EAST WATERWAY OPERABLE UNIT SUPPLEMENTAL REMEDIAL INVESTIGATION/ FEASIBILITY STUDY

DATA REPORT:

CLAM SURVEY, GEODUCK SURVEY, FISH AND SHELLFISH TISSUE COLLECTION PCB CONGENER AND DIOXIN/FURAN RESULTS

FINAL

For submittal to

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Acronyms

Acronym	Definition
ACG	analytical concentration goal
Ecology	Washington Department of Ecology
EPA	US Environmental Protection Agency
GC/ECD	gas chromatography/electron capture detection
GC/MS	gas chromatography/mass spectrometry
LCS	laboratory control sample
LDW	Lower Duwamish Waterway
MS/MSD	matrix spike/matrix spike duplicate
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RI	remedial investigation
RL	reporting limit
SDG	sample delivery group
SVOC	semivolatile organic compound
TEF	toxic equivalence factor
TEQ	toxic equivalent
Windward	Windward Environmental LLC
WHO	World Health Organization
ww	wet weight

1 Introduction

This data report provides the results of the analysis of clam, geoduck, fish, and crab tissue samples for individual polychlorinated biphenyl (PCB) congeners and dioxins and furans as specified in the Clam tissue QAPP (Windward 2008) and the Fish and Shellfish tissue collection QAPP (Windward 2008).

This report is organized into sections addressing sample selection and laboratory analyses, chemical analysis results, and references. The text is supported by the following appendices:

- Appendix A – PCB Congener and Dioxin and Furan Data Tables
- Appendix B – Data Management
- Appendix C – Data Validation Report
- Appendix D – Laboratory Form 1s
- Appendix E – Sample Selection Memorandum
- Appendix F – Graphical comparison of total PCBs (sum of Aroclors) and total PCBs (sum of congeners

2 Sample Selection and Laboratory Analyses

The following sections present a summary of the sample selection and laboratory analyses for the PCB congener and dioxin and furan analyses. The selection of samples for analysis was approved by EPA prior to analysis (see Appendix E).

Two approaches were followed for the analysis of PCB congeners and dioxins and furans. For species that have home ranges that are greater than the EW (i.e. crab, shiner surfperch, English sole), "super composites" were created. These composites contain tissue from all available tissue composite samples. For example, there were 11 composite samples of English sole fillets and the super composite was created using an equal amount of tissue from all 11 composite samples, creating one sample with contributions from 55 individual English sole fillets (11 composite samples each containing 5 fillets). The "super" composite sample includes contributions from all collected organisms/composite samples. This provides an estimate of the population mean TEQ concentration using tissue from all collected organisms.

Each super composite was created from a aliquot of tissue collected from all available tissue composite samples. These composites were analyzed in triplicate. The triplicates were created from additional aliquots of tissue collected from each composite sample following additional homogenization. The variability among the triplicate samples

reflects the variability within the tissue homogenates as well as analytical variability associated with the analytical method.

For species with home ranges smaller than the EW (brown rockfish, clams, geoducks) the existing tissue samples were selected for analysis. While all of the brown rockfish individual whole body samples were analyzed, a subset of both the clam samples and geoduck whole body and gutball samples were selected for analysis. Table 2-1 lists the types and numbers of samples selected for analysis. A detailed discussion of the selection of samples for analysis of PCB congeners and dioxins and furans is presented in the Final Sample Selection Memorandum (Appendix E).

Table 2-1. Numbers of samples selected for PCB congener and dioxin/furan analysis

	Super-Composite Samples	Composite Samples	Individual Whole-Body Samples
Brown rockfish	–	–	6
Crab hepatopancreas	3	–	–
Crab edible meat	3	–	–
English sole whole body	3	-	–
English sole fillet	3	-	-
Shiner surfperch	3	-	–
Butter clam	–	2	–
Cockle	–	1	–
Geoduck whole-body	–	–	3
Geoduck gutball	–	2	–
Total	**15**	**5**	**9**

All selected tissue samples were analyzed for PCB congeners and dioxins and furans. The super-composite samples were also analyzed for PCB Aroclors as well as percent lipids and total solids. These analyses were conducted in order to generate PCB datasets for supercomposites that were comparable to the datasets for other tissue samples. The analyses were conducted by Analytical Resources Inc. following methods provided in the Fish and Shellfish QAPP (Windward 2009).

3 Results of Chemical Analyses

This section presents a summary of the results of the PCB congener analyses (Section 3.1) and dioxins and furans analyses (Section 3.2). In addition, the results for the PCB Aroclor analyses and lipids and total solids for the super-composite samples are presented (Section 3.3).

3.1 PCB CONGENER RESULTS

This section presents the results for total PCBs, based on the sum of detected PCB congeners, and results for individual coplanar PCB congeners for fish (Section 3.1.1), crab (Section 3.1.2) and clams and geoducks (Section3.1.3) tissue samples. The results for all 209 PCB congeners analyzed in tissue samples are presented in Appendix A. The coplanar PCB congeners are those congeners for which World Health Organization (WHO) toxic equivalence factors (TEFs) are available (Van den Berg et al. 2006). Coplanar PCB congeners include PCB-077, PCB-081, PCB-105, PCB-114, PCB-118, PCB-123, PCB-126, PCB-156, PCB-157, PCB-167, PCB-169, and PCB-189. In addition, the toxic equivalent quotient (TEQ) based on the coplanar PCB congener results for each sample are presented.

In many samples, two or more PCB congeners cannot be separated analytically. In these samples, the congeners coelute and the concentration of the combined congeners is reported as one value. When coelutions have occurred the convention of assigning the concentration of the coeluting congener to the congener with the lowest IUPAC number has been used. For example, PCB-156 and PCB-157 coelute and the concentration is reported as PCB-156. PCB-157 is reported as C156 to indicate that it is a component of a coelution. This convention has been followed in presenting congener data throughout this data report.

TEQs were calculated using the WHO mammalian TEFs (Van den Berg et al. 2006). For each sample, TEQs were calculated using half the reporting limit (RL) as the selected value for undetected PCB congeners. The coelution between PCB-156 and PCB-157 does not affect the TEQ calculation because both congeners have a TEF of 0.0005.

3.1.1 Fish tissue PCB congener results

Most coplanar PCB congeners were detected in all of the fish tissue samples. Detection frequencies, the range of detected values and reporting limits are summarized for coplanar PCB congeners and total PCBs are provided in Table 3-1.

Table 3-1. Detection frequencies and concentration summaries of coplanar PCB congeners in EW fish fillet and whole-body tissue samples

Chemical	Detection Frequency	Detected Concentration (ng/kg ww)		Reporting Limit[a]
		Minimum	Minimum	
PCB-077	15 / 15	103	671	na
PCB-081	3 / 15	35.9	51.0	8.13 - 48.5
PCB-105	15 / 15	5,610	112,000 J	na
PCB-114	15 / 15	487	5,590	na
PCB-118	15 / 15	22,200	316,000 J	na
PCB-123	15 / 15	258	3,670	na
PCB-126	14 / 15	34.2	426	8.33
PCB-156	15 / 15	5,040 C	63,400 C	na
PCB-157	15 / 15	C156	C156	na
PCB-167	15 / 15	2,380	31,200	na
PCB-169	9 / 15	191	751	9.43 - 48.5
PCB-189	15 / 15	604	5,900	na
Total PCB Congeners	15 / 15	618,000	5,970,000 J	na
PCB TEQ	15 / 15	5.05	59.5 J	na

[a] Reporting limit range for non-detect samples only

na – not applicableC156 - PCB-156 and PCB-157 co-elute; the combined concentration is presented as the concentration of PCB-156

Data qualifiers: C–concentration represents coelution; J - estimated concentration

The concentrations of the individual coplanar PCB congener and total PCB concentrations (i.e., the sum of the detected concentrations of all 209 PCB congeners) for all fish tissue samples are presented in Table 3-2. Total PCB concentrations ranged from 1,007 to 1,243 µg/kg ww in English sole fillet super-composite samples. Total PCB concentrations ranged from 2,010 to 2,365 µg/kg ww in the English sole whole-body super-composite samples. Total PCB concentrations ranged from 644 to 762 µg/kg ww in shiner surfperch whole-body super-composite samples The two highest total PCB tissue concentrations were reported for whole-body samples of brown rockfish from Sampling Area 8 (5,970 µg/kg ww) and Sampling Area 11 (2,438µg/kg ww) (Table 3-2). Fish tissue plots of total PCB concentrations as the sum of the detected congeners versus the total PCB concentrations as the sum of the detected Aroclors are presented in Appendix F.

The individual PCB congener concentrations, the total PCBs (sum of congeners) and the TEQ values the replicate super-composites samples were very consistent for each of the tissue types analyzed as super-composites.

All of the coplanar PCB congeners were detected in all of the fish composite tissue samples, except PCB-081, which was not detected in the brown rockfish, English sole fillet and English sole whole-body tissue samples and PCB-169 which was not detected in the six brown rockfish samples (Table 3-2). Overall, mammalian TEQs (half RL) ranged from 5.05 to 37.4 ng/kg ww. All RLs for PCB-081 and PCB-169 were above the analytical concentration goal (ACG) of 2.4 ng/kg ww established for fish tissue samples (Appendix D of the QAPP). RLs for PCB-081 ranged from 8.13 to 48.5 ng/kg ww and RLs for PCB-169 ranged from 9.43 to 48.5 ng/kg ww. Dioxin-like PCB congeners, such as PCB-081, will be evaluated as toxic equivalents (TEQs) in the risk assessments, rather than as individual congeners. However, because TEQs are calculated, rather than measured by the laboratory, ACGs for individual congeners are presented to facilitate comparison with RLs for those congeners. In the risk assessment, since risks will be assessed based on sums of these congeners (normalized per their relative toxicity to TCDD), comparison to RLs on a congener-specific basis is somewhat uncertain.

Table 3-2. Coplanar PCB congener, total PCB congener, and PCB TEQ concentrations in fish tissue samples

Species Tissue Type/ Sample ID	PCB-077	PCB-081	PCB-105	PCB-114	PCB-118	PCB-123	PCB-126	PCB-156	PCB-157	PCB-167	PCB-169	PCB-189	PCB TEQ	Total PCB Congeners[a]
	ng/kg ww													µg/kg ww
Brown rockfish														
EW-08-SB002-BR-02	671	48.5 U	27,800	1,580	73,500 J	1,090	140	13,600 C	C156	7,300	48.5 U	1,110	18.6 J	1,640 J
EW-08-SB006-BR-06	103	9.43 U	5,610	487	22,200	258	37.9	5,040 C	C156	2,380	9.43 U	827	5.05	618
EW-08-SB008-BR-08	540	46.7 U	112,000 J	5,590	316,000 J	3,670	426	63,400 C	C156	31,200	46.7 U	5,900	59.5 J	5,970 J
EW-08-SB009-BR-09	613	46.7 U	38,400 J	1,980	106,000 J	1,350	168	20,400 C	C156	11,000	46.7 U	2,090	23.0 J	2,320 J
EW-08-SB012-BR-10	186	48.1 U	19,700	1,080	54,100 J	636	113	10,800 C	C156	5,110	48.1 U	1,120	14.8 J	1,106 J
EW-08-SB011-BR-11	394	46.7 U	42,300 J	2,300	115,000 J	1,450	209	23,100 C	C156	11,800	46.7 U	2,390	27.6 J	2,438 J
English sole (fillet)														
EW08-ES-FL-SUPCOMP1	260	9.26 U	11,400	679	36,200	477	41.0	6,800 C	C156	3,430	316	789	15.4	1,243
EW08-ES-FL-SUPCOMP2	201	8.33 U	9,670	547	29,800	460	8.33 U	5,640 C	C156	2,910	271	688	10.1	1,007
EW08-ES-FL-SUPCOMP3	210	9.62 U	10,100	628	31,300	448	34.2	5,860 C	C156	2,970	273	697	13.2	1,072
English sole (whole-body)														
EW08-ES-WB-SUPCOMP1	508	9.90 U	21,900	1,410	70,900 J	1,080	114	14,200 C	C156	7,450	746	1,870	37.4 J	2,365 J
EW08-ES-WB-SUPCOMP2	430	8.13 U	19,000	1,220	61,900 J	946	88.6	12,300 C	C156	6,420	680	1,600	32.4 J	2,010 J
EW08-ES-WB-SUPCOMP3	483	8.26 U	20,400	1,350	66,600 J	1,080	92.0	13,500 C	C156	7,070	751	1,750	35.1 J	2,260 J
Shiner surfperch														
EW08-SS-WB-SUPCOMP1	475	39.0	8,280	544	25,600	404	42.9	5,530 C	C156	2,810	191	604	11.4	644.3
EW08-SS-WB-SUPCOMP2	513	51.0	9,340	578	28,800	498	56.7	6,300 C	C156	3,120	215	704	13.7	733
EW08-SS-WB-SUPCOMP3	518	35.9	9,700	605	29,700	517	58.5	6,740 C	C156	3,430	228	759	14.3	762

[a] Total PCB concentration calculated as the sum of the detected concentrations of all 209 PCB congeners, following summation rules in Appendix B

C156 - PCB-156 and PCB-157 co-elute; the combined concentration is presented as the concentration of PCB-156

PCB – polychlorinated biphenyl

TEQ – Toxic Equivalency Quotient

Data qualifiers: C–concentration represents coelution; U - not detected at the given reporting limit; J - estimated concentration

3.1.2 Crab tissue PCB congener results

Most coplanar PCB congeners were detected in all of the crab tissue samples. Detection frequencies, the range of detected values and reporting limits are summarized for coplanar PCB congeners and total PCBs in Table 3-3.

Table 3-3. Detection frequencies and concentration summaries of coplanar PCB congeners in EW crab hepatopancreas and edible meat tissue samples

Chemical	Detection Frequency	Detected Concentration (ng/kg ww)		Reporting Limit[a]
		Minimum	Minimum	
PCB-077	6 / 6	75.8	345	na
PCB-081	1 / 6	22.2	22.2	8.26 - 9.71
PCB-105	6 / 6	1,590	8,410	na
PCB-114	6 / 6	127	568	na
PCB-118	6 / 6	2,380	15,800	na
PCB-123	6 / 6	65.3	373	na
PCB-126	3 / 6	5.38 J	41.1	8.26 - 30.8
PCB-156	6 / 6	987 C	6,100 C	na
PCB-157	6 / 6	C156	C156	na
PCB-167	6 / 6	333	2,470	na
PCB-169	6 / 6	31.1	197	na
PCB-189	6 / 6	101	798	na
Total PCB Congeners	6 / 6	95,600	597,000	na
PCB TEQ	6 / 6	1.53	11.0	na

[a] Reporting limit range for non-detect samples

na – not applicable

C156 - PCB-156 and PCB-157 co-elute; the combined concentration is presented as the concentration of PCB-156

Data qualifiers: C–concentration represents coelution; J - estimated concentration

The concentrations of the individual coplanar PCB congeners and total PCB concentrations (i.e., the sum of the detected concentrations of all 209 congeners) for all crab tissue super-composite samples are presented in Table 3-4. Total PCB concentrations for the crab hepatopancreas super-composite samples ranged from 546 to 597 µg/kg ww. The total PCB concentrations for the crab edible meat super-composite samples ranged from 95.6 to 114.9 µg/kg ww (Table 3-4). Crab tissue plots of total PCB concentrations as the sum of the congeners versus the total PCB concentrations as the sum of the Aroclors are presented in Appendix F. Overall, TEQs (half RL) ranged from 1.53 to 11.0 ng/kg ww.

Table 3-4. Coplanar PCB congener, total PCB congener, and PCB TEQ concentrations in crab tissue samples

Species Tissue Type/ Sample ID	PCB-077	PCB-081	PCB-105	PCB-114	PCB-118	PCB-123	PCB-126	PCB-156	PCB-157	PCB-167	PCB-169	PCB-189	PCB TEQ	Total PCB Congeners[a]
	ng/kg ww													µg/kg ww
Crab edible meat														
EW08-RRDC-EM-SUPCOMP1	75.8	8.26 U	1,590	127	2,380	65.3	8.26 U	987 C	C156	333	31.3	101	1.53	95.60
EW08-RRDC-EM-SUPCOMP2	83.4	8.70 U	1,700	134	2,570	79.1	5.38 J	1,090 C	C156	361	31.1	111	1.66 J	104.50 J
EW08-RRDC-EM-SUPCOMP3	81.9	8.33 U	1,850	154	2,770	69.9	8.33 U	1,200 C	C156	426	36.1	123	1.71	114.90
Crab hepatopancreas														
EW08-RRDC-HP-SUPCOMP1	303	22.2	7,590	530	14,300	318	30.8 U	5,560 C	C156	2,220	185	720	8.06	546.00
EW08-RRDC-HP-SUPCOMP2	318	9.52 U	7,880	541	14,800	347	41.1	5,790 C	C156	2,310	187	755	10.7	566.50
EW08-RRDC-HP-SUPCOMP3	345	9.71 U	8,410	568	15,800	373	40.3	6,100 C	C156	2,470	197	798	11.0	597.00

[a] Total PCB concentration calculated as the sum of the detected concentrations of all 209 PCB congeners, following summation rules in Appendix B

C156 - PCB-156 and PCB-157 co-elute; the combined concentration is presented as the concentration of PCB-156

PCB – polychlorinated biphenyl

TEQ – Toxic Equivalency Quotient

Data qualifiers: C–concentration represents coelution; U - not detected at the given reporting limit; J - estimated concentration

The individual PCB congener concentrations, the total PCBs (sum of congeners) and the TEQ values the replicate super-composites samples were very consistent for each of the tissue types analyzed as super-composites.

All of the coplanar PCB congeners were detected in all of the crab super-composite tissue samples except PCB-081 (Table 3-5). PCB-081 was detected in only one of the three hepatopancreas super-composite samples. The RLs for PCB-81 ranged from 8.26-9.71 ng/kg ww were above the ACG established for crab edible meat samples (2.4 ng/kg ww) (Appendix D of the QAPP). Dioxin-like PCB congeners, such as PCB-081, will be evaluated as toxic equivalents (TEQs) in the risk assessments, rather than as individual congeners. However, because TEQs are calculated, rather than measured by the laboratory, ACGs for individual congeners are presented to facilitate comparison with RLs for those congeners. In the risk assessment, since risks will be assessed based on sums of these congeners (normalized per their relative toxicity to TCDD), comparison to RLs on a congener-specific basis is somewhat uncertain.

3.1.3 Clam and geoduck tissue PCB congener results

Most coplanar PCB congeners were detected in all of the clam and geoduck tissue samples. Detection frequencies, the range of detected values and reporting limits are summarized for coplanar PCB congeners and total PCBs are provided in Table 3-5.

Table 3-5. Detection frequencies and concentration summaries of coplanar PCB congeners in EW clam and geoduck tissue samples

Chemical	Detection Frequency	Detected Concentration (ng/kg ww)		Reporting Limit[a]
		Minimum	Minimum	
PCB-077	8 / 8	6.86	99.8	na
PCB-081	7 / 8	0.651 J	6.43	2.14
PCB-105	8 / 8	73.8	731	na
PCB-114	8 / 8	16.9	50.9	na
PCB-118	8 / 8	259	1,750	na
PCB-123	8 / 8	9.87	41.1	na
PCB-126	8 / 8	0.627 J	6.10	na
PCB-156	8 / 8	26.4 C	459 C	na
PCB-157	8 / 8	C156	C156	na
PCB-167	8 / 8	31.1	221	na
PCB-169	0 / 8	nd	nd	0.983 - 0.997
PCB-189	8 / 8	0.917 J	62.2	na

Chemical	Detection Frequency	Detected Concentration (ng/kg ww)		Reporting Limit[a]
		Minimum	Minimum	
Total PCB Congeners	8 / 8	13,490 J	72,600	na
PCB TEQ	8 / 8	0.0910 J	0.734	na

[a] Reporting limit range for non-detect samples

na – not applicable

C156 - PCB-156 and PCB-157 co-elute; the combined concentration is presented as the concentration of PCB-156

Data qualifiers: C–concentration represents coelution; J - estimated concentration

The concentrations of the individual coplanar PCB congeners and total PCB concentrations (i.e., the sum of the detected concentrations of all 209 congeners) for all clam and geoduck tissue samples are presented in Table 3-6. Total PCB concentrations for the butter clam and cockle tissue samples ranged from 28 to 72.6 µg/kg ww. The total PCB concentrations for the geoduck edible meat samples ranged from 13.49 to 25.90 µg/kg ww and geoduck gutball composite samples ranged from 52.92 to 71.67 µg/kg ww (Table 3-5). Clam and geoduck tissue plots of total PCB concentrations as the sum of the congeners versus the total PCB concentrations as the sum of the Aroclors are presented in Appendix F. Overall TEQs ranged from 0.0910 to 0.734 ng/kg ww.

All of the coplanar PCB congeners were detected in all of the clam and geoduck tissue samples tissue except PCB-081 and PCB-169 (Table 3-6). PCB-081 was not detected in one of the two geoduck gutball samples and PCB-169 was not detected in any of the clam and geoduck tissue samples. The RL for PCB-81 was 2.14 ng/kg ww and the RLs for PCB-169 ranged from 0.983-0.997 ng/kg ww which are all below the ACG established for tissue samples (2.4 ng/kg ww) (Appendix D of the QAPP). Dioxin-like PCB congeners, such as PCB-081 and PCB-169, will be evaluated as TEQs in the risk assessments, rather than as individual congeners. However, because TEQs are calculated, rather than quantitated by the laboratory, comparisons of ACGs for individual PCB congeners to RLs are somewhat uncertain.

Table 3-6. Coplanar PCB congener, total PCB congener, and PCB TEQ concentrations in clam and geoduck tissue samples (ng/kg ww)

Species Tissue Type/ Sample ID	PCB-077	PCB-081	PCB-105	PCB-114	PCB-118	PCB-123	PCB-126	PCB-156	PCB-157	PCB-167	PCB-169	PCB-189	PCB TEQ	Total PCB Congeners[a]
	ng/kg ww													µg/kg ww
Butter clam - whole body														
EW-B06-BC-01-comp1	99.8	6.43	731	50.9	1,750	41.1	6.10	459 C	C156	170	0.985 U	62.2	0.734	72.60
EW-B10-BC-01-comp1	33.4	2.21	279	17.6	614	18.7	2.16	187 C	C156	62.2	0.994 U	22.4	0.271	28.00
Cockle - whole body														
EW-B08-CN-02-comp1	41.5	1.84	328	16.9	828	15.4	1.49	169 C	C156	73.1	0.997 U	22.2	0.212	30.21
Geoduck – edible meat														
EW-S01-GD-02	6.86	0.651 J	73.8	19.5	259	9.87	0.627 J	26.4 C	C156	31.1	0.988 U	0.917 J	0.0910 J	13.49 J
EW-S01-GD-04	13.8	1.01	146	19.7	480	13.8	1.49	122 C	C156	85.4	0.987 U	8.45	0.192	25.90
EW-S01-GD-10	11.7	0.817 J	104	19.9	379	13.6	1.03	83.1 C	C156	63.9	0.991 U	7.32	0.140 J	24.58 J
Geoduck - gutball														
EW-S01-GD-GB-comp01	27.3	1.35	333	17.6	1,090	21.5	3.06	186 C	C156	149	0.983 U	13.2	0.378	52.92
EW-S01-GD-GB-comp02	41.0	2.14 U	522	27.8	1,610	36.9	4.44	273 C	C156	221	0.988 U	17.0	0.544	71.67

[a] Total PCB concentration calculated as the sum of the detected concentrations of all 209 PCB congeners, following summation rules in Appendix B

C156 - PCB-156 and PCB-157 co-elute; the combined concentration is presented as the concentration of PCB-156

PCB – polychlorinated biphenyl

TEQ – toxic equivalent quotient

Data qualifiers: C–concentration represents coelution; U - not detected at the given reporting limit; J - estimated concentration

3.2 DIOXIN AND FURAN RESULTS

This section presents a summary of the dioxin and furan analyses results for fish (Section 3.2.1), crab (Section 3.2.2) and clam and geoduck (Section3.2.3) tissue samples. This section also presents the dioxin/furan TEQ based on the seventeen congeners for which World Health Organization (WHO) toxic equivalence factors (TEFs) are available (Van den Berg et al. 2006). TEQs were calculated using the WHO mammalian TEFs (Van den Berg et al. 2006). For each sample, TEQ values were calculated using half the RL for nondetected congeners in accordance with the data management protocols (Appendix B). The results of each of the seventeen dioxin and furan TEQ congeners are presented in Appendix A.

3.2.1 Fish tissue dioxin and furan results

Most dioxin and furan congeners were detected in all of the fish tissue samples. Detection frequencies, the range of detected values and reporting limits are summarized for all the dioxin and furan TEQ congeners are provided in Table 3-7.

Table 3-7. EW fish tissue summary for dioxin/furans

Chemical	Detection Frequency	Detected Concentration (ng/kg ww)		Reporting Limit[a]
		Minimum	Maximum	
2,3,7,8-TCDD	11 / 15	0.212	0.946	0.197 - 0.628
1,2,3,7,8-PeCDD	8 / 15	0.276 J	0.958 J	0.240 - 0.701
1,2,3,4,7,8-HxCDD	4 / 15	0.0737 J	0.146 J	0.0734 - 0.180
1,2,3,6,7,8-HxCDD	13 / 15	0.238 J	3.99	0.212 - 0.273
1,2,3,7,8,9-HxCDD	3 / 15	0.117 J	0.522 J	0.0646 - 0.443
1,2,3,4,6,7,8-HpCDD	14 / 15	0.332 J	5.00	0.713
OCDD	14 / 15	0.776 J	15.5	1.04
2,3,7,8-TCDF	15 / 15	0.791	7.60	na
1,2,3,7,8-PeCDF	12 / 15	0.106 J	1.28 J	0.0821 - 0.219
2,3,4,7,8-PeCDF	13 / 15	0.519 J	1.42	0.369 - 0.581
1,2,3,4,7,8-HxCDF	5 / 15	0.316 J	0.607 J	0.0854 - 0.808
1,2,3,6,7,8-HxCDF	9 / 15	0.117 J	0.405 J	0.0640 - 0.377
1,2,3,7,8,9-HxCDF	0 / 15	nd	nd	0.0308 - 0.168
2,3,4,6,7,8-HxCDF	9 / 15	0.0873 J	0.429 J	0.0500 - 0.150
1,2,3,4,6,7,8-HpCDF	6 / 15	0.313 J	1.02 J	0.428 - 1.41
1,2,3,4,7,8,9-HpCDF	1 / 15	0.0443 J	0.0443 J	0.0370 - 0.171
OCDF	9 / 15	0.315 J	1.23 J	0.182 - 0.383
Dioxin/furan TEQ	15 / 15	0.658 J	3.00 J	na

[a] Reporting limit range for non-detect samples

na – not applicable

J - estimated concentration

The calculated dioxin and furan TEQ for each fish tissue sample is provided in Table 3-8. Dioxin and furan TEQs ranged from 0.658 to 3.00 ng TEQ/kg ww. The highest TEQ values were calculated for individual whole-body brown rockfish samples (EW-08-SB002-BR-02 and EW-08-SB011-BR-11). The TEQ values calculated for the replicate super-composites samples were very consistent for each of the three tissue types analyzed as super-composites (English sole fillets, English sole whole-body and shiner surfperch whole body).

