	NDR 228
CL6-PCB-136	< 20.8	NDR 5.75	NDR 13.1	< 47.9	NDR 4.57	NDR 5.59	NDR 7.98	13.3	6.42	< 5.44	NDR 10.1	< 34.0	< 36.6	< 56.9
CL6-PCB-137	NDR 222	285	221	NDR 292	183	183	309	373	321	189	690	NDR 385	2000	NDR 366
CL6-PCB-139/140	< 37.6	20.1	NDR 17.3	< 49.6	NDR 9.45	12.2	11.2	NDR 19.6	18.3	NDR 9.57	34.2	NDR 51.5	NDR 96.2	< 87.6
CL6-PCB-141	NDR 53.9	71.9	80.7	< 50.3	< 8.47	NDR 48.0	< 8.11	NDR 92.1	< 7.32	< 6.04	136	NDR 115	< 44.5	NDR 203
CL6-PCB-142	< 39.8	< 9.02	< 7.62	< 55.0	< 9.11	< 6.78	< 8.68	< 14.2	< 7.94	< 6.57	< 11.3	< 48.7	< 49.5	< 99.8
CL6-PCB-144	< 28.2	< 6.64	NDR 6.98	< 59.1	< 5.36	< 5.43	< 6.03	8.09	< 5.11	< 6.72	< 6.08	< 44.8	< 48.0	< 74.3
CL6-PCB-145	< 22.4	< 5.39	< 4.89	< 50.0	< 4.36	< 4.41	< 4.88	< 4.64	< 4.23	< 5.57	< 5.02	< 36.3	< 39.0	< 60.4
CL6-PCB-146	715	1120	1170	1010	823	1050	1070	1260	1240	531	1780	1160	4320	NDR 1350
CL6-PCB-147/149	NDR 433	93.9	168	121	57.9	69.8	58.7	130	95.3	46.6	125	157	NDR 251	NDR 150
CL6-PCB-148	< 28.9	< 6.67	< 6.01	< 62.5	< 5.36	< 5.46	< 6.03	< 5.74	< 5.23	< 6.90	< 6.21	< 46.1	< 49.3	< 76.4
CL6-PCB-150	< 21.6	< 4.99	< 4.49	< 47.6	< 4.02	< 4.08	< 4.53	< 4.33	< 3.97	< 5.21	< 4.70	< 35.9	< 38.5	< 59.7
CL6-PCB-152	< 19.9	< 5.02	< 4.52	< 45.9	< 4.02	< 4.11	< 4.53	< 4.51	< 4.11	< 5.41	< 4.89	< 33.1	< 35.3	< 54.8
CL6-PCB-153/168	5140	6410	6860	6520	5760	7400	7220	8660	7220	3630	14000	9060	29800	10100
CL6-PCB-155	197	NDR 8.37	4.86	< 4.19	< 3.47	< 3.72	< 3.77	< 3.03	< 2.90	NDR 5.04	< 3.42	< 3.59	NDR 9.22	< 4.47
CL6-PCB-156/157	1760	1100	950	1140	1090	997	1800	1730	1420	612	3000	1600	7270	1850
CL6-PCB-158	NDR 109	200	217	156	251	169	139	220	181	124	300	417	501	NDR 175
CL6-PCB-159	< 28.2	< 6.33	8.19	< 37.5	< 6.40	< 4.77	< 6.10	< 9.68	< 5.42	< 4.46	< 7.67	< 32.1	< 32.7	< 65.3
CL6-PCB-161	< 29.0	< 6.27	< 5.31	< 37.8	< 6.34	< 4.74	< 6.07	< 9.55	< 5.35	< 4.41	< 7.57	< 31.7	< 32.4	< 64.9
CL6-PCB-162	< 28.4	12	NDR 8.19	< 39.5	< 6.80	NDR 5.92	< 6.48	< 10.2	< 5.70	10.1	NDR 21.0	< 34.4	< 35.0	< 70.2
CL6-PCB-164	< 28.0	38.2	51.9	53.3	NDR 18.6	NDR 27.0	9.9	39.6	< 5.58	< 4.61	NDR 49.9	NDR 44.8	NDR 34.8	< 67.4
CL6-PCB-165	< 32.6	< 7.11	NDR 6.68	< 41.9	< 7.16	< 5.36	< 6.86	< 11.1	< 6.20	< 5.11	11.7	< 37.2	< 37.9	< 76.1
CL6-PCB-167	580	337	289	310	332	345	312	396	302	200	704	566	2220	492
CL6-PCB-169	< 382	< 11.3	< 16.1	< 40.5	< 22.6	< 20.4	< 23.3	< 22.2	< 15.5	< 11.6	< 24.7	< 36.3	< 38.5	< 74.0
CL7-PCB-170	2320	1810	1900	1990	1980	2520	2610	3050	2490	1240	3800	2330	6560	3530
CL7-PCB-171/173	NDR 182	NDR 253	263	NDR 331	NDR 265	280	276	NDR 360	266	157	438	NDR 251	685	NDR 377
CL7-PCB-172	NDR 304	NDR 337	434	NDR 375	303	NDR 309	415	558	385	248	664	NDR 321	980	695
CL7-PCB-174	44.5	NDR 95.7	124	< 47.9	< 59.1	NDR 45.7	< 51.1	NDR 92.6	NDR 43.2	< 37.3	90	NDR 104	37.4	NDR 72.6
CL7-PCB-175	< 32.3	< 57.8	< 43.7	NDR 46.6	< 56.1	< 40.8	< 48.5	43.3	45.6	< 35.8	51.2	52.8	101	< 54.1
CL7-PCB-176	< 25.1	< 44.4	< 33.4	< 35.1	< 43.3	< 31.3	< 37.4	< 29.7	< 21.9	< 27.2	< 26.8	< 29.6	< 27.1	< 41.2
CL7-PCB-177	NDR 364	NDR 526	NDR 649	638	421	599	NDR 479	772	627	NDR 257	674	585	1670	712
CL7-PCB-178	332	382	516	409	332	428	623	668	489	202	NDR 751	344	933	722
CL7-PCB-179	< 24.3	< 43.4	< 32.8	< 34.4	< 42.4	< 30.6	< 36.4	32.3	< 21.6	< 26.9	35	< 29.2	< 26.9	< 40.5
CL7-PCB-180/193	4580	4780	5830	5710	5360	6510	7060	8580	6580	3120	10600	4830	14800	9630
CL7-PCB-181	< 32.3	< 62.2	< 47.0	< 49.3	< 60.7	< 43.8	< 52.4	< 41.0	< 30.2	< 37.5	< 36.9	< 40.7	< 37.4	< 56.9
CL7-PCB-182	226	< 57.0	< 42.8	< 44.9	< 55.5	< 40.1	< 47.9	< 38.3	< 28.3	< 35.3	< 34.5	< 38.2	NDR 35.8	< 53.1
CL7-PCB-183/185	821	< 58.0	< 43.7	< 45.9	< 56.4	< 40.8	< 48.5	918	644	433	1150	897	1790	834
CL7-PCB-184	NDR 30.4	< 43.4	< 32.8	< 34.1	< 42.1	< 30.5	< 36.4	< 29.7	< 21.8	< 27.2	< 26.5	< 29.5	< 27.1	< 40.8
CL7-PCB-186	< 25.9	< 47.1	< 35.5	< 37.1	< 45.7	< 33.2	< 39.6	< 32.1	< 23.5	< 29.2	< 28.7	< 31.8	< 29.2	< 44.3
CL7-PCB-187	NDR 1780	2170	2480	2370	1780	2190	2070	3030	2420	1090	3610	2000	5740	3290
CL7-PCB-188	NDR 213	< 34.3	< 26.2	< 28.6	< 34.4	< 27.0	< 32.2	< 24.3	< 20.5	< 25.7	< 23.3		< 25.3	< 38.4
CL7-PCB-189	555	NDR 90.7	89.8	90.5	181	158	186	NDR 213	NDR 162	NDR 65.0	NDR 238		NDR 369	222
CL7-PCB-190	386	NDR 298	NDR 404	NDR 402	NDR 399	464	460	459	421	NDR 202	NDR 576	< 29.8	1080	503
CL7-PCB-191	NDR 99.4	NDR 99.9	< 31.6	< 33.2	105	NDR 116	119	NDR 133	83.9	NDR 65.2	NDR 110	NDR 72.2	259	NDR 122
CL7-PCB-192	< 27.8	< 50.7	< 38.2	< 40.2	< 49.1	< 35.5	< 42.5	< 35.0	< 25.7	< 32.0	< 31.3	< 34.7	< 31.9	< 48.2
CL8-PCB-194	981	878	1060	925	988	1040	1330	1990	1560	839	2510	821	2550	2100
CL8-PCB-195	NDR 152	290	NDR 280	344	266	270	< 64.5	391	314	NDR 197	NDR 401	270	680	429
CL8-PCB-196	915	350	440	NDR 388	NDR 329	NDR 323	415	490	385	244	587	337	688	NDR 537
CL8-PCB-197/200	< 30.2	< 69.5	< 55.8	< 67.2	< 79.2	< 54.3	< 51.1	< 44.1	< 35.9	< 45.3	< 58.1	< 55.7	< 43.7	< 75.7
CL8-PCB-198/199	1370	1040	1210	1550	1090	1140	1440	2130	1590	788	2730	NDR 980	2850	2270
CL8-PCB-201	< 30.0	< 68.0	< 54.6	< 65.5	< 77.1	< 53.0	< 49.8	77.2	NDR 48.5	< 44.3	< 56.8	< 54.4	< 42.7	< 74.0
CL8-PCB-202	NDR 317	122	NDR 187	NDR 168	123	NDR 160	227	373	NDR 195	143	550		411	NDR 335
CL8-PCB-203	NDR 592	< 88.6	< 71.0	< 85.4	< 101	< 69.1	< 65.1	1190	725	456	1520	557	1440	NDR 1020
CL8-PCB-204	< 30.5	< 67.7	< 54.6	< 65.5	< 77.1	< 53.0	< 49.8	< 43.8	< 35.6	< 45.1	< 57.9	< 55.3	< 43.7	< 75.4
CL8-PCB-205	442	< 51.5	< 55.5	< 58.8	< 60.0	74.4	< 55.2	NDR 63.4	NDR 37.8	NDR 42.1	< 55.0		NDR 69.0	< 67.7
CL9-PCB-206	574	< 231	269	NDR 303	< 289	NDR 211	264	NDR 490	288	NDR 162	796		667	391
CL9-PCB-207	< 85.6	< 159	< 160	< 178	< 195	< 131	< 137	< 112	< 85.8	< 112	< 130	< 120	< 129	< 200
CL9-PCB-208	308	< 152	< 155	< 173	< 185	< 130	< 135	199	NDR 154	< 109	300		223	< 198
CL10-PCB-209	NDR 386	126	229	209	NDR 120	NDR 191	NDR 173	230	185	157	358		223	NDR 234

NDR = peak detected but did not meet quantification criteria.

< = less than the detection limit

For homologue totals sums, please see the individual congener data for the detection limit.

Number following this flag represents the estimated maximum possible concentration

Number following this symbol represents the detection limit

Table A3.2-1 Dioxin-like PCBs and PCDD/PCDF concentrations in soil/sediment samples; CALUX Analysis.