Table 3-8. EW fish tissue results for dioxin/furan TEQs

Sample Name	Unit	Dioxin/Furan TEQ
English Sole - fillet super-composites		
EW08-ES-FL-SUPCOMP1	ng/kg ww	0.728 J
EW08-ES-FL-SUPCOMP2	ng/kg ww	0.736 J
EW08-ES-FL-SUPCOMP3	ng/kg ww	0.793 J
English Sole - whole body super-composites		
EW08-ES-WB-SUPCOMP1	ng/kg ww	1.54 J
EW08-ES-WB-SUPCOMP2	ng/kg ww	1.89 J
EW08-ES-WB-SUPCOMP3	ng/kg ww	1.89 J
Shiner surfperch - whole-body super-composites		
EW08-SS-WB-SUPCOMP1	ng/kg ww	1.01 J
EW08-SS-WB-SUPCOMP2	ng/kg ww	1.35 J
EW08-SS-WB-SUPCOMP3	ng/kg ww	1.30 J
Brown rockfish – whole-body		
EW-08-SB002-BR-02	ng/kg ww	3.00 J
EW-08-SB006-BR-06	ng/kg ww	0.658 J
EW-08-SB008-BR-08	ng/kg ww	2.33 J
EW-08-SB009-BR-09	ng/kg ww	1.89 J
EW-08-SB011-BR-11	ng/kg ww	2.80 J
EW-08-SB012-BR-10	ng/kg ww	1.96 J

J – estimated concentration

ww – wet weight

3.2.2 Crab tissue dioxin and furan results

Most dioxin and furan congeners were detected in all of the crab tissue samples. Detection frequencies, the range of detected values and reporting limits are summarized for all the dioxin and furan TEQ congeners are provided in Table 3-9.

Table 3-9. EW crab tissue summary for dioxins/furans

Chemical	Detection Frequency	Detected Concentration (ng/kg ww)		Reporting Limit[a]
		Minimum	Maximum	
2,3,7,8-TCDD	5 / 6	0.0701 J	0.285	0.227
1,2,3,7,8-PeCDD	5 / 6	0.123 J	0.678 J	0.135
1,2,3,4,7,8-HxCDD	4 / 6	0.110 J	0.536 J	0.0756 - 0.128
1,2,3,6,7,8-HxCDD	6 / 6	0.256 J	1.92	na
1,2,3,7,8,9-HxCDD	4 / 6	0.0910 J	0.540 J	0.102 - 0.470
1,2,3,4,6,7,8-HpCDD	6 / 6	0.611 J	6.49	na
OCDD	6 / 6	1.46 J	10.9	na
2,3,7,8-TCDF	6 / 6	1.25	4.87	na
1,2,3,7,8-PeCDF	6 / 6	0.127 J	0.659 J	na
2,3,4,7,8-PeCDF	5 / 6	0.214 J	1.69	0.253
1,2,3,4,7,8-HxCDF	0 / 6	nd	nd	0.111 - 1.04
1,2,3,6,7,8-HxCDF	5 / 6	0.0643 J	0.337 J	0.0541
1,2,3,7,8,9-HxCDF	0 / 6	nd	nd	0.0251 - 0.0861
2,3,4,6,7,8-HxCDF	4 / 6	0.0333 J	0.238 J	0.0288 - 0.0604
1,2,3,4,6,7,8-HpCDF	0 / 6	nd	nd	0.227 - 1.90
1,2,3,4,7,8,9-HpCDF	1 / 6	0.0447 J	0.0447 J	0.0239 - 0.0544
OCDF	4 / 6	0.374 J	0.682 J	0.133 - 0.196
Dioxin/furan TEQ	6 / 6	0.451 J	2.35 J	na

[a] Reporting limit range for non-detect samples

na – not applicable

J - estimated concentration

The calculated dioxin and furan TEQ for each crab tissue sample is provided in Table 3-10. Dioxin and furan TEQs ranged from 0.451 to 2.35 ng TEQ/kg ww. The highest TEQ values were calculated for crab hepatopancreas super-composite samples. The TEQ values calculated for the replicate super-composites samples were very consistent for both the crab edible meat super-composite samples and the crab hepatopancreas super-composite samples

Table 3-10. EW crab tissue results for dioxin/furan TEQs

Sample Name	Unit	Dioxin/Furan TEQ
Crab - edible meat super-composites		
EW08-RRDC-EM-SUPCOMP1	ng/kg ww	0.451 J
EW08-RRDC-EM-SUPCOMP2	ng/kg ww	0.488 J
EW08-RRDC-EM-SUPCOMP3	ng/kg ww	0.471 J
Crab - hepatopancreas super-composites		
EW08-RRDC-HP-SUPCOMP1	ng/kg ww	2.26 J
EW08-RRDC-HP-SUPCOMP2	ng/kg ww	2.22 J
EW08-RRDC-HP-SUPCOMP3	ng/kg ww	2.35 J

J – estimated concentration

ww – wet weight

3.2.3 Clam and geoduck tissue dioxin and furan results

Most dioxin and furan congeners were detected in all of the clam and geoduck tissue samples. Detection frequencies, the range of detected values and reporting limits are summarized for all the dioxin and furan TEQ congeners are provided in Table 3-11.

Table 3-11. Summary of clam and geoduck tissue results for dioxins/furans

Chemical	Detection Frequency	Detected Concentration (ng/kg ww)		Reporting Limits
		Minimum	Maximum	
2,3,7,8-TCDD	0 / 8	nd	nd	0.0926 - 0.177
1,2,3,7,8-PeCDD	0 / 8	nd	nd	0.0941 - 0.246
1,2,3,4,7,8-HxCDD	2 / 8	0.128 J	0.243 J	0.125 - 0.259
1,2,3,6,7,8-HxCDD	2 / 8	0.250 J	0.422 J	0.147 - 0.292
1,2,3,7,8,9-HxCDD	2 / 8	0.122 J	0.213 J	0.145 - 0.289
1,2,3,4,6,7,8-HpCDD	5 / 8	2.13 J	4.80	0.150 - 0.424
OCDD	8 / 8	0.807 J	47.3	na
2,3,7,8-TCDF	4 / 8	0.173 J	0.495	0.0837 - 0.259
1,2,3,7,8-PeCDF	0 / 8	nd	nd	0.0609 - 0.212
2,3,4,7,8-PeCDF	2 / 8	0.177 J	0.379 J	0.112 - 0.240
1,2,3,4,7,8-HxCDF	2 / 8	0.199 J	0.246 J	0.0615 - 0.191
1,2,3,6,7,8-HxCDF	0 / 8	nd	nd	0.0547 - 0.111
1,2,3,7,8,9-HxCDF	0 / 8	nd	nd	0.0777 - 0.169
2,3,4,6,7,8-HxCDF	0 / 8	nd	nd	0.0601 - 0.133
1,2,3,4,6,7,8-HpCDF	6 / 8	0.0879 J	1.01 J	0.0769 - 0.377
1,2,3,4,7,8,9-HpCDF	0 / 8	nd	nd	0.0958 - 0.156

Chemical	Detection Frequency	Detected Concentration (ng/kg ww)		Reporting Limits
		Minimum	Maximum	
OCDF	5 / 8	0.829 J	2.11 J	0.226 - 0.588
Dioxin/furan TEQ	8 / 8	0.218 J	0.536 J	na

J – estimated concentration

na – not applicable

ww – wet weight

The calculated dioxin and furan TEQ for each clam and geoduck tissue sample is provided in Table 3-12. Dioxin and furan TEQs ranged from 0.218 to 0.536 ng TEQ/kg ww. The highest TEQ value was calculated for a geoduck gutball sample (EW-S01-GD-GB-comp02).

Table 3-12. EW clam and geoduck tissue results for dioxin/furan TEQs

Sample Name	Unit	Dioxin/Furan TEQ
Butter clam - Whole body		
EW-B06-BC-01-comp1	ng/kg ww	0.379 J
EW-B10-BC-01-comp1	ng/kg ww	0.237 J
Cockle - Whole body		
EW-B08-CN-02-comp1	ng/kg ww	0.234 J
Geoduck – edible meat		
EW-S01-GD-02	ng/kg ww	0.246 J
EW-S01-GD-04	ng/kg ww	0.239 J
EW-S01-GD-10	ng/kg ww	0.218 J
Geoduck - Gutball		
EW-S01-GD-GB-comp01	ng/kg ww	0.303 J
EW-S01-GD-GB-comp02	ng/kg ww	0.536 J

J – estimated concentration

ww – wet weight

3.2.4 Assessment of reporting limit influences on the calculation of PCB and Dioxin/Furan TEQs

PCB congener TEQs and dioxin/furan TEQs were calculated with nondetected results treated as half the RL as described in Appendix B. In order to determine the extent to which the calculated TEQs were influenced by the RL values, TEQs were calculated with the RL incorporated as zero, half the RL or full RL for PCB congener TEQs (Table 3-13) and dioxin/furan TEQs (Table 3-14). The largest differences were observed for dioxin/furan TEQs calculated for geoduck edible meat samples due to the fact that

very few dioxin and furan congeners were detected in these samples. In general, the non-detected values do not substantially influence the calculated TEQ values.

Table 3-13. PCB congener TEQ calculated with RL as zero, half RL and full RL

Species Tissue Type/Sample ID	Unit	PCB TEQ - mammal (zero RL)	PCB TEQ - mammal (half RL)	PCB TEQ - mammal (full RL)
Brown rockfish				
EW-08-SB002-BR-02	ng/kg ww	17.8 J	18.6 J	19.4 J
EW-08-SB006-BR-06	ng/kg ww	4.90	5.05	5.19
EW-08-SB008-BR-08	ng/kg ww	58.8 J	59.5 J	60.2 J
EW-08-SB009-BR-09	ng/kg ww	22.3 J	23.0 J	23.7 J
EW-08-SB012-BR-10	ng/kg ww	14.1 J	14.8 J	15.5 J
EW-08-SB011-BR-11	ng/kg ww	26.9 J	27.6 J	28.3 J
English sole - fillet super-composites				
EW08-ES-FL-SUPCOMP1	ng/kg ww	15.4	15.4	15.4
EW08-ES-FL-SUPCOMP2	ng/kg ww	9.65	10.1	10.5
EW08-ES-FL-SUPCOMP3	ng/kg ww	13.2	13.2	13.2
English sole - whole body super-composites				
EW08-ES-WB-SUPCOMP1	ng/kg ww	37.4 J	37.4 J	37.4 J
EW08-ES-WB-SUPCOMP2	ng/kg ww	32.4 J	32.4 J	32.4 J
EW08-ES-WB-SUPCOMP3	ng/kg ww	35.1 J	35.1 J	35.1 J
Shiner surfperch - whole-body super-composites				
EW08-SS-WB-SUPCOMP1	ng/kg ww	11.4	11.4	11.4
EW08-SS-WB-SUPCOMP2	ng/kg ww	13.7	13.7	13.7
EW08-SS-WB-SUPCOMP3	ng/kg ww	14.3	14.3	14.3
Crab - edible meat super-composites				
EW08-RRDC-EM-SUPCOMP1	ng/kg ww	1.11	1.53	1.94
EW08-RRDC-EM-SUPCOMP2	ng/kg ww	1.66 J	1.66 J	1.66 J
EW08-RRDC-EM-SUPCOMP3	ng/kg ww	1.28	1.71	2.13
Crab - hepatopancreas super-composites				
EW08-RRDC-HP-SUPCOMP1	ng/kg ww	6.52	8.06	9.60
EW08-RRDC-HP-SUPCOMP2	ng/kg ww	10.7	10.7	10.7
EW08-RRDC-HP-SUPCOMP3	ng/kg ww	11.0	11.0	11.0
Butter clam - whole body				
EW-B06-BC-01-comp1	ng/kg ww	0.719	0.734	0.749
EW-B10-BC-01-comp1	ng/kg ww	0.256	0.271	0.286
Cockle - whole body				
EW-B08-CN-02-comp1	ng/kg ww	0.197	0.212	0.227
Geoduck – edible meat				
EW-S01-GD-02	ng/kg ww	0.0760 J	0.0910 J	0.106 J
EW-S01-GD-04	ng/kg ww	0.177	0.192	0.207
EW-S01-GD-10	ng/kg ww	0.125 J	0.140 J	0.154 J

Species Tissue Type/Sample ID	Unit	PCB TEQ - mammal (zero RL)	PCB TEQ - mammal (half RL)	PCB TEQ - mammal (full RL)
Geoduck - gutball				
EW-S01-GD-GB-comp01	ng/kg ww	0.364	0.378	0.393
EW-S01-GD-GB-comp02	ng/kg ww	0.529	0.544	0.559

J – estimated concentration

RL – reporting limit

Table 3-14. Dioxin/furan TEQ (ng/kg ww) calculated with RL as zero, half RL and full RL

Species Tissue Type/Sample ID	Unit	Dioxin/furan TEQ - mammal (zero RL)	Dioxin/furan TEQ - mammal (half RL)	Dioxin/furan TEQ - mammal (full RL)
Brown rockfish				
EW-08-SB002-BR-02	ng/kg ww	2.95 J	3.00 J	3.05 J
EW-08-SB006-BR-06	ng/kg ww	0.339 J	0.658 J	0.978 J
EW-08-SB008-BR-08	ng/kg ww	1.87 J	2.33 J	2.78 J
EW-08-SB009-BR-09	ng/kg ww	1.19 J	1.89 J	2.58 J
EW-08-SB012-BR-10	ng/kg ww	1.73 J	1.96 J	2.18 J
EW-08-SB011-BR-11	ng/kg ww	2.77 J	2.80 J	2.83 J
English sole - fillet super-composites				
EW08-ES-FL-SUPCOMP1	ng/kg ww	0.576 J	0.728 J	0.880 J
EW08-ES-FL-SUPCOMP2	ng/kg ww	0.559 J	0.736 J	0.912 J
EW08-ES-FL-SUPCOMP3	ng/kg ww	0.757 J	0.793 J	0.828 J
English sole - whole body super-composites				
EW08-ES-WB-SUPCOMP1	ng/kg ww	1.23 J	1.54 J	1.85 J
EW08-ES-WB-SUPCOMP2	ng/kg ww	1.86 J	1.89 J	1.92 J
EW08-ES-WB-SUPCOMP3	ng/kg ww	1.84 J	1.89 J	1.93 J
Shiner surfperch - whole-body super-composites				
EW08-SS-WB-SUPCOMP1	ng/kg ww	0.628 J	1.01 J	1.39 J
EW08-SS-WB-SUPCOMP2	ng/kg ww	1.31 J	1.35 J	1.38 J
EW08-SS-WB-SUPCOMP3	ng/kg ww	1.26 J	1.30 J	1.34 J
Crab - edible meat super-composites				
EW08-RRDC-EM-SUPCOMP1	ng/kg ww	0.392 J	0.451 J	0.510 J
EW08-RRDC-EM-SUPCOMP2	ng/kg ww	0.393 J	0.488 J	0.583 J
EW08-RRDC-EM-SUPCOMP3	ng/kg ww	0.457 J	0.471 J	0.486 J
Crab - hepatopancreas super-composites				
EW08-RRDC-HP-SUPCOMP1	ng/kg ww	2.22 J	2.26 J	2.29 J
EW08-RRDC-HP-SUPCOMP2	ng/kg ww	2.07 J	2.22 J	2.38 J
EW08-RRDC-HP-SUPCOMP3	ng/kg ww	2.26 J	2.35 J	2.44 J

Species Tissue Type/Sample ID	Unit	Dioxin/furan TEQ - mammal (zero RL)	Dioxin/furan TEQ - mammal (half RL)	Dioxin/furan TEQ - mammal (full RL)
Butter clam - whole body				
EW-B06-BC-01-comp1	ng/kg ww	0.102 J	0.379 J	0.656 J
EW-B10-BC-01-comp1	ng/kg ww	0.0310 J	0.237 J	0.443 J
Cockle - whole body				
EW-B08-CN-02-comp1	ng/kg ww	0.0790 J	0.234 J	0.389 J
Geoduck – edible meat				
EW-S01-GD-02	ng/kg ww	0.000242 J	0.246 J	0.492 J
EW-S01-GD-04	ng/kg ww	0.0190 J	0.239 J	0.459 J
EW-S01-GD-10	ng/kg ww	0.0240 J	0.218 J	0.411 J
Geoduck - gutball				
EW-S01-GD-GB-comp01	ng/kg ww	0.106 J	0.303 J	0.500 J
EW-S01-GD-GB-comp02	ng/kg ww	0.324 J	0.536 J	0.749 J

J – estimated concentration

RL – reporting limit

3.3 PCB AROCLORS, LIPIDS AND TOTAL SOLIDS RESULTS

The results for the super-composite samples analyzed for PCB Aroclors, lipids and total solids are presented below.

3.3.1 EW fish tissue super-composite sample results

The results for the fish tissue super-composite samples are summarized in Table 3-15. Two Aroclors (Aroclor 1254 and Aroclor 1260) were detected in all the fish tissue super-composite samples.

Table 3-15. EW Fish tissue super-composite sample results for PCB Aroclors, percent lipids and total solids

Chemical	Detection Frequency	Unit	Detected Concentration		Reporting Limits
			Minimum	Maximum	
PCBs					
Aroclor-1016	0 / 9	µg/kg ww	nd	nd	9.9 - 50
Aroclor-1221	0 / 9	µg/kg ww	nd	nd	20 - 100
Aroclor-1232	0 / 9	µg/kg ww	nd	nd	9.9 - 50
Aroclor-1242	0 / 9	µg/kg ww	nd	nd	9.9 - 50
Aroclor-1248	0 / 9	µg/kg ww	nd	nd	9.9 - 50
Aroclor-1254	9 / 9	µg/kg ww	370	1,300	na
Aroclor-1260	9 / 9	µg/kg ww	320	1,400	na
Total PCBs	9 / 9	µg/kg ww	720	2,700	na

Chemical	Detection Frequency	Unit	Detected Concentration		Reporting Limits
			Minimum	Maximum	
Conventionals					
Lipid	9 / 9	% ww	1.40	5.50	na
Total solids	9 / 9	% ww	20.32	28.78	na

The results for each super-composite sample are provided in Table 3-16. The highest Aroclor concentrations were measured in the English sole whole-body super-composites. The PCB Aroclor, lipid and total solid results for replicate super-composites for each tissue type were consistent.

Table 3-16. EW fish tissue super-composite sample results for PCB Aroclors, total lipids, and total solids

Species Tissue Type/ Sample ID	PCB Aroclor Concentrations (µg/kg ww)								Lipids (%)	Total Solids (%)
	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs		
English sole - fillet super-composites										
EW08-ES-FL-SUPCOMP1	9.9 U	20 U	9.9 U	9.9 U	9.9 U	400	320	720	1.53	20.32
EW08-ES-FL-SUPCOMP2	50 U	100 U	50 U	50 U	50 U	610	640	1,250	1.40	22.62
EW08-ES-FL-SUPCOMP3	50 U	100 U	50 U	50 U	50 U	790	850	1,640	1.61	20.44
English sole - whole body super-composites										
EW08-ES-WB-SUPCOMP1	50 U	99 U	50 U	50 U	50 U	1,100	1,200	2,300	3.08	21.90
EW08-ES-WB-SUPCOMP2	50 U	99 U	50 U	50 U	50 U	1,200	1,300	2,500	2.88	22.06
EW08-ES-WB-SUPCOMP3	50 U	100 U	50 U	50 U	50 U	1,300	1,400	2,700	2.93	22.31
Shiner surfperch - whole-body super-composites										
EW08-SS-WB-SUPCOMP1	50 U	100 U	50 U	50 U	50 U	440	700	1,140	5.50	27.72
EW08-SS-WB-SUPCOMP2	9.9 U	20 U	9.9 U	9.9 U	9.9 U	370	570	940	5.34	28.78
EW08-SS-WB-SUPCOMP3	10 U	20 U	10 U	10 U	10 U	370	560	930	5.37	28.36

J – estimated concentration

U – not detected at the given reporting limit

ww – wet weight

3.3.1 EW fish crab super-composite sample results

The results for the crab tissue super-composite samples are summarized in Table 3-17. Two Aroclors (Aroclor 1254 and Aroclor 1260) were detected in all the crab tissue super-composite samples.

Table 3-17 – EW Crab tissue super-composite sample results for PCB Aroclors, percent lipids and total solids

Chemical	Detection Frequency	Units	Detected Concentration		Reporting Limits
			Minimum	Maximum	
PCBs					
Aroclor-1016	0 / 6	µg/kg ww	nd	nd	9.8 - 10
Aroclor-1221	0 / 6	µg/kg ww	nd	nd	20
Aroclor-1232	0 / 6	µg/kg ww	nd	nd	9.8 - 10
Aroclor-1242	0 / 6	µg/kg ww	nd	nd	9.8 - 10
Aroclor-1248	0 / 6	µg/kg ww	nd	nd	9.8 - 10
Aroclor-1254	6 / 6	µg/kg ww	17 J	350 J	na
Aroclor-1260	6 / 6	µg/kg ww	34	580	na
Total PCBs	6 / 6	µg/kg ww	51 J	930 J	na
Conventionals					
Lipid	6 / 6	% ww	0.151	2.25	na
Total solids	6 / 6	% ww	14.47	19.11	na

The results for each super-composite sample are provided in Table 3-18. The highest Aroclor concentrations were measured in the crab hepatopancreas super-composites. The PCB Aroclor results for individual Aroclors as well as the total PCBs (sum of Aroclors) and , lipid and total solid results for replicate super-composites for each tissue type were consistent.

Table 3-18. EW crab tissue super-composite sample results for PCB Aroclors, total lipids, and total solids

Species Tissue Type/ Sample ID	PCB Aroclor Concentrations (µg/kg ww)								Lipids (%)	Total Solids (%)
	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs		
Crab - edible meat super-composites										
EW08-RRDC-EM-SUPCOMP1	10 U	20 U	10 U	10 U	10 U	33	60	93	0.151	18.85
EW08-RRDC-EM-SUPCOMP2	9.8 U	20 U	9.8 U	9.8 U	9.8 U	24 J	46	70 J	0.159	19.11
EW08-RRDC-EM-SUPCOMP3	10 U	20 U	10 U	10 U	10 U	17 J	34	51 J	0.151	18.58
Crab - hepatopancreas super-composites										
EW08-RRDC-HP-SUPCOMP1	10 U	20 U	10 U	10 U	10 U	310 J	510	820 J	2.13	14.47
EW08-RRDC-HP-SUPCOMP2	9.9 U	20 U	9.9 U	9.9 U	9.9 U	350 J	580	930 J	2.18	15.26
EW08-RRDC-HP-SUPCOMP3	9.8 U	20 U	9.8 U	9.8 U	9.8 U	340 J	570	910 J	2.25	15.43

J – estimated concentration

U – not detected at the given reporting limit

ww – wet weight

3.4 DATA VALIDATION RESULTS

Independent data validation was performed by EcoChem on all results in accordance with the QA/QC requirements and technical specifications of the methods and the national functional guidelines (EPA 1999, 2002, 2004, 2005). EcoChem conducted full-level data validation on all PCB congener and dioxin/furan results. Summary-level data validation was performed on the PCB Aroclor, lipids, and total solids results. The percent of samples submitted for full validation for each analysis is consistent with QAPP requirements for the entire EW fish and shellfish tissue dataset. The majority of the Aroclor and lipid data were presented in a separate data report (Windward 2010). Table 3-19 provides a summary of the number of samples in each sample delivery group (SDG) and the level of data validation.

Table 3-19. Data validation performed for each SDG

Laboratory	SDG	Validation Level	Number of Samples	Analyses
Analytical Perspectives	P1389	full	15	PCB congeners and dioxins/furans
Analytical Perspectives	P1395	full	14	PCB congeners and dioxins/furans
ARI	PA65	summary	15	lipids, total solids
CAS	K0905254	summary	15	PCB Aroclors

ARI – Analytical Resources, Inc.

CAS – Columbia Analytical Services, Inc.

PCB – polychlorinated biphenyl

SDG – sample delivery group

The data validation involved a review of all QC summary forms, including initial calibration, continuing calibration verification (CCV), internal standard, surrogate, laboratory control sample (LCS), laboratory control sample duplicate (LCSD), matrix spike (MS), and matrix spike duplicate (MSD)[1] .The majority of the data did not require qualification or were qualified with a J, indicating that the concentration was an estimated value. No results were rejected as a consequence of data validation. Based on the information reviewed, the overall data quality was considered acceptable for all uses, as qualified. Issues that resulted in the qualification of data are summarized below. Detailed information regarding every qualified sample is presented in Appendix C.

- Eleven results for two PCB congeners (i.e., 8 results for PCB-118 and 3 results for PCB-105) were J-qualified because they exceeded the calibrated range of the instrument. All results were within the operating range of the instrument.

[1] QA sample analyzed for Aroclor analysis only.

- Sixty results were re-qualified as non-detect at elevated reporting limits because of method blank contamination. Results that were re-qualified as non-detect include 21 results for PCB-11, 15 results each for 1,2,3,4,6,7,8-HpCDF and 1,2,3,4,7,8-HxCDF, and 8 results for PCB-8.
- The results for PCB-1 and PCB-2 in sample EW08-RRDC-EM-SUPCOMP2 were J-qualified because the recovery of the associated spiked labeled standard was outside of QC limits.
- The RPDs between the results of dual-column analyses for Aroclor 1254 in 5 samples were greater than the control limit of ±40%. These results were J-qualified to indicate estimated concentrations. The reported result was selected from the analytical column with the higher of the two values. Samples were not reanalyzed for elevated dual-column RPDs if all other QC criteria were met, but results were flagged as estimated.

4 References

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Windward. 2008. Quality assurance project plan: clam studies. East Waterway Operable Unit supplemental remedial investigation/feasibility study. Windward Environmental LLC, Seattle, WA.