Sample No.	Sample Type		Sample Volume (g)	CALUX Raw Date					WHO-TEF1998			WHO-TEF2006		
				PCDDs/Fs	DL-PCBs	DXNs	LOD	LOQ	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs	DL-PCBs	DXNs
				pgCALUX-TEQ/g					pg-TEQ(WHO1998)/g			pg-TEQ(WHO2006)/g		
1	08Lao001A	Soil	3.14	4.7	<	4.7	0.50	1.0	1.1	<	1.1	1.0	<	1.0
2	08Lao002A	Soil	3.21	3.5	2.0	5.5	0.49	1.0	0.80	5.1	5.9	0.74	5.3	6.0
3	08Lao003A	Soil	2.45	38	4.7	42	0.64	1.3	8.7	12	21	8.1	12	20
4	08Lao004A	Soil	2.88	4.9	1.8	6.6	0.54	1.1	1.1	4.5	5.6	1.0	4.6	5.7
5	08Lao005A	Soil	2.58	6.1	5.1	11	0.61	1.2	1.4	13	14	1.3	13	15
6	08Lao006A	Soil	2.21	2.3	(0.97)	2.3	0.71	1.4	0.52	(2.5)	3.0	0.48	(2.6)	3.1
7	08Lao007A	Sediment	2.80	9.7	1.1	11	0.56	1.1	2.2	3.7	5.9	2.4	2.3	4.7
8	08Lao008A	Soil	3.13	7.9	<	7.9	0.50	1.0	1.8	<	1.8	1.7	<	1.7
9	08Lao009A	Soil	3.49	13	14	27	2.2	4.5	3.0	35	38	2.8	36	39
10	08Lao010A	Soil	2.73	336	9.3	346	0.57	1.1	78	24	101	72	25	97
11	08Lao011A	Soil	3.26	22	5.1	28	0.48	1.0	5.2	13	18	4.8	13	18
12	08Lao012A	Soil	3.27	23	2.5	26	0.48	1.0	5.4	6.4	12	5.0	6.6	12
13	08Lao013A	Sediment	1.62	43	7.0	50	0.97	1.9	9.9	18	28	10	14	25
14	08Lao014A	Soil	2.68	83	60	143	2.9	5.8	19	152	171	18	158	176
15	08Lao015A	Soil	3.43	40	14	53	2.3	4.6	9.1	35	44	8.5	37	45
16	08Lao016A	Soil	3.37	77	9.3	86	2.3	4.6	18	23	41	17	24	41
17	08Lao017A	Soil	2.86	15	2.6	18	1.1	2.2	3.5	6.6	10	3.2	6.9	10
18	08Lao019A	Soil	2.96	3.2	<	3.2	1.1	2.1	0.75	<	0.75	0.69	<	0.69
19	08Lao020A	Soil	3.13	22	(1.5)	22	1.0	2.0	5.0	(3.8)	8.8	4.7	(3.9)	8.6
20	08Lao021A	Soil	3.08	4.1	3.4	7.5	1.0	2.0	0.95	8.5	9.5	0.88	8.8	9.7
21	08Lao022A	Soil	2.90	4.4	<	4.4	1.1	2.2	1.0	<	1.0	0.95	<	0.95
22	08Lao023A	Soil	3.03	8.7	3.4	12	0.51	1.0	2.0	8.7	11	1.9	9.0	11
23	08Lao025A	Soil	3.29	3.6	<	3.6	0.47	0.9	0.84	<	0.84	0.78	<	0.78
24	08Lao026A	Sediment	1.54	4.2	<	4.2	1.0	2.0	0.95	<	0.95	1.0	<	1.0
25	08Lao027A	Soil	3.14	3.7	(0.65)	3.7	0.50	1.0	0.86	(1.6)	2.5	0.80	(1.7)	1.4
26	08Lao028A	Soil	3.48	6.8	3.8	11	0.45	0.9	1.6	9.5	11	1.4	9.9	11
27	08Lao032A	Soil	3.48	308	96	404	0.90	1.8	71	243	314	66	253	319
28	08Lao033A	Soil	3.07	10	15	25	1.0	2.0	2.3	39	41	2.2	40	43

		①PCDD/Fs	②DL-PCBs	③DXNs	④PCDD/Fs	⑤DL-PCBs	⑥DXNs
Soil	Conversion factor	0.231	2.53	①+②	0.214	2.63	④+⑤
Sediment	Conversion factor	0.226	3.21	①+②	0.244	2.04	④+⑤

* "<" represent below detection limit (LOD)

** number in bracket represent the number below quantification limit and above detection limit which has been converted into DXNs

*** Average of quantified and measured toxic equivalent value and calculate standard deviation and coefficient of variation(CV) from standard curve obtained from 5 time measured adjusted standard for detection limit and create quality profile. Detection

**** Guideline for quality control of dioxin environmental measurement, March 3, 2006 by Ministry of the Environment, was used to set quantification limit and detection limit as shown in the table above.

Table A3.2-2 PCBs concentrations in soil/sediment and tissue samples; HR-GCMS.

	'08LAO010B	'08LAO032B	08LAO029A
Sample Type	Soil/Sediments	Soil/Sediments	Tissue
Sample Size	**9.79 g (dry)**	**10.1 g (dry)**	**10.21 g**
UNITS	**pg/g**	**pg/g**	**pg/g**
CL1-PCB-1			1.21
CL1-PCB-2			0.603
CL1-PCB-3			0.749
CL2-PCB-4			18.7
CL2-PCB-5			< 0.366
CL2-PCB-6			1.83
CL2-PCB-7			NDR 0.456
CL2-PCB-8			12.2
CL2-PCB-9			1.15
CL2-PCB-10			1.12
CL2-PCB-11			4.49
CL2-PCB-12/13			NDR 1.55
CL2-PCB-14			< 0.335
CL2-PCB-15			2.3
CL3-PCB-16			0.952
CL3-PCB-17			5.29
CL3-PCB-30/18			21.2
CL3-PCB-19			12.6
CL3-PCB-28/20			4560
CL3-PCB-21/33			< 0.124
CL3-PCB-22			430
CL3-PCB-23			< 0.127
CL3-PCB-24			< 0.049
CL3-PCB-25			3.46
CL3-PCB-26/29			62.5
CL3-PCB-27			4.49
CL3-PCB-31			274
CL3-PCB-32			84.6
CL3-PCB-34			1.55
CL3-PCB-35			< 0.15
CL3-PCB-36			< 0.132
CL3-PCB-37			30.6
CL3-PCB-38			1.42
CL3-PCB-39			2.36
CL4-PCB-41/40/71			98.6
CL4-PCB-42			12.3
CL4-PCB-43			< 0.049
CL4-PCB-44/47/65			3020
CL4-PCB-45/51			17.8
CL4-PCB-46			0.388
CL4-PCB-48			49.5
CL4-PCB-69/49			319
CL4-PCB-50/53			57.1
CL4-PCB-52			8710
CL4-PCB-54			0.547
CL4-PCB-55			< 3.63
CL4-PCB-56			1600
CL4-PCB-57			< 3.43
CL4-PCB-58			NDR 15.5
CL4-PCB-59/62/75			244
CL4-PCB-60			3180
CL4-PCB-61/70/74/76			13000
CL4-PCB-63			507
CL4-PCB-64			1440
CL4-PCB-66			16300
CL4-PCB-67			150
CL4-PCB-68			80.6
CL4-PCB-72			198
CL4-PCB-73			< 0.049
CL4-PCB-77	662	6350	116
CL4-PCB-78			< 3.73
CL4-PCB-79			250
CL4-PCB-80			< 3.28
CL4-PCB-81	17.9	426	NDR 42.1
CL5-PCB-82			70.1
CL5-PCB-83/99			50200
CL5-PCB-84			14
CL5-PCB-117/116/85			14400
CB-108/119/86/97/125/87			6380
CL5-PCB-88/91			500
CL5-PCB-89			0.593
CL5-PCB-113/90/101			45100
CL5-PCB-92			5670
L5-PCB-95/100/93/102/98			2590
CL5-PCB-94			11.1
CL5-PCB-96			0.325
CL5-PCB-103			30
CL5-PCB-104			< 0.049
CL5-PCB-105	1600	33000	38300
CL5-PCB-106			< 14.7
CL5-PCB-107/124			881
CL5-PCB-109			4530
CL5-PCB-110/115			22800
CL5-PCB-111			13.9
CL5-PCB-112			< 0.175
CL5-PCB-114	59.8	2070	2490
CL5-PCB-118	7970	125000	118000
CL5-PCB-120			128
CL5-PCB-121			4.08
CL5-PCB-122			307
CL5-PCB-123	172	1010	1550
CL5-PCB-126	637	NDR 2230	NDR 82.3
CL5-PCB-127			150
CL6-PCB-128/166			21300
CL6-PCB-138/163/129/160			122000
CL6-PCB-130			1970
CL6-PCB-131			48.9
CL6-PCB-132			758
CL6-PCB-133			1020
CL6-PCB-134/143			< 2.19
CL6-PCB-151/135/154			2970
CL6-PCB-136			23.5
CL6-PCB-137			7700
CL6-PCB-139/140			1870
CL6-PCB-141			7970

	'08LAO010B	'08LAO032B	08LAO029A
Sample Type	Soil/Sediments	Soil/Sediments	Tissue
Sample Size	**9.79 g (dry)**	**10.1 g (dry)**	**10.21 g**
UNITS	**pg/g**	**pg/g**	**pg/g**
CL6-PCB-142			< 2.14
CL6-PCB-144			371
CL6-PCB-145			0.398
CL6-PCB-146			14400
CL6-PCB-147/149			26800
CL6-PCB-148			29.1
CL6-PCB-150			1.95
CL6-PCB-152			1.82
CL6-PCB-153/168			101000
CL6-PCB-155			2.29
CL6-PCB-156/157	15000	105000	19600
CL6-PCB-158			13300
CL6-PCB-159			56
CL6-PCB-161			< 1.5
CL6-PCB-162			318
CL6-PCB-164			4430
CL6-PCB-165			10.8
CL6-PCB-167	14000	41100	7290
CL6-PCB-169	< 521	< 524	< 7.36
CL7-PCB-170	311000	679000	8230
CL7-PCB-171/173			2240
CL7-PCB-172			1350
CL7-PCB-174			1440
CL7-PCB-175			207
CL7-PCB-176			42.6
CL7-PCB-177			538
CL7-PCB-178			697
CL7-PCB-179			23.7
CL7-PCB-180/193	650000	1520000	12800
CL7-PCB-181			217
CL7-PCB-182			56.1
CL7-PCB-183/185			3910
CL7-PCB-184			7.67
CL7-PCB-186			< 0.259
CL7-PCB-187			4620
CL7-PCB-188			5.37
CL7-PCB-189	9190	21900	327
CL7-PCB-190			1740
CL7-PCB-191			349
CL7-PCB-192			< 0.295
CL8-PCB-194			920
CL8-PCB-195			358
CL8-PCB-196			492
CL8-PCB-197/200			47.4
CL8-PCB-198/199			1000
CL8-PCB-201			73.8
CL8-PCB-202			125
CL8-PCB-203			794
CL8-PCB-204			0.68
CL8-PCB-205			53.4
CL9-PCB-206			362
CL9-PCB-207			32.2
CL9-PCB-208			89
CL10-PCB-209			38.6
13C-CL1-PCB-1	59.892	64.717	20.016
13C-CL1-PCB-3	58.143	59.841	26.888
13C-CL2-PCB-4	63.781	71.126	28.825
13C-CL2-PCB-15	85.741	89.899	52.63
13C-CL3-PCB-19	91.019	90.284	41.445
13C-CL3-PCB-37	84.543	89.382	68.259
13C-CL4-PCB-54	75.229	78.716	45.989
13C-CL4-PCB-77	97.785	107.272	84.584
13C-CL4-PCB-81	100.641	112.591	86.69
13C-CL5-PCB-104	83.033	84.748	58.031
13C-CL5-PCB-105	88.492	124.468	111.003
13C-CL5-PCB-114	86.019	115.417	81.206
13C-CL5-PCB-118	90.539	130.874	111.151
13C-CL5-PCB-123	91.269	121.564	81.52
13C-CL5-PCB-126	89.849	133.869	90.92
13C-CL6-PCB-155	56.292	39.909	58.814
13C-CL6-PCB-156/157	48.428	26.989	80.845
13C-CL6-PCB-167	49.968	33.145	76.618
13C-CL6-PCB-169	53.539	51.622	77.313
13C-CL7-PCB-170	107.255	69.13	106.969
13C-CL7-PCB-180	132.113	65.921	106.607
13C-CL7-PCB-188	81.265	57.342	78.226
13C-CL7-PCB-189	86.443	102.421	94.49
13C-CL8-PCB-202	89.347	48.258	81.588
13C-CL8-PCB-205	77.66	82.221	87.029
13C-CL9-PCB-206	80.912	75.066	85.31
13C-CL9-PCB-208	75.766	66.73	84.873
13C-CL10-PCB-209	82.972	68.811	84.595
13C-CL3-PCB-28	79.644	97.178	60.217
13C-CL5-PCB-111	87.425	85.913	80.884
13C-CL7-PCB-178	61.648	50.029	75.991
13C-CL6-PCB-153			
PCB TOTAL 68T AND 68F			
PCB MAX CONG 68T AND 68F			
% Moisture	24.7	4.21	1.34
Total Monochloro Biphenyl			2.56
Total Dichloro Biphenyl			41.8
Total Trichloro Biphenyl			5500
Total Tetrachloro Biphenyl			49400
Total Pentachloro Biphenyl			314000
Total Hexachloro Biphenyl			355000
Total Heptachloro Biphenyl			38800
Total Octachloro Biphenyl			3860
Total Nonachloro Biphenyl			483
Decachloro Biphenyl			38.6
TOTAL PCBs			767000
TEQ (WHO 1998) ND=0	73.3	72.7	5.64
TEQ (WHO 1998) ND=1/2DL	75.9	75.9	6.58
TEQ (WHO 2005) ND=0	65.2	10.6	26.9
TEQ (WHO 2005) ND=1/2DL	73	19	27.8

NDR = peak detected but did not meet quantification criteria. Number following this flag represents the estimated maximum possible concentration.

< = less than the detection limit Number following this symbol represents the detection limit.

For homologue totals sums, please see the individual congener data for the detection limit.

[1] Analysis of WHO toxic PCBs only. Can be used to calculated 2378 TCDD toxic equivalence concentrations

[2] Analysis of PCBs following USEPA method 1668A. Includes all 209 congeners. Also permits calcualtion of homologues, total PCB and TEQ concentrations

Table A3.2-3 PCDD/PCDF concentrations in a soil/sediment sample; HR-GCMS.

CLIENT ID	'08LAO016B	'08LAO029A
AXYS ID	L11830-3	L11831-1
WORKGROUP	WG26805	WG26807
	Soil	Tissue
Sample Size	4.48 g (dry)	10.1 g (wet)
UNITS	pg/g	pg/g
2,3,7,8-TCDD	NDR 0.125	NDR 0.094
1,2,3,7,8-PeCDD	< 0.112	NDR 0.094
1,2,3,4,7,8-HxCDD	< 0.112	< 0.0495
1,2,3,6,7,8-HxCDD	0.13	0.077
1,2,3,7,8,9-HxCDD	0.192	< 0.0495
1,2,3,4,6,7,8-HpCDD	1.61	NDR 0.307
OCDD	6.41	1.39
2,3,7,8-TCDF	0.872	0.104
1,2,3,7,8-PeCDF	NDR 0.161	0.091
2,3,4,7,8-PeCDF	NDR 0.26	0.364
1,2,3,4,7,8-HxCDF	NDR 0.21	NDR 0.056
1,2,3,6,7,8-HxCDF	0.176	0.06
1,2,3,7,8,9-HxCDF	< 0.112	< 0.0495
2,3,4,6,7,8-HxCDF	0.24	0.054
1,2,3,4,6,7,8-HpCDF	0.713	NDR 0.057
1,2,3,4,7,8,9-HpCDF	< 0.112	< 0.0495
OCDF	0.445	0.307
Total Tetra-Dioxins	2.28	< 0.0495
Total Penta-Dioxins	1.11	< 0.0495
Total Hexa-Dioxins	1.91	0.077
Total Hepta-Dioxins	2.94	0.111
Total Tetra-Furans	5.22	0.104
Total Penta-Furans	1.64	0.455
Total Hexa-Furans	1.31	0.114
Total Hepta-Furans	1.02	0.131
% Moisture	2.46	
2,3,7,8-TCDF (C)	NDR 0.581	0.1
TEQ (WHO 1998) ND=0	0.0977	0.216
TEQ (WHO 1998) ND=1/2DL	0.263	0.276
TEQ (WHO 2005) ND=0	0.0991	0.142
TEQ (WHO 2005) ND=1/2DL	0.253	0.202

NDR = peak detected but did not meet quantification criteria

< = less than the detection limit

Table A3.2-4 PCBs concentrations in blood samples; HR-GCMS.

CLIENT ID	'08LAO-B01	'08LAO-B02	'08LAO-B03	'08LAO-B04	'08LAO-B05	'08LAO-B06	'08LAO-B07	'08LAO-B08	'08LAO-B09	'08LAO-B10	'08LAO-B11
Sample Size	0.161 g	0.205 g	0.145 g	0.131 g	0.175 g	0.155 g	0.144 g	0.152 g	0.152 g	0.150 g	0.0874 g (lipid)
UNITS	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)
CL1-PCB-1	231	297	141	889	327	252	NDR 19.6	NDR 14.7	< 12.6	866	NDR 20.2
CL1-PCB-2	< 6.00	< 14.7	< 23.2	< 28.6	< 11.8	< 12.1	< 16.5	< 10.8	< 13.1	10.1	34.6
CL1-PCB-3	304	310	164	1030	370	296	< 19.0	< 13.0	< 15.2	993	51.1
CL2-PCB-4	243	306	182	886	329	260	< 42.4	< 25.1	< 27.8	926	NDR 59.0
CL2-PCB-5	< 13.4	< 17.6	< 30.0	< 39.1	< 18.4	< 21.9	< 28.4	< 18.1	< 18.3	< 13.6	< 17.0
CL2-PCB-6	< 12.4	< 16.3	< 27.7	< 36.2	< 16.5	< 19.5	< 25.4	< 16.2	< 16.4	NDR 13.7	NDR 21.9
CL2-PCB-7	< 12.7	< 16.7	< 28.3	< 36.8	< 17.5	< 20.8	< 27.0	< 17.2	< 17.4	< 12.7	< 15.8
CL2-PCB-8	299	363	225	1080	413	313	NDR 42.4	NDR 25.2	< 15.0	856	87.4
CL2-PCB-9	< 12.4	< 16.2	< 27.6	< 35.9	< 17.0	< 20.2	< 26.3	< 16.7	< 17.0	< 12.0	< 15.3
CL2-PCB-10	< 12.9	< 16.9	< 28.9	< 37.5	< 18.6	< 22.0	< 28.6	< 18.2	< 18.5	< 11.9	< 16.0
CL2-PCB-11	151	185	226	260	174	253	172	184	165	235	255
CL2-PCB-12/13	< 12.0	< 15.8	< 26.9	< 34.9	< 16.3	< 19.3	< 25.1	< 16.0	< 16.2	23.5	< 15.9
CL2-PCB-14	< 12.0	< 15.8	< 26.8	< 34.9	< 16.3	< 19.4	< 25.2	< 16.0	< 16.3	< 12.6	< 15.7
CL2-PCB-15	339	363	211	1250	435	338	< 27.4	< 18.0	< 17.5	1130	NDR 30.3
CL3-PCB-16	16.7	< 14.6	NDR 21.9	21.3	NDR 18.0	15.8	NDR 34.7	NDR 12.2	NDR 10.3	13.1	NDR 26.4
CL3-PCB-17	NDR 11.4	< 13.5	NDR 21.0	18.1	NDR 16.6	NDR 13.0	24.3	NDR 17.3	< 6.88	NDR 10.8	34
CL3-PCB-18/30	247	312	206	861	322	261	62.9	NDR 25.8	NDR 28.1	611	64.3
CL3-PCB-19	271	329	185	1000	348	299	< 13.3	< 9.18	NDR 11.2	975	15.2
CL3-PCB-20/28	1030	2910	1780	3750	1020	1010	1590	498	1060	3840	874
CL3-PCB-21/33	42	33.8	NDR 55.5	64.8	< 7.52	31	66.8	NDR 22.7	NDR 31.8	NDR 44.3	47.2
CL3-PCB-22	NDR 19.0	NDR 18.4	NDR 20.2	< 19.9	NDR 18.0	NDR 15.5	< 12.3	NDR 8.50	< 8.97	33	32.9
CL3-PCB-23	261	346	173	1000	363	302	< 12.0	< 7.99	< 8.74	737	< 5.73
CL3-PCB-24	< 4.36	< 10.6	< 13.7	< 11.7	< 7.88	< 6.59	< 9.14	< 6.63	< 5.07	< 5.08	< 5.73
CL3-PCB-25	< 4.89	< 9.83	< 14.8	< 16.9	< 6.90	< 5.57	< 10.1	< 6.71	< 7.33	NDR 5.93	< 5.73
CL3-PCB-26/29	NDR 14.9	< 10.9	NDR 16.5	21.6	NDR 18.0	15.5	NDR 19.9	< 7.65	< 8.34	NDR 20.9	NDR 17.1
CL3-PCB-27	< 3.90	< 9.49	< 12.2	< 10.4	< 7.62	< 6.40	< 8.84	< 6.43	NDR 6.02	< 4.74	< 5.73
CL3-PCB-31	382	464	319	1380	473	380	105	30.9	45	1000	70.2
CL3-PCB-32	NDR 12.4	< 11.0	< 16.6	< 18.9	NDR 9.61	9.7	NDR 21.7	< 7.31	< 7.99	9.8	21.4
CL3-PCB-34	268	375	184	1050	351	310	< 11.8	< 7.84	< 8.57	742	< 5.73
CL3-PCB-35	< 4.81	< 9.66	< 14.5	< 16.6	< 7.38	< 5.96	< 10.8	< 7.19	< 7.85	< 4.28	< 5.73
CL3-PCB-36	< 4.81	< 9.68	< 14.5	< 16.6	< 7.47	< 6.04	< 11.0	< 7.28	< 7.96	< 3.92	< 5.73
CL3-PCB-37	423	456	273	1610	519	418	NDR 19.6	< 9.35	< 9.60	1320	20.2
CL3-PCB-38	< 4.84	< 9.72	< 14.6	< 16.7	< 7.47	< 6.01	< 10.9	< 7.28	< 7.94	< 3.97	< 5.73
CL3-PCB-39	< 5.04	< 10.1	< 15.3	< 17.4	< 7.62	< 6.12	< 11.2	< 7.42	< 8.08	< 3.94	< 5.73
CL4-PCB-40/41/71	284	344	218	994	332	319	38.3	19.5	22.6	730	29.2
CL4-PCB-42	NDR 13.7	< 8.40	< 10.4	19.7	NDR 10.6	NDR 9.98	32	NDR 11.9	13.5	20.6	NDR 15.5
CL4-PCB-43	5.06	< 9.70	< 12.0	< 15.0	< 9.06	< 7.79	< 12.5	< 7.73	< 6.36	< 4.43	< 5.73
CL4-PCB-44/47/65	443	764	555	1450	510	574	215	153	149	1110	156
CL4-PCB-45/51	< 4.53	NDR 17.5	< 11.1	NDR 16.2	18.5	< 6.98	< 11.2	24.4	NDR 11.5	8.51	14.3
CL4-PCB-46	< 5.12	< 10.1	< 12.5	< 15.6	< 9.11	< 7.84	< 12.6	< 7.79	< 6.39	NDR 6.70	< 5.73
CL4-PCB-48	NDR 7.85	NDR 10.1	< 10.5	< 13.1	NDR 9.37	< 6.90	< 11.0	< 6.85	NDR 7.16	< 3.92	10.4
CL4-PCB-49/69	268	401	228	1030	336	319	59.1	NDR 28.9	NDR 32.4	717	84.6
CL4-PCB-50/53	NDR 14.2	< 8.86	19.1	< 13.7	< 7.84	NDR 7.20	< 10.8	NDR 8.21	NDR 6.59	7.99	8.43
CL4-PCB-52	436	669	499	1480	495	474	192	121	122	980	674
CL4-PCB-54	294	357	207	1150	375	324	< 7.03	< 4.39	< 3.95	1030	< 5.73
CL4-PCB-55	< 13.3	< 13.8	< 27.4	< 28.0	< 12.8	< 15.5	< 20.0	< 16.4	< 17.6	< 12.9	< 8.57
CL4-PCB-56	332	445	NDR 237	1380	421	416	< 19.9	< 16.3	< 17.5	1190	18.3
CL4-PCB-57	< 13.2	< 13.6	< 27.1	< 27.7	< 12.4	< 15.0	< 19.3	< 15.9	< 17.1	< 13.2	< 8.20
CL4-PCB-58	< 13.5	< 14.0	< 27.9	< 28.5	< 13.1	< 15.8	< 20.5	< 16.8	< 18.1	< 13.5	< 8.68
CL4-PCB-59/62/75	NDR 22.8	25.3	34.2	NDR 13.7	NDR 14.9	21.6	26.1	NDR 11.3	NDR 12.9	19.6	10.1
CL4-PCB-60	256	1060	409	740	128	194	209	164	318	1290	263
CL4-PCB-61/70/74/76	3040	10700	4010	3460	796	1060	1240	1460	5590	6550	2300
CL4-PCB-63	22.8	NDR 60.5	53.5	NDR 68.3	NDR 12.7	NDR 14.7	< 19.0	< 15.6	26.4	78.1	30.3
CL4-PCB-64	32.2	NDR 53.6	70	72.4	NDR 29.1	33	58.2	21.8	24.9	53.4	35.7
CL4-PCB-66	1030	2930	1260	2900	649	826	564	368	722	3790	520
CL4-PCB-67	< 12.0	< 12.5	< 24.8	< 25.3	< 11.2	< 13.6	< 17.5	< 14.4	< 15.5	< 11.9	< 7.39
CL4-PCB-68	NDR 20.3	85.2	NDR 27.7	88.9	34.4	29.9	< 19.0	< 15.6	< 16.8	NDR 63.7	11.2
CL4-PCB-72	< 13.0	< 13.4	< 26.7	< 27.3	< 12.1	< 14.7	< 19.0	< 15.6	< 16.8	< 12.4	< 8.32
CL4-PCB-73	< 3.39	< 6.75	< 8.35	< 10.4	< 6.13	< 5.26	< 8.43	< 5.24	< 4.30	< 3.33	< 5.73
CL4-PCB-77	428	479	308	1640	541	446	< 23.2	< 18.5	< 19.9	1300	< 8.71
CL4-PCB-78	< 12.3	< 12.7	< 25.2	< 25.8	< 11.9	< 14.4	< 18.6	< 15.3	< 16.4	< 12.3	< 7.90
CL4-PCB-79	< 10.3	< 10.7	< 21.2	< 21.7	NDR 17.1	NDR 13.0	< 16.1	< 13.2	< 14.2	< 10.3	< 7.05
CL4-PCB-80	< 11.7	< 12.2	< 24.1	< 24.6	< 11.3	< 13.7	< 17.7	< 14.6	< 15.6	< 11.3	< 7.28
CL4-PCB-81	428	473	280	1590	514	418	< 20.8	< 17.6	< 17.7	1240	< 8.85
CL5-PCB-82	NDR 18.5	< 11.5	< 11.0	< 11.5	< 10.3	< 9.67	< 8.99	< 7.36	< 6.10	NDR 16.0	14.9
CL5-PCB-83/99	10100	7780	4620	3910	1040	2530	1340	2360	3350	6420	2060
CL5-PCB-84	NDR 23.0	19.8	NDR 41.2	NDR 17.8	< 10.8	NDR 13.6	NDR 18.1	NDR 8.78	< 6.45	19.3	26.7
CL5-PCB-85/116/117	550	548	311	343	NDR 62.7	180	93.8	145	192	335	187
CB-86/87/97/108/119/125	408	460	364	1160	464	402	62.6	68.3	59.3	1150	108
CL5-PCB-88/91	< 3.95	NDR 17.5	< 10.6	15.9	< 9.97	< 9.42	< 8.75	NDR 10.2	< 5.93	< 5.05	NDR 16.3
CL5-PCB-89	< 4.03	< 11.3	< 10.8	< 11.3	< 10.3	< 9.75	< 9.08	< 7.45	< 6.16	< 5.03	< 7.08
CL5-PCB-90/101/113	805	1390	1110	2450	661	765	231	269	309	1560	497
CL5-PCB-92	204	405	286	391	NDR 91.8	121	NDR 72.7	117	NDR 108	291	195
CL5-PCB-93/95/98/100/102	656	677	751	1640	570	488	149	158	190	1170	260
CL5-PCB-94	< 4.38	< 12.3	< 11.8	< 12.3	< 10.9	< 10.3	< 9.61	< 7.87	< 6.53	< 5.54	< 7.47
CL5-PCB-96	< 3.09	< 5.61	< 5.94	< 5.94	< 5.91	< 3.35	< 5.37	< 4.19	< 3.29	< 3.33	< 5.73
CL5-PCB-103	< 3.75	< 10.5	< 10.1	< 10.5	< 9.04	< 8.51	< 7.92	< 6.49	< 5.39	< 4.56	< 6.10
CL5-PCB-104	209	276	146	791	279	265	< 4.48	< 3.57	< 3.29	758	< 5.73
CL5-PCB-105	6360	6310	2280	3590	844	1520	783	1300	1810	5080	995
CL5-PCB-106	< 42.3	< 25.9	< 24.3	< 40.6	< 17.4	< 12.3	< 14.7	< 14.8	< 23.6	< 23.5	< 8.74
CL5-PCB-107/124	< 46.1	< 28.1	< 26.4	< 44.1	< 18.7	< 13.1	< 15.8	< 15.9	< 25.3	< 24.3	< 9.61
CL5-PCB-109	319	456	214	177	NDR 32.2	79.5	NDR 52.2	77	NDR 111	304	85.4
CL5-PCB-110/115	1020	867	731	1620	522	615	167	202	170	1400	227
CL5-PCB-111	11.6	37.1	19.3	13.7	< 7.14	11.1	NDR 6.83	NDR 8.21	11.5	15.5	< 5.73
CL5-PCB-112	< 3.09	< 7.91	< 7.59	< 7.94	< 6.97	< 6.57	< 6.11	< 5.01	< 4.15	< 3.45	< 5.73
CL5-PCB-114	1080	1770	670	1430	469	499	119	233	670	1500	203
CL5-PCB-118	23600	26200	7960	8950	1810	3740	2450	4870	7960	14700	3910
CL5-PCB-120	NDR 20.3	52.1	NDR 18.8	NDR 22.5	< 6.78	NDR 13.3	< 5.93	< 4.87	10.6	NDR 26.6	NDR 7.87
CL5-PCB-121	NDR 6.84	NDR 9.07	NDR 10.1	NDR 13.0	< 7.52	< 7.09	11.3	< 5.41	< 4.47	< 3.79	< 5.73
CL5-PCB-122	< 47.6	< 29.1	< 27.4	< 45.7	< 19.0	< 13.4	< 16.1	< 16.3	< 25.8	< 25.8	< 9.44
CL5-PCB-123	585	715	277	1190	382	407	39.5	NDR 70.2	92	1180	NDR 63.8
CL5-PCB-126	479	652	339	1710	555	507	< 20.5	NDR 26.9	< 32.7	1360	< 9.89
CL5-PCB-127	< 41.8	NDR 107	< 23.9	< 40.0	< 17.5	NDR 20.8	< 14.8	NDR 22.9	< 23.7	36.9	< 8.20
CL6-PCB-128/166	1940	1220	NDR 465	1300	NDR 64.7	NDR 377	315	NDR 271	NDR 239	510	147
CL6-PCB-129/138/160/163	34400	79300	26700	28800	4850	10300	6850	13300	30400	35800	7750
CL6-PCB-130	874	2340	NDR 877	949	NDR 212	253	248	439	891	1080	329
CL6-PCB-131	< 26.8	< 23.8	< 101	< 16.1	< 14.4	< 27.2	< 7.06	< 47.6	< 23.9	< 14.8	< 13.0
CL6-PCB-132	NDR 347	232	NDR 300	441	NDR 38.7	NDR 49.0	74.8	84.4	NDR 107	158	63.8
CL6-PCB-133	496	1720	552	425	NDR 116	165	NDR 143	NDR 221	NDR 731	492	128
CL6-PCB-134/143	< 27.3	NDR 40.1	< 103	NDR 61.9	< 14.6	< 27.5	< 6.97	< 47.9	< 23.9	31.5	< 13.1
CL6-PCB-135/151/154	955	1800	1190	3270	NDR 495	562	239	547	NDR 441	1590	241
CL6-PCB-136	NDR 46.8	NDR 36.1	NDR 71.4	77.2	< 15.7	< 22.3	16	NDR 39.6	< 22.6	39.7	NDR 16.9
CL6-PCB-137	1920	3270	1150	902	NDR 172	396	329	609	1570	1170	461
CL6-PCB-139/140	246	153	< 95.3	NDR 59.7	< 13.5	< 25.5	NDR 25.5	< 44.5	NDR 33.5	81.5	27
CL6-PCB-141	405	< 23.4	NDR 457	1250	NDR 128	254	120	< 45.6	< 22.9	392	< 11.7
CL6-PCB-142	< 27.1	< 24.0	< 105	< 15.3	< 14.9	< 28.0	< 7.24	< 47.0	< 23.5	< 14.7	< 12.8
CL6-PCB-144	< 18.5	32.3	31.9	NDR 84.5	< 21.1	< 29.9	< 5.46	< 24.1	< 30.7	31.5	15.7
CL6-PCB-145	< 14.0	< 12.6	< 20.1	< 3.91	< 16.8	< 23.9	< 4.63	< 19.2	< 24.3	< 3.33	< 5.73
CL6-PCB-146	4130	13900	4230	4350	935	NDR 1450	1110	2060	5410	4330	1230
CL6-PCB-147/149	950	1050	902	1830	NDR 375	NDR 568	166	NDR 262	NDR 219	1320	175
CL6-PCB-148	< 18.3	< 16.5	< 25.7	< 4.73	< 21.4	< 30.5	< 5.43	< 24.8	< 31.5	< 3.33	< 5.73
CL6-PCB-150	< 13.9	< 12.5	< 19.1	< 3.84	< 15.9	< 22.6	< 4.27	NDR 20.1	< 23.4	< 3.33	< 5.73
CL6-PCB-152	< 12.3	< 11.1	< 17.9	< 3.81	< 14.9	< 21.2	< 4.07	< 17.0	< 21.6	< 3.33	< 5.73
CL6-PCB-153/168	37500	103000	34200	34300	5840	11900	8660	14000	37000	40500	9780
CL6-PCB-155	143	217	102	499	196	197	5.93	< 3.29	NDR 8.59	557	< 5.73
CL6-PCB-156/157	8430	19800	5720	6760	2180	2440	994	2490	7280	7090	1410