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APPENDIX A

PCB Congener and Dioxin and Furan Data Tables

Appendix A PCB Congener and Dioxin and Furan Data Tables

List of Tables

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Table Acronyms and Definitions

ww – wet weight

Data qualifiers:

- C – data refers to the first of the co-eluting congeners
- C### – number noted references the first of the co-eluting congeners
- CJ – data refers to the first of the co-eluting congeners, estimated concentration
- CU – data refers to the first of the co-eluting congeners, not detected at reporting limit shown
- CUJ – data refers to the first of the co-eluting congeners, not detected at estimated reporting limit shown
- J – estimated concentration
- JN – tentatively identified at estimated concentration
- U – not detected at reporting limit shown

Table A-1a. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB Congeners									
PCB-001	ng/kg ww	11.1	8.62	9.58	27.2	12.7 U	14.4	3.06	8.70 UJ
PCB-002	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	1.52	8.26 U	8.70 UJ
PCB-003	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	2.40	3.81	4.48
PCB-004	ng/kg ww	79.7	67.9	70.0	191	108	114	10.8	12.4
PCB-005	ng/kg ww	3.75	199	4.06	9.31	5.01	5.65	8.26 U	8.70 U
PCB-006	ng/kg ww	57.8	50.3	51.8	132	84.1	95.0	5.75	6.16
PCB-007	ng/kg ww	11.8	7.91	12.8	25.4	15.9	19.2	8.26 U	1.59
PCB-008	ng/kg ww	196	8.33 U	177	454	289	320	27.5 U	26.6 U
PCB-009	ng/kg ww	14.5	14.1	13.4	32.8	20.5	22.6	8.06	7.82
PCB-010	ng/kg ww	6.85	5.77	5.96	17.3	8.99	9.43	8.26 U	8.70 U
PCB-011	ng/kg ww	20.0 U	8.33 U	21.1 U	26.2 U	18.0 U	23.2 U	36.5 U	35.2 U
PCB-012	ng/kg ww	4.34 C	16.2 C	4.48 C	8.89 C	6.04 C	6.36 C	13.6 C	14.2 C
PCB-013	ng/kg ww	C12	C12	C12	C12	C12	C12	C12	C12
PCB-014	ng/kg ww	9.26 U	14.9	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-015	ng/kg ww	18.0	8.33 U	16.5	40.3	26.5	27.7	173	179
PCB-016	ng/kg ww	348	259	284	801	522	526	12.9	14.1
PCB-017	ng/kg ww	901	651	726	2,070	1,340	1,360	23.2	22.9
PCB-018	ng/kg ww	1,480 C	1,110 C	1,220 C	3,470 C	2,280 C	2,280 C	99.1 C	104 C
PCB-019	ng/kg ww	107	82.4	93.7	273	164	179	8.26 U	2.52
PCB-020	ng/kg ww	4,100 C	3,210 C	3,550 C	7,560 C	5,770 C	6,120 C	1,590 C	1,670 C
PCB-021	ng/kg ww	881 C	693 C	741 C	1,700 C	1,290 C	1,390 C	23.6 C	23.7 C
PCB-022	ng/kg ww	654	523	564	1,250	964	1,030	89.1	96.4
PCB-023	ng/kg ww	2.85	8.33 U	2.81	5.29	3.86	4.19	8.26 U	8.70 U
PCB-024	ng/kg ww	23.3	13.1 U	18.2	54.1	34.8	35.3	8.26 U	8.70 U

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB-025	ng/kg ww	184	142	156	348	266	280	17.0	17.7
PCB-026	ng/kg ww	721 C	564 C	625 C	1,320 C	1,020 C	1,030 C	74.0 C	75.0 C
PCB-027	ng/kg ww	276	210	228	642	424	427	8.53	8.53
PCB-028	ng/kg ww	C20	C20	C20	C20	C20	C20	C20	C20
PCB-029	ng/kg ww	C26	C26	C26	C26	C26	C26	C26	C26
PCB-030	ng/kg ww	C18	C18	C18	C18	C18	C18	C18	C18
PCB-031	ng/kg ww	2,140	1,670	1,840	4,120	3,110	3,290	903	959
PCB-032	ng/kg ww	926	682	743	2,050	1,340	1,380	6.24	6.79
PCB-033	ng/kg ww	C21	C21	C21	C21	C21	C21	C21	C21
PCB-034	ng/kg ww	19.4	14.2	16.4	33.7	26.0	26.2	8.26 U	8.70 U
PCB-035	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	9.20 U	10.5
PCB-036	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-037	ng/kg ww	49.4	8.33 U	42.3	125	90.3	82.3 U	298	312
PCB-038	ng/kg ww	20.4	15.8	19.1	34.5	26.0	28.9	8.26 U	8.70 U
PCB-039	ng/kg ww	9.26 U	19.1	9.62 U	9.90 U	8.13 U	41.8	8.26 U	2.27
PCB-040	ng/kg ww	3,400 C	2,650 C	2,830 C	5,930 C	4,500 C	5,280 C	18.0 C	24.5 C
PCB-041	ng/kg ww	421	340	346	658	568	690	4.53	8.70 U
PCB-042	ng/kg ww	2,710	2,090	2,340	4,600	3,480	4,190	114	154
PCB-043	ng/kg ww	358	271	299	605	459	534	18.3	23.5
PCB-044	ng/kg ww	11,600 C	9,110 C	10,200 C	18,500 C	13,800 C	16,400 C	901 C	1,140 C
PCB-045	ng/kg ww	765	495	633	1,320	913	1,140	13.3	16.3
PCB-046	ng/kg ww	212	169	178	375	271	317	3.07	8.70 U
PCB-047	ng/kg ww	C44	C44	C44	C44	C44	C44	C44	C44
PCB-048	ng/kg ww	1,430	1,090	1,190	2,500	1,900	2,200	20.6	26.5
PCB-049	ng/kg ww	17,200 C	13,300 C	15,500 C	27,300 C	20,300 C	24,200 C	590 C	748 C
PCB-050	ng/kg ww	2,480 C	1,890 C	2,150 C	3,990 C	2,930 C	3,320 C	13.6 C	16.6 C
PCB-051	ng/kg ww	1,580	1,310	1,440	2,190	1,660	1,810	8.26 U	8.70 U

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB-052	ng/kg ww	24,900	19,500	22,300	40,600	30,000	35,500	1,350	1,720
PCB-053	ng/kg ww	C50	C50	C50	C50	C50	C50	C50	C50
PCB-054	ng/kg ww	73.1	57.5	64.9	118	77.9	83.6	8.26 U	8.70 U
PCB-055	ng/kg ww	85.5	8.33 U	9.62 U	9.90 U	111	125	8.26 U	8.70 U
PCB-056	ng/kg ww	1,070	830	915	2,100	1,700	1,980	34.5	39.4
PCB-057	ng/kg ww	9.26 U	52.1	52.5	106	80.9	97.6	8.26 U	8.70 U
PCB-058	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-059	ng/kg ww	1,380 C	1,090 C	1,200 C	2,270 C	1,710 C	2,060 C	47.5 C	60.2 C
PCB-060	ng/kg ww	2,860	2,290	2,510	5,010	4,100	4,710	577	663
PCB-061	ng/kg ww	16,100 C	12,700 C	14,300 C	28,500 C	23,000 C	26,900 C	2,450 C	2,860 C
PCB-062	ng/kg ww	C59	C59	C59	C59	C59	C59	C59	C59
PCB-063	ng/kg ww	457	374	409	813	660	771	71.5	83.9
PCB-064	ng/kg ww	4,050	3,300	3,560	7,000	5,350	6,350	342	431
PCB-065	ng/kg ww	C44	C44	C44	C44	C44	C44	C44	C44
PCB-066	ng/kg ww	10,700	8,260	9,340	18,600	15,100	17,600	1,090	1,260
PCB-067	ng/kg ww	192	151	165	395	298	349	8.26 U	5.73
PCB-068	ng/kg ww	112	84.8	101	166	131	159	8.26 U	3.07
PCB-069	ng/kg ww	C49	C49	C49	C49	C49	C49	C49	C49
PCB-070	ng/kg ww	C61	C61	C61	C61	C61	C61	C61	C61
PCB-071	ng/kg ww	C40	C40	C40	C40	C40	C40	C40	C40
PCB-072	ng/kg ww	333	255	296	521	398	486	5.95	7.89
PCB-073	ng/kg ww	198	163	183	309	205	271	3.13	3.43
PCB-074	ng/kg ww	C61	C61	C61	C61	C61	C61	C61	C61
PCB-075	ng/kg ww	C59	C59	C59	C59	C59	C59	C59	C59
PCB-076	ng/kg ww	C61	C61	C61	C61	C61	C61	C61	C61
PCB-077	ng/kg ww	260	201	210	508	430	483	75.8	83.4
PCB-078	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB-079	ng/kg ww	217	189	193	419	357	391	19.5	24.0
PCB-080	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-081	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-082	ng/kg ww	1,720	1,370	1,530	2,980	2,610	2,960	25.8	31.3
PCB-083	ng/kg ww	1,220	8.33 U	9.62 U	9.90 U	8.13 U	1,450	141	8.70 U
PCB-084	ng/kg ww	4,120	3,110	3,630	6,590	5,420	6,810	180	226
PCB-085	ng/kg ww	4,880 C	3,690 C	4,090 C	8,210 C	7,240 C	8,620 C	671 C	703 C
PCB-086	ng/kg ww	23,000 C	18,400 C	20,800 C	39,000 C	33,200 C	39,600 C	1,040 C	1,210 C
PCB-087	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-088	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-089	ng/kg ww	182	142	174	310	253	302	8.26 U	8.70 U
PCB-090	ng/kg ww	102,000 C	78,300 C	94,500 C	174,000 C	145,000 C	177,000 C	3,600 C	4,240 C
PCB-091	ng/kg ww	10,300	7,780	9,230	16,600	13,600	16,900	175	214
PCB-092	ng/kg ww	14,000	10,800	12,900	23,000	19,500	23,900	745	912
PCB-093	ng/kg ww	3,710 C	2,830 C	3,340 C	5,800 C	4,570 C	5,680 C	116 C	144 C
PCB-094	ng/kg ww	166	128	146	224	182	222	8.26 U	2.76
PCB-095	ng/kg ww	40,000	30,600	35,800	63,600	50,900	63,800	1,270	1,650
PCB-096	ng/kg ww	236	199	204	441	353	384	8.26 U	8.70 U
PCB-097	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-098	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	18.4	18.7
PCB-099	ng/kg ww	38,700	30,400	36,600	67,500	56,800	66,700	3,650	4,400
PCB-100	ng/kg ww	C93	C93	C93	C93	C93	C93	C93	C93
PCB-101	ng/kg ww	C90	C90	C90	C90	C90	C90	C90	C90
PCB-102	ng/kg ww	1,320	1,060	1,190	2,110	1,780	2,180	8.26 U	8.70 U
PCB-103	ng/kg ww	4,080	3,120	3,660	6,470	5,150	6,380	45.4	59.6
PCB-104	ng/kg ww	34.1	29.8	29.3	54.8	43.8	47.8	8.26 U	8.70 U
PCB-105	ng/kg ww	11,400	9,670	10,100	21,900	19,000	20,400	1,590	1,700

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB-106	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-107	ng/kg ww	854 C	678 C	753 C	1,630 C	1,430 C	1,580 C	96.5 C	103 C
PCB-108	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-109	ng/kg ww	2,530	2,040	2,230	4,720	4,150	4,540	198	203
PCB-110	ng/kg ww	36,800	28,900	32,900	61,800	52,800	61,000	1,890	2,160
PCB-111	ng/kg ww	116	99.3	112	199	183	196	8.23	8.03
PCB-112	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	241	8.26 U	8.70 U
PCB-113	ng/kg ww	C90	C90	C90	C90	C90	C90	C90	C90
PCB-114	ng/kg ww	679	547	628	1,410	1,220	1,350	127	134
PCB-115	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-116	ng/kg ww	C85	C85	C85	C85	C85	C85	C85	C85
PCB-117	ng/kg ww	1,070	1,070	1,110	2,250	1,740 U	1,900	8.26 U	88.5 U
PCB-118	ng/kg ww	36,200	29,800	31,300	70,900 J	61,900 J	66,600 J	2,380	2,570
PCB-119	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-120	ng/kg ww	843	691	783	1,550	1,340	1,500	6.33	7.26
PCB-121	ng/kg ww	130	97.5	117	211	175	208	8.26 U	8.70 U
PCB-122	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	22.0	8.70 U
PCB-123	ng/kg ww	477	460	448	1,080	946	1,080	65.3	79.1
PCB-124	ng/kg ww	C107	C107	C107	C107	C107	C107	C107	C107
PCB-125	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-126	ng/kg ww	41.0	8.33 U	34.2	114	88.6	92.0	8.26 U	5.38 J
PCB-127	ng/kg ww	9.26 U	8.33 U	54.4	9.90 U	8.13 U	8.26 U	9.41	11.1
PCB-128	ng/kg ww	8,480 C	7,280 C	7,320 C	15,200 C	14,500 C	16,100 C	1,230 C	1,220 C
PCB-129	ng/kg ww	108,000 C	87,800 C	88,600 C	224,000 C	187,000 C	206,000 C	15,000 C	16,000 C
PCB-130	ng/kg ww	4,680	3,840	3,710	9,550	8,220	9,020	405	457
PCB-131	ng/kg ww	608	480	465	1,050	951	1,050	41.9	46.9
PCB-132	ng/kg ww	19,200	15,900	16,300	32,400	29,900	32,400	448	506

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB-133	ng/kg ww	2,120	1,740	1,670	4,050	3,620	3,890	272	307
PCB-134	ng/kg ww	3,900	3,130	3,070	6,290	5,890	6,550	271	326
PCB-135	ng/kg ww	49,500 C	40,000 C	41,400 C	81,400 C	74,300 C	84,900 C	2,210 C	2,600 C
PCB-136	ng/kg ww	20,200	15,800	17,500	38,200	31,400	34,100	407	446
PCB-137	ng/kg ww	1,270	1,150	1,200	3,120	2,490	2,640	255	235
PCB-138	ng/kg ww	C129	C129	C129	C129	C129	C129	C129	C129
PCB-139	ng/kg ww	2,260 C	1,820 C	1,770 C	3,810 C	3,550 C	3,870 C	117 C	124 C
PCB-140	ng/kg ww	C139	C139	C139	C139	C139	C139	C139	C139
PCB-141	ng/kg ww	15,500	12,700	12,700	31,400	27,000	29,400	1,200	1,320
PCB-142	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-143	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-144	ng/kg ww	7,330	5,900	5,700	12,400	11,200	12,700	93.2	106
PCB-145	ng/kg ww	18.4	8.33 U	13.5 U	34.0	25.9	35.0	8.26 U	8.70 U
PCB-146	ng/kg ww	19,000	15,900	16,100	37,700	33,500	36,600	1,210	1,310
PCB-147	ng/kg ww	101,000 C	83,400 C	86,200 C	175,000 C	159,000 C	178,000 C	3,690 C	4,090 C
PCB-148	ng/kg ww	423	343	338	682	602	732	8.26 U	2.13
PCB-149	ng/kg ww	C147	C147	C147	C147	C147	C147	C147	C147
PCB-150	ng/kg ww	809	653	684	1,620	1,330	1,470	47.9	50.2
PCB-151	ng/kg ww	C135	C135	C135	C135	C135	C135	C135	C135
PCB-152	ng/kg ww	54.7	44.3	46.6	99.2	79.5	89.8	8.26 U	8.70 U
PCB-153	ng/kg ww	142,000 C	119,000 C	121,000 C	290,000 C	248,000 C	267,000 C	12,900 C	13,800 C
PCB-154	ng/kg ww	9,670	7,790	7,770	16,300	14,600	16,600	175	191
PCB-155	ng/kg ww	64.0	52.2	53.8	131	104	120	6.47	6.32
PCB-156	ng/kg ww	6,800 C	5,640 C	5,860 C	14,200 C	12,300 C	13,500 C	987 C	1,090 C
PCB-157	ng/kg ww	C156	C156	C156	C156	C156	C156	C156	C156
PCB-158	ng/kg ww	8,320	6,550	7,000	17,000	14,400	16,000	238	260
PCB-159	ng/kg ww	905	795	826	1,820	1,560	1,760	50.3	57.5

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB-160	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-161	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-162	ng/kg ww	156	142	136	325	277	318	16.2	17.9
PCB-163	ng/kg ww	C129	C129	C129	C129	C129	C129	C129	C129
PCB-164	ng/kg ww	5,530	4,400	4,180	10,000	8,810	9,720	582	656
PCB-165	ng/kg ww	143	111	114 U	283	240	270	15.7	15.0
PCB-166	ng/kg ww	C128	C128	C128	C128	C128	C128	C128	C128
PCB-167	ng/kg ww	3,430	2,910	2,970	7,450	6,420	7,070	333	361
PCB-168	ng/kg ww	C153	C153	C153	C153	C153	C153	C153	C153
PCB-169	ng/kg ww	316	271	273	746	680	751	31.3	31.1
PCB-170	ng/kg ww	22,400	18,300	18,900	51,800	44,100	48,600	2,490	2,670
PCB-171	ng/kg ww	8,130 C	6,610 C	6,660 C	16,200 C	14,000 C	15,400 C	750 C	711 C
PCB-172	ng/kg ww	3,590	2,820	2,890	8,560	7,090	7,650	396	413
PCB-173	ng/kg ww	C171	C171	C171	C171	C171	C171	C171	C171
PCB-174	ng/kg ww	16,700	13,800	13,900	29,800	26,000	29,000	910	889
PCB-175	ng/kg ww	1,370	1,100	1,050	2,520	2,190	2,460	64.2	61.3
PCB-176	ng/kg ww	4,080	3,420	3,630	9,130	7,710	8,270	317	321
PCB-177	ng/kg ww	14,900	12,100	12,600	29,300	26,000	27,500	1,410	1,380
PCB-178	ng/kg ww	5,620	4,630	4,990	14,600	11,600	13,100	1,020	1,050
PCB-179	ng/kg ww	12,800	10,500	11,700	27,300	23,500	25,300	877	928
PCB-180	ng/kg ww	46,000 C	38,100 C	39,300 C	112,000 C	94,600 C	104,000 C	6,330 C	6,850 C
PCB-181	ng/kg ww	183	145	138	350	297	342	18.2	17.4
PCB-182	ng/kg ww	321	272	254	564	476	550	18.2	18.3
PCB-183	ng/kg ww	20,400	17,200	17,100	40,500	34,800	38,600	734	692
PCB-184	ng/kg ww	33.6	27.6	30.4	82.6	66.4	74.1	4.50	8.70 U
PCB-185	ng/kg ww	2,890	1,920	2,110	4,050	4,260	4,050	112	116
PCB-186	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB-187	ng/kg ww	38,800	34,100	31,900	74,400	65,100	71,500	5,040	4,880
PCB-188	ng/kg ww	97.8	80.3	83.3	221	189	207	8.62 U	9.80
PCB-189	ng/kg ww	789	688	697	1,870	1,600	1,750	101	111
PCB-190	ng/kg ww	6,370	4,940	5,090	14,200	12,000	12,800	516	565
PCB-191	ng/kg ww	1,110	872	886	2,540	2,150	2,430	46.9	44.2
PCB-192	ng/kg ww	9.26 U	8.33 U	9.62 U	9.90 U	8.13 U	8.26 U	8.26 U	8.70 U
PCB-193	ng/kg ww	C180	C180	C180	C180	C180	C180	C180	C180
PCB-194	ng/kg ww	6,930	5,560	5,790	17,900	15,000	17,300	581	625
PCB-195	ng/kg ww	2,650	2,180	2,330	6,750	5,780	6,480	214	229
PCB-196	ng/kg ww	4,680	4,010	4,000	14,200	11,800	12,600	304	329
PCB-197	ng/kg ww	453	391	417	1,150	984	1,070	58.6	59.0
PCB-198	ng/kg ww	7,610 C	6,520 C	6,600 C	24,300 C	20,100 C	21,000 C	770 C	839 C
PCB-199	ng/kg ww	C198	C198	C198	C198	C198	C198	C198	C198
PCB-200	ng/kg ww	1,260	1,090	1,050	3,280	2,630	2,850	81.2	89.0
PCB-201	ng/kg ww	1,640	1,390	1,340	4,040	3,420	3,680	165	175
PCB-202	ng/kg ww	2,070	1,740	1,700	4,990	4,150	4,700	286	306
PCB-203	ng/kg ww	5,280	4,460	4,530	16,700	13,900	14,600	310	352
PCB-204	ng/kg ww	9.26 U	8.33 U	9.62 U	11.4	8.33 U	9.49	8.26 U	8.70 U
PCB-205	ng/kg ww	483	408	406	1,190	1,010	1,130	28.7	32.0
PCB-206	ng/kg ww	1,660	1,320	1,400	4,220	3,550	4,060	104	110
PCB-207	ng/kg ww	223	186	192	522	460	531	14.6	15.5
PCB-208	ng/kg ww	455	364	384	1,090	948	1,070	40.4	40.3
PCB-209	ng/kg ww	441	356	370	924	798	921	35.5	38.4
PCB TEQ	ng/kg ww	15.4	10.1	13.2	37.4 J	32.4 J	35.1 J	1.53	1.66 J
Total PCB Congeners	ng/kg ww	1,243,000	1,007,000	1,072,000	2,365,000 J	2,010,000 J	2,260,000 J	95,600	104,500 J

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
PCB Aroclors									
Aroclor-1016	µg/kg ww	9.9 U	50 U	50 U	50 U	50 U	50 U	10 U	9.8 U
Aroclor-1221	µg/kg ww	20 U	100 U	100 U	99 U	99 U	100 U	20 U	20 U
Aroclor-1232	µg/kg ww	9.9 U	50 U	50 U	50 U	50 U	50 U	10 U	9.8 U
Aroclor-1242	µg/kg ww	9.9 U	50 U	50 U	50 U	50 U	50 U	10 U	9.8 U
Aroclor-1248	µg/kg ww	9.9 U	50 U	50 U	50 U	50 U	50 U	10 U	9.8 U
Aroclor-1254	µg/kg ww	400	610	790	1,100	1,200	1,300	33	24 J
Aroclor-1260	µg/kg ww	320	640	850	1,200	1,300	1,400	60	46
Total PCB Aroclors	µg/kg ww	720	1,250	1,640	2,300	2,500	2,700	93	70 J
Dioxins/Furans									
2,3,7,8-TCDD	ng/kg ww	0.214 U	0.246	0.212	0.487	0.519	0.480	0.0856 J	0.0752 J
1,2,3,7,8-PeCDD	ng/kg ww	0.287 J	0.240 U	0.276 J	0.551 U	0.589 J	0.634 J	0.123 J	0.135 U
1,2,3,4,7,8-HxCDD	ng/kg ww	0.0734 U	0.0737 J	0.0856 U	0.146 J	0.130 J	0.132 U	0.0756 U	0.128 U
1,2,3,6,7,8-HxCDD	ng/kg ww	0.273 U	0.238 J	0.306 J	0.718 J	0.681 J	0.690 J	0.282 J	0.355 J
1,2,3,7,8,9-HxCDD	ng/kg ww	0.0831 U	0.0646 U	0.0990 U	0.117 J	0.113 U	0.135 U	0.0926 J	0.0910 J
1,2,3,4,6,7,8-HpCDD	ng/kg ww	0.427 J	0.332 J	0.375 J	1.84	1.96	2.39	0.611 J	0.794 J
OCDD	ng/kg ww	1.40 J	0.776 J	1.04 U	10.3	10.3	15.5	1.46 J	1.91 J
2,3,7,8-TCDF	ng/kg ww	0.857	0.822	0.791	1.69	1.76	1.76	1.25	1.54
1,2,3,7,8-PeCDF	ng/kg ww	0.106 J	0.155 J	0.0821 U	0.233 J	0.216 J	0.230 J	0.127 J	0.174 J
2,3,4,7,8-PeCDF	ng/kg ww	0.612 J	0.570 J	0.519 J	1.40	1.42	1.39	0.253 U	0.350 J
1,2,3,4,7,8-HxCDF	ng/kg ww	0.309 U	0.808 U	0.277 U	0.499 U	0.444 U	0.448 U	0.249 U	0.185 U
1,2,3,6,7,8-HxCDF	ng/kg ww	0.117 J	0.204 J	0.0640 U	0.154 J	0.196 J	0.161 J	0.0732 J	0.0541 U
1,2,3,7,8,9-HxCDF	ng/kg ww	0.0366 U	0.0495 U	0.0526 U	0.0308 U	0.0459 U	0.0333 U	0.0390 U	0.0861 U
2,3,4,6,7,8-HxCDF	ng/kg ww	0.0617 U	0.0609 U	0.0512 U	0.153 J	0.156 J	0.164 J	0.0333 J	0.0604 U
1,2,3,4,6,7,8-HpCDF	ng/kg ww	0.556 U	1.41 U	0.465 U	0.765 U	0.729 U	0.756 U	0.542 U	0.326 U
1,2,3,4,7,8,9-HpCDF	ng/kg ww	0.0416 U	0.0685 U	0.0419 U	0.0443 J	0.0580 U	0.0370 U	0.0364 U	0.0435 U
OCDF	ng/kg ww	0.227 U	0.951 J	0.398 J	1.09 J	1.10 J	1.23 J	0.387 J	0.196 U

Table A-1a, cont. Fish and shellfish supercomposite samples — ES-FL-SUPCOMP1 to RRDC-EM-SUPCOMP2

Chemical	Unit	EW08-ES-FL-SUPCOMP1	EW08-ES-FL-SUPCOMP2	EW08-ES-FL-SUPCOMP3	EW08-ES-WB-SUPCOMP1	EW08-ES-WB-SUPCOMP2	EW08-ES-WB-SUPCOMP3	EW08-RRDC-EM-SUPCOMP1	EW08-RRDC-EM-SUPCOMP2
		9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	9/2/2008	8/26/2008	8/26/2008
Dioxin/furan TEQ	ng/kg ww	0.728 J	0.736 J	0.793 J	1.54 J	1.89 J	1.89 J	0.451 J	0.488 J
Conventionals									
Lipid	% ww	1.53	1.40	1.61	3.08	2.88	2.93	0.151	0.159
Total solids	% ww	20.32	22.62	20.44	21.90	22.06	22.31	18.85	19.11

Table A-1b. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB Congeners								
PCB-001	ng/kg ww	8.33 U	9.35 U	3.53	3.82	9.80 U	4.74	4.56
PCB-002	ng/kg ww	8.33 U	1.47	1.44	1.59	9.80 U	9.01 U	8.33 U
PCB-003	ng/kg ww	8.33 U	5.17	5.46	5.78	2.09	2.09	8.33 U
PCB-004	ng/kg ww	11.9	27.6	29.0	29.0	29.1	30.6	28.8
PCB-005	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-006	ng/kg ww	8.09	20.1	20.0	19.0	12.4	12.2	13.1
PCB-007	ng/kg ww	2.16	3.16	3.42	3.55	2.71	2.35	2.70
PCB-008	ng/kg ww	31.6 U	60.9 U	64.6 U	63.5 U	41.1 U	45.2 U	41.5 U
PCB-009	ng/kg ww	9.21	12.2	10.8	10.7	9.35	9.31	8.32
PCB-010	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	3.04	2.95	3.29
PCB-011	ng/kg ww	34.4 U	58.1 U	56.6 U	63.3 U	29.2 U	25.8 U	34.8 U
PCB-012	ng/kg ww	14.6 C	28.8 C	31.5 C	31.9 C	3.37 C	3.67 C	3.81 C
PCB-013	ng/kg ww	C12	C12	C12	C12	C12	C12	C12
PCB-014	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-015	ng/kg ww	173	365	388	390	49.8	54.0	54.1
PCB-016	ng/kg ww	13.5	32.9	32.8	36.2	17.8	17.6	18.4
PCB-017	ng/kg ww	22.7	76.4	78.9	85.8	133	135	135
PCB-018	ng/kg ww	103 C	330 C	351 C	371 C	360 C	385 C	390 C
PCB-019	ng/kg ww	2.93	7.67	8.31	9.06	45.0	50.5	50.3
PCB-020	ng/kg ww	1,720 C	3,880 C	4,130 C	4,230 C	2,500 C	2,570 C	2,540 C
PCB-021	ng/kg ww	27.5 C	101 C	110 C	114 C	97.6 C	95.3 C	96.3 C
PCB-022	ng/kg ww	101	249	267	284	213	218	219
PCB-023	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	1.02	1.11	8.33 U
PCB-024	ng/kg ww	8.33 U	1.26	1.23	9.71 U	5.67	6.05	5.81

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB-025	ng/kg ww	19.6	79.6	85.0	90.2	161	168	162
PCB-026	ng/kg ww	78.2 C	356 C	383 C	404 C	654 C	687 C	692 C
PCB-027	ng/kg ww	8.99	35.9	37.0	40.3	85.1	89.2	91.9
PCB-028	ng/kg ww	C20	C20	C20	C20	C20	C20	C20
PCB-029	ng/kg ww	C26	C26	C26	C26	C26	C26	C26
PCB-030	ng/kg ww	C18	C18	C18	C18	C18	C18	C18
PCB-031	ng/kg ww	1,010	2,480	2,620	2,710	1,330	1,420	1,380
PCB-032	ng/kg ww	6.53	12.8	13.4	15.2	310	323	330
PCB-033	ng/kg ww	C21	C21	C21	C21	C21	C21	C21
PCB-034	ng/kg ww	8.33 U	7.10	7.31	7.52	8.81	9.26	8.33 U
PCB-035	ng/kg ww	10.9	28.0	29.0	32.2	9.80 U	9.01 U	8.33 U
PCB-036	ng/kg ww	8.33 U	4.83	9.52 U	5.28	9.80 U	9.01 U	8.33 U
PCB-037	ng/kg ww	325	702	764	797	406	437	418
PCB-038	ng/kg ww	8.33 U	4.24	9.52 U	4.79	8.13	8.92	8.95
PCB-039	ng/kg ww	8.33 U	7.15	8.11	9.12	9.80 U	7.41	7.70
PCB-040	ng/kg ww	23.3 C	142 C	145 C	163 C	847 C	957 C	954 C
PCB-041	ng/kg ww	6.12	30.6	28.1	34.3	10.9	11.5 U	13.3 U
PCB-042	ng/kg ww	137	604	602	656	463	519	513
PCB-043	ng/kg ww	22.4	112	111	120	52.8	57.3	55.7
PCB-044	ng/kg ww	1,070 C	4,050 C	4,120 C	4,310 C	4,130 C	4,670 C	4,630 C
PCB-045	ng/kg ww	14.8	56.8	58.0	63.1	114	115	117
PCB-046	ng/kg ww	4.50	32.0	31.9	33.1	95.0	99.9	104
PCB-047	ng/kg ww	C44	C44	C44	C44	C44	C44	C44
PCB-048	ng/kg ww	26.1	156	158	171	300	327	325
PCB-049	ng/kg ww	689 C	3,460 C	3,460 C	3,680 C	7,170 C	8,070 C	8,070 C
PCB-050	ng/kg ww	17.8 C	150 C	148 C	150 C	947 C	1,030 C	1,040 C
PCB-051	ng/kg ww	8.33 U	9.19	5.72	9.71 U	344	371	375

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB-052	ng/kg ww	1,620	8,110	8,020	8,610	11,900	13,600	13,800
PCB-053	ng/kg ww	C50	C50	C50	C50	C50	C50	C50
PCB-054	ng/kg ww	8.33 U	1.40	1.12	9.71 U	10.5	11.3	12.0
PCB-055	ng/kg ww	8.33 U	9.35 U	31.9	37.0	42.3 U	51.7	52.2
PCB-056	ng/kg ww	44.2	307	304	334	495	541	542
PCB-057	ng/kg ww	8.33 U	14.0	13.3 U	15.5	48.0	55.6	53.5
PCB-058	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-059	ng/kg ww	56.8 C	220 C	219 C	237 C	557 C	630 C	630 C
PCB-060	ng/kg ww	667	1,750	1,830	1,930	1,070	1,150	1,160
PCB-061	ng/kg ww	2,930 C	9,620 C	9,890 C	10,200 C	8,340 C	9,370 C	9,500 C
PCB-062	ng/kg ww	C59	C59	C59	C59	C59	C59	C59
PCB-063	ng/kg ww	87.1	256	249	265	284	328	342
PCB-064	ng/kg ww	416	1,120	1,150	1,190	1,580	1,800	1,820
PCB-065	ng/kg ww	C44	C44	C44	C44	C44	C44	C44
PCB-066	ng/kg ww	1,310	4,450	4,550	4,730	4,140	4,510	4,550
PCB-067	ng/kg ww	8.33 U	35.6	34.6	39.8	163	188	192
PCB-068	ng/kg ww	8.33 U	20.3	17.4	23.9	84.1	102	106
PCB-069	ng/kg ww	C49	C49	C49	C49	C49	C49	C49
PCB-070	ng/kg ww	C61	C61	C61	C61	C61	C61	C61
PCB-071	ng/kg ww	C40	C40	C40	C40	C40	C40	C40
PCB-072	ng/kg ww	7.49	60.7	59.3	67.1	186	222	228
PCB-073	ng/kg ww	8.33 U	22.4 U	25.8	31.8	47.5	55.3	56.8
PCB-074	ng/kg ww	C61	C61	C61	C61	C61	C61	C61
PCB-075	ng/kg ww	C59	C59	C59	C59	C59	C59	C59
PCB-076	ng/kg ww	C61	C61	C61	C61	C61	C61	C61
PCB-077	ng/kg ww	81.9	303	318	345	475	513	518
PCB-078	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB-079	ng/kg ww	25.3	92.8 U	105	115	88.5 U	127	103
PCB-080	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-081	ng/kg ww	8.33 U	22.2	9.52 U	9.71 U	39.0	51.0	35.9
PCB-082	ng/kg ww	31.6	254	263	280	285	334	305
PCB-083	ng/kg ww	8.33 U	619	431	755	9.80 U	9.01 U	8.33 U
PCB-084	ng/kg ww	227	1,240	1,340	1,400	1,160	1,420	1,390
PCB-085	ng/kg ww	823 C	2,630 C	2,890 C	2,870 C	790 C	748 C	735 C
PCB-086	ng/kg ww	1,300 C	5,960 C	6,320 C	6,710 C	9,460 C	11,400 C	11,000 C
PCB-087	ng/kg ww	C86	C86	C86	C86	C86	C86	C86
PCB-088	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-089	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	29.2	34.1	32.5
PCB-090	ng/kg ww	4,630 C	23,100 C	24,900 C	26,300 C	43,800 C	52,900 C	53,400 C
PCB-091	ng/kg ww	236	1,470	1,580	1,620	2,500	3,150	3,150
PCB-092	ng/kg ww	968	4,420	4,710	4,900	5,420	6,630	6,550
PCB-093	ng/kg ww	155 C	609 C	650 C	645 C	1,130 C	1,420 C	1,450 C
PCB-094	ng/kg ww	8.33 U	24.9	24.8	28.9	22.5	23.3 U	25.4
PCB-095	ng/kg ww	1,660	8,960	9,500	9,740	13,800	17,000	16,400
PCB-096	ng/kg ww	8.33 U	14.3	13.9	15.1	69.1	73.6	76.5
PCB-097	ng/kg ww	C86	C86	C86	C86	C86	C86	C86
PCB-098	ng/kg ww	23.8	9.35 U	87.3	80.5	55.5	9.01 U	56.0 U
PCB-099	ng/kg ww	4,630	16,600	18,200	18,600	22,000	26,000	26,300
PCB-100	ng/kg ww	C93	C93	C93	C93	C93	C93	C93
PCB-101	ng/kg ww	C90	C90	C90	C90	C90	C90	C90
PCB-102	ng/kg ww	8.33 U	84.4	17.3	31.2	273	354	309
PCB-103	ng/kg ww	59.2	451	480	507	1,450	1,790	1,790
PCB-104	ng/kg ww	8.33 U	9.35 U	1.95	2.13	5.37	5.98	5.83
PCB-105	ng/kg ww	1,850	7,590	7,880	8,410	8,280	9,340	9,700

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB-106	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-107	ng/kg ww	107 C	588 C	599 C	642 C	556 C	632 C	626 C
PCB-108	ng/kg ww	C86	C86	C86	C86	C86	C86	C86
PCB-109	ng/kg ww	228	1,200	1,220	1,290	1,880	2,200	2,260
PCB-110	ng/kg ww	2,230	16,100	17,200	17,900	12,600	15,100	14,900
PCB-111	ng/kg ww	8.66	42.5	41.2	43.5	64.0	75.9	77.9
PCB-112	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-113	ng/kg ww	C90	C90	C90	C90	C90	C90	C90
PCB-114	ng/kg ww	154	530	541	568	544	578	605
PCB-115	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-116	ng/kg ww	C85	C85	C85	C85	C85	C85	C85
PCB-117	ng/kg ww	8.33 U	457	440	523	918	1,240	1,210
PCB-118	ng/kg ww	2,770	14,300	14,800	15,800	25,600	28,800	29,700
PCB-119	ng/kg ww	C86	C86	C86	C86	C86	C86	C86
PCB-120	ng/kg ww	8.33 U	58.4	56.9	61.8	470	555	576
PCB-121	ng/kg ww	8.33 U	3.90	9.52 U	4.93	50.7	60.6	61.4
PCB-122	ng/kg ww	27.3	9.35 U	145	158	9.80 U	9.01 U	116
PCB-123	ng/kg ww	69.9	318	347	373	404	498	517
PCB-124	ng/kg ww	C107	C107	C107	C107	C107	C107	C107
PCB-125	ng/kg ww	C86	C86	C86	C86	C86	C86	C86
PCB-126	ng/kg ww	8.33 U	30.8 U	41.1	40.3	42.9	56.7	58.5
PCB-127	ng/kg ww	8.33 U	63.2	55.8	61.5	9.80 U	9.01 U	8.33 U
PCB-128	ng/kg ww	1,470 C	6,180 C	6,580 C	6,850 C	5,910 C	6,280 C	6,380 C
PCB-129	ng/kg ww	18,500 C	80,700 C	82,700 C	87,100 C	72,700 C	88,700 C	92,000 C
PCB-130	ng/kg ww	483	2,540	2,570	2,710	3,310	4,050	4,110
PCB-131	ng/kg ww	49.3	232	229	254	210	223	219
PCB-132	ng/kg ww	571	3,830	3,930	4,220	3,820	4,240	4,230

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB-133	ng/kg ww	324	1,400	1,450	1,530	1,430	1,590	1,700
PCB-134	ng/kg ww	339	1,720	1,780	1,900	1,620	1,920	1,920
PCB-135	ng/kg ww	2,880 C	15,000 C	15,200 C	16,400 C	20,700 C	21,600 C	21,800 C
PCB-136	ng/kg ww	448	3,050	3,240	3,460	6,980	7,290	7,380
PCB-137	ng/kg ww	247	1,190	1,300	1,330	1,240	1,580	1,570
PCB-138	ng/kg ww	C129	C129	C129	C129	C129	C129	C129
PCB-139	ng/kg ww	138 C	631 C	638 C	674 C	949 C	1,050 C	1,060 C
PCB-140	ng/kg ww	C139	C139	C139	C139	C139	C139	C139
PCB-141	ng/kg ww	1,450	7,250	7,470	7,920	6,700	8,090	8,260
PCB-142	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-143	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-144	ng/kg ww	123	923	955	1,050	2,990	3,250	3,280
PCB-145	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-146	ng/kg ww	1,450	7,720	7,820	8,440	13,400	14,700	15,700
PCB-147	ng/kg ww	4,510 C	24,600 C	25,600 C	28,300 C	24,400 C	25,600 C	25,000 C
PCB-148	ng/kg ww	8.33 U	36.5	37.8	42.7	165	182	189
PCB-149	ng/kg ww	C147	C147	C147	C147	C147	C147	C147
PCB-150	ng/kg ww	56.1	267	279	288	302	326	335
PCB-151	ng/kg ww	C135	C135	C135	C135	C135	C135	C135
PCB-152	ng/kg ww	8.33 U	11.4	11.7	12.7	15.2	17.7	16.9
PCB-153	ng/kg ww	15,700 C	73,700 C	75,700 C	80,600 C	96,700 C	110,000 C	117,000 C
PCB-154	ng/kg ww	228	1,280	1,320	1,450	4,720	5,270	5,520
PCB-155	ng/kg ww	8.30	25.9	28.1	28.3	43.6	44.6	49.7
PCB-156	ng/kg ww	1,200 C	5,560 C	5,790 C	6,100 C	5,530 C	6,300 C	6,740 C
PCB-157	ng/kg ww	C156	C156	C156	C156	C156	C156	C156
PCB-158	ng/kg ww	282	2,130	2,180	2,360	5,820	6,870	7,030
PCB-159	ng/kg ww	67.2	340	349	372	134	132	134

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB-160	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-161	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-162	ng/kg ww	21.0	102	96.2	114	141	143	153
PCB-163	ng/kg ww	C129	C129	C129	C129	C129	C129	C129
PCB-164	ng/kg ww	722	3,150	3,180	3,360	1,380	1,630	1,600
PCB-165	ng/kg ww	18.4	74.3	74.2	78.5	85.5	99.7	105
PCB-166	ng/kg ww	C128	C128	C128	C128	C128	C128	C128
PCB-167	ng/kg ww	426	2,220	2,310	2,470	2,810	3,120	3,430
PCB-168	ng/kg ww	C153	C153	C153	C153	C153	C153	C153
PCB-169	ng/kg ww	36.1	185	187	197	191	215	228
PCB-170	ng/kg ww	3,050	15,700	16,300	16,900	17,100	19,700	21,700
PCB-171	ng/kg ww	809 C	4,080 C	4,200 C	4,380 C	5,020 C	5,800 C	6,120 C
PCB-172	ng/kg ww	473	2,420	2,460	2,600	2,350	2,870	3,090
PCB-173	ng/kg ww	C171	C171	C171	C171	C171	C171	C171
PCB-174	ng/kg ww	1,010	5,700	5,830	5,890	2,030	2,060	2,070
PCB-175	ng/kg ww	69.5	415	431	446	859	908	939
PCB-176	ng/kg ww	347	1,750	1,810	1,910	977	1,020	1,040
PCB-177	ng/kg ww	1,540	8,380	8,440	8,680	7,820	8,350	8,780
PCB-178	ng/kg ww	1,180	5,800	5,980	6,260	4,570	5,340	5,760
PCB-179	ng/kg ww	979	5,580	5,780	6,100	4,300	4,650	4,860
PCB-180	ng/kg ww	7,450 C	39,500 C	41,100 C	42,800 C	38,900 C	45,700 C	50,400 C
PCB-181	ng/kg ww	20.7	104	106	107	117	128	132
PCB-182	ng/kg ww	21.5	102	103	98.1	158	188	187
PCB-183	ng/kg ww	814	5,800	6,100	6,220	14,600	15,300	16,800
PCB-184	ng/kg ww	4.74	16.3 U	19.7	20.2	22.4	24.3	26.5
PCB-185	ng/kg ww	113	750	675	805	779	930	948
PCB-186	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB-187	ng/kg ww	5,650	27,200	28,400	29,100	28,000	28,700	30,200
PCB-188	ng/kg ww	8.33 U	55.5	56.5	59.8	63.8	69.9	77.1
PCB-189	ng/kg ww	123	720	755	798	604	704	759
PCB-190	ng/kg ww	645	3,500	3,610	3,740	3,850	4,400	4,790
PCB-191	ng/kg ww	56.9	385	388	410	767	914	995
PCB-192	ng/kg ww	8.33 U	9.35 U	9.52 U	9.71 U	9.80 U	9.01 U	8.33 U
PCB-193	ng/kg ww	C180	C180	C180	C180	C180	C180	C180
PCB-194	ng/kg ww	723	4,250	4,320	4,580	4,290	4,560	4,900
PCB-195	ng/kg ww	268	1,420	1,450	1,510	1,830	2,190	2,300
PCB-196	ng/kg ww	376	2,100	2,180	2,340	3,460	3,580	4,130
PCB-197	ng/kg ww	65.9	298	332	336	344	373	410
PCB-198	ng/kg ww	1,000 C	4,980 C	5,350 C	5,580 C	4,510 C	5,060 C	5,750 C
PCB-199	ng/kg ww	C198	C198	C198	C198	C198	C198	C198
PCB-200	ng/kg ww	108	525	542	566	126	144	151
PCB-201	ng/kg ww	192	993	1,040	1,100	973	1,160	1,250
PCB-202	ng/kg ww	345	1,650	1,770	1,830	1,500	1,710	1,830
PCB-203	ng/kg ww	400	2,420	2,570	2,760	3,900	4,210	4,920
PCB-204	ng/kg ww	8.33 U	2.71	2.53	9.71 U	9.80 U	3.37	8.33 U
PCB-205	ng/kg ww	35.5	237	247	260	307	359	382
PCB-206	ng/kg ww	132	818	822	889	1,010	1,170	1,180
PCB-207	ng/kg ww	16.9	90.3	91.8	97.9	127	152	153
PCB-208	ng/kg ww	49.2	239	244	261	220	260	259
PCB-209	ng/kg ww	44.2	195	199	209	194	223	217
PCB TEQ	ng/kg ww	1.71	8.06	10.7	11.0	11.4	13.7	14.3
Total PCB Congeners	ng/kg ww	114,900	546,000	566,500	597,000	644,300	733,000	762,000

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
PCB Aroclors								
Aroclor-1016	µg/kg ww	10 U	10 U	9.9 U	9.8 U	50 U	9.9 U	10 U
Aroclor-1221	µg/kg ww	20 U	20 U	20 U	20 U	100 U	20 U	20 U
Aroclor-1232	µg/kg ww	10 U	10 U	9.9 U	9.8 U	50 U	9.9 U	10 U
Aroclor-1242	µg/kg ww	10 U	10 U	9.9 U	9.8 U	50 U	9.9 U	10 U
Aroclor-1248	µg/kg ww	10 U	10 U	9.9 U	9.8 U	50 U	9.9 U	10 U
Aroclor-1254	µg/kg ww	17 J	310 J	350 J	340 J	440	370	370
Aroclor-1260	µg/kg ww	34	510	580	570	700	570	560
Total PCB Aroclors	µg/kg ww	51 J	820 J	930 J	910 J	1,140	940	930
Dioxins/Furans								
2,3,7,8-TCDD	ng/kg ww	0.0701 J	0.220	0.227 U	0.285	0.344 U	0.319	0.287 J
1,2,3,7,8-PeCDD	ng/kg ww	0.135 J	0.664 J	0.678 J	0.591 J	0.353 U	0.409 J	0.373 J
1,2,3,4,7,8-HxCDD	ng/kg ww	0.110 J	0.526 J	0.509 J	0.536 J	0.104 U	0.105 J	0.113 U
1,2,3,6,7,8-HxCDD	ng/kg ww	0.256 J	1.62	1.86	1.92	0.292 J	0.212 U	0.308 J
1,2,3,7,8,9-HxCDD	ng/kg ww	0.102 U	0.476 J	0.540 J	0.470 U	0.0853 U	0.0737 U	0.0804 U
1,2,3,4,6,7,8-HpCDD	ng/kg ww	0.817 J	5.83	6.40	6.49	0.689 J	0.753 J	0.713 U
OCDD	ng/kg ww	3.70	8.96	10.9	10.6	3.52	3.29	4.36
2,3,7,8-TCDF	ng/kg ww	1.31	4.78	4.83	4.87	3.56	3.40	3.54
1,2,3,7,8-PeCDF	ng/kg ww	0.137 J	0.571 J	0.659 J	0.626 J	0.219 U	0.270 J	0.262 J
2,3,4,7,8-PeCDF	ng/kg ww	0.214 J	1.56	1.58	1.69	0.693 J	0.676 J	0.662 J
1,2,3,4,7,8-HxCDF	ng/kg ww	0.111 U	0.586 U	0.639 U	1.04 U	0.279 U	0.220 U	0.269 U
1,2,3,6,7,8-HxCDF	ng/kg ww	0.0643 J	0.255 J	0.328 J	0.337 J	0.183 J	0.143 J	0.136 U
1,2,3,7,8,9-HxCDF	ng/kg ww	0.0251 U	0.0314 U	0.0370 U	0.0433 U	0.0366 U	0.0463 U	0.0822 U
2,3,4,6,7,8-HxCDF	ng/kg ww	0.0288 U	0.226 J	0.227 J	0.238 J	0.0873 J	0.0500 U	0.0951 J
1,2,3,4,6,7,8-HpCDF	ng/kg ww	0.227 U	1.03 U	1.21 U	1.90 U	0.503 U	0.428 U	0.589 U
1,2,3,4,7,8,9-HpCDF	ng/kg ww	0.0239 U	0.0447 J	0.0544 U	0.0450 U	0.0474 U	0.0534 U	0.0600 U
OCDF	ng/kg ww	0.133 U	0.374 J	0.555 J	0.682 J	0.359 U	0.315 J	0.518 J

Table A-1b, cont. Fish and shellfish supercomposite samples — RRDC-EM-SUPCOMP3 to SS-WB-SUPCOMP3

Chemical	Unit	EW08-RRDC-EM-SUPCOMP3	EW08-RRDC-HP-SUPCOMP1	EW08-RRDC-HP-SUPCOMP2	EW08-RRDC-HP-SUPCOMP3	EW08-SS-WB-SUPCOMP1	EW08-SS-WB-SUPCOMP2	EW08-SS-WB-SUPCOMP3
		8/26/2008	8/26/2008	8/26/2008	8/26/2008	9/2/2008	9/2/2008	9/2/2008
Dioxin/furan TEQ	ng/kg ww	0.471 J	2.26 J	2.22 J	2.35 J	1.01 J	1.35 J	1.30 J
Conventionals								
Lipid	% ww	0.151	2.13	2.18	2.25	5.50	5.34	5.37
Total solids	% ww	18.58	14.47	15.26	15.43	27.72	28.78	28.36

Table A-2. Brown rockfish Individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB Congeners							
PCB-001	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-002	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-003	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-004	ng/kg ww	13.1	14.8	46.7 U	19.7	7.45	10.3
PCB-005	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-006	ng/kg ww	15.3	11.1	46.7 U	17.4	48.1 U	11.3
PCB-007	ng/kg ww	48.5 U	1.73	46.7 U	46.7 U	48.1 U	46.7 U
PCB-008	ng/kg ww	43.5	21.6	17.2	31.8	16.3	17.4
PCB-009	ng/kg ww	48.5 U	2.54	46.7 U	46.7 U	48.1 U	3.92
PCB-010	ng/kg ww	48.5 U	1.66	46.7 U	46.7 U	48.1 U	46.7 U
PCB-011	ng/kg ww	22.6	24.9	41.5	24.2	37.0	22.4
PCB-012	ng/kg ww	97.1 CU	18.9 CU	93.5 CU	93.5 CU	96.2 CU	93.5 CU
PCB-013	ng/kg ww	C12	C12	C12	C12	C12	C12
PCB-014	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-015	ng/kg ww	7.03	4.51	46.7 U	46.7 U	48.1 U	46.7 U
PCB-016	ng/kg ww	22.4	18.3	46.7 U	30.3	5.97	14.3
PCB-017	ng/kg ww	189	98.7	110	227	45.9	153
PCB-018	ng/kg ww	204 C	166 C	112 C	299 C	53.4 C	159 C
PCB-019	ng/kg ww	16.8	18.2	46.7 U	17.0	7.91	46.7 U
PCB-020	ng/kg ww	5,790 C	1,650 C	4,570 C	6,770 C	2,470 C	5,100 C
PCB-021	ng/kg ww	226 C	76.4 C	212 C	215 C	96.2 CU	130 C
PCB-022	ng/kg ww	166	76.9	58.5	148	54.0	70.9
PCB-023	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-024	ng/kg ww	48.5 U	3.28	46.7 U	46.7 U	48.1 U	46.7 U

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB-025	ng/kg ww	43.6	31.5	46.7 U	41.0	21.0	17.0
PCB-026	ng/kg ww	420 C	257 C	134 C	427 C	249 C	177 C
PCB-027	ng/kg ww	80.5	48.9	44.6	56.5	26.0	26.4
PCB-028	ng/kg ww	C20	C20	C20	C20	C20	C20
PCB-029	ng/kg ww	C26	C26	C26	C26	C26	C26
PCB-030	ng/kg ww	C18	C18	C18	C18	C18	C18
PCB-031	ng/kg ww	590	242	106	325	189	132
PCB-032	ng/kg ww	389	142	212	326	127	209
PCB-033	ng/kg ww	C21	C21	C21	C21	C21	C21
PCB-034	ng/kg ww	48.5 U	2.99	46.7 U	8.11	3.27	4.13
PCB-035	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-036	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-037	ng/kg ww	108	32.7	50.1 U	101	32.2	55.3
PCB-038	ng/kg ww	48.5 U	9.43 U	46.7 U	16.2	48.1 U	16.2
PCB-039	ng/kg ww	48.5 U	9.43 U	46.7 U	17.1	48.1 U	15.6
PCB-040	ng/kg ww	841 C	347 C	443 C	888 C	206 C	553 C
PCB-041	ng/kg ww	48.5 U	9.43 U	46.7 U	32.8	48.1 U	46.7 U
PCB-042	ng/kg ww	539	384	408	664	197	476
PCB-043	ng/kg ww	48.5 U	69.4	46.7 U	207	81.1	103
PCB-044	ng/kg ww	11,100 C	3,840 C	20,400 C	13,900 C	6,030 C	14,000 C
PCB-045	ng/kg ww	111	43.9	47.7	57.2	32.5	36.4
PCB-046	ng/kg ww	48.5 U	20.1	46.7 U	9.90	6.97	46.7 U
PCB-047	ng/kg ww	C44	C44	C44	C44	C44	C44
PCB-048	ng/kg ww	683	246	367	840	199	767
PCB-049	ng/kg ww	7,520 C	4,820 C	10,700 C	9,400 C	5,100 C	8,920 C
PCB-050	ng/kg ww	182 C	200 C	99.6 C	137 C	56.0 C	63.3 C
PCB-051	ng/kg ww	138	134	74.0	162	38.4	116