Table A3.2-4 (Cont'd.)

CLIENT ID	'08LAO-B01	'08LAO-B02	'08LAO-B03	'08LAO-B04	'08LAO-B05	'08LAO-B06	'08LAO-B07	'08LAO-B08	'08LAO-B09	'08LAO-B10	'08LAO-B11
Sample Size	0.161 g	0.205 g	0.145 g	0.131 g	0.175 g	0.155 g	0.144 g	0.152 g	0.152 g	0.150 g	0.0874 g (lipid)
UNITS	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)	pg/g (lipid weight)
CL6-PCB-158	1890	2050	NDR 810	1260	174	468	290	479	453	951	175
CL6-PCB-159	< 19.6	NDR 33.8	< 76.5	57.2	< 10.8	< 20.4	NDR 6.83	< 33.4	< 16.7	NDR 14.4	< 8.74
CL6-PCB-161	< 20.2	< 17.9	< 74.5	< 10.9	< 10.6	< 20.0	< 5.01	< 34.3	35.2	< 11.0	< 8.54
CL6-PCB-162	NDR 46.6	< 18.0	< 79.6	< 11.1	NDR 19.2	< 21.3	< 4.57	< 33.7	< 16.8	< 10.2	< 9.02
CL6-PCB-164	NDR 120	222	194	765	82.2	< 20.8	54.6	50.1	NDR 62.2	NDR 102	< 8.94
CL6-PCB-165	< 22.5	NDR 39.9	< 84.3	NDR 14.0	< 12.0	< 22.6	NDR 8.31	< 38.5	< 19.4	< 12.5	< 9.95
CL6-PCB-167	2890	5760	1590	2440	630	806	332	855	1880	2580	458
CL6-PCB-169	357	< 635	< 279	1230	382	< 396	< 32.6	< 55.2	< 86.2	1290	< 10.7
CL7-PCB-170	9090	40500	14100	11800	4280	7120	2580	7110	14300	13300	2700
CL7-PCB-171/173	879	3820	1500	1210	NDR 348	651	NDR 259	711	1440	1530	303
CL7-PCB-172	950	5460	1820	1520	651	901	454	1030	2120	1730	385
CL7-PCB-174	400	409	605	1000	NDR 57.2	NDR 114	72.7	NDR 182	NDR 29.8	211	58.7
CL7-PCB-175	NDR 152	502	NDR 207	NDR 176	< 22.9	NDR 130	46.6	NDR 69.7	174	247	47.5
CL7-PCB-176	< 11.5	NDR 13.9	< 25.1	< 20.4	< 17.2	< 21.8	< 18.0	< 20.7	< 21.4	< 3.33	28.1
CL7-PCB-177	1610	6430	3050	3130	622	1520	573	1420	2260	3970	804
CL7-PCB-178	957	5740	2140	1960	610	790	395	833	2250	1890	452
CL7-PCB-179	138	159	283	381	< 16.7	NDR 50.2	NDR 20.5	67.1	38.1	96.2	27.5
CL7-PCB-180/193	17100	82500	33600	28300	9280	15500	6710	14000	30400	29900	7110
CL7-PCB-181	NDR 45.1	NDR 83.3	NDR 149	NDR 30.5	< 23.9	< 30.2	< 25.0	NDR 53.8	NDR 45.8	46.1	11
CL7-PCB-182	NDR 165	NDR 293	138	648	351	NDR 305	< 24.0	< 26.3	< 27.2	657	< 5.73
CL7-PCB-183/185	2990	8820	4460	4760	1040	2500	1020	2130	3150	5930	< 5.73
CL7-PCB-184	< 11.0	NDR 17.7	NDR 35.9	< 19.9	< 16.8	< 21.3	< 17.5	< 20.3	< 20.9	12.9	< 5.73
CL7-PCB-186	< 11.8	< 11.9	< 26.9	< 21.9	< 18.4	< 23.4	< 19.3	< 21.3	< 22.0	< 3.33	< 5.73
CL7-PCB-187	6280	27000	11300	10500	2810	5380	2280	4390	9800	11800	2650
CL7-PCB-188	173	NDR 201	NDR 96.7	521	255	NDR 165	< 17.2	< 16.3	< 19.9	606	< 5.73
CL7-PCB-189	836	2660	849	1920	594	557	NDR 163	303	756	1650	128
CL7-PCB-190	2120	8000	2910	1940	772	1480	519	1440	2710	2120	461
CL7-PCB-191	395	1410	723	537	< 18.6	371	139	337	NDR 513	503	95.8
CL7-PCB-192	< 12.4	< 12.6	< 30.0	< 24.4	< 20.6	< 26.1	< 21.5	< 22.9	< 23.7	< 3.33	< 5.73
CL8-PCB-194	3550	18300	5020	6800	2190	2320	1430	1630	5010	5490	989
CL8-PCB-195	1100	5270	1630	1420	NDR 336	704	NDR 478	NDR 660	1870	1610	260
CL8-PCB-196	1880	7910	2890	2840	1060	2010	647	1130	2850	2860	379
CL8-PCB-197/200	< 17.2	< 16.5	< 26.0	< 24.7	< 21.8	< 26.4	NDR 37.7	< 27.7	< 29.8	< 3.33	NDR 18.5
CL8-PCB-198/199	4300	21700	7430	4410	2980	3800	1560	3230	7190	4820	975
CL8-PCB-201	NDR 103	384	NDR 206	NDR 133	NDR 41.3	NDR 106	NDR 24.3	NDR 138	NDR 129	250	39.3
CL8-PCB-202	696	3000	1080	NDR 1500	493	540	262	NDR 323	NDR 914	1340	175
CL8-PCB-203	2760	14000	4680	2740	1110	2290	1240	1900	4380	2960	641
CL8-PCB-204	< 17.1	< 16.4	< 26.6	< 25.3	< 22.2	< 27.0	< 20.9	< 28.0	< 30.1	< 3.33	< 5.73
CL8-PCB-205	360	778	398	1080	418	424	NDR 50.7	83	180	1070	41.9
CL9-PCB-206	1070	2850	NDR 989	1620	NDR 541	NDR 532	NDR 277	462	1140	1650	183
CL9-PCB-207	NDR 126	NDR 257	NDR 166	< 154	< 77.6	< 102	< 128	< 86.4	114	139	26.7
CL9-PCB-208	489	1310	NDR 431	NDR 768	387	374	< 125	NDR 173	355	838	70
CL10-PCB-209	387	1020	521	NDR 914	NDR 416	NDR 377	NDR 177	189	NDR 238	820	146
Total Monochloro Biphenyl	535	607	305	1920	697	548	<	<	<	1870	85.7
Total Dichloro Biphenyl	1030	1220	844	3480	1350	1160	172	184	165	3170	342
Total Trichloro Biphenyl	2940	5230	3120	10800	3400	3050	1850	529	1110	9280	1180
Total Tetrachloro Biphenyl	7300	18700	8150	18000	5150	5450	2630	2330	6990	20100	4170
Total Pentachloro Biphenyl	46400	48600	20100	29400	7600	12100	5450	9800	14800	37300	8770
Total Hexachloro Biphenyl	97500	236000	76600	90900	15300	27700	19800	34900	84900	100000	22400
Total Heptachloro Biphenyl	43900	193000	77500	70100	21300	36800	14800	33800	69400	76200	15300
Total Octachloro Biphenyl	14600	71300	23100	19300	8250	12100	5140	7970	21500	20400	3500
Total Nonachloro Biphenyl	1560	4160	<	1620	387	374	<	462	1610	2630	280
Decachloro Biphenyl	387	1020	521	<	<	<	<	189	<	820	146
TOTAL PCBs	216000	580000	210000	245000	63400	99300	49800	90200	200000	272000	56100
TEQ (WHO 2005) ND=0	60.1	67.3	34.6	209	67.4	51.2	0.142	0.302	0.613	176	0.213
TEQ (WHO 2005) ND=1/2DL	60.1	76.8	38.8	209	67.4	57.1	1.66	2.18	3.55	176	0.87

Table A3.2-5 Chlorinated pesticide concentrations in tissue and soil/sediment samples; HR-GCMS.

	'08LAO029A
Sample Type	Tissue
UNITS	**ng/g (wet weight basis)**
HCB	0.502
alpha-HCH	< 0.0061
beta-HCH	< 0.0049
gamma-HCH	< 0.0049
HEPTACHLOR	< 0.0049
ALDRIN	< 0.0049
OXYCHLORDANE	NDR 0.078
t-CHLORDANE	0.03
c-CHLORDANE	0.245
t-NONACHLOR	0.337
c-NONACHLOR	0.231
o,p-DDD	< 0.0097
p,p-DDD	1.14
o,p-DDE	< 0.0071
p,p-DDE	5.14
o,p-DDT	< 0.0174
p,p-DDT	0.383
MIREX	0.01
delta-HCH	NDR 0.001
Heptachlor-Epoxide	NDR 0.006
alpha-Endosulphan	NDR 0.023
Dieldrin	0.509
Endrin	NDR 0.002
beta-Endosulphan	NDR 0.07
Endosulphan-Sulphate	NDR 0.05
Endrin-Aldehyde	< 0.004
Endrin-Ketone	NDR 0.001
Methoxychlor	< 0.002
Total Toxaphene	< 0.0268
% Lipid	1.34

Table A3.3-1 Dioxin-like PCBs and PCDD/PCDF concentrations in soil/sediment samples; CALUX Analysis.

Sample No.	Sample Type		Sample Volume (g)	CALUX Raw Data					WHO-TEF1998			WHO-TEF2006		
				PCDDs/Fs	DL-PCBs	DXNs	LOD	LOQ	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs	DL-PCBs	DXNs
				pg-CALUX-TEQ/g					pg-$TEQ_{(WHO1998)}$/g			pg-$TEQ_{(WHO2006)}$/g		
1	08MAL001B	Soil	2.85	2.3	<	2.3	0.55	1.1	0.53	<	0.53	0.49	<	0.49
2	08MAL002B	Sediment	2.97	(0.76)	<	0.8	0.53	1.1	(0.17)	<	(0.17)	(0.19)	<	(0.19)
3	08MAL003B	Sediment	1.78	2.1	<	2.1	0.88	1.8	0.48	<	0.48	0.52	<	0.52
4	08MAL004B	Sediment	2.87	1.7	<	1.7	0.55	1.1	0.38	<	0.38	0.41	<	0.41
5	08MAL005B	Sediment	2.84	4.7	<	4.7	0.55	1.1	1.1	<	1.1	1.2	<	1.2
6	08MAL006B	Sediment	2.97	(0.83)	<	0.83	0.53	1.1	(0.19)	<	(0.19)	(0.20)	<	(0.20)
7	08MAL007B	Sediment	2.92	(0.70)	<	0.70	0.54	1.1	(0.16)	<	(0.16)	(0.17)	<	(0.17)
8	08MAL008B	Soil	3.00	11	<	11	0.52	1.0	2.5	<	2.5	2.3	<	2.3
9	08MAL009B	Sediment	2.25	54	1.5	56	0.69	1.4	12	4.8	17	13	2.8	16
10	08MAL010B	Soil	3.05	3.0	<	3.0	0.51	1.0	0.68	<	0.68	0.63	<	0.63
11	08MAL011B	Soil	3.11	2.1	<	2.1	0.50	1.0	0.48	<	0.48	0.45	<	0.45
12	08MAL012B	Soil	3.10	1.6	<	1.6	0.50	1.0	0.36	<	0.36	0.34	<	0.34
13	08MAL013	field BL	-	<	<	<	0.89	1.8	<	<	<	<	<	<

Factors used to convert CALUX raw data to WHO TEQ concentrations [1]

		WHO-TEF1998			WHO-TEF2006		
		①PCDD/Fs	②DL-PCBs	③DXNs	④PCDD/Fs	⑤DL-PCBs	⑥DXNs
Soil	Conversion factor	0.231	2.53	①+②	0.214	2.63	④+⑤
Sediment	Conversion factor	0.226	3.21	①+②	0.244	2.04	④+⑤

* "<" represent below detection limit (LOD)

** number in bracket represent the number below quantification limit and above detection limit which has been converted into DXNs

*** Average of quantified and measured toxic equivalent value and calculate standard deviation and coefficient of variation(CV) from standard curve obtained from 5 time measured adjusted standard for detection limit and create quality profile. Detection limit (LOD) should be within CV 30% and quantification limit (LOQ) should be within CV 20%

**** Guideline for quality control of dioxin environmental measurement, March 3, 2006 by Ministry of the Environment, was used to set quantification limit and detection limit as shown in the table above.

[1] Factors were derived by calibrating CALUX raw data to results of HR-GCMS results for both sediments and soils.

Table A3.3-2 PCBs concentrations in soil/sediment samples; HR-GCMS.

CLIENT ID	'08MAL009A	'08MAL010A
Sample Type	Soil/Sediment	Soil/Sediment
Sample Size	9.90 g (dry)	10.6 g (dry)
UNITS	pg/g	pg/g
Analysis Type	WHO Toxic[1]	USEPA 1668A[2]
CL1-PCB-1	20.6	
CL1-PCB-2	93.1	
CL1-PCB-3	69.7	
CL2-PCB-4	68.9	
CL2-PCB-5	11	
CL2-PCB-6	142	
CL2-PCB-7	29.6	
CL2-PCB-8	662	
CL2-PCB-9	28.1	
CL2-PCB-10	8.25	
CL2-PCB-11	14200	
CL2-PCB-12/13	265	
CL2-PCB-14	16.5	
CL2-PCB-15	937	
CL3-PCB-16	1590	
CL3-PCB-17	1170	
CL3-PCB-30/18	2050	
CL3-PCB-19	158	
CL3-PCB-28/20	11200	
CL3-PCB-21/33	9080	
CL3-PCB-22	6480	
CL3-PCB-23	10.1	
CL3-PCB-24	30.9	
CL3-PCB-25	693	
CL3-PCB-26/29	1470	
CL3-PCB-27	217	
CL3-PCB-31	8410	
CL3-PCB-32	1180	
CL3-PCB-34	29.4	
CL3-PCB-35	1110	
CL3-PCB-36	57.5	
CL3-PCB-37	8550	
CL3-PCB-38	28.5	
CL3-PCB-39	107	
CL4-PCB-41/40/71	12200	
CL4-PCB-42	4880	
CL4-PCB-43	575	
CL4-PCB-44/47/65	14000	
CL4-PCB-45/51	1820	
CL4-PCB-46	763	
CL4-PCB-48	3420	
CL4-PCB-69/49	7080	
CL4-PCB-50/53	1040	
CL4-PCB-52	10700	
CL4-PCB-54	11.7	
CL4-PCB-55	630	
CL4-PCB-56	11500	
CL4-PCB-57	102	
CL4-PCB-58	42.3	
CL4-PCB-59/62/75	1580	
CL4-PCB-60	6410	
CL4-PCB-61/70/74/76	31500	
CL4-PCB-63	692	
CL4-PCB-64	7520	
CL4-PCB-66	18400	
CL4-PCB-67	742	
CL4-PCB-68	67.6	
CL4-PCB-72	85.1	
CL4-PCB-73	8300	
CL4-PCB-77	2370	0.233
CL4-PCB-78	< 13.9	
CL4-PCB-79	163	
CL4-PCB-80	< 13.3	
CL4-PCB-81	108	< 0.134
CL5-PCB-82	2110	
CL5-PCB-83/99	6440	
CL5-PCB-84	3890	
CL5-PCB-117/116/85	2530	
CB-108/119/86/97/125/87	10300	
CL5-PCB-88/91	3480	
CL5-PCB-89	236	
CL5-PCB-113/90/101	11800	
CL5-PCB-92	2030	
L5-PCB-95/100/93/102/98	9060	
CL5-PCB-94	68.1	
CL5-PCB-96	93.4	
CL5-PCB-103	49.1	
CL5-PCB-104	4.55	
CL5-PCB-105	6990	NDR 0.876
CL5-PCB-106	< 19	
CL5-PCB-107/124	585	
CL5-PCB-109	983	
CL5-PCB-110/115	15900	
CL5-PCB-111	< 3.59	
CL5-PCB-112	< 3.53	
CL5-PCB-114	412	< 0.16
CL5-PCB-118	13700	1.67
CL5-PCB-120	10.9	

CLIENT ID	'08MAL009A	'08MAL010A
Sample Type	Soil/Sediment	Soil/Sediment
Sample Size	9.90 g (dry)	10.6 g (dry)
UNITS	pg/g	pg/g
Analysis Type	WHO Toxic[1]	USEPA 1668A[2]
CL5-PCB-121	10.5	
CL5-PCB-122	214	
CL5-PCB-123	349	< 0.158
CL5-PCB-126	NDR 36.1	< 0.172
CL5-PCB-127	< 19.8	
CL6-PCB-128/166	2400	
CL6-PCB-138/163/129/160	13400	
CL6-PCB-130	911	
CL6-PCB-131	232	
CL6-PCB-132	5440	
CL6-PCB-133	147	
CL6-PCB-134/143	826	
CL6-PCB-151/135/154	2620	
CL6-PCB-136	1240	
CL6-PCB-137	728	
CL6-PCB-139/140	271	
CL6-PCB-141	2100	
CL6-PCB-142	< 12.5	
CL6-PCB-144	446	
CL6-PCB-145	7.23	
CL6-PCB-146	1460	
CL6-PCB-147/149	8950	
CL6-PCB-148	8.14	
CL6-PCB-150	9.57	
CL6-PCB-152	NDR 8.2	
CL6-PCB-153/168	8030	
CL6-PCB-155	48	
CL6-PCB-156/157	1690	0.681
CL6-PCB-158	1500	
CL6-PCB-159	42.1	
CL6-PCB-161	< 8.93	
CL6-PCB-162	< 9.22	
CL6-PCB-164	919	
CL6-PCB-165	< 9.66	
CL6-PCB-167	495	0.264
CL6-PCB-169	< 10	< 0.0943
CL7-PCB-170	1250	1.02
CL7-PCB-171/173	403	
CL7-PCB-172	183	
CL7-PCB-174	1010	
CL7-PCB-175	45.2	
CL7-PCB-176	127	
CL7-PCB-177	570	
CL7-PCB-178	167	
CL7-PCB-179	342	
CL7-PCB-180/193	2140	2.13
CL7-PCB-181	23.1	
CL7-PCB-182	NDR 8.85	
CL7-PCB-183/185	669	
CL7-PCB-184	54	
CL7-PCB-186	< 1.47	
CL7-PCB-187	930	
CL7-PCB-188	< 1.36	
CL7-PCB-189	66.8	NDR 0.219
CL7-PCB-190	203	
CL7-PCB-191	49	
CL7-PCB-192	< 1.61	
CL8-PCB-194	376	
CL8-PCB-195	128	
CL8-PCB-196	139	
CL8-PCB-197/200	43.2	
CL8-PCB-198/199	263	
CL8-PCB-201	34.9	
CL8-PCB-202	55.1	
CL8-PCB-203	166	
CL8-PCB-204	1.41	
CL8-PCB-205	21.3	
CL9-PCB-206	83.4	
CL9-PCB-207	24.6	
CL9-PCB-208	42.7	
CL10-PCB-209	223	
PCB TOTAL 68T AND 68F		
PCB MAX CONG 68T AND 68F		
% Moisture	40.5	11.7
Total Monochloro Biphenyl	183	
Total Dichloro Biphenyl	16400	
Total Trichloro Biphenyl	53600	
Total Tetrachloro Biphenyl	147000	
Total Pentachloro Biphenyl	91200	
Total Hexachloro Biphenyl	53900	
Total Heptachloro Biphenyl	8230	
Total Octachloro Biphenyl	1230	
Total Nonachloro Biphenyl	151	
Decachloro Biphenyl	223	
TOTAL PCBs	372000	
TEQ (WHO 1998) ND=0	3.41	0.000533
TEQ (WHO 1998) ND=1/2DL	4.71	0.00967
TEQ (WHO 2005) ND=0	0.98	0.000102
TEQ (WHO 2005) ND=1/2DL	2.38	0.0101