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB-052	ng/kg ww	17,500	8,870	22,600	22,500	10,700	14,900
PCB-053	ng/kg ww	C50	C50	C50	C50	C50	C50
PCB-054	ng/kg ww	10.8	8.60	46.7 U	8.11	3.69	6.79
PCB-055	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-056	ng/kg ww	219	68.8	187	196	47.8	127
PCB-057	ng/kg ww	64.9	14.2	46.7 U	48.6	26.2	25.8
PCB-058	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-059	ng/kg ww	1,080 C	441 C	1,720 C	1,210 C	586 C	986 C
PCB-060	ng/kg ww	5,000	845	12,200	6,150	2,780	6,960
PCB-061	ng/kg ww	20,000 C	4,240 C	34,200 C	21,800 C	9,660 C	19,500 C
PCB-062	ng/kg ww	C59	C59	C59	C59	C59	C59
PCB-063	ng/kg ww	818	195	1,720	1,050	478	1,030
PCB-064	ng/kg ww	2,070	964	1,740	2,160	1,240	2,010
PCB-065	ng/kg ww	C44	C44	C44	C44	C44	C44
PCB-066	ng/kg ww	18,000	3,390	40,700	24,000	10,100	24,400
PCB-067	ng/kg ww	48.5 U	23.7	46.7 U	46.7 U	48.1 U	46.7 U
PCB-068	ng/kg ww	184	53.4	240 U	236	104	168 U
PCB-069	ng/kg ww	C49	C49	C49	C49	C49	C49
PCB-070	ng/kg ww	C61	C61	C61	C61	C61	C61
PCB-071	ng/kg ww	C40	C40	C40	C40	C40	C40
PCB-072	ng/kg ww	503	122	874	706	291	497
PCB-073	ng/kg ww	48.5 U	9.43 U	46.7 U	256	48.1 U	46.7 U
PCB-074	ng/kg ww	C61	C61	C61	C61	C61	C61
PCB-075	ng/kg ww	C59	C59	C59	C59	C59	C59
PCB-076	ng/kg ww	C61	C61	C61	C61	C61	C61
PCB-077	ng/kg ww	671	103	540	613	186	394
PCB-078	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB-079	ng/kg ww	224	99.1	536	334	133	258
PCB-080	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-081	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-082	ng/kg ww	396	178	46.7 U	348	48.1 U	278 U
PCB-083	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-084	ng/kg ww	402	331	209	302	123	143
PCB-085	ng/kg ww	9,730 C	2,610 C	19,900 C	12,800 C	4,860 C	11,500 C
PCB-086	ng/kg ww	22,500 C	8,370 C	52,300 C	29,600 C	13,300 C	29,900 C
PCB-087	ng/kg ww	C86	C86	C86	C86	C86	C86
PCB-088	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-089	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-090	ng/kg ww	92,600 C	30,600 C	313,000 C	128,000 C	55,900 C	129,000 C
PCB-091	ng/kg ww	3,000	1,980	1,610	2,070	1,650	1,180
PCB-092	ng/kg ww	16,300	4,960	31,700	20,900	8,030	20,600
PCB-093	ng/kg ww	3,640 C	1,040 C	9,810 C	4,890 C	2,050 C	6,150 C
PCB-094	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-095	ng/kg ww	10,300	6,990	5,560	6,590	4,670	4,120
PCB-096	ng/kg ww	16.5	18.7	46.7 U	20.3	4.98	10.1
PCB-097	ng/kg ww	C86	C86	C86	C86	C86	C86
PCB-098	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-099	ng/kg ww	63,500	21,300	263,000	104,000	43,700	107,000
PCB-100	ng/kg ww	C93	C93	C93	C93	C93	C93
PCB-101	ng/kg ww	C90	C90	C90	C90	C90	C90
PCB-102	ng/kg ww	508	231	387	462	198	260
PCB-103	ng/kg ww	1,640	804	3,140	1,590	980	1,010
PCB-104	ng/kg ww	48.5 U	4.14	46.7 U	46.7 U	48.1 U	3.26
PCB-105	ng/kg ww	27,800	5,610	112,000 J	38,400 J	19,700	42,300 J

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB-106	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-107	ng/kg ww	1,070 C	163 C	607 C	841 C	310 C	467 C
PCB-108	ng/kg ww	C86	C86	C86	C86	C86	C86
PCB-109	ng/kg ww	4,880	1,670	14,800	6,710	3,470	6,880
PCB-110	ng/kg ww	60,100	13,500	76,400	70,600	21,200	55,600
PCB-111	ng/kg ww	256	58.7	832	263	147	396
PCB-112	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-113	ng/kg ww	C90	C90	C90	C90	C90	C90
PCB-114	ng/kg ww	1,580	487	5,590	1,980	1,080	2,300
PCB-115	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-116	ng/kg ww	C85	C85	C85	C85	C85	C85
PCB-117	ng/kg ww	48.5 U	9.43 U	5,740	46.7 U	1,560	3,620
PCB-118	ng/kg ww	73,500 J	22,200	316,000 J	106,000 J	54,100 J	115,000 J
PCB-119	ng/kg ww	C86	C86	C86	C86	C86	C86
PCB-120	ng/kg ww	1,370	329	6,000	1,920	884	2,460
PCB-121	ng/kg ww	164	44.5	451	188	86.8	218
PCB-122	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-123	ng/kg ww	1,090	258	3,670	1,350	636	1,450
PCB-124	ng/kg ww	C107	C107	C107	C107	C107	C107
PCB-125	ng/kg ww	C86	C86	C86	C86	C86	C86
PCB-126	ng/kg ww	140	37.9	426	168	113	209
PCB-127	ng/kg ww	166	53.8	722	46.7 U	135	46.7 U
PCB-128	ng/kg ww	22,000 C	4,460 C	99,900 C	31,300 C	16,400 C	34,500 C
PCB-129	ng/kg ww	218,000 C	62,800 C	826,000 C	303,000 C	155,000 C	337,000 C
PCB-130	ng/kg ww	9,450	3,160	19,600	11,800	6,220	12,800
PCB-131	ng/kg ww	254	133	46.7 U	253	135	252
PCB-132	ng/kg ww	11,000	3,690	5,810	7,620	4,340	4,360

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB-133	ng/kg ww	4,620	1,650	12,800	5,810	3,130	6,910
PCB-134	ng/kg ww	1,050	643	466	706	347	494
PCB-135	ng/kg ww	33,700 C	11,100 C	93.5 CU	34,800 C	16,100 C	26,700 C
PCB-136	ng/kg ww	2,470	1,890	2,010	1,390	1,420	891
PCB-137	ng/kg ww	3,770	1,340	12,800	5,970	2,520	4,840
PCB-138	ng/kg ww	C129	C129	C129	C129	C129	C129
PCB-139	ng/kg ww	2,830 C	991 C	10,300 C	3,950 C	1,940 C	4,590 C
PCB-140	ng/kg ww	C139	C139	C139	C139	C139	C139
PCB-141	ng/kg ww	29,500	8,910	116,000	38,900	18,000	42,000
PCB-142	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-143	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-144	ng/kg ww	3,890	1,440	9,930	4,440	2,380	4,300
PCB-145	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-146	ng/kg ww	36,900	12,700	168,000	53,000	26,100	62,100
PCB-147	ng/kg ww	84,600 C	24,200 C	116,000 C	97,300 C	39,700 C	91,300 C
PCB-148	ng/kg ww	302	127	762	246	220	171
PCB-149	ng/kg ww	C147	C147	C147	C147	C147	C147
PCB-150	ng/kg ww	131	121	63.7	115	50.7	57.8
PCB-151	ng/kg ww	C135	C135	C135	C135	C135	C135
PCB-152	ng/kg ww	48.5 U	5.52	46.7 U	46.7 U	48.1 U	46.7 U
PCB-153	ng/kg ww	251,000 C	104,000 C	1,230,000 C	390,000 C	186,000 C	433,000 C
PCB-154	ng/kg ww	13,300	3,750	48,100	19,400	8,550	22,500
PCB-155	ng/kg ww	52.8	26.7	148	68.8	34.5	96.2
PCB-156	ng/kg ww	13,600 C	5,040 C	63,400 C	20,400 C	10,800 C	23,100 C
PCB-157	ng/kg ww	C156	C156	C156	C156	C156	C156
PCB-158	ng/kg ww	17,300	4,530	68,000	24,700	12,700	26,000
PCB-159	ng/kg ww	1,010	306	2,060	1,210	515	1,030

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB-160	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-161	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-162	ng/kg ww	408	142	1,960	577	314	645
PCB-163	ng/kg ww	C129	C129	C129	C129	C129	C129
PCB-164	ng/kg ww	11,300	3,030	34,300	15,000	6,450	16,000
PCB-165	ng/kg ww	244	96.9	406	258	48.1 U	275
PCB-166	ng/kg ww	C128	C128	C128	C128	C128	C128
PCB-167	ng/kg ww	7,300	2,380	31,200	11,000	5,110	11,800
PCB-168	ng/kg ww	C153	C153	C153	C153	C153	C153
PCB-169	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-170	ng/kg ww	38,400	21,100	212,000	63,500	31,900	77,300
PCB-171	ng/kg ww	13,300 C	6,050 C	64,900 C	19,200 C	9,940 C	23,100 C
PCB-172	ng/kg ww	6,440	3,440	30,200	10,200	5,100	11,900
PCB-173	ng/kg ww	C171	C171	C171	C171	C171	C171
PCB-174	ng/kg ww	18,000	5,850	36,100	21,400	9,210	18,100
PCB-175	ng/kg ww	2,200	942	10,500	3,290	1,730	3,190
PCB-176	ng/kg ww	979	599	689	1,230	408	925
PCB-177	ng/kg ww	12,000	6,450	5,440	12,500	8,120	9,790
PCB-178	ng/kg ww	12,900	5,450	18,000	16,200	9,480	11,800
PCB-179	ng/kg ww	3,300	1,550	2,400	3,540	1,450	2,890
PCB-180	ng/kg ww	100,000 C	59,600 C	551,000 C	167,000 C	82,400 C	186,000 C
PCB-181	ng/kg ww	206	130	735	331	167	355
PCB-182	ng/kg ww	611	212	2,980	786	413	976
PCB-183	ng/kg ww	34,400	17,200	188,000	56,200	29,700	60,900
PCB-184	ng/kg ww	35.5	22.2	134	49.2	28.8	59.9
PCB-185	ng/kg ww	2,610	874	46.7 U	46.7 U	48.1 U	3,030
PCB-186	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB-187	ng/kg ww	68,200	30,600	304,000	110,000	53,800	109,000
PCB-188	ng/kg ww	65.7	50.9	173	95.4	55.1	97.6
PCB-189	ng/kg ww	1,110	827	5,900	2,090	1,120	2,390
PCB-190	ng/kg ww	5,370	3,160	24,000	9,280	4,710	11,000
PCB-191	ng/kg ww	2,290	1,090	11,800	3,790	1,790	3,970
PCB-192	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-193	ng/kg ww	C180	C180	C180	C180	C180	C180
PCB-194	ng/kg ww	8,350	7,960	47,200	15,200	7,860	18,300
PCB-195	ng/kg ww	2,640	1,840	11,900	4,750	2,300	5,720
PCB-196	ng/kg ww	6,630	4,280	38,300	12,000	5,660	13,500
PCB-197	ng/kg ww	625	460	3,420	1,000	544	1,240
PCB-198	ng/kg ww	11,400 C	9,250 C	56,500 C	22,300 C	10,700 C	23,600 C
PCB-199	ng/kg ww	C198	C198	C198	C198	C198	C198
PCB-200	ng/kg ww	503	270	716	894	248	745
PCB-201	ng/kg ww	1,700	1,280	6,020	2,500	1,450	2,600
PCB-202	ng/kg ww	3,310	3,430	10,400	5,130	3,480	4,740
PCB-203	ng/kg ww	5,510	4,000	27,000	9,880	5,010	11,700
PCB-204	ng/kg ww	48.5 U	9.43 U	46.7 U	46.7 U	48.1 U	46.7 U
PCB-205	ng/kg ww	394	366	1,870	729	382	861
PCB-206	ng/kg ww	1,250	1,340	5,410	1,940	1,360	2,650
PCB-207	ng/kg ww	182	210	843	266	175	359
PCB-208	ng/kg ww	373	382	1,580	565	470	696
PCB-209	ng/kg ww	222	274	1,100	304	367	480
PCB TEQ	ng/kg ww	18.6 J	5.05	59.5 J	23.0 J	14.8 J	27.6 J
Total PCB Congeners	ng/kg ww	1,640,000 J	618,000	5,970,000 J	2,320,000 J	1,106,000 J	2,438,000 J

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
PCB Aroclors [a]							
Aroclor-1016	µg/kg ww	56 U	40 U	98 U	99 U	98 U	97 U
Aroclor-1221	µg/kg ww	19 U	20 U	200 U	200 U	200 U	200 U
Aroclor-1232	µg/kg ww	14 U	15 U	98 U	99 U	98 U	97 U
Aroclor-1242	µg/kg ww	9.5 U	9.7 U	98 U	99 U	98 U	97 U
Aroclor-1248	µg/kg ww	76 U	59 U	98 U	99 U	98 U	97 U
Aroclor-1254	µg/kg ww	400 U	170 U	1,600 U	1,000	770	920
Aroclor-1260	µg/kg ww	740 J	500 J	4,300	1,900	1,200	1,900
Total PCB Aroclors	µg/kg ww	740 J	500 J	4,300	3,000	2,000	2,800
Dioxins/Furans							
2,3,7,8-TCDD	ng/kg ww	0.765	0.197 U	0.946	0.628 U	0.436 J	0.829
1,2,3,7,8-PeCDD	ng/kg ww	0.958 J	0.251 U	0.675 U	0.701 U	0.416 U	0.877 J
1,2,3,4,7,8-HxCDD	ng/kg ww	0.0905 U	0.180 U	0.152 U	0.170 U	0.140 U	0.164 U
1,2,3,6,7,8-HxCDD	ng/kg ww	3.25	0.593 J	3.99	2.68	1.74 J	2.50
1,2,3,7,8,9-HxCDD	ng/kg ww	0.443 U	0.199 U	0.522 J	0.241 U	0.265 J	0.348 U
1,2,3,4,6,7,8-HpCDD	ng/kg ww	4.83	1.60 J	5.00	3.19	2.11 J	3.73
OCDD	ng/kg ww	7.44	3.66 J	13.4	5.70	3.11 J	9.55
2,3,7,8-TCDF	ng/kg ww	4.96	2.59	2.74	5.57	7.60	3.50
1,2,3,7,8-PeCDF	ng/kg ww	0.899 J	0.161 U	1.09 J	1.03 J	1.28 J	1.08 J
2,3,4,7,8-PeCDF	ng/kg ww	0.853 J	0.369 U	0.581 U	0.704 J	0.713 J	0.914 J
1,2,3,4,7,8-HxCDF	ng/kg ww	0.436 J	0.0854 U	0.607 J	0.397 J	0.316 J	0.567 J
1,2,3,6,7,8-HxCDF	ng/kg ww	0.218 U	0.0827 U	0.377 U	0.405 J	0.211 U	0.307 J
1,2,3,7,8,9-HxCDF	ng/kg ww	0.168 U	0.113 U	0.0837 U	0.0909 U	0.0726 U	0.0838 U
2,3,4,6,7,8-HxCDF	ng/kg ww	0.223 J	0.0820 U	0.429 J	0.150 U	0.181 J	0.256 J
1,2,3,4,6,7,8-HpCDF	ng/kg ww	0.778 J	0.313 J	1.02 J	0.782 J	0.453 J	0.589 J
1,2,3,4,7,8,9-HpCDF	ng/kg ww	0.171 U	0.159 U	0.115 U	0.140 U	0.0694 U	0.0717 U
OCDF	ng/kg ww	0.285 U	0.383 U	0.676 J	0.182 U	0.240 U	0.351 J

Table A-2, cont. Brown rockfish individual whole-body samples

Chemical	Unit	EW-08-SB002-BR-02	EW-08-SB006-BR-06	EW-08-SB008-BR-08	EW-08-SB009-BR-09	EW-08-SB012-BR-10	EW-08-SB011-BR-11
		8/11/2008	8/12/2008	8/12/2008	8/13/2008	8/13/2008	8/13/2008
Dioxin/furan TEQ	ng/kg ww	3.00 J	0.658 J	2.33 J	1.89 J	1.96 J	2.80 J
Conventionals [a]							
Lipid	% ww	4.41	3.38	3.09	3.52	3.08	2.56
Total solids	% ww	30.92	28.47	26.93	29.54	27.08	26.81

[a] These results are discussed in the East Waterway Fish and Shellfish Data Report (Windward 2009b).

Table A-3. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB Congeners									
PCB-001	ng/kg ww	17.1	1.62	0.936	0.201	0.199	0.200	0.983 U	0.988 U
PCB-002	ng/kg ww	1.86	0.235	0.284	0.988 U	0.138	0.991 U	0.180	0.232
PCB-003	ng/kg ww	7.54	0.823	0.807	0.988 U	0.164	0.135	0.327	0.364
PCB-004	ng/kg ww	37.1	24.7	15.9	0.852	0.811	0.843	1.93	2.87
PCB-005	ng/kg ww	1.74	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-006	ng/kg ww	37.5	33.1	26.4	0.392	0.429	0.441	1.14	1.52
PCB-007	ng/kg ww	12.2	2.40	1.34	0.988 U	0.874	0.121	0.475	0.434
PCB-008	ng/kg ww	163	56.0	36.3	2.03	1.88	1.98	5.33	7.49
PCB-009	ng/kg ww	10.8	2.97	1.34	0.988 U	0.987 U	0.114	0.282	0.347
PCB-010	ng/kg ww	3.40	1.23	0.867	0.988 U	0.987 U	0.991 U	0.148	0.988 U
PCB-011	ng/kg ww	21.2	11.3 U	15.9 U	6.58 U	7.25 U	7.28 U	13.2 U	16.2 U
PCB-012	ng/kg ww	31.3 C	12.4 C	12.0 C	1.98 CU	0.331 C	1.98 CU	0.883 C	1.16 C
PCB-013	ng/kg ww	C12	C12	C12	C12	C12	C12	C12	C12
PCB-014	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-015	ng/kg ww	126	34.5	26.3	2.08	2.11	2.84	5.38	8.68
PCB-016	ng/kg ww	165	29.0	28.0	2.83	2.71	2.95	6.40	9.42
PCB-017	ng/kg ww	336	92.2	121	4.17	5.25	5.14	12.9	20.3
PCB-018	ng/kg ww	458 C	166 C	140 C	7.52 C	8.09 C	8.24 C	20.3 C	32.6 C
PCB-019	ng/kg ww	28.3	17.9	16.1	1.01	1.07	1.06	2.50	3.97
PCB-020	ng/kg ww	1,290 C	388 C	383 C	18.6 C	25.0 C	23.2 C	60.3 C	114 C
PCB-021	ng/kg ww	525 C	109 C	87.7 C	6.55 C	7.56 C	7.00 C	19.9 C	35.3 C
PCB-022	ng/kg ww	342	69.7	67.0	4.52	5.12	4.84	12.6	22.2

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB-023	ng/kg ww	0.953	0.200	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-024	ng/kg ww	5.27 U	2.05	1.35	0.988 U	0.987 U	0.177	0.983 U	0.450
PCB-025	ng/kg ww	92.5	65.6	76.1	1.79	2.36	2.11	5.80	10.3
PCB-026	ng/kg ww	223 C	133 C	137 C	5.29 C	7.28 C	6.86 C	16.0 C	26.6 C
PCB-027	ng/kg ww	54.5	36.3	37.3	1.94	1.82	1.92	3.92	6.50
PCB-028	ng/kg ww	C20	C20	C20	C20	C20	C20	C20	C20
PCB-029	ng/kg ww	C26	C26	C26	C26	C26	C26	C26	C26
PCB-030	ng/kg ww	C18	C18	C18	C18	C18	C18	C18	C18
PCB-031	ng/kg ww	1,230	298	373	16.2	23.1	20.8	51.4	87.7
PCB-032	ng/kg ww	235	74.6	76.1	5.05	5.75	5.61	13.3	21.5
PCB-033	ng/kg ww	C21	C21	C21	C21	C21	C21	C21	C21
PCB-034	ng/kg ww	5.55	2.15	2.74	0.169	0.238	0.224	0.471	0.857
PCB-035	ng/kg ww	19.5	5.70	5.87	0.560	0.839	0.740	1.74	2.82
PCB-036	ng/kg ww	1.28	0.565	0.732	0.988 U	0.664	0.324	1.08	1.82
PCB-037	ng/kg ww	302	81.6	68.7	5.73	8.54	7.83	18.7	28.6
PCB-038	ng/kg ww	1.97	0.906	0.674	0.988 U	0.192	0.177	0.983 U	0.576
PCB-039	ng/kg ww	5.81	2.29	2.53	0.242	0.398	0.304	0.823	1.34
PCB-040	ng/kg ww	416 C	175 C	185 C	22.0 C	29.7 C	25.6 C	69.7 C	115 C
PCB-041	ng/kg ww	111	25.9	32.3	2.57	2.77	3.75	9.63	16.2
PCB-042	ng/kg ww	307	113	126	12.6	18.4	16.6	44.3	72.7
PCB-043	ng/kg ww	44.0	13.5	14.5	2.07	3.00	0.991 U	5.60	9.54
PCB-044	ng/kg ww	1,130 C	462 C	465 C	57.2 C	86.5 C	72.1 C	180 C	314 C
PCB-045	ng/kg ww	139	54.6	56.1	6.60	8.25	7.34	16.7	29.5
PCB-046	ng/kg ww	62.0	19.7	29.2	2.51	3.03	2.91	6.83	12.6
PCB-047	ng/kg ww	C44	C44	C44	C44	C44	C44	C44	C44

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB-048	ng/kg ww	199	80.7	74.8	6.65	10.3	9.04	25.4	43.5
PCB-049	ng/kg ww	932 C	390 C	451 C	64.7 C	78.9 C	72.6 C	187 C	334 C
PCB-050	ng/kg ww	174 C	102 C	87.9 C	12.6 C	13.0 C	12.6 C	28.3 C	54.5 C
PCB-051	ng/kg ww	68.4	34.1	37.7	3.71	7.46	4.97	11.8	23.1
PCB-052	ng/kg ww	1,580	814	645	134	203	197	375	677
PCB-053	ng/kg ww	C50	C50	C50	C50	C50	C50	C50	C50
PCB-054	ng/kg ww	2.66	1.90	1.21	0.403	0.406	0.427	0.845	1.36
PCB-055	ng/kg ww	36.7	9.45	13.6	0.988 U	1.75	1.54	3.77	5.15
PCB-056	ng/kg ww	428	164	146	19.0	27.5	23.4	70.2	108
PCB-057	ng/kg ww	6.94	3.07	2.73	0.537	0.882	0.774	1.82	2.07
PCB-058	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-059	ng/kg ww	112 C	53.9 C	50.2 C	9.30 C	12.8 C	12.2 C	24.8 C	41.0 C
PCB-060	ng/kg ww	286	104	86.7	15.0	20.7	17.9	40.2	60.4
PCB-061	ng/kg ww	1,840 C	637 C	616 C	99.7 C	175 C	144 C	392 C	511 C
PCB-062	ng/kg ww	C59	C59	C59	C59	C59	C59	C59	C59
PCB-063	ng/kg ww	54.2	14.0	20.0	2.77	5.11	4.32	9.15	11.4
PCB-064	ng/kg ww	418	155	155	25.9	33.2	31.1	66.5	99.5
PCB-065	ng/kg ww	C44	C44	C44	C44	C44	C44	C44	C44
PCB-066	ng/kg ww	844	389	316	48.1	75.7	63.4	180	254
PCB-067	ng/kg ww	29.9	16.5	12.0	2.34	3.83	3.46	8.47	8.77
PCB-068	ng/kg ww	7.85	3.36	5.15	0.973	2.85	1.66	3.47	4.42
PCB-069	ng/kg ww	C49	C49	C49	C49	C49	C49	C49	C49
PCB-070	ng/kg ww	C61	C61	C61	C61	C61	C61	C61	C61
PCB-071	ng/kg ww	C40	C40	C40	C40	C40	C40	C40	C40
PCB-072	ng/kg ww	16.5	8.24	9.56	2.23	3.78	3.83	7.45	9.25

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB-073	ng/kg ww	0.985 U	0.997 U	4.50	1.21	1.17	0.991 U	2.30	2.92 U
PCB-074	ng/kg ww	C61	C61	C61	C61	C61	C61	C61	C61
PCB-075	ng/kg ww	C59	C59	C59	C59	C59	C59	C59	C59
PCB-076	ng/kg ww	C61	C61	C61	C61	C61	C61	C61	C61
PCB-077	ng/kg ww	99.8	41.5	33.4	6.86	13.8	11.7	27.3	41.0
PCB-078	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-079	ng/kg ww	16.8	9.34	5.83	2.07	3.55	3.14	7.96	14.1
PCB-080	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-081	ng/kg ww	6.43	1.84	2.21	0.651 J	1.01	0.817 J	1.35	2.14 U
PCB-082	ng/kg ww	353	94.9	179	20.7	33.2	25.8	89.7	130
PCB-083	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-084	ng/kg ww	503	239	195	74.6	110	100	244	338
PCB-085	ng/kg ww	380 C	168 C	157 C	43.6 C	72.5 C	43.8 C	177 C	278 C
PCB-086	ng/kg ww	1,750 C	618 C	717 C	184 C	274 C	225 C	714 C	1,100 C
PCB-087	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-088	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-089	ng/kg ww	23.5	10.1	10.1	2.56	3.73	3.15	10.1	15.1
PCB-090	ng/kg ww	3,180 C	1,880 C	1,120 C	733 C	1,270 C	1,140 C	2,670 C	3,820 C
PCB-091	ng/kg ww	359	249	146	134	126	130	327	443
PCB-092	ng/kg ww	634	274	243	87.0	174	146	353	513
PCB-093	ng/kg ww	75.1 C	68.9 C	33.7 C	20.9 C	25.3 C	24.2 C	61.5 C	85.4 C
PCB-094	ng/kg ww	8.88	3.03	4.01	0.988 U	1.87	1.65	0.983 U	6.30
PCB-095	ng/kg ww	2,160	1,220	764	533	769	777	1,610	2,290
PCB-096	ng/kg ww	15.2	9.55	7.19	2.72	3.93	3.94	8.53	12.6
PCB-097	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB-098	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	2.54	0.983 U	0.988 U
PCB-099	ng/kg ww	1,160	740	473	228	334	287	845	1,270
PCB-100	ng/kg ww	C93	C93	C93	C93	C93	C93	C93	C93
PCB-101	ng/kg ww	C90	C90	C90	C90	C90	C90	C90	C90
PCB-102	ng/kg ww	60.0	46.7	28.3	11.4	15.6	11.6	41.9	65.4
PCB-103	ng/kg ww	69.3	55.7	28.6	33.0	42.7	43.9	93.0	127
PCB-104	ng/kg ww	0.619	0.608	0.286	0.235	0.200	0.991 U	0.983 U	0.711
PCB-105	ng/kg ww	731	328	279	73.8	146	104	333	522
PCB-106	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-107	ng/kg ww	92.7 C	37.9 C	36.3 C	8.00 C	20.2 C	13.5 C	40.7 C	55.3 C
PCB-108	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-109	ng/kg ww	184	73.4	75.4	18.8	47.2	31.6	97.2	140
PCB-110	ng/kg ww	2,350	1,230	889	435	570	502	1,400	2,070
PCB-111	ng/kg ww	0.985 U	2.01	0.994 U	0.803	0.987 U	1.18	0.983 U	0.988 U
PCB-112	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-113	ng/kg ww	C90	C90	C90	C90	C90	C90	C90	C90
PCB-114	ng/kg ww	50.9	16.9	17.6	19.5	19.7	19.9	17.6	27.8
PCB-115	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-116	ng/kg ww	C85	C85	C85	C85	C85	C85	C85	C85
PCB-117	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	23.1	0.983 U	0.988 U
PCB-118	ng/kg ww	1,750	828	614	259	480	379	1,090	1,610
PCB-119	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-120	ng/kg ww	15.7	9.58	6.27	5.34	9.49	8.65	20.2	23.2
PCB-121	ng/kg ww	0.985 U	1.60	0.994 U	0.988 U	0.987 U	1.19	0.983 U	0.988 U
PCB-122	ng/kg ww	34.1	16.0	14.5	3.44	8.84	6.17	15.2	24.6