NDR = peak detected but did not meet quantification criteria. Number following this flag represents the estimated maximum possible concentration

< = less than the detection limit Number following this symbol represents the detection limit

For homologue totals sums, please see the individual congener data for the detection limit.

[1] Analysis of WHO toxic PCBs only. Can be used to calculated 2378 TCDD toxic equivalence concentrations.

[2] Analysis of PCBs following USEPA method 1668A. Includes all 209 congeners. Also permits calcualtion of homologues, total PCB and TEQ concentrations.

Table A3.3-3 PCDD/PCDF concentrations in a soil/sediment sample; HR-GCMS.

CLIENT ID		'08MAL010A		'08MAL009A
AXYS ID		L11830-20		L11830-19
WORKGROUP		WG26790		WG26805
Sample Size		20.0 g (dry)		6.86 g (dry)
UNITS		pg/g		pg/g
2,3,7,8-TCDD	NDR	0.047		0.489
1,2,3,7,8-PeCDD	NDR	0.117		1.95
1,2,3,4,7,8-HxCDD	NDR	0.112		4.71
1,2,3,6,7,8-HxCDD		0.223		13.1
1,2,3,7,8,9-HxCDD		0.835		15.1
1,2,3,4,6,7,8-HpCDD		2.31		464
OCDD		152		4060
2,3,7,8-TCDF		0.4		21.7
1,2,3,7,8-PeCDF		0.128		2.41
2,3,4,7,8-PeCDF		0.182		3.38
1,2,3,4,7,8-HxCDF		0.289	NDR	3.92
1,2,3,6,7,8-HxCDF		0.216		4.12
1,2,3,7,8,9-HxCDF		0.044	NDR	0.398
2,3,4,6,7,8-HxCDF		0.27		4.84
1,2,3,4,6,7,8-HpCDF		0.99		30.9
1,2,3,4,7,8,9-HpCDF		0.129		4.28
OCDF		0.7		48.7
Total Tetra-Dioxins		2.23		82.5
Total Penta-Dioxins		2.44		67.1
Total Hexa-Dioxins		3.68		170
Total Hepta-Dioxins		5.33		931
Total Tetra-Furans		2.75		171
Total Penta-Furans		2.3		126
Total Hexa-Furans		2.35		68.2
Total Hepta-Furans		1.12		76.2
% Moisture		13.7		37.7
2,3,7,8-TCDF (C)		0.155		2.88
TEQ (WHO 1998) ND=0		0.35		14.1
TEQ (WHO 1998) ND=1/2DL		0.377		14.1
TEQ (WHO 2005) ND=0		0.342		14.2
TEQ (WHO 2005) ND=1/2DL		0.368		14.2

Table A3.3-4 Chlorinated pesticide concentrations in tissue and soil/sediment samples; HR-GCMS.

CLIENT ID	'08MAL003A	'08MAL004A	'08MAL008A	08MAL009A	'08MAL010A	'08MAL011A
Sample Type	**Soil/Sediment**	**Soil/Sediment**	**Soil/Sediment**	**Soil/Sediment**	**Soil/Sediment**	**Soil/Sediment**
Sample Size	21.7 g (dry)	12.7 g (dry)	12.0 g (dry)	6.86 g (dry)	12.4 g (dry)	11.5 g (dry)
UNITS	ng/g (dry weight basis)	ng/g (dry weight basis)	ng/g (dry weight basis)	ng/g (dry weight basis)	ng/g (dry weight basis)	ng/g (dry weight basis)
HCB	0.012	0.018	0.183	0.183	0.016	0.015
alpha-HCH	< 0.001	< 0.0013	< 0.001	0.083	< 0.0017	< 0.0019
beta-HCH	< 0.001	NDR 0.002	< 0.0016	0.087	< 0.0028	< 0.0031
gamma-HCH	NDR 0.001	0.003	0.013	0.919	< 0.002	< 0.0022
HEPTACHLOR	< 0.001	0.01	< 0.001	0.29	< 0.001	< 0.001
ALDRIN	NDR 0.001	< 0.001	< 0.001	0.59	NDR 0.002	< 0.001
OXYCHLORDANE	< 0.0011	< 0.0024	NDR 0.072	NDR 0.473	< 0.002	< 0.0027
t-CHLORDANE	NDR 0.002	0.177	0.232	4.91	0.004	NDR 0.003
c-CHLORDANE	NDR 0.003	0.165	0.241	4.12	NDR 0.004	NDR 0.003
t-NONACHLOR	0.001	0.128	0.292	2.01	NDR 0.003	NDR 0.003
c-NONACHLOR	< 0.001	0.034	0.152	1.59	< 0.001	NDR 0.006
o,p-DDD	< 0.003	< 0.006	< 0.0061	0.549	< 0.0058	< 0.0082
p,p-DDD	< 0.0035	0.015	< 0.0071	0.99	< 0.0067	< 0.0095
o,p-DDE	< 0.0022	< 0.0034	< 0.0032	1.58	< 0.004	< 0.0055
p,p-DDE	0.007	0.058	0.02	10.2	0.008	< 0.007
o,p-DDT	< 0.0052	< 0.0097	< 0.0094	0.164	< 0.0089	< 0.0128
p,p-DDT	< 0.0063	NDR 0.02	0.02	0.706	0.014	< 0.017
MIREX	0.001	0.075	0.095	0.359	0.009	NDR 0.005
delta-HCH	< 0.001	NDR 0.002	< 0.0016	37.7	NDR 0.002	< 0.001
Heptachlor-Epoxide	< 0.001	0.006	0.041		< 0.001	< 0.001
alpha-Endosulphan		NDR 0.039	NDR 0.017		NDR 0.024	NDR 0.027
Dieldrin	0.004	0.03	0.044		0.009	NDR 0.003
Endrin	NDR 0.003	< 0.0012	NDR 0.004		NDR 0.002	< 0.0019
beta-Endosulphan		NDR 0.008	NDR 0.049		NDR 0.033	NDR 0.041
Endosulphan-Sulphate		NDR 0.03	NDR 0.021		NDR 0.017	NDR 0.011
Endrin-Aldehyde	0.002	< 0.0022	< 0.0019		< 0.0026	NDR 0.002
Endrin-Ketone	< 0.001	< 0.001	< 0.001		< 0.001	< 0.0011
Methoxychlor	< 0.0029	< 0.003	< 0.0064		< 0.0023	< 0.0019
Total Toxaphene			< 0.0597	< 1.2		
% Moisture	51.5	19.6	14.2	37.7	13.1	12.2

Table A3.3-5 PBDE concentrations in a soil/sediment sample; HR-GCMS.

CLIENT ID	**'08MAL010A**
Sample Type	Soil/Sediment
Sample Size	10.1 g (dry)
UNITS	pg/g (dry weight basis)
Br2-DPE-7	< 0.133
Br2-DPE-8/11	< 0.100
Br2-DPE-10	< 0.151
Br2-DPE-12/13	< 0.0995
Br2-DPE-15	< 0.0995
Br3-DPE-17/25	< 0.228
Br3-DPE-28/33	0.192
Br3-DPE-30	< 0.240
Br3-DPE-32	< 0.186
Br3-DPE-35	< 0.150
Br3-DPE-37	< 0.137
Br4-DPE-47	8.97
Br4-DPE-49	1.04
Br4-DPE-51	0.134
Br4-DPE-66	0.66
Br4-DPE-71	NDR 0.138
Br4-DPE-75	< 0.0995
Br4-DPE-77	NDR 0.129
Br4-DPE-79	< 0.0995
Br5-DPE-85	0.67
Br5-DPE-99	12.1
Br5-DPE-100	4.28
Br5-DPE-105	< 0.355
Br5-DPE-116	< 0.469
Br5-DPE-119/120	0.645
Br5-DPE-126	< 0.128
Br6-DPE-128	< 1.80
Br6-DPE-138/166	NDR 1.32
Br6-DPE-140	NDR 1.38
Br6-DPE-153	5.19
Br6-DPE-154	7.46
Br6-DPE-155	1.47
Br7-DPE-181	1.88
Br7-DPE-183	13.2
Br7-DPE-190	3.89
Br8-DPE-203	37.8
Br9-DPE-206	395
Br9-DPE-207	700
Br9-DPE-208	427
Br10-DPE-209	4450
% Moisture	13.8

Table A3.3-6 Perfluorinated organic compound concentrations in a soil/sediment sample; HR-GCMS.

CLIENT ID	**'08MAL009A**	**'08MAL010A**
Sample Type	**Soil/Sediment**	**Soil/Sediment**
Sample Size	0.885 g (dry)	5.26 g (dry)
UNITS	ng/g (dry weight basis)	ng/g (dry weight basis)
PFBA	< 2.10	1.44
PFPeA	< 17.1	< 0.0951
PFHxA	159	< 0.0951
PFHpA	830	< 0.0951
PFOA	1620	< 0.0951
PFNA	390	< 0.0951
PFDA	312	< 0.0951
PFUnA	49.6	< 0.0951
PFDoA	64	< 0.0951
PFBS	61.2	< 0.190
PFHxS	1930	< 0.190
PFOS	6140	0.203
PFOSA	4.55	< 0.0951
% Moisture	39.4	12.1

Table A3.3-7 Chlorinated pesticide concentrations in tissue Samples; Low Resolution-GCMS (USEPA 8270 C/ GCMS).

CLIENT ID	08MAL014A	08MAL015A	08MAL016A	08MAL017A	08MAL018A	08MAL019A
Sample Type	**Fish Muscle**	**Fish Liver**	**Fish Muscle**	**Fish Liver**	**Fish Testes**	**Fish Muscle**
UNITS	mg/g (wet weight basis)	mg/g (wet weight basis)	mg/g (wet weight basis)	mg/g (wet weight basis)	mg/g (wet weight basis)	mg/g (wet weight basis)
Aldrin (CAS No: 309-00-2)	< 5	< 5	< 5	< 5	< 5	< 5
Chlordane (CAS No:57-74-9)	< 5	< 5	< 5	< 5	< 5	< 5
Dieldrin (CAS No:60-57-1)	< 5	< 5	< 5	< 5	< 5	< 5
Endrin (CAS No:72-20-8)	< 5	< 5	< 5	< 5	< 5	< 5
Heptachlor (CAS No:76-44-8)	< 5	< 5	< 5	< 5	< 5	< 5
Mirex (CAS No:2385-85-5)	< 5	< 5	< 5	< 5	< 5	< 5
Toxaphene (CAS No:8001-35-2)	Absent	Absent	Absent	Absent	Absent	Absent
DDT (CAS No:50-29-3)	Absent	Absent	Absent	Absent	Absent	Absent
Hexachlorobenzene (CAS No:118-74-1)	< 5	< 5	< 5	< 5	< 5	< 5

Table A3.3-8 Polychlorinated Biphenyl concentrations in Tissue Samples; Low Resolution-GCMS (USEPA 8270 C/ GCMS).