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB-123	ng/kg ww	41.1	15.4	18.7	9.87	13.8	13.6	21.5	36.9
PCB-124	ng/kg ww	C107	C107	C107	C107	C107	C107	C107	C107
PCB-125	ng/kg ww	C86	C86	C86	C86	C86	C86	C86	C86
PCB-126	ng/kg ww	6.10	1.49	2.16	0.627 J	1.49	1.03	3.06	4.44
PCB-127	ng/kg ww	0.985 U	1.46	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-128	ng/kg ww	569 C	226 C	243 C	133 C	221 C	192 C	518 C	702 C
PCB-129	ng/kg ww	5,370 C	1,950 C	2,350 C	1,030 C	1,960 C	1,730 C	4,580 C	5,340 C
PCB-130	ng/kg ww	494	128	296	64.4	144	122	284	394
PCB-131	ng/kg ww	44.6	26.7	17.8	11.6	21.7	20.3	42.7	60.2
PCB-132	ng/kg ww	1,750	656	774	362	583	573	1,340	1,950
PCB-133	ng/kg ww	104	35.8	41.1	21.1	47.2	42.5	90.3	127
PCB-134	ng/kg ww	271	160	107	71.2	130	136	254	364
PCB-135	ng/kg ww	1,960 C	872 C	709 C	472 C	906 C	894 C	1,770 C	2,230 C
PCB-136	ng/kg ww	933	460	316	285	418	465	884	1,280
PCB-137	ng/kg ww	109	36.6	39.1 U	25.9 U	45.9	45.4	56.2	102
PCB-138	ng/kg ww	C129	C129	C129	C129	C129	C129	C129	C129
PCB-139	ng/kg ww	74.2 C	36.1 C	32.6 C	29.4 C	43.7 C	45.1 C	92.9 C	129 C
PCB-140	ng/kg ww	C139	C139	C139	C139	C139	C139	C139	C139
PCB-141	ng/kg ww	985	410	343	156	429	377	662	1,020
PCB-142	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-143	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-144	ng/kg ww	240	117	88.6	92.0	170	169	335	421
PCB-145	ng/kg ww	1.36 U	0.718	0.994 U	0.988 U	0.589	0.991 U	0.983 U	1.79
PCB-146	ng/kg ww	739	301	283	174	398	336	754	1,090
PCB-147	ng/kg ww	3,870 C	2,200 C	1,480 C	1,500 C	2,300 C	2,230 C	4,950 C	6,330 C

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB-148	ng/kg ww	10.3	5.85	4.88	3.63	7.69	6.79	14.1	18.2
PCB-149	ng/kg ww	C147	C147	C147	C147	C147	C147	C147	C147
PCB-150	ng/kg ww	20.0	19.6	8.09	11.2	16.3	18.0	37.0	50.7
PCB-151	ng/kg ww	C135	C135	C135	C135	C135	C135	C135	C135
PCB-152	ng/kg ww	2.21	1.22	0.907	0.521	1.14	0.997	2.16	3.04
PCB-153	ng/kg ww	4,840 C	2,110 C	1,780 C	1,530 C	2,950 C	2,760 C	5,910 C	8,260 C
PCB-154	ng/kg ww	153	115	69.9	72.4	96.3	99.8	248	295
PCB-155	ng/kg ww	1.38	1.58	0.536	0.593	0.791	0.746	2.06	2.80
PCB-156	ng/kg ww	459 C	169 C	187 C	26.4 C	122 C	83.1 C	186 C	273 C
PCB-157	ng/kg ww	C156	C156	C156	C156	C156	C156	C156	C156
PCB-158	ng/kg ww	398	203	144	135	262	277	510	583
PCB-159	ng/kg ww	71.1	30.3	26.8	18.9	46.4	41.1	71.9	119
PCB-160	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-161	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-162	ng/kg ww	10.7	4.04	4.62	0.662	3.26	1.78 U	4.65	8.78
PCB-163	ng/kg ww	C129	C129	C129	C129	C129	C129	C129	C129
PCB-164	ng/kg ww	381	192	157	118	228	222	440	560
PCB-165	ng/kg ww	4.56	2.71	0.994 U	1.73	3.22	2.94	5.90	8.62
PCB-166	ng/kg ww	C128	C128	C128	C128	C128	C128	C128	C128
PCB-167	ng/kg ww	170	73.1	62.2	31.1	85.4	63.9	149	221
PCB-168	ng/kg ww	C153	C153	C153	C153	C153	C153	C153	C153
PCB-169	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-170	ng/kg ww	2,450	576	1,350	60.7	408	272	568	714
PCB-171	ng/kg ww	665 C	240 C	272 C	189 C	321 C	350 C	742 C	988 C
PCB-172	ng/kg ww	270	91.7	97.3	6.74	64.7	45.7	81.4	88.7

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB-173	ng/kg ww	C171	C171	C171	C171	C171	C171	C171	C171
PCB-174	ng/kg ww	1,530	632	577	389	924	912	1,560	2,340
PCB-175	ng/kg ww	81.8	39.4	31.3	28.5	69.5	61.1	144	90.0
PCB-176	ng/kg ww	233	102	81.9	85.9	166	173	368	474
PCB-177	ng/kg ww	1,150	415	481	296	540	625	1,170	1,660
PCB-178	ng/kg ww	359	149	129	112	235	220	490	595
PCB-179	ng/kg ww	736	328	247	200	387	395	829	1,190
PCB-180	ng/kg ww	3,390 C	1,010 C	1,200 C	320 C	1,280 C	1,030 C	2,020 C	2,790 C
PCB-181	ng/kg ww	11.2	4.09	4.41	6.30	8.44	10.5	15.8	17.2
PCB-182	ng/kg ww	12.5	4.87	5.81	4.20	8.58	8.17	14.7	20.3
PCB-183	ng/kg ww	1,210	408	473	491	845	984	1,750	2,470
PCB-184	ng/kg ww	1.30	0.703	0.994 U	0.794	1.38	1.46	3.11	3.87
PCB-185	ng/kg ww	173	46.6	37.7 U	0.988 U	75.9	105	188	0.988 U
PCB-186	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-187	ng/kg ww	1,890	684	716	589	1,160	1,170	2,430	3,050
PCB-188	ng/kg ww	2.83	3.00	1.35	1.30	2.62	2.65	5.30	7.33
PCB-189	ng/kg ww	62.2	22.2	22.4	0.917 J	8.45	7.32	13.2	17.0
PCB-190	ng/kg ww	273	112	91.6	112	197	215	399	525
PCB-191	ng/kg ww	81.7	34.4	30.9	21.9	50.5	57.7	88.6	137
PCB-192	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.987 U	0.991 U	0.983 U	0.988 U
PCB-193	ng/kg ww	C180	C180	C180	C180	C180	C180	C180	C180
PCB-194	ng/kg ww	559	157	205	3.30	55.4	51.8	77.9	77.2
PCB-195	ng/kg ww	301	69.3	131	90.4	198	240	369	456
PCB-196	ng/kg ww	301	106	147	56.4	254	236	408	447
PCB-197	ng/kg ww	30.8	11.7	11.9	15.5	32.9	37.8	69.3	85.7

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
PCB-198	ng/kg ww	615 C	216 C	254 C	105 C	475 C	387 C	704 C	755 C
PCB-199	ng/kg ww	C198	C198	C198	C198	C198	C198	C198	C198
PCB-200	ng/kg ww	102	35.8	34.6	43.1	103	103	203	252
PCB-201	ng/kg ww	121	51.0	45.8	40.6	93.6	95.0	193	269
PCB-202	ng/kg ww	142	59.7	57.9	72.9	143	157	296	407
PCB-203	ng/kg ww	265	82.6	123	111	286	407	629	707
PCB-204	ng/kg ww	0.985 U	0.997 U	0.994 U	0.988 U	0.366	0.387	0.983 U	0.988 U
PCB-205	ng/kg ww	41.3	14.2	15.1	12.0	24.6	32.6	45.9	72.3
PCB-206	ng/kg ww	185	47.3	82.7	22.3	109	115	149	198
PCB-207	ng/kg ww	26.7	7.54	12.1	9.47	26.4	28.6	47.2	80.9
PCB-208	ng/kg ww	51.6	16.0	22.3	22.8	70.5	71.4	126	195
PCB-209	ng/kg ww	62.7	9.90	25.6	21.3	88.5	90.8	159	233
PCB TEQ	ng/kg ww	0.734	0.212	0.271	0.0910 J	0.192	0.140 J	0.378	0.544
Total PCB Congeners	ng/kg ww	72,600	30,210	28,000	13,490 J	25,900	24,580 J	52,920	71,670
PCB Aroclors [a]									
Aroclor-1016	µg/kg ww	10 U	10 U	10 U	3.5 U	3.5 U	3.5 U	3.6 U	7.4 U
Aroclor-1221	µg/kg ww	20 U	20 U	20 U	3.5 U	3.5 U	3.5 U	3.6 U	7.4 U
Aroclor-1232	µg/kg ww	10 U	10 U	10 U	3.5 U	3.5 U	3.5 U	3.6 U	7.4 U
Aroclor-1242	µg/kg ww	10 U	10 U	13 U	3.5 U	3.5 U	3.5 U	24 U	49 U
Aroclor-1248	µg/kg ww	20 U	14 U	11 U	12 U	24 U	23 U	3.6 U	7.4 U
Aroclor-1254	µg/kg ww	31	35	16	12 J	8.0	12 JN	26 J	42
Aroclor-1260	µg/kg ww	47	47	22 J	11	9.1	12	25	36
Aroclor-1262	µg/kg ww	na	na	na	3.5 U	3.5 U	3.5 U	3.6 U	7.4 U
Aroclor-1268	µg/kg ww	na	na	na	3.5 U	3.5 U	3.5 U	3.6 U	7.4 U
Total PCB Aroclors	µg/kg ww	78	82	38 J	23 J	17.1	24 JN	51 J	78

Table A-3, cont. Clam and geoduck composite samples

Chemical	Unit	Clam Composite Samples			Geoduck Composite Samples				
		EW-B06-BC-01-comp1	EW-B08-CN-02-comp1	EW-B10-BC-01-comp1	EW-S01-GD-02	EW-S01-GD-04	EW-S01-GD-10	EW-S01-GD-GB-comp01	EW-S01-GD-GB-comp02
		7/29/2008 9:05:00 AM	7/31/2008 11:30:00 AM	8/1/2008 12:25:00 PM	10/23/2008 1:00:00 PM	10/25/2008 11:40:00 AM	10/25/2008 4:15:00 PM	10/25/2008 11:30:00 AM	10/25/2008 12:40:00 PM
Dioxins/Furans									
2,3,7,8-TCDD	ng/kg ww	0.0957 U	0.0926 U	0.105 U	0.119 U	0.108 U	0.138 U	0.0951 U	0.177 U
1,2,3,7,8-PeCDD	ng/kg ww	0.246 U	0.0941 U	0.158 U	0.210 U	0.178 U	0.121 U	0.190 U	0.200 U
1,2,3,4,7,8-HxCDD	ng/kg ww	0.256 U	0.192 U	0.189 U	0.242 U	0.259 U	0.125 U	0.128 J	0.243 J
1,2,3,6,7,8-HxCDD	ng/kg ww	0.292 U	0.195 U	0.208 U	0.273 U	0.272 U	0.147 U	0.250 J	0.422 J
1,2,3,7,8,9-HxCDD	ng/kg ww	0.284 U	0.215 U	0.220 U	0.276 U	0.289 U	0.145 U	0.122 J	0.213 J
1,2,3,4,6,7,8-HpCDD	ng/kg ww	4.80	2.13 J	2.31 J	0.150 U	0.424 U	0.416 U	2.39 J	3.24
OCDD	ng/kg ww	47.3	14.1	17.0	0.807 J	2.59 J	2.18 J	17.2	21.1
2,3,7,8-TCDF	ng/kg ww	0.291 J	0.113 U	0.170 U	0.0837 U	0.173 J	0.220 J	0.259 U	0.495
1,2,3,7,8-PeCDF	ng/kg ww	0.113 U	0.130 U	0.116 U	0.151 U	0.133 U	0.150 U	0.0609 U	0.212 U
2,3,4,7,8-PeCDF	ng/kg ww	0.240 U	0.177 J	0.112 U	0.134 U	0.121 U	0.131 U	0.203 U	0.379 J
1,2,3,4,7,8-HxCDF	ng/kg ww	0.191 U	0.109 U	0.0750 U	0.0615 U	0.0616 U	0.0883 U	0.199 J	0.246 J
1,2,3,6,7,8-HxCDF	ng/kg ww	0.0839 U	0.0857 U	0.0640 U	0.0604 U	0.0577 U	0.0811 U	0.0547 U	0.111 U
1,2,3,7,8,9-HxCDF	ng/kg ww	0.117 U	0.125 U	0.110 U	0.0895 U	0.0841 U	0.116 U	0.0777 U	0.169 U
2,3,4,6,7,8-HxCDF	ng/kg ww	0.133 U	0.104 U	0.0760 U	0.0628 U	0.0601 U	0.0919 U	0.0608 U	0.119 U
1,2,3,4,6,7,8-HpCDF	ng/kg ww	1.01 J	0.377 U	0.268 J	0.0769 U	0.0879 J	0.102 J	0.645 J	0.921 J
1,2,3,4,7,8,9-HpCDF	ng/kg ww	0.139 U	0.147 U	0.106 U	0.114 U	0.105 U	0.114 U	0.0958 U	0.156 U
OCDF	ng/kg ww	2.11 J	1.05 J	0.829 J	0.226 U	0.588 U	0.463 U	1.34 J	1.73 J
Dioxin/furan TEQ	ng/kg ww	0.379 J	0.234 J	0.237 J	0.246 J	0.239 J	0.218 J	0.303 J	0.536 J
Conventionals [a]									
Lipid	% ww	0.943	0.431	0.638	0.413	0.480	0.440	1.13	1.87
Total solids	% ww	17.22	11.61	13.59	16.32	14.04	15.38	12.70	15.02

[a] These results are discussed in the East Waterway Clam Survey Data Report (Windward 2009a).

na – not analyzed

References

Windward. 2009a. East Waterway Operable Unit supplemental remedial investigation/feasibility study. Draft final data report: clam surveys and sampling of clam tissue and sediment. Windward Environmental LLC, Seattle, WA.

Windward. 2009b. East Waterway Operable Unit supplemental remedial investigation/feasibility study. Draft final data report: fish and shellfish tissue collection. Windward Environmental LLC, Seattle, WA.

APPENDIX B

Data Management

Appendix B Data Management

AVERAGING LABORATORY REPLICATE SAMPLES

Chemical concentrations obtained from the analysis of laboratory duplicate or replicate samples (two or more analyses on the same sample) are averaged for a closer representation of the "true" concentration as compared to the results of a single analysis. Averaging rules are dependent on whether the individual results are detected concentrations or reporting limits (RLs) for undetected analytes. If all concentrations are detects for a given parameter, the values are simply averaged arithmetically. If all concentrations are undetected for a given parameter, the minimum RL is reported. If the concentrations are a mixture of detected concentrations and RLs, any two or more detected concentrations are averaged arithmetically and RLs are ignored. If there is a single detected concentration and one or more RLs, the detected concentration is reported. The latter two rules are applied regardless of whether the RLs are higher or lower than the detected concentration.

SIGNIFICANT FIGURES AND ROUNDING

Analytical laboratories report results with various numbers of significant figures depending on the laboratory's standard operating procedures, the instrument, the chemical, and the reported chemical concentration relative to the RL. The reported (or assessed) precision of each result is explicitly stored in the project database by recording the number of significant figures. Tracking of significant figures is used when calculating analyte sums and performing other data summaries. When a calculation involves addition, such as totaling PCBs, the calculation can only be as precise as the least precise number that went into the calculation. For example:

> 210 + 19 = 229 would be reported as 230 because although 19 is reported to 2 significant digits, the trailing zero in the number 210 is not significant.

When a calculation involves multiplication or division, the final result is rounded at the end of the calculation to reflect the value used in the calculation with the fewest significant figures. For example:

> 59.9 × 1.2 = 71.88 would be reported as 72 because there are two significant figures in the number 1.2.

When rounding, if the number following the last significant figure is less than 5, the digit is left unchanged. If the number following the last significant figure is equal to or greater than 5, the digit is increased by 1.

NON-DETECT RESULTS

Analytical sensitivity is a measure of both the ability of the analytical method to detect the analyte and the concentration that can be reliably quantified. The minimum

concentration of the analyte that can be detected is reported as the method detection limit (MDL) by Analytical Resources, Inc. (ARI), or the estimated detection limit (EDL) by Analytical Perspectives (AP) for PCB congeners and dioxins/furans. The minimum concentration that can be reliably quantified is the reporting limit (RL). Laboratories use both MDLs/EDLs and RLs for reporting analyte concentrations.

The MDL is defined as the lowest concentration of an analyte or compound that a method can detect in either a sample or a blank with 99% confidence. ARI determines MDLs using standard procedures outlined in 40 CFR 136, in which seven or more replicate samples are fortified at 1 to 5 times (but not to exceed 10 times) the expected MDL concentration. The MDL is then determined by calculating the standard deviation of the replicates and multiplying by the Student's t-factor (e.g., 3.14 for seven replicates). Alternately, AP calculates a sample specific EDL, which is 2.5 times the signal-to-noise ratio of the instrument during sample analysis.

RLs are equal to or greater than the lower calibration limit defined by the lowest concentration on the calibration curve. The RLs, MDLs, and EDLs that are reported for each sample are adjusted based on the amount of sample extracted, dilution factors, and percent moisture.

All laboratories report detected concentrations above the RL without qualification and report detected concentrations between the MDL/EDL and the RL with a J-qualifier indicating the concentration is an estimated value. Non-detect values are reported at the RL, with one exception as described below.

PCB congener and dioxin/furan results that do not meet method-specified identification criteria are qualified as estimated maximum possible concentrations (EMPC) by the laboratory to indicate that there are analytical interferences that are likely to cause the reporting of false positives or elevated concentrations. These results are re-qualified as non-detect with a U-qualifier at the reported concentration.

BEST RESULT SELECTION FOR MULTIPLE RESULTS

In some instances, the laboratory generates more than one result for a chemical for a given sample. Multiple results can occur for several reasons, including: 1) the original result did not meet the laboratory's internal quality control (QC) guidelines, and a reanalysis was performed; or 2) the original result did not meet other project data quality objectives, such as a sufficiently low RL, and a reanalysis was performed. If the results are:

- Detected and not qualified, then the result from the lowest dilution is selected, unless multiple results from the same dilution are available, in which case, the result with the highest concentration is selected.
- A combination of estimated and unqualified detected results, then the unqualified result is selected. This situation most commonly occurs when the original result is outside of calibration range, thus requiring a dilution.

- All estimated, then the "best result" is selected using best professional judgment in consideration of the rationale for qualification. For example, a result qualified based on laboratory replicate results outside of QC objectives for precision would be preferred to a qualified result that is outside the calibration range.
- A combination of detected and undetected results, then the detected result is selected. If there is more than one detected result, the applicable rules for multiple results (as discussed above) are followed.
- All undetected results, then the lowest RL is selected.

CALCULATED TOTALS

Total PCBs are calculated by summing the detected values for the individual components available for each sample. For individual samples in which none of the individual components is detected, the total value is given a value equal to the highest RL of an individual component, and assigned the same qualifier (U or UJ), indicating an undetected result. Concentrations for the analyte sums are calculated as follows:

- **Total PCBs** are calculated, in accordance with the methods of the Washington State Sediment Management Standards (SMS), using only detected values for seven Aroclor mixtures.[1] For individual samples in which none of the seven Aroclor mixtures is detected, total PCBs are given a value equal to the highest RL of the seven Aroclors and assigned a U-qualifier indicating the lack of detected concentrations.
- **Total PCB congeners** are calculated using only detected values for the 209 individual congeners. For individual samples in which none of the 209 congeners are detected, total PCB congeners are given a value equal to the highest RL of the individual congener and assigned a U-qualifier indicating the lack of detected concentrations. PCB congeners that do not meet minimum method requirements for qualitative determination (i.e., estimated maximum possible concentrations) are treated as non-detected values when calculating the total PCB congener sums.

CALCULATION OF PCB CONGENER TEQS

PCB congener toxic equivalents (TEQs) are calculated using the World Health Organization (WHO) consensus toxic equivalency factor (TEF) values (Van den Berg et al. 2006) for mammals as presented in Table 1. The TEQ is calculated as the sum of each congener concentration multiplied by the corresponding TEF value. When the congener concentration is reported as non-detected, then the TEF is multiplied by zero, half the RL or the full RL, depending on the calculation method specified.

[1] Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

Table 1. PCB congener TEF values for mammals

PCB Congener Number	TEF Value (unitless)
77	0.0001
81	0.0003
105	0.00003
114	0.00003
118	0.00003
123	0.00003
126	0.1
156	0.00003
157	0.00003
167	0.00003
169	0.03
189	0.00003

CALCULATION OF DIOXIN/FURAN CONGENER TEQS

Dioxin/furan congener TEQs are calculated using the WHO consensus TEF values (Van den Berg et al. 2006) for mammals as presented in Table 2. The TEQ is calculated as the sum of each congener concentration multiplied by the corresponding TEF value. When the congener concentration is reported as undetected, then the TEF is multiplied by zero, half the RL, or the full RL, depending on the calculation method specified.

Table 2. Dioxin/furan congener TEF values for mammals

Dioxin/Furan Congener	TEF Value (unitless)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.01
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.01
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.01
1,2,3,4,7,8-Hexachlorodibenzofuran	0.1
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.1
1,2,3,6,7,8-Hexachlorodibenzofuran	0.1
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.1
1,2,3,7,8,9-Hexachlorodibenzofuran	0.1
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.1
1,2,3,7,8-Pentachlorodibenzofuran	0.03
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1
2,3,4,6,7,8-Hexachlorodibenzofuran	0.1
2,3,4,7,8-Pentachlorodibenzofuran	0.3
2,3,7,8-Tetrachlorodibenzofuran	0.1
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1
Octachlorodibenzofuran	0.0003
Octachlorodibenzo-p-dioxin	0.0003

REFERENCES

Van den Berg M, Birnbaum LS, Denison M, De Vito M, Farland W, Feeley M, Fiedler H, Hakansson H, Hanberg A, Haws L, Rose M, Safe S, Schrenk D, Tohyama C, Tritscher A, Tuomisto J, Tysklind M, Walker N, Peterson RE. 2006. The 2005 World Health Organization reevaluation of human and mammalian toxic equivalency factors for dioxins and dioxin-like compounds. Tox Sci 93(2):223-241.

APPENDIX C

Data Validation Report

EcoChem, INC.
Environmental Data Quality

DATA VALIDATION REPORT

East Waterway – Fish & Shellfish, Clam, and Geoduck

Prepared for:

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Prepared by:

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EcoChem Project: C22016-2

Revised November 20, 2009

Approved for Release:

Christine Ransom
Project Manager
EcoChem, Inc.

PROJECT NARRATIVE

Basis for the Data Validation

This report summarizes the results full (Level IV) and summary (Level III) validation performed on tissue and quality control sample data for the East Waterway Fish and Shellfish Study and Clam and Geoduck Study. A complete list of samples is provided in the **SAMPLE INDEX**.

Samples were analyzed by Analytical Perspectives, Wilmington, North Carolina, Analytical Resources, Inc. (ARI), Tukwila, Washington, And Columbia Analytical Services (CAS), Kelso, Washington. The analytical methods and EcoChem project chemists are listed in the table below.

Analysis	Method	Primary Review	Secondary Review
Polychlorinated Biphenyls Aroclors	EPA 8082	Lucy Panteleeff	Chris Ransom
Polychlorinated Biphenyls Congeners	EPA 1668A	Melissa Swanson	Eric Strout
Dioxin/Furans	EPA 1613	Lucy Panteleeff	
Conventionals: Total Solids, Lipids	EPA 160.3, Bligh-Dyer		Chris Ransom

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced above.

The data were reviewed using guidance and quality control criteria documented in the analytical methods; the quality assurance project plan (QAPP) for *East Waterway Operable Unit Supplemental RIFS, Fish and Shellfish Tissue Collection and Chemical* (December, 2008); *East Waterway Operable unit Supplemental Remedial Investigation/Feasibility Study: Final Quality Assurance Project Plan, Clam Studies (October, 2008)*; *USEPA National Function Guidelines for Chlorinated Dibenzo-p Dioxins (CDD) and Chlorinated Dibenzofurans (CDF) Data Review* (USEPA, 2005); *National Functional Guidelines for Inorganic Data Review* (USEPA 1994 & 2004); and *National Functional Guidelines for Organic Data Review* (USEPA 1999).

Data qualifier definitions, reason codes, and validation criteria are included as **APPENDIX A**. A Qualified Data Summary Table is included in **APPENDIX B**. Data Validation Worksheets will be kept on file at EcoChem, Inc.