CLIENT ID	08MAL014A	08MAL015A	08MAL016A	08MAL017A	08MAL018A	08MAL019A
Sample Type	**Fish Muscle**	**Fish Liver**	**Fish Muscle**	**Fish Liver**	**Fish Testes**	**Fish Muscle**
UNITS	mg/g (wet weight basis)	mg/g (wet weight basis)	mg/g (wet weight basis)	mg/g (wet weight basis)	mg/g (wet weight basis)	mg/g (wet weight basis)
Monochlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Dichlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Pentachlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Hexachlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Heptachlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Octachlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Nonachlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5
Decachlorobiphenyl	< 5	< 5	< 5	< 5	< 5	< 5

Table A3.4-1 Dioxin-like PCBs and TCDD/TCDF concentrations in tissue samples; CALUX Analysis.

Sample No.	Sample Type	Sample Volume (g)	CALUX Raw Data					WHO-TEF1998			WHO-TEF2006			I-TEF
			PCDDs/Fs	DL-PCBs	DXNs	LOD	LOQ	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs
			pgCALUX-TEQ/gwet					pg-TEQ$_{(WHO1998)}$/gwet			pg-TEQ$_{(WHO2006)}$/gwet			pg-TEQ$_{(I\text{-}TEF)}$/gwet
1	08THA-033B ②	10.0637	(0.22)	<	(0.22)	0.16	0.31	(0.091)	<	(0.091)	(0.076)	<	(0.076)	(0.077)
2	08THA-036B ②	11.6612	1.2	<	1.2	0.13	0.27	0.49	<	0.49	0.41	<	0.41	0.42
3	08THA-037B ②	11.5502	<	<	<	0.14	0.27	<	<	<	<	<	<	0
4	08THA-038B ②	10.7622	0.74	0.62	1.4	0.15	0.29	0.31	2.0	2.3	0.25	1.6	1.8	0.26
5	08THA-039B ②	14.4120	0.68	0.25	0.93	0.11	0.22	0.28	0.78	1.07	0.23	0.63	0.86	0.24
6	08THA-040B ②	10.7872	0.53	0.58	1.1	0.14	0.29	0.22	1.8	2.0	0.18	1.5	1.6	0.19

Sample No.	Sample Type	Sample Volume (fat)	CALUX Raw Data					WHO-TEF1998			WHO-TEF2006			I-TEF
			PCDDs/Fs	DL-PCBs	DXNs	LOD	LOQ	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs
			pgCALUX-TEQ/fat					pg-TEQ$_{(WHO1998)}$/gfat			pg-TEQ$_{(WHO2006)}$/gfat			pg-TEQ$_{(I\text{-}TEF)}$/gwet
1	08THA-033B ②	0.29	(76)	<	(76)	54	107	(31)	<	(31)	(26)	<	(26)	(27)
2	08THA-036B ②	0.25	474	<	474	53	107	196	<	196	163	<	163	166
3	08THA-037B ②	0.34	<	<	<	40	81	<	<	<	<	<	<	0
4	08THA-038B ②	0.48	153	129	282	30	60	63	407	470	53	324	377	54
5	08THA-039B ②	1.4	49	18	67	7.8	16	20	56	77	17	45	62	17
6	08THA-040B ②	0.56	94	102	196	26	51	39	322	361	32	257	289	33

	①PCDD/Fs	②DL-PCBs	③DXNs	④PCDD/Fs	⑤DL-PCBs	⑥DXNs	⑦PCDD/Fs
Conversion factor	0.414	3.16	①+②	0.344	2.52	④+⑤	0.350

* "<" represent below detection limit (LOD)

** number in bracket represent the number below quantification limit and above detection limit which has been converted into DXNs

*** Average of quantified and measured toxic equivalent value and calculate standard deviation and coefficient of variation(CV) from standard curve obtained from 5 time measured adjusted standard for detection limit and create quality profile.

**** Guideline for quality control of dioxin environmental measurement, March 3, 2006 by Ministry of the Environment, was used to set quantification limit and detection limit as shown in the table above.

① All sample were used and homogenized and applied for the analysis

② All parts including shell were used and pestled in morter and homogenized and total of less than 10g were used.

③ Removed shell and homogenized all the meat, less than 10g

Table A3.4-2 Dioxin-like PCBs and PCDD/PCDF concentrations in soil/sediment samples; CALUX Analysis.

Sample No.	Sample Type		Sample Volume (g)	CALUX Raw Date					WHO-TEF1998			WHO-TEF2006			I-TEF
				PCDDs/Fs	DL-PCBs	DXNs	LOD	LOQ	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs	DL-PCBs	DXNs	PCDDs/Fs
				pgCALUX-TEQ/g					pg-TEQ$_{(WHO1998)}$/g			pg-TEQ$_{(WHO2006)}$/g			pg-TEQ$_{(I-TEF)}$/g
1	08THA001B	Sediment	3.50	4.3	<	4.3	0.45	0.89	1.0	<	1.0	1.1	<	1.05	1.4
2	08THA002B	Sediment	3.50	4.1	(0.55)	4.7	0.45	0.89	0.93	(1.8)	2.7	1.0	(1.1)	2.1	1.4
3	08THA003B	Soil	3.50	5.2	<	5.2	0.45	0.89	1.2	<	1.2	1.1	<	1.1	1.1
4	08THA004B	Sediment	3.50	7.4	4.0	11	0.45	0.89	1.7	13	15	1.8	8	10	2.5
5	08THA005B	Soil	3.50	65	82	147	1.8	3.6	15	209	224	14	217	231	14
6	08THA006B	Soil	3.50	96	43	140	0.45	0.89	22	110	132	21	114	135	20
7	08THA007B	Soil	3.50	13	3.8	17	0.45	0.89	3.0	10	13	2.7	10.0	13	2.7
8	08THA008B	Soil	3.50	65	48	113	4.5	8.9	15	121	136	14	126	140	14
9	08THA009B	Soil	3.50	16	22	38	0.45	0.89	3.8	55	59	3.5	58	61	3.5
10	08THA010B	Soil	3.50	41	65	106	0.45	0.89	9.5	165	174	9	171	180	8.7
11	08THA011B	Soil	3.50	61	42	103	0.45	0.89	14	105	119	13	109	122	13
12	08THA012B	Soil	3.50	11	9.7	20	0.45	0.89	2.4	25	27	2.3	26	28	2
13	08THA013B	Soil	3.50	2.6	<	2.6	0.45	0.89	0.60	<	0.60	0.55	<	0.55	0.55
14	08THA014B	Soil	3.50	5.7	1.9	7.6	0.45	0.89	1.3	4.8	6.1	1.2	5.0	6.2	1.2
15	08THA015B	Sediment	3.50	13	1.3	14	0.45	0.89	2.9	4.1	7.0	3.1	2.6	5.7	4.3
16	08THA016B	Sediment	3.50	5.4	(0.75)	6.1	0.45	0.89	1.2	(2.4)	3.6	1.3	(1.5)	2.8	1.8
17	08THA017B	Soil	3.50	5.8	1.0	6.7	0.45	0.89	1.3	2.4	3.7	1.2	2.5	3.7	1.2
18	08THA018B	Sediment	3.50	6.0	(0.62)	6.6	0.45	0.89	1.4	(2.0)	3.4	1.5	(1.3)	2.8	2.0
19	08THA019B	Sediment	3.50	4.0	(0.74)	4.8	0.45	0.89	0.91	(2.4)	3.3	0.98	(1.5)	2.5	1.3
20	08THA020B	Sediment	3.50	4.0	1.4	5.4	0.45	0.89	0.91	4.4	5.3	0.98	2.8	3.8	1.3
21	08THA021B	Sediment	3.50	6.2	0.94	7.1	0.45	0.89	1.4	3.0	4.4	1.5	1.9	3.4	2.1
22	08THA022B	Sediment	3.50	4.4	(0.70)	5.1	0.45	0.89	1.0	(2.2)	3.2	1.07	(1.4)	2.5	1.5
23	08THA023B	Soil	3.50	9.8	4.2	14	0.45	0.89	2.3	11	13	2.1	11	13	2.1
24	08THA024B	Soil	3.50	5.9	1.7	7.6	0.45	0.89	1.4	4.3	5.7	1.3	4.5	5.7	1.2
25	08THA025B	Soil	3.50	7.3	1.7	8.9	0.45	0.89	1.7	4.2	5.9	1.6	4.3	5.9	1.5
26	08THA026B	Soil	3.50	3.4	2.1	5.4	0.45	0.89	0.78	5.2	6.0	0.72	5.4	6.1	0.71
27	08THA027B	Sediment	3.50	14	2.9	17	0.45	0.89	3.1	9.3	12	3.3	5.9	9.3	4.6
28	08THA028B	Sediment	3.50	4.2	(0.50)	4.7	0.45	0.89	0.9	(1.6)	2.5	1.02	(1.0)	2.0	1.4
29	08THA029B	Sediment	3.50	7.2	3.4	11	0.45	0.89	1.6	10.8	12	1.8	6.9	8.6	2.4
30	08THA030B	Soil	3.50	<	<	<	0.45	0.89	<	<	<	<	<	<	0

		①PCDD/Fs	②DL-PCBs	③DXNs	④PCDD/Fs	⑤DL-PCBs	⑥DXNs	⑦PCDD/Fs
Soil	Conversion factor	0.231	2.53	①＋②	0.214	2.63	④＋⑤	0.212
Sediment	Conversion factor	0.226	3.21	①＋②	0.244	2.04	④＋⑤	0.333

* "<" represent below detection limit (LOD)

** number in bracket represent the number below quantification limit and above detection limit which has been converted into DXNs

*** Average of quantified and measured toxic equivalent value and calculated standard deviation and coefficient of variation(CV) from standard curve obtained from 5 time measured adjusted standard for detection limit and create quality profile.

**** Guideline for quality control of dioxin environmental measurement, March 3, 2006 by Ministry of the Environment, was used to set quantification limit and detection limit as shown in the table above.

Table A3.4-3 PCBs concentrations in soil/sediment and tissue samples; HR-GCMS.

	08THA005A	'08THA010A	'08THA019A	08THA036A
Sample Type	Soil/Sediment	Soil/Sediment	Soil/Sediment	Soil/Sediment
Sample Size	**10.369 g**	**9.97 g (dry)**	**4.36 g (dry)**	**10.81 g (wet)**
UNITS	**pg/g**	**pg/g**	**pg/g**	**pg/g**
Analysis Type	**WHO Toxic[1]**	**WHO Toxic[1]**	**USEPA 1668A[2]**	**WHO Toxic[1]**
CL1-PCB-1			12.4	
CL1-PCB-2			27.5	
CL1-PCB-3			26.4	
CL2-PCB-4			67.7	
CL2-PCB-5			1.09	
CL2-PCB-6			49.3	
CL2-PCB-7			5.6	
CL2-PCB-8			120	
CL2-PCB-9			4.65	
CL2-PCB-10			3.34	
CL2-PCB-11			82.1	
CL2-PCB-12/13			50	
CL2-PCB-14			0.974	
CL2-PCB-15			149	
CL3-PCB-16			62.6	
CL3-PCB-17			159	
CL3-PCB-30/18			151	
CL3-PCB-19			66.1	
CL3-PCB-28/20			543	
CL3-PCB-21/33			139	
CL3-PCB-22			134	
CL3-PCB-23			0.488	
CL3-PCB-24			2.29	
CL3-PCB-25			141	
CL3-PCB-26/29			123	
CL3-PCB-27			33.3	
CL3-PCB-31			293	
CL3-PCB-32			166	
CL3-PCB-34			4.45	
CL3-PCB-35			9.24	
CL3-PCB-36			1.36	
CL3-PCB-37			164	
CL3-PCB-38			0.496	
CL3-PCB-39			3.56	
CL4-PCB-41/40/71			480	
CL4-PCB-42			144	
CL4-PCB-43			13.3	
CL4-PCB-44/47/65			1240	
CL4-PCB-45/51			441	
CL4-PCB-46			48.5	
CL4-PCB-48			48.4	
CL4-PCB-69/49			737	
CL4-PCB-50/53			275	
CL4-PCB-52			656	
CL4-PCB-54			51.1	
CL4-PCB-55			11.5	
CL4-PCB-56			172	
CL4-PCB-57			4.8	
CL4-PCB-58			3.12	
CL4-PCB-59/62/75			62.1	
CL4-PCB-60			84.4	
CL4-PCB-61/70/74/76			602	
CL4-PCB-63			24.6	
CL4-PCB-64			152	
CL4-PCB-66			512	
CL4-PCB-67			17.8	
CL4-PCB-68			40.5	
CL4-PCB-72			23.7	
CL4-PCB-73			25.6	
CL4-PCB-77	23500	3890	57.9	32.2
CL4-PCB-78			< 0.877	
CL4-PCB-79			15.2	
CL4-PCB-80			< 0.776	
CL4-PCB-81	995	NDR 210	2.31	NDR 1.54
CL5-PCB-82			86.5	
CL5-PCB-83/99			719	
CL5-PCB-84			205	
CL5-PCB-117/116/85			175	
CB-108/119/86/97/125/87			690	
CL5-PCB-88/91			218	
CL5-PCB-89			6.82	
CL5-PCB-113/90/101			1150	
CL5-PCB-92			243	
L5-PCB-95/100/93/102/98			926	
CL5-PCB-94			37.1	
CL5-PCB-96			17	
CL5-PCB-103			55.2	
CL5-PCB-104			13.7	
CL5-PCB-105	26800	49100	368	96.4
CL5-PCB-106			< 0.217	
CL5-PCB-107/124			39.4	
CL5-PCB-109			85.2	
CL5-PCB-110/115			1230	
CL5-PCB-111			2.55	
CL5-PCB-112			< 0.349	
CL5-PCB-114	1400	2470	24.6	6.51
CL5-PCB-118	61600	144000	1070	212
CL5-PCB-120			6.04	
CL5-PCB-121			4.22	