Sample Index
Windward
East Waterway Fish and Shellfish
CAS

SDG	Sample ID	Laboratory ID	PCB Aroclors
K0905254	EW08-ES-WB-SUPCOMP1	K0905254-001	✓
	EW08-ES-WB-SUPCOMP2	K0905254-002	✓
	EW08-ES-WB-SUPCOMP3	K0905254-003	✓
	EW08-ES-FL-SUPCOMP1	K0905254-004	✓
	EW08-ES-FL-SUPCOMP2	K0905254-005	✓
	EW08-ES-FL-SUPCOMP3	K0905254-006	✓
	EW08-SS-WB-SUPCOMP1	K0905254-007	✓
	EW08-SS-WB-SUPCOMP2	K0905254-008	✓
	EW08-SS-WB-SUPCOMP3	K0905254-009	✓
	EW08-RRDC-EM-SUPCOMP1	K0905254-010	✓
	EW08-RRDC-EM-SUPCOMP2	K0905254-011	✓
	EW08-RRDC-EM-SUPCOMP3	K0905254-012	✓
	EW08-RRDC-HP-SUPCOMP1	K0905254-013	✓
	EW08-RRDC-HP-SUPCOMP2	K0905254-014	✓
	EW08-RRDC-HP-SUPCOMP3	K0905254-015	✓

Sample Index
Windward
East Waterway Fish Shellfish, Clam, and Geoduck
Analytical Perspectives

SDG	Sample ID	Laboratory ID	Dioxins	PCB Congeners
P1389	EW08-ES-WB-SUPCOMP1	P1389_6964_001	✓	
	EW08-ES-WB-SUPCOMP2	P1389_6964_002	✓	
	EW08-ES-WB-SUPCOMP3	P1389_6964_003	✓	
	EW08-ES-FL-SUPCOMP1	P1389_6964_004	✓	
	EW08-ES-FL-SUPCOMP2	P1389_6964_005	✓	
	EW08-ES-FL-SUPCOMP3	P1389_6964_006	✓	
	EW08-SS-WB-SUPCOMP1	P1389_6964_007	✓	
	EW08-SS-WB-SUPCOMP2	P1389_6964_008	✓	
	EW08-SS-WB-SUPCOMP3	P1389_6964_009	✓	
	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	✓	
	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	✓	
	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	✓	
	EW08-RRDC-HP-SUPCOMP1	P1389_6964_013	✓	
	EW08-RRDC-HP-SUPCOMP2	P1389_6964_014	✓	
	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	✓	
P1395	EW-08-SB012-BR-10_T2	P1395_6907_001	✓	
	EW-08-SB011-BR-11_T2	P1395_6907_002	✓	
	EW-S01-GD-02_T2	P1395_6907_003	✓	
	EW-S01-GD-04_T2	P1395_6907_004	✓	
	EW-S01-GD-10_T2	P1395_6907_005	✓	
	EW-S01-GD-GB-comp01_T2	P1395_6907_006	✓	
	EW-S01-GD-GB-comp02_T2	P1395_6907_007	✓	
	EW-B06-BC-01-comp1_T2	P1395_6907_008	✓	
	EW-B08-CN-02-comp1_T2	P1395_6907_009	✓	
	EW-B10-BC-01-comp1_T2	P1395_6907_010	✓	
	EW-08-SB002-BR-02_T2	P1395_6907_011	✓	
	EW-08-SB006-BR-06_T2	P1395_6907_012	✓	
	EW-08-SB008-BR-08_T2	P1395_6907_013	✓	
	EW-08-SB009-BR-09_T2	P1395_6907_014	✓	
P1389	EW08-ES-WB-SUPCOMP1	P1389_6932_PCB_001		✓
	EW08-ES-WB-SUPCOMP2	P1389_6932_PCB_002		✓
	EW08-ES-WB-SUPCOMP3	P1389_6932_PCB_003		✓
	EW08-ES-FL-SUPCOMP1	P1389_6932_PCB_004		✓
	EW08-ES-FL-SUPCOMP2	P1389_6932_PCB_005		✓
	EW08-ES-FL-SUPCOMP3	P1389_6932_PCB_006		✓
	EW08-SS-WB-SUPCOMP1	P1389_6932_PCB_007		✓
	EW08-SS-WB-SUPCOMP2	P1389_6932_PCB_008		✓
	EW08-SS-WB-SUPCOMP3	P1389_6932_PCB_009		✓
	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010		✓
	EW08-RRDC-EM-SUPCOMP2	P1389_6932_PCB_011		✓
	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012		✓
	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013		✓
	EW08-RRDC-HP-SUPCOMP2	P1389_6932_PCB_014		✓
	EW08-RRDC-HP-SUPCOMP3	P1389_6932_PCB_015		✓

Sample Index
Windward
East Waterway Fish Shellfish, Clam, and Geoduck
Analytical Perspectives

SDG	Sample ID	Laboratory ID	Dioxins	PCB Congeners
P1395	EW-08-SB012-BR-10_T2	P1395_6907_PCB_001D5		✓
	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5		✓
	EW-S01-GD-02_T2	P1395_6907_PCB_003		✓
	EW-S01-GD-04_T2	P1395_6907_PCB_004		✓
	EW-S01-GD-10_T2	P1395_6907_PCB_005		✓
	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006		✓
	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007		✓
	EW-B06-BC-01-comp1_T2	P1395_6907_PCB_008		✓
	EW-B08-CN-02-comp1_T2	P1395_6907_PCB_009		✓
	EW-B10-BC-01-comp1_T2	P1395_6907_PCB_010		✓
	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5		✓
	EW-08-SB006-BR-06_T2	P1395_6907_PCB_012		✓
	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5		✓
	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5		✓

Sample Index
Windward
East Waterway Fish and Shellfish
ARI

SDG	Sample ID	Laboratory ID	Lipids
PA65	EW08-ES-WB-SUPCOMP1	09-12185-PA65A	✓
	EW08-ES-WB-SUPCOMP2	09-12186-PA65B	✓
	EW08-ES-WB-SUPCOMP3	09-12187-PA65C	✓
	EW08-ES-FL-SUPCOMP1	09-12188-PA65D	✓
	EW08-ES-FL-SUPCOMP2	09-12189-PA65E	✓
	EW08-ES-FL-SUPCOMP3	09-12190-PA65F	✓
	EW08-SS-WB-SUPCOMP1	09-12191-PA65G	✓
	EW08-SS-WB-SUPCOMP2	09-12192-PA65H	✓
	EW08-SS-WB-SUPCOMP3	09-12193-PA65I	✓
	EW08-RRDC-EM-SUPCOMP1	09-12194-PA65J	✓
	EW08-RRDC-EM-SUPCOMP2	09-12195-PA65K	✓
	EW08-RRDC-EM-SUPCOMP3	09-12196-PA65L	✓
	EW08-RRDC-HP-SUPCOMP1	09-12197-PA65M	✓
	EW08-RRDC-HP-SUPCOMP2	09-12198-PA65N	✓
	EW08-RRDC-HP-SUPCOMP3	09-12199-PA65O	✓

DATA VALIDATION REPORT
East Waterway - Fish & Shellfish
PCB Aroclors by EPA Method 8082

This report documents the review of analytical data from the analyses of tissue samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Columbia Analytical Services, Kelso, Washington.

SDG	Number of Samples	Validation Level
K0905254	15 Tissue	Summary

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%).

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

Holding Times and Sample Preservation	1	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
Initial Calibration (ICAL)		Target Analyte List
Continuing Calibration (CCAL)	1	Reporting Limits
Laboratory Blanks	2	Compound Identification
Surrogate Compounds		Calculation Verification (full validation only)
Laboratory Control Samples (LCS)		

[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate analyses (MS/MSD) were performed using Sample EW08-ES-WB-SUPCOMP1 M. The MS percent recovery (%R) value for Aroclor 1260 was greater than the upper control limit. The MSD recovery was acceptable and the concentration of Aroclor 1260 in the parent sample was greater than four times (4x) the amount of spike added; therefore no qualifiers were required.

Reporting Limits

Several samples were analyzed at a 5x dilution due to high concentrations of Aroclors 1254 and 1260; reporting limits were elevated accordingly.

Compound Identification

The results from the two analytical columns were compared for agreement. In cases where the relative percent difference (RPD) value between the two columns was greater than 40%, the reported result was "P" flagged by the laboratory. The elevated RPD value may indicate the presence of an interferent resulting in a high bias. When the RPD value was greater than 40% but less than 60% the reported value was estimated (J-3). If the RPD value was greater than 60%, the result was qualified as a tentative identification (NJ-3). The following Aroclors were qualified in one or more samples:

Aroclor 1254: (5 results) – (J-3)

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory performed an appropriate analytical method. Accuracy was acceptable, as demonstrated by the surrogate, laboratory control sample, and MS/MSD percent recoveries. Precision was also acceptable as demonstrated by the MS/MSD RPD values.

Data were qualified as estimated due to poor agreement between the two analytical columns.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway - Fish & Shellfish, Clam, and Geoduck
PCB Congeners by EPA Method 1668A

This report documents the review of analytical data from the analyses of fish, shellfish, clam, and geoduck tissue samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Perspectives, Wilmington, North Carolina. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
P1389	15 Tissues	Full
P1395	14 Tissues	Full

I. DATA PACKAGE COMPLETENESS

The summary forms listed only the World Health Organization (WHO) list congeners; however, the laboratory electronic data deliverable (EDD) reported results for all 209 congeners. The reviewer used the quantitation reports (included in the raw data package) to evaluate the congeners that were not included on the summary forms. Revised sample reports that included all 209 congeners were requested from the laboratory and provided to Windward on 10/15/09.

All specified deliverables were submitted by the laboratory. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. All sample results and 10% of the QC results were verified. No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1 Holding Times and Sample Preservation
System Performance and Resolution Checks
Initial Calibration (ICAL)
Continuing Calibration (CCAL)
2 Laboratory Blanks
2 Labeled Compounds
Ongoing Precision and Recovery (OPR)
1 Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
Reporting Limits
2 Compound Identification and Reported Results
1 Calculation Verification

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

Intra-laboratory transfer documents served as the Analytical Perspectives chains-of-custody (COC). Original sample COCs and compositing instructions are on file at Windward and Analytical Resources, Inc.

Laboratory Blanks

Laboratory (method) blanks were analyzed at the appropriate frequency. Various target analytes were detected in the method blanks. To assess the impact of each blank contaminant on the reported sample results, an action level was established at five times the concentration detected in the blank. If the concentration in the associated field samples were less than the action level, the results were qualified as not detected (U-7) at the reported concentration. No action was taken if the sample results were greater than the action level or for non-detected results.

The following analytes were qualified as not-detected in one or more samples based on method blank contamination:

SDG P1389: PCB 8 (9 results), PCB 11 (14 results)

SDG P1395: PCB 11 (7 results)

Labeled Compound Recovery

SDG P1389: The percent recovery (%R) value for PCB-1L (at 21.5%) was less than the 25% lower control limit in Sample EW08-RRDC-EM-SUPCOMP2. The reporting limits for PCB-1 and PCB-2 were estimated (UJ-13) to indicate a potential low bias.

Matrix Spikes/Matrix Spike Duplicates

No matrix spike/matrix spike duplicates (MS/MSD) were analyzed. Accuracy was assessed using the labeled compound and the ongoing precision and recovery (OPR) sample recoveries. Precision is monitored by the laboratory by comparing the OPR results between extraction batches. All laboratory precision criteria were met.

Compound Identification and Reported Results

For several samples, the laboratory reported estimated maximum possible concentration (EMPC) values for one or more of the target analytes. As required by the method, an EMPC value is reported when a peak was detected but did not meet identification criteria; therefore, the result cannot be considered as positive identification for the analyte. The EMPC values were qualified as not detected (U-22) to indicate that the result is not-detected at an elevated reporting limit.

SDG P1389: PCB-118 exceeded the calibrated linear range of the instrument in three samples. The laboratory flagged these results with an "*" symbol. The results over the linear range were estimated (J-20).

SDG P1395: Several congeners exceeded the calibrated linear range of the instrument in five samples. The laboratory flagged these results with an "*" symbol. The results over the linear range were estimated (J-20).

Calculation Verification

Several results in each data set were verified by recalculation from the raw data. No calculation or transcription errors were found.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR recoveries, with the exceptions previously noted. Precision was acceptable as indicated by the OPR recoveries from multiple extraction batches.

Data were qualified as not detected due to laboratory blank contamination. Data were also qualified as not detected to indicate that EMPC values represent elevated detection limits. Data were estimated due to values exceeding the linear calibration range and labeled compound recovery outliers.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway - Fish & Shellfish
Dioxin/Furan Compounds by EPA 1613B

This report documents the review of analytical data from the analyses of fish and shellfish tissue samples and the associated laboratory quality control (QC) samples. Analytical Perspectives, Wilmington, North Carolina, analyzed the samples. Refer to the **Sample Index** for a list of samples reviewed.

SDG	Number of Samples	Validation Level
P1389	15 Tissues	Full
P1395	14 Tissues	Full

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD VERIFICATION

A verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data packages. All sample results were verified along with ten percent of the QC results. No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed in the following table.

1	Holding Times and Sample Preservation
1	System Performance and Resolution Checks
	Initial Calibration (ICAL)
	Continuing Calibration (CCAL)
2	Laboratory Blanks
	Labeled Compounds
	Ongoing Precision and Recovery (OPR)
1	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)
	Reporting Limits
2	Compound Identification
1	Calculation Verification

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below***

Holding Times and Sample Preservation

Intra-laboratory transfer documents served as the Analytical Perspectives chains-of-custody (COC). Original sample COCs and compositing instructions are on file at Windward and Analytical Resources, Inc.

System Performance and Resolution Checks

The method requires the analysis of an isomer-specificity test solution. The analysis of this solution (performed near the beginning of an analytical sequence) demonstrates that the GC column can successfully separate 2,3,7,8-TCDD (on the DB5 column) and 2,3,7,8-TCDF (on the DB225 or equivalent column) from closely eluting non-target isomers.

The isomer-specificity analysis was acceptable for 2,3,7,8-TCDD. However, the laboratory does not perform second column analysis. Instead, the laboratory includes the known co-eluting isomers in the ongoing precision and recovery (OPR) spike solution. This QC sample goes through the entire extraction process prior to analysis. Isomer specificity is verified using the results of the OPR analysis.

The method criteria for evaluating the isomer-specificity test is that the peak-to-valley ratio between the 2,3,7,8-isomer and the closest eluting non-target isomer must be less than or equal to 25%. The laboratory uses a 10% criterion for 2,3,7,8-TCDD, and a 40% criterion for 2,3,7,8-TCDF.

For 2,3,7,8-TCDF, the method criterion of 25% is for analyses performed using a DB225 (or equivalent) column. The laboratory uses a DB5MS column (see **Compound Identification** section for further discussion). Although the laboratory criterion for 2,3,7,8-TCDF is greater than 25%, the laboratory also requires that despite the presence of a potentially interfering peak, the 2,3,7,8-TCDF recovery and retention time must still meet the OPR control limits, proving that 2,3,7,8-TCDF was adequately resolved.

Since the 2,3,7,8-TCDF peak-to-valley ratio was less than 40% and since all other OPR control limits were met, the 2,3,7,8-TCDF peak was judged to be adequately resolved, and no further action was necessary.

Laboratory Blanks

In order to assess the impact of blank contamination on the reported sample results, action levels at five times the blank concentrations are established. If the concentrations in the associated field samples are less than the action levels, the results are qualified as not detected (U-7). If the result is also less than the reporting limit, the result is elevated to the reporting limit. The following samples and analytes were qualified.

SDG P1389: 1,2,3,4,7,8-HxCDF and 1,2,3,4,6,7,8-HpCDF in all samples.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Accuracy was assessed using labeled compound recoveries and ongoing precision and recovery (OPR) samples. Precision is monitored by the laboratory by comparing the OPR results between extraction batches. All laboratory precision criteria were met.

Compound Identification

The method requires the confirmation of 2,3,7,8-TCDF detects using an alternate GC column. The DB5 column that is typically used cannot fully separate 2,3,7,8-TCDF from closely eluting non-target TCDF isomers. The laboratory did not perform a second column confirmation; however the laboratory uses a DB5MS column. This modified column has been proven to adequately resolve the TCDF isomers. As discussed in the **Instrument Performance** section above, the laboratory also includes the interfering TCDF isomer as a spiked compound in the OPR solution to demonstrate acceptable resolution. Since the 2,3,7,8-TCDF resolution was acceptable, no further action was necessary.

For several samples, the laboratory reported EMPC or "estimated maximum possible concentrations" values for one or more of the target analytes. As required by the method, an EMPC value is reported when a peak was detected but did not meet identification criteria, therefore the result cannot be considered as positive identification for the analyte. To indicate that the reported result is essentially an elevated detection limit, the EMPC values were qualified as not detected (U-22) at the reported values.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory performed an acceptable modification of the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR recoveries. Precision was acceptable as indicated by the OPR recoveries from multiple extraction batches.

Data were qualified as not detected due to blank contamination. Data were qualified as not detected to indicate that EMPC values represent an elevated detection limit.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
East Waterway – Fish & Shellfish
Conventional Analyses

This report documents the review of analytical data from the analysis of tissue samples and the associated laboratory quality control (QC) samples. Analytical Resources, Incorporated, Tukwila, Washington, analyzed the samples. Refer to the **Sample Index** for a list of the individual samples.

SDG	Number of Samples	Validation Level
PA65	15 Tissue	Summary

The analytical tests that were performed are summarized below:

Parameter	Method
Lipids	Bligh-Dyer modified
Total Solids	EPA 160.3

I. DATA PACKAGE COMPLETENESS

The laboratory submitted all necessary deliverables for a summary validation. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

II. EDD TO HARDCOPY VERIFICATION

A complete (100%) verification of the electronic data deliverable (EDD) results was performed by comparison to the hardcopy laboratory data package. Laboratory QC results were also verified (10%). No errors were found.

III. TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Holding Times and Sample Preservation	Laboratory Replicates
1	Laboratory Blanks	Reporting Limits

[1] ***Quality control results are discussed below, but no data were qualified.***
[2] ***Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.***

Holding Times and Sample Preservation

All samples were stored in frozen archive (-20°C). Holding times are extended to one year.

Laboratory Blanks

The method blank result for the lipids analysis was greater than the method detection limit (MDL).

All associated sample results were greater than 5x the blank concentration; therefore no qualification of data was necessary.

IV. OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy could not be determined. Precision was acceptable as demonstrated by the laboratory replicate relative percent difference values.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

EcoChem, INC.
Environmental Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS
REASON CODES
AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

1	Holding Time/Sample Preservation
2	Chromatographic pattern in sample does not match pattern of calibration standard.
3	Compound Confirmation
4	Tentatively Identified Compound (TIC) (associated with NJ only)
5A	Calibration (initial)
5B	Calibration (continuing)
6	Field Blank Contamination
7	Lab Blank Contamination (e.g., method blank, instrument, etc.)
8	Matrix Spike(MS & MSD) Recoveries
9	Precision (all replicates)
10	Laboratory Control Sample Recoveries
11	A more appropriate result is reported (associated with “R” and “DNR” only)
12	Reference Material
13	Surrogate Spike Recoveries (a.k.a., labeled compounds & recovery standards)
14	Other (define in validation report)
15	GFAA Post Digestion Spike Recoveries
16	ICP Serial Dilution % Difference
17	ICP Interference Check Standard Recovery
18	Trip Blank Contamination
19	Internal Standard Performance (e.g., area, retention time, recovery)
20	Linear Range Exceeded
21	Potential False Positives
22	Elevated Detection Limit Due to Interference (i.e., laboratory, chemical and/or matrix)

EcoChem Validation Guidelines for Pesticides/PCBs by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Method 8081/8082)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature	4°C ±2°	J(+)/UJ(-) if greater than 6 deg. C (EcoChem PJ)	1
Holding Time	Water: 7 days from collection Soil: 14 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext/analyzed > HT J(+)/R(-) if ext/analyzed > 3X HT (EcoChem PJ)	1
Resolution Check	Beginning of ICAL Sequence Within RTW Resolution >90%	Narrate (Use Professional Judgement to qualify)	14
Instrument Performance (Breakdown)	DDT Breakdown: < 20% Endrin Breakdown: <20% Combined Breakdown: <30% Compounds within RTW	J(+) DDT NJ(+) DDD and/or DDE R(-) DDT - If (+) for either DDE or DDD J(+) Endrin NJ(+) EK and/or EA R(-) Endrin - If (+) for either EK or EA	5A
Retention Times	Surrogates: TCX (+/- 0.05); DCB (+/- 0.10) Target compounds: elute before heptachlor epoxide (+/- 0.05) elute after heptachlor epoxide (+/- 0.07)	NJ(+)/R(-) results for analytes with RT shifts For full DV, use PJ based on examination of raw data	5B
Initial Calibration	Pesticides: Low=CRQL, Mid=4X, High=16X Multiresponse - one point Calibration %RSD<20% %RSD<30% for surr; two comp. may exceed if <30% Resolution in Mix A and Mix B >90%	J(+)/UJ(-)	5A
Continuing Calibration	Alternating PEM standard and INDA/INDB standards every 12 hours (each preceeded by an inst. Blank) %D < 25% Resolution >90% in IND mixes; 100% for PEM	J(+)/UJ(-) J(+)R(-) if %D > 90% PJ for resolution	5B
Method Blank	One per matrix per batch No results > CRQL	U(+) if sample result is < CRQL and < 5X rule (raise sample value to CRQL) U(+) if sample result is > or equal to CRQL and < 5X rule (at reported sample value)	7
Instrument Blanks	Analyzed at the beginning of every 12 hour sequence No analyte > 1/2 CRQL	Same as Method Blank	7
Field Blanks	Not addressed by NFG No results > CRQL	Apply 5X rule; U(+) < action level	6

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EcoChem Validation Guidelines for Pesticides/PCBs by GC/ECD
(Based on Organic NFG 1999 & EPA SW-846 Method 8081/8082)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
MS/MSD (recovery)	One set per matrix per batch Method Acceptance Criteria	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	One set per matrix per batch Method Acceptance Criteria	J(+) in parent sample if RPD > CL	9
LCS	One per SDG Method Acceptance Criteria	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
LCS/LCSD *(if required)*	One set per matrix and batch of 20 samples RPD < 35%	J(+)/UJ(-) assoc. cmpd. in all samples	9
Surrogates	TCX and DCB added to every sample %R = 30-150%	J(+)/UJ(-) if both %R = 10 - 60% J(+) if both >150% J(+)/R(-) if any %R <10%	13
Quantitation/ Identification	Quantitated using ICAL calibration factor (CF) RPD between columns <40%	J(+) if RPD = 40 - 60% NJ(+) if RPD >60% EcoChem PJ - See TM-08	3
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11
Sample Clean-up	GPC required for soil samples Florisil required for all samples Sulfur is optional Clean-up standard check %R within CLP limits	J(+)/UJ(-) if %R < LCL J(+) if %R > UCL	14
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate (Qualifiy if required by project QAPP)	9

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EcoChem Validation Guidelines for PCB Congener Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 1, 12/1995 & EPA SW-846, Method 1668)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Waters/Solids <4°C Tissues <-10°C	EcoChem PJ, see TM-05	1
Holding Time	Samples: Up to one year if stored in the dark & temp as above. Extracts: Up to 1 year if stored at <-10°C and in the dark	J(+)/UJ(-) if HT > 1 year EcoChem PJ, see TM-05	1
Mass Resolution	>=10,000 resolving power at m/z 330.9792 <5 ppm deviation from each m/z listed in Table 7 of method. Analyzed prior to ICAL and at the beginning and end of each 12 hr. shift	R(+/-) if not met	14
Column Resolution 209 Congener Solution	Mix of all 209 PCBs run prior to each ICAL and each 12 hour shift RT of PCB209 must be > 55 min PCB 156 & 157 must coelute w/in 2 sec PCB34 & 23 and PCB187 & 182 must be resolved where ((x/y)*100%) < 40% x = ht. of valley and y = ht of shortest peak	J(+) if valley >40%	5A (ICAL) 5B (CCAL)
Initial Calibration	Minimum of five standards %RSD < 20% for native compounds %RSD < 35% for labeled compounds	J(+) natives if %RSD > 20%	5A
	Ion Abundance ratios within QC limits (Method 1668, Table 8) in CS1 std.	EcoChem PJ, see TM-05	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	
Continuing Calibration	Every 12 hours: Concentrations must meet criteria specified in Method 1668, Table 6	J(+)/(UJ(-) natives if %D = 30% - 50% J(+)/R(-) natives if %D > 75%	5B
	Absolute RT of all Labelled Compounds and Window Defining Congeners must be +/- 15 sec of RT in ICAL RRT of all compounds must meet Table 2 of method.	EcoChem PJ, see ICAL section of TM-05	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
	Ion Abundance ratios must meet criteria specified in Method 1668, Table 8	EcoChem PJ, see TM-05	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	7

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EcoChem Validation Guidelines for PCB Congener Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 1, 12/1995 & EPA SW-846, Method 1668)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Rinse/Field Blank (if required)	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	6
LCS / OPR	One per matrix per batch %R Values w/in limits specified in Method 1668, Table 6	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (if required)	Accuracy: %R values within laboratory limits	Qualify parent sample only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
	Precision: RPD < 20%	J(+) in parent sample if RPD > 20%	9
Duplicate (if required)	RPD <25%	J(+)/UJ(-) if outside limts	9
Labeled Compounds / Internal Standards	%R must meet limits specified in Method 1668, Table 6.	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 Ion abundance (IA ratios) must meet limits stated in Table 8 of Method 1668 Relative retention times (RRT) must be w/in limits stated in Table 2 of Method 1668	If RT criteria not met, use PJ (see TM-05) J(+) if S/N criteria not met if unlabelled ion abundance not met, change to EMPC J(+) if labelled ion abundance not met.	21
Interferences	Lock masses must not deviate +/- 20%	Change result to EMPC	14
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used to avoid reporting two results for one sample	11

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EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler/Storage Temperature	Waters/Solids < 4°C Tissues <-10°C	EcoChem PJ, see TM-05	1
Holding Time	Extraction - Water: 30 days from collection *Note:* Under CWA, SDWA, and RCRA the HT for H2O is 7 days* Extraction - Soil: 30 days from collection Analysis: 40 days from extraction	J(+)/UJ(-) if ext > 30 days J(+)/UJ(-) if analysis > 40 Days EcoChem PJ, see TM-05	1
Mass Resolution	>=10,000 resolving power at m/z 304.9824 Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift	R(+/-) if not met	14
Window Defining Mix and Column Performance Mix	Window defining mixture/Isomer specificity std run before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) x = ht. of TCDD y = baseline to bottom of valley For all isomers eluting near 2378-TCDD/TCDF isomers (TCDD only for 8290)	J(+) if valley > 25%	5A (ICAL) 5B (CCAL
Initial Calibration	Minimum of five standards %RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD <35% for labeled compounds under 1613b)	J(+) natives if %RSD > 20%	5A
	Abs. RT of $^{13}C_{12}$-1234-TCDD >25 min on DB5 >15 min on DB-225	EcoChem PJ, see TM-05	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	EcoChem PJ, see TM-05	
	S/N ratio > 10 for all native and labeled compounds in CS1 std.	If <10, elevate Det. Limit or R(-)	