	08THA005A	'08THA010A	'08THA019A	08THA036A
Sample Type	Soil/Sediment	Soil/Sediment	Soil/Sediment	Soil/Sediment
Sample Size	**10.369 g**	**9.97 g (dry)**	**4.36 g (dry)**	**10.81 g (wet)**
UNITS	**pg/g**	**pg/g**	**pg/g**	**pg/g**
Analysis Type	**WHO Toxic[1]**	**WHO Toxic[1]**	**USEPA 1668A[2]**	**WHO Toxic[1]**
CL5-PCB-122			13.6	
CL5-PCB-123	1060	NDR 2240	19.6	3.53
CL5-PCB-126	1910	1440	6.79	NDR 1.84
CL5-PCB-127			< 0.234	
CL6-PCB-128/166			311	
CL6-PCB-138/163/129/160			2020	
CL6-PCB-130			120	
CL6-PCB-131			23.6	
CL6-PCB-132			530	
CL6-PCB-133			36.5	
CL6-PCB-134/143			98.3	
CL6-PCB-151/135/154			572	
CL6-PCB-136			225	
CL6-PCB-137			84.4	
CL6-PCB-139/140			38.9	
CL6-PCB-141			300	
CL6-PCB-142			< 0.468	
CL6-PCB-144			76.3	
CL6-PCB-145			NDR 0.743	
CL6-PCB-146			244	
CL6-PCB-147/149			1410	
CL6-PCB-148			8.94	
CL6-PCB-150			15.4	
CL6-PCB-152			4.68	
CL6-PCB-153/168			1560	
CL6-PCB-155			18	
CL6-PCB-156/157	10000	52000	245	30.6
CL6-PCB-158			197	
CL6-PCB-159			17.9	
CL6-PCB-161			< 0.315	
CL6-PCB-162			8.08	
CL6-PCB-164			142	
CL6-PCB-165			1.8	
CL6-PCB-167	4710	20300	101	10
CL6-PCB-169	< 147	< 121	< 1.17	< 0.347
CL7-PCB-170	22600	62300	621	51.8
CL7-PCB-171/173			197	
CL7-PCB-172			91.3	
CL7-PCB-174			444	
CL7-PCB-175			23.3	
CL7-PCB-176			59.1	
CL7-PCB-177			302	
CL7-PCB-178			98.5	
CL7-PCB-179			172	
CL7-PCB-180/193	62200	102000	1070	101
CL7-PCB-181			7.64	
CL7-PCB-182			3.82	
CL7-PCB-183/185			345	
CL7-PCB-184			17.2	
CL7-PCB-186			< 0.115	
CL7-PCB-187			510	
CL7-PCB-188			3.59	
CL7-PCB-189	901	2280	29.3	1.63
CL7-PCB-190			117	
CL7-PCB-191			25.7	
CL7-PCB-192			< 0.115	
CL8-PCB-194			191	
CL8-PCB-195			91.1	
CL8-PCB-196			116	
CL8-PCB-197/200			31.9	
CL8-PCB-198/199			208	
CL8-PCB-201			27.7	
CL8-PCB-202			38.2	
CL8-PCB-203			138	
CL8-PCB-204			1.09	
CL8-PCB-205			13.2	
CL9-PCB-206			42.6	
CL9-PCB-207			9.02	
CL9-PCB-208			10.1	
CL10-PCB-209			23.6	
PCB TOTAL 68T AND 68F				
PCB MAX CONG 68T AND 68F				
% Moisture	2.45	29.2	61.8	
% Lipid				0.53
Total Monochloro Biphenyl			66.3	
Total Dichloro Biphenyl			534	
Total Trichloro Biphenyl			2200	
Total Tetrachloro Biphenyl			5950	
Total Pentachloro Biphenyl			7410	
Total Hexachloro Biphenyl			8410	
Total Heptachloro Biphenyl			4140	
Total Octachloro Biphenyl			856	
Total Nonachloro Biphenyl			61.7	
Decachloro Biphenyl			23.6	
TOTAL PCBs			29600	
TEQ (WHO 1998) ND=0	208	191	0.97	0.014
TEQ (WHO 1998) ND=1/2DL	209	192	0.975	0.0584
TEQ (WHO 2005) ND=0	197	152	0.741	0.0532
TEQ (WHO 2005) ND=1/2DL	199	154	0.759	0.094

NDR = peak detected but did not meet quantification criteria.Number following this flag represents the estimated maximum possible concentration.

< = less than the detection limit. Number following this symbol represents the detection limit.

For homologue totals sums, please see the individual congener data for the detection limit.

[1] Analysis of WHO toxic PCBs only. Can be used to calculated 2378 TCDD toxic equivalence concentrations.

[2] Analysis of PCBs following USEPA method 1668A. Includes all 209 congeners. Also permits calcualtion of homologues, total PCB and TEQ concentrations.

Table A3.4-4 PCDD/PCDF concentrations in a soil/sediment sample; HR-GCMS.

	'08THA019A
AXYS ID	**L11830-15**
WORKGROUP	**WG26805**
Sample Type	**Soil/Sediment**
Sample Size	**10.6 g (dry)**
UNITS	**pg/g**
2,3,7,8-TCDD	
1,2,3,7,8-PeCDD	0.239
1,2,3,4,7,8-HxCDD	0.363
1,2,3,6,7,8-HxCDD	0.998
1,2,3,7,8,9-HxCDD	1.46
1,2,3,4,6,7,8-HpCDD	21.5
OCDD	284
2,3,7,8-TCDF	1.51
1,2,3,7,8-PeCDF	0.537
2,3,4,7,8-PeCDF	0.622
1,2,3,4,7,8-HxCDF	1.03
1,2,3,6,7,8-HxCDF	1.18
1,2,3,7,8,9-HxCDF	0.326
2,3,4,6,7,8-HxCDF	0.986
1,2,3,4,6,7,8-HpCDF	13.8
1,2,3,4,7,8,9-HpCDF	1.19
OCDF	56.7
Total Tetra-Dioxins	6.69
Total Penta-Dioxins	6.65
Total Hexa-Dioxins	19
Total Hepta-Dioxins	55.8
Total Tetra-Furans	10.3
Total Penta-Furans	10.9
Total Hexa-Furans	12.5
Total Hepta-Furans	24.6
% Moisture	58.5
2,3,7,8-TCDF (C)	0.459
TEQ (WHO 1998) ND=0	1.66
TEQ (WHO 1998) ND=1/2DL	1.68
TEQ (WHO 2005) ND=0	1.59
TEQ (WHO 2005) ND=1/2DL	1.61

NATO TEF		I-TEQ
2,3,7,8-TCDD	1	0
1,2,3,7,8-PeCDD	0.5	0.1195
1,2,3,4,7,8-HxCDD	0.1	0.0363
1,2,3,6,7,8-HxCDD	0.1	0.0998
1,2,3,7,8,9-HxCDD	0.1	0.146
1,2,3,4,6,7,8-HpCDD	0.01	0.215
OCDD	0.001	0.284
2,3,7,8-TCDF	0.1	0.151
1,2,3,7,8-PeCDF	0.05	0.02685
2,3,4,7,8-PeCDF	0.5	0.311
1,2,3,4,7,8-HxCDF	0.1	0.103
1,2,3,6,7,8-HxCDF	0.1	0.118
1,2,3,7,8,9-HxCDF	0.1	0.0326
2,3,4,6,7,8-HxCDF	0.1	0.0986
1,2,3,4,6,7,8-HpCDF	0.01	0.138
1,2,3,4,7,8,9-HpCDF	0.01	0.0119
OCDF	0.001	0.0567
		1.94825

< = less than the detection limit

Number following this symbol represents the detection limit

NDR = peak detected but did not meet quantification criteria

Number following this flag represents the estimated maximum possible concentration

Table A3.4-5 Chlorinated pesticide concentrations in tissue and soil/sediment samples; HR-GCMS.

	'08THA019A	'08THA040A
Sample Type	**Soil/Sediment**	**Tissue**
Sample Size	**10.6 g**	
UNITS	**ng/g (dry)**	**ng/g (wet)**
HCB	0.039	0.072
alpha-HCH	0.017	< 0.0049
beta-HCH	0.012	< 0.0061
gamma-HCH	0.005	< 0.0061
HEPTACHLOR	0.002	< 0.0049
ALDRIN	0.07	< 0.0049
OXYCHLORDANE	NDR 0.005	NDR 0.087
t-CHLORDANE	0.055	0.021
c-CHLORDANE	0.111	0.118
t-NONACHLOR	0.031	0.167
c-NONACHLOR	0.084	0.083
o,p-DDD	0.089	< 0.0122
p,p-DDD	0.376	0.609
o,p-DDE	0.068	< 0.0077
p,p-DDE	1.36	1.38
o,p-DDT	0.048	< 0.0249
p,p-DDT	0.101	0.131
MIREX	0.01	0.646
delta-HCH	0.009	NDR 0.002
Heptachlor-Epoxide	NDR 0.005	0.049
alpha-Endosulphan	0.346	NDR 0.02
Dieldrin	0.211	1.72
Endrin	< 0.0148	NDR 0.007
beta-Endosulphan	0.213	NDR 0.052
Endosulphan-Sulphate	NDR 0.11	NDR 0.212
Endrin-Aldehyde	NDR 0.036	< 0.0023
Endrin-Ketone	0.006	NDR 0.002
Methoxychlor	< 0.129	< 0.0015
Total Toxaphene	< 0.101	< 0.0254
% Moisture	58.5	
% Lipid		0.34

< = less than the detection limit

Number following this symbol represents the detection limit

NDR = peak detected but did not meet quantification criteria

Number following this flag represents the estimated maximum possible concentration

Table A3.4-6 PBDE concentrations in a soil/sediment sample; HR-GCMS.

	'08THA019A
Sample Type	**Soil/Sediment**
Sample Size	**4.36 g (dry)**
UNITS	**pg/g (dry weight basis)**
Br2-DPE-7	0.295
Br2-DPE-8/11	4.04
Br2-DPE-10	< 0.230
Br2-DPE-12/13	NDR 18.5
Br2-DPE-15	4.39
Br3-DPE-17/25	8.3
Br3-DPE-28/33	4.09
Br3-DPE-30	< 0.424
Br3-DPE-32	5.34
Br3-DPE-35	NDR 0.673
Br3-DPE-37	< 0.242
Br4-DPE-47	45.9
Br4-DPE-49	26.3
Br4-DPE-51	3.53
Br4-DPE-66	2.93
Br4-DPE-71	NDR 2.05
Br4-DPE-75	NDR 0.361
Br4-DPE-77	NDR 0.251
Br4-DPE-79	< 0.330
Br5-DPE-85	NDR 2.10
Br5-DPE-99	36.4
Br5-DPE-100	9.84
Br5-DPE-105	< 0.930
Br5-DPE-116	< 1.25
Br5-DPE-119/120	< 0.920
Br5-DPE-126	< 0.461
Br6-DPE-128	< 3.70
Br6-DPE-138/166	< 2.47
Br6-DPE-140	NDR 1.78
Br6-DPE-153	11.9
Br6-DPE-154	12.9
Br6-DPE-155	7.3
Br7-DPE-181	< 4.91
Br7-DPE-183	62.5
Br7-DPE-190	< 9.80
Br8-DPE-203	144
Br9-DPE-206	477
Br9-DPE-207	1180
Br9-DPE-208	669
Br10-DPE-209	9090
Total	11806
% Moisture	61.8

< = less than the detection limit

Number following this symbol represents the detection limit

NDR = peak detected but did not meet quantification criteria

Number following this flag represents the estimated maximum possible concentration

Table A3.4-7 Perfluorinated organic compound concentrations in a soil/sediment sample; HR-GCMS.

	'08THA019A
Type	**Soil/Sediment**
Sample Size	**1.67 g (dry)**
UNITS	ng/g
PFBA	< 0.299
PFPeA	< 0.299
PFHxA	< 0.299
PFHpA	< 0.299
PFOA	< 0.299
PFNA	< 0.299
PFDA	< 0.299
PFUnA	0.366
PFDoA	< 0.299
PFBS	< 0.598
PFHxS	< 0.598
PFOS	1.68
PFOSA	< 0.299
Total	2.05
% Moisture	59.4

< = less than the detection limit

Number following this symbol represents the detection limit

NDR = peak detected but did not meet quantification criteria

Number following this flag represents the estimated maximum possible concentration