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EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Continuing Calibration	Analyzed at the start and end of each 12 hour shift. %D+/-20% for native compounds %D +/-30% for labeled compounds (Must meet limits in Table 6, Method 1613B) (If %Ds in the closing CCAL are w/in 25%/35% the avg RF from the two CCAL may be used to calculate samples per Method 8290, Section 8.3.2.4)	Do not qualify labeled compounds. Narrate in report for labeled compound %D outliers. For native compound %D outliers: 8290: J(+)/UJ(-) if %D = 20% - 75% J(+)/R(-) if %D > 75% 1613: J(+)/UJ(-) if %D is outside Table 6 limits J(+)/R(-) if %D is +/- 75% of Table 6 limit	5B
	Abs. RT of $^{13}C_{12}$-1234-TCDD and ^{13}C12-123789-HxCDD +/- 15 sec of ICAL.	EcoChem PJ, see ICAL section of TM-05	
	RRT of all other compounds must meet Table 2 of 1613B.	EcoChem PJ, see TM-05	
	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	EcoChem PJ, see TM-05	
	S/N ratio > 10	If <10, elevate Det. Limit or R(-)	
Method Blank	One per matrix per batch No positive results	If sample result <5X action level, qualify U at reported value.	7
Field Blanks (Not Required)	No positive results	If sample result <5X action level, qualify U at reported value.	6
LCS / OPR	Concentrations must meet limits in Table 6, Method 1613B or lab limits.	J(+) if %R > UCL J(+)/UJ(-) if %R < LCL J(+)/R(-) using PJ if %R <<LCL (< 10%)	10
MS/MSD (recovery)	May not analyze MS/MSD %R should meet lab limits.	Qualify parent only unless other QC indicates systematic problems: J(+) if both %R > UCL J(+)/UJ(-) if both %R < LCL J(+)/R(-) if both %R < 10% PJ if only one %R outlier	8
MS/MSD (RPD)	May not analyze MS/MSD RPD < 20%	J(+) in parent sample if RPD > CL	9

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EcoChem Validation Guidelines for Dioxin/Furan Analysis by HRMS
(Based on EPA Reg. 10 SOP, Rev. 2, 1996 & EPA SW-846, Methods 1613b and 8290)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Lab Duplicate	RPD <25% if present.	J(+)/UJ(-) if outside limts	9
Labeled Compounds / Internal Standards	*Method 8290:* %R = 40% - 135% in all samples *Method 1613B:* %R must meet limits specified in Table 7, Method 1613	J(+)/UJ(-) if %R = 10% to LCL J(+) if %R > UCL J(+)/R(-) if %R < 10%	13
Quantitation/ Identification	Ions for analyte, IS, and rec. std. must max w/in 2 sec. S/N >2.5 IA ratios meet limits in Table 9 of 1613B or Table 8 of 8290 RRTs w/in limits in Table 2 of 1613B	If RT criteria not met, use PJ (see TM-05) If S/N criteria not met, J(+). if unlabelled ion abundance not met, change to EMPC If labelled ion abundance not met, J(+).	21
EMPC (estimated maximum possible concentration)	If quantitation idenfication criteria are not met, laboratory should report an EMPC value.	If laboratory correctly reported an EMPC value, qualify with U to indicate that the value is a detection limit.	14
Interferences	PCDF interferences from PCDPE	If both detected, change PCDF result to EMPC	14
Second Column Confirmation	All 2378-TCDF hits must be confirmed on a DB-225 (or equiv) column. All QC specs in this table must be met for the confirmation analysis.	Report lower of the two values. If not performed use PJ (see TM-05).	3
Field Duplicates	Use QAPP limits. If no QAPP: Solids: RPD <50% OR absolute diff. < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR absolute diff. < 1X RL (for results < 5X RL)	Narrate and qualify if required by project (EcoChem PJ)	9
Two analyses for one sample	Report only one result per analyte	"DNR" results that should not be used	11

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EcoChem Validation Guidelines for Conventional Chemistry Analysis (Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Cooler Temperature and Preservation	Cooler Temperature 4°C ±2°C Preservation: Method Specific	Use Professional Judgment to qualify based to qualify for coole temp outliers J(+)/UJ(-) if preservation requirements not met	1
Holding Time	Method Specific	Professional Judgment J(+)/UJ(-) if holding time exceeded J(+)/R(-) if HT exceeded by > 3X	1
Initial Calibration	Method specific r>0.995	Use professional judgment J(+)/UJ(-) for r < 0.995	5A
Initial Calibration Verification (ICV)	Where applicable to method Independent source analyzed immediately after calibration %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5A
Continuing Cal Verification (CCV)	Where applicable to method Every ten samples, immed. following ICV/ICB and end of run %R method specific, usually 90% - 110%	R(+/-) if %R significantly < LCL J(+)/UJ(-) if %R < LCL J(+) if %R > UCL R(+) if %R significantly > UCL	5B

Initial and Continuing Cal Blanks (ICB/CCB)	Where applicable to method
	After each ICV and CCV every ten samples and end of run
	| blank| < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blanks, U(+) results < action level
		For (-) blanks, J(+)/UJ(-) results < action level
		refer to TM-02 for additional details
			7

Method Blank	One per matrix per batch
	(not to exceed 20 samples)
	blank < MDL
		Action level is 5x absolute value of blank conc.
		For (+) blk value, U(+) results < action level
		For (-) blk value, J(+)/UJ(-) results < action level
			7

Laboratory Control Sample	Waters: One per matrix per batch %R (80-120%)	R(+/-) if %R < 50% J(+)/UJ(-) if %R = 50-79% J(+) if %R >120%	10
	Soils: One per matrix per batch Result within manufacturer's certified acceptance range	J(+)/UJ(-) if < LCL, J(+) if > UCL	10
Matrix Spike	One per matrix per batch; 5% frequency 75-125% for samples less than 4 x spike level	J(+) if %R > 125% or < 75% UJ(-) if %R = 30-74% R(+/-) results < IDL if %R < 30%	8
Laboratory Duplicate	One per matrix per batch RPD <20% for samples > 5x RL Diff <RL for samples >RL and <5 x RL (may use RPD < 35%, Diff < 2X RL for solids)	J(+)/UJ(-) if RPD > 20% or diff > RL all samples in batch	9

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EcoChem Validation Guidelines for Conventional Chemistry Analysis
(Based on EPA Standard Methods)

VALIDATION QC ELEMENT	ACCEPTANCE CRITERIA	ACTION	REASON CODE
Field Blank	blank < MDL	Action level is 5x blank conc. U(+) sample values < action level in associated field samples only	6
Field Duplicate	For results > 5X RL: Water: RPD < 35% Solid: RPD < 50% For results < 5 x RL: Water: Diff<RL Solid: Diff < 2X RL	J(+)/UJ(-) in parent samples only	9

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Environmental Data Quality

APPENDIX B
QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
Windward
East Waterway Fish and Shellfish

SDG	Sample ID	Laboratory ID	Analyte	Result	Units	Lab Qual	DV Qual	Val Reason
K0905254	EW08-RRDC-EM-SUPCOMP2	K0905254-011	Aroclor 1254	24	ug/kg	P	J	3
K0905254	EW08-RRDC-EM-SUPCOMP3	K0905254-012	Aroclor 1254	17	ug/kg	P	J	3
K0905254	EW08-RRDC-HP-SUPCOMP1	K0905254-013	Aroclor 1254	310	ug/kg	P	J	3
K0905254	EW08-RRDC-HP-SUPCOMP2	K0905254-014	Aroclor 1254	350	ug/kg	P	J	3
K0905254	EW08-RRDC-HP-SUPCOMP3	K0905254-015	Aroclor 1254	340	ug/kg	P	J	3
P1389	EW08-ES-WB-SUPCOMP1	P1389_6932_PCB_001	PCB-11 33'-DiCB	26.2	ng/kg		U	7
P1389	EW08-ES-WB-SUPCOMP1	P1389_6932_PCB_001	PCB-118 23'44'5-PeCB	70900	ng/kg	*	J	20
P1389	EW08-ES-WB-SUPCOMP1	P1389_6932_PCB_001	PCB-3 4-MoCB	3.9	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP1	P1389_6932_PCB_001	PCB-35 33'4-TrCB	1.64	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6932_PCB_002	PCB-1 2-MoCB	12.7	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6932_PCB_002	PCB-11 33'-DiCB	18	ng/kg		U	7
P1389	EW08-ES-WB-SUPCOMP2	P1389_6932_PCB_002	PCB-117 234'56-PeCB	1740	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6932_PCB_002	PCB-118 23'44'5-PeCB	61900	ng/kg	*	J	20
P1389	EW08-ES-WB-SUPCOMP2	P1389_6932_PCB_002	PCB-2 3-MoCB	1.24	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6932_PCB_002	PCB-204 22'344'566'-OcCB	8.33	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6932_PCB_002	PCB-3 4-MoCB	2.17	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP3	P1389_6932_PCB_003	PCB-11 33'-DiCB	23.2	ng/kg		U	7
P1389	EW08-ES-WB-SUPCOMP3	P1389_6932_PCB_003	PCB-118 23'44'5-PeCB	66600	ng/kg	*	J	20
P1389	EW08-ES-WB-SUPCOMP3	P1389_6932_PCB_003	PCB-37 344'-TrCB	82.3	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6932_PCB_004	PCB-11 33'-DiCB	20	ng/kg		U	7
P1389	EW08-ES-FL-SUPCOMP2	P1389_6932_PCB_005	PCB-24 236-TrCB	13.1	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6932_PCB_006	PCB-11 33'-DiCB	21.1	ng/kg		U	7
P1389	EW08-ES-FL-SUPCOMP3	P1389_6932_PCB_006	PCB-145 22'3466'HxCB	13.5	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6932_PCB_006	PCB-165 233'55'6-HxCB	114	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6932_PCB_007	PCB-1 2-MoCB	4.85	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6932_PCB_007	PCB-11 33'-DiCB	29.2	ng/kg		U	7
P1389	EW08-SS-WB-SUPCOMP1	P1389_6932_PCB_007	PCB-55 233'4-TeCB	42.3	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6932_PCB_007	PCB-79 33'45'-TeCB	88.5	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6932_PCB_007	PCB-8 24'-DiCB	41.1	ng/kg		U	7
P1389	EW08-SS-WB-SUPCOMP2	P1389_6932_PCB_008	PCB-11 33'-DiCB	25.8	ng/kg		U	7
P1389	EW08-SS-WB-SUPCOMP2	P1389_6932_PCB_008	PCB-2 3-MoCB	1.44	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6932_PCB_008	PCB-41 22'34-TeCB	11.5	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6932_PCB_008	PCB-8 24'-DiCB	45.2	ng/kg		U	7
P1389	EW08-SS-WB-SUPCOMP2	P1389_6932_PCB_008	PCB-94 22'356'-PeCB	23.3	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6932_PCB_009	PCB-11 33'-DiCB	34.8	ng/kg		U	7
P1389	EW08-SS-WB-SUPCOMP3	P1389_6932_PCB_009	PCB-3 4-MoCB	2.02	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6932_PCB_009	PCB-34 2'35-TrCB	8.02	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6932_PCB_009	PCB-41 22'34-TeCB	13.3	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6932_PCB_009	PCB-8 24'-DiCB	41.5	ng/kg		U	7
P1389	EW08-SS-WB-SUPCOMP3	P1389_6932_PCB_009	PCB-98 22'3'46-PeCB	56	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-11 33'-DiCB	36.5	ng/kg		U	7
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-148 22'34'56'-HxCB	1.82	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-152 22'3566'-HxCB	1.36	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-188 22'34'566'-HpCB	8.62	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-19 22'6-TrCB	2.47	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-34 2'35-TrCB	1.19	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-35 33'4-TrCB	9.2	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-8 24'-DiCB	27.5	ng/kg		U	7
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-94 22'356'-PeCB	2.15	ng/kg	EMPC	U	22

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P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6932_PCB_010	PCB-96 22'366'-PeCB	1.2	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6932_PCB_011	PCB-1 2-MoCB	4.36	ng/kg	EMPC	UJ	13,22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6932_PCB_011	PCB-11 33'-DiCB	35.2	ng/kg		U	7
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6932_PCB_011	PCB-117 234'56-PeCB	88.5	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6932_PCB_011	PCB-184 22'344'66'-HpCB	3.47	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6932_PCB_011	PCB-2 3-MoCB		ng/kg	U	UJ	13
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6932_PCB_011	PCB-46 22'36'-TeCB	3.41	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6932_PCB_011	PCB-8 24'-DiCB	26.6	ng/kg		U	7
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-1 2-MoCB	3.03	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-11 33'-DiCB	34.4	ng/kg		U	7
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-120 23'455'-PeCB	6.03	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-126 33'44'5-PeCB	5.09	ng/kg	J EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-152 22'3566'-HxCB	1.88	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-188 22'34'566'-HpCB	7.9	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-34 2'35-TrCB	1.46	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-39 34'5-TrCB	2.26	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-68 23'45'-TeCB	2.48	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6932_PCB_012	PCB-8 24'-DiCB	31.6	ng/kg		U	7
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013	PCB-1 2-MoCB	3.93	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013	PCB-104 22'466'-PeCB	1.63	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013	PCB-11 33'-DiCB	58.1	ng/kg		U	7
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013	PCB-126 33'44'5-PeCB	30.8	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013	PCB-184 22'344'66'-HpCB	16.3	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013	PCB-73 23'5'6TeCB	22.4	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013	PCB-79 33'45'-TeCB	92.8	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6932_PCB_013	PCB-8 24'-DiCB	60.9	ng/kg		U	7
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6932_PCB_014	PCB-11 33'-DiCB	56.6	ng/kg		U	7
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6932_PCB_014	PCB-57 233'5-TeCB	13.3	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6932_PCB_014	PCB-8 24'-DiCB	64.6	ng/kg		U	7
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6932_PCB_015	PCB-11 33'-DiCB	63.3	ng/kg		U	7
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6932_PCB_015	PCB-24 236-TrCB	1.13	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6932_PCB_015	PCB-51 22'46'-TeCB	6.52	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6932_PCB_015	PCB-54 22'66'-TeCB	1.07	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6932_PCB_015	PCB-8 24'-DiCB	63.5	ng/kg		U	7
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6932_PCB_015	PCB-89 22'346'-PeCB	3.5	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP1	P1389_6964_001	1,2,3,4,6,7,8-HpCDF	0.765	ng/kg	J B	U	7
P1389	EW08-ES-WB-SUPCOMP1	P1389_6964_001	1,2,3,4,7,8-HxCDF	0.499	ng/kg	J B	U	7
P1389	EW08-ES-WB-SUPCOMP1	P1389_6964_001	1,2,3,7,8-PeCDD	0.551	ng/kg	EMPC J	U	22
P1389	EW08-ES-WB-SUPCOMP1	P1389_6964_001	HxCDDs	1.29	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP1	P1389_6964_001	PeCDDs	0.551	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP1	P1389_6964_001	PeCDFs	3.21	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP1	P1389_6964_001	TCDFs	2.75	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6964_002	1,2,3,4,6,7,8-HpCDF	0.729	ng/kg	J B	U	7
P1389	EW08-ES-WB-SUPCOMP2	P1389_6964_002	1,2,3,4,7,8-HxCDF	0.444	ng/kg	J B	U	7
P1389	EW08-ES-WB-SUPCOMP2	P1389_6964_002	1,2,3,7,8,9-HxCDD	0.113	ng/kg	EMPC J	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6964_002	HpCDFs	1.43	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6964_002	HxCDDs	1.28	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6964_002	HxCDFs	2.94	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP2	P1389_6964_002	PeCDFs	4.62	ng/kg	EMPC	U	22

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P1389	EW08-ES-WB-SUPCOMP2	P1389_6964_002	TCDFs	3.84	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP3	P1389_6964_003	1,2,3,4,6,7,8-HpCDF	0.756	ng/kg	J B	U	7
P1389	EW08-ES-WB-SUPCOMP3	P1389_6964_003	1,2,3,4,7,8-HxCDD	0.132	ng/kg	EMPC J	U	22
P1389	EW08-ES-WB-SUPCOMP3	P1389_6964_003	1,2,3,4,7,8-HxCDF	0.448	ng/kg	J B	U	7
P1389	EW08-ES-WB-SUPCOMP3	P1389_6964_003	1,2,3,7,8,9-HxCDD	0.135	ng/kg	EMPC J	U	22
P1389	EW08-ES-WB-SUPCOMP3	P1389_6964_003	HxCDDs	1.26	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP3	P1389_6964_003	HxCDFs	2.67	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP3	P1389_6964_003	PeCDFs	3.47	ng/kg	EMPC	U	22
P1389	EW08-ES-WB-SUPCOMP3	P1389_6964_003	TCDFs	3.25	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	1,2,3,4,6,7,8-HpCDF	0.556	ng/kg	J B	U	7
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	1,2,3,4,7,8-HxCDD	0.0461	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	1,2,3,4,7,8-HxCDF	0.309	ng/kg	J B	U	7
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	1,2,3,6,7,8-HxCDD	0.273	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	2,3,4,6,7,8-HxCDF	0.0617	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	2,3,7,8-TCDD	0.214	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	HxCDDs	0.319	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	HxCDFs	1.5	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	OCDF	0.227	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	PeCDFs	2.47	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	TCDDs	0.293	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP1	P1389_6964_004	TCDFs	2.03	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	1,2,3,4,6,7,8-HpCDF	1.41	ng/kg	B	U	7
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	1,2,3,4,7,8-HxCDF	0.808	ng/kg	J B	U	7
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	1,2,3,7,8-PeCDD	0.24	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	2,3,4,6,7,8-HxCDF	0.0609	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	HpCDDs	0.41	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	HpCDFs	1.58	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	HxCDFs	2.54	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	PeCDDs	0.24	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	PeCDFs	3.35	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP2	P1389_6964_005	TCDFs	2.93	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	1,2,3,4,6,7,8-HpCDF	0.465	ng/kg	J B	U	7
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	1,2,3,4,7,8-HxCDD	0.0662	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	1,2,3,4,7,8-HxCDF	0.277	ng/kg	J B	U	7
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	1,2,3,6,7,8-HxCDF	0.064	ng/kg	EMPC JB	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	1,2,3,7,8-PeCDF	0.0821	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	2,3,4,6,7,8-HxCDF	0.0512	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	HpCDDs	0.476	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	HpCDFs	0.562	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	HxCDDs	0.372	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	HxCDFs	1.05	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	OCDD	1.04	ng/kg	EMPC J	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	PeCDFs	1.61	ng/kg	EMPC	U	22
P1389	EW08-ES-FL-SUPCOMP3	P1389_6964_006	TCDDs	0.258	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	1,2,3,4,6,7,8-HpCDF	0.503	ng/kg	J B	U	7
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	1,2,3,4,7,8-HxCDD	0.104	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	1,2,3,4,7,8-HxCDF	0.279	ng/kg	J B	U	7
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	1,2,3,7,8,9-HxCDD	0.0453	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	1,2,3,7,8-PeCDD	0.353	ng/kg	EMPC J	U	22

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P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	1,2,3,7,8-PeCDF	0.219	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	2,3,7,8-TCDD	0.344	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	HxCDDs	0.517	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	HxCDFs	1.8	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	OCDF	0.359	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	PeCDDs	0.521	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	PeCDFs	3.49	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP1	P1389_6964_007	TCDDs	0.374	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	1,2,3,4,6,7,8-HpCDF	0.428	ng/kg	J B	U	7
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	1,2,3,4,7,8-HxCDF	0.22	ng/kg	J B	U	7
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	1,2,3,6,7,8-HxCDD	0.212	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	1,2,3,7,8,9-HxCDD	0.0678	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	2,3,4,6,7,8-HxCDF	0.05	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	HxCDDs	0.612	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	HxCDFs	1.54	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	PeCDFs	3.3	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP2	P1389_6964_008	TCDFs	5.56	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	1,2,3,4,6,7,8-HpCDD	0.713	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	1,2,3,4,6,7,8-HpCDF	0.589	ng/kg	J B	U	7
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	1,2,3,4,7,8-HxCDD	0.113	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	1,2,3,4,7,8-HxCDF	0.269	ng/kg	J B	U	7
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	1,2,3,6,7,8-HxCDF	0.136	ng/kg	EMPC JB	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	1,2,3,7,8,9-HxCDD	0.0667	ng/kg	EMPC J	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	HpCDDs	1.45	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	HpCDFs	0.9	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	HxCDDs	0.728	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	HxCDFs	1.65	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	PeCDFs	3.11	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	TCDDs	0.365	ng/kg	EMPC	U	22
P1389	EW08-SS-WB-SUPCOMP3	P1389_6964_009	TCDFs	5.93	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	1,2,3,4,6,7,8-HpCDF	0.542	ng/kg	J B	U	7
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	1,2,3,4,7,8-HxCDD	0.0756	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	1,2,3,4,7,8-HxCDF	0.249	ng/kg	J B	U	7
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	2,3,4,7,8-PeCDF	0.253	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	HpCDFs	0.645	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	HxCDDs	0.698	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	HxCDFs	0.848	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	PeCDDs	0.388	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	PeCDFs	1.89	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	TCDDs	0.802	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP1	P1389_6964_010	TCDFs	7.51	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	1,2,3,4,6,7,8-HpCDF	0.326	ng/kg	J B	U	7
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	1,2,3,4,7,8-HxCDD	0.128	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	1,2,3,4,7,8-HxCDF	0.185	ng/kg	J B	U	7
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	1,2,3,7,8-PeCDD	0.135	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	HpCDDs	1.36	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	HpCDFs	0.433	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	HxCDDs	0.972	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	HxCDFs	0.712	ng/kg	EMPC	U	22

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P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	PeCDDs	0.36	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	PeCDFs	2.12	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP2	P1389_6964_011	TCDFs	8.52	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	1,2,3,4,6,7,8-HpCDF	0.227	ng/kg	J B	U	7
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	1,2,3,4,7,8-HxCDF	0.111	ng/kg	EMPC JB	U	7,22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	1,2,3,7,8,9-HxCDD	0.0809	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	2,3,4,6,7,8-HxCDF	0.0288	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	HpCDFs	0.354	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	HxCDDs	0.707	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	HxCDFs	0.533	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	OCDF	0.133	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	PeCDDs	0.304	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	PeCDFs	1.76	ng/kg	EMPC	U	22
P1389	EW08-RRDC-EM-SUPCOMP3	P1389_6964_012	TCDFs	7.73	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6964_013	1,2,3,4,6,7,8-HpCDF	1.03	ng/kg	B	U	7
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6964_013	1,2,3,4,7,8-HxCDF	0.586	ng/kg	J B	U	7
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6964_013	HxCDDs	5.42	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6964_013	PeCDDs	2.75	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6964_013	TCDDs	3.26	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP1	P1389_6964_013	TCDFs	26.8	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6964_014	1,2,3,4,6,7,8-HpCDF	1.21	ng/kg	B	U	7
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6964_014	1,2,3,4,7,8-HxCDF	0.639	ng/kg	J B	U	7
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6964_014	2,3,7,8-TCDD	0.227	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6964_014	HxCDDs	5.93	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6964_014	HxCDFs	4.5	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6964_014	TCDDs	3.43	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP2	P1389_6964_014	TCDFs	29.4	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	1,2,3,4,6,7,8-HpCDF	1.9	ng/kg	B	U	7
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	1,2,3,4,7,8,9-HpCDF	0.045	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	1,2,3,4,7,8-HxCDF	1.04	ng/kg	B	U	7
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	1,2,3,7,8,9-HxCDD	0.47	ng/kg	EMPC J	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	HpCDFs	2.71	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	HxCDDs	6.14	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	PeCDDs	2.94	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	PeCDFs	10.3	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	TCDDs	3.62	ng/kg	EMPC	U	22
P1389	EW08-RRDC-HP-SUPCOMP3	P1389_6964_015	TCDFs	28.8	ng/kg	EMPC	U	22
P1395	EW-08-SB012-BR-10_T2	P1395_6907_001	1,2,3,6,7,8-HxCDF	0.211	ng/kg	EMPC J	U	22
P1395	EW-08-SB012-BR-10_T2	P1395_6907_001	1,2,3,7,8-PeCDD	0.416	ng/kg	EMPC J	U	22
P1395	EW-08-SB012-BR-10_T2	P1395_6907_001	HpCDFs	0.576	ng/kg	EMPC	U	22
P1395	EW-08-SB012-BR-10_T2	P1395_6907_001	HxCDFs	1.87	ng/kg	EMPC	U	22
P1395	EW-08-SB012-BR-10_T2	P1395_6907_001	PeCDDs	0.416	ng/kg	EMPC	U	22
P1395	EW-08-SB012-BR-10_T2	P1395_6907_001	PeCDFs	3.21	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_002	1,2,3,7,8,9-HxCDD	0.348	ng/kg	EMPC J	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_002	HpCDDs	4.17	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_002	HpCDFs	0.82	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_002	HxCDDs	2.85	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_002	HxCDFs	2.36	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_002	PeCDFs	3.01	ng/kg	EMPC	U	22

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P1395	EW-08-SB011-BR-11_T2	P1395_6907_002	TCDFs	3.69	ng/kg	EMPC	U	22
P1395	EW-S01-GD-02_T2	P1395_6907_003	HpCDDs	0.299	ng/kg	EMPC	U	22
P1395	EW-S01-GD-02_T2	P1395_6907_003	HpCDFs	0.0661	ng/kg	EMPC	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_004	1,2,3,4,6,7,8-HpCDD	0.424	ng/kg	EMPC J	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_004	HpCDDs	1.05	ng/kg	EMPC	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_004	HpCDFs	0.291	ng/kg	EMPC	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_004	HxCDFs	0.355	ng/kg	EMPC	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_004	PeCDFs	0.474	ng/kg	EMPC	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_004	TCDDs	0.311	ng/kg	EMPC	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_004	TCDFs	0.607	ng/kg	EMPC	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_005	1,2,3,4,6,7,8-HpCDD	0.416	ng/kg	EMPC J	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_005	2,3,4,7,8-PeCDF	0.0534	ng/kg	EMPC J	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_005	HpCDDs	0.9	ng/kg	EMPC	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_005	HxCDDs	0.263	ng/kg	EMPC	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_005	PeCDFs	0.203	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_006	1,2,3,7,8-PeCDD	0.122	ng/kg	EMPC J	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_006	2,3,4,7,8-PeCDF	0.203	ng/kg	EMPC J	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_006	2,3,7,8-TCDF	0.259	ng/kg	EMPC J	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_006	HxCDDs	2.56	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_006	PeCDDs	0.53	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_006	PeCDFs	1.89	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_006	TCDDs	0.576	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_006	TCDFs	2.17	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_007	1,2,3,7,8-PeCDD	0.169	ng/kg	EMPC J	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_007	HxCDDs	3.37	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_007	HxCDFs	2.49	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_007	PeCDDs	1.1	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_007	PeCDFs	3.46	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_007	TCDDs	0.989	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_007	TCDFs	3.54	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	1,2,3,4,7,8-HxCDF	0.191	ng/kg	EMPC J	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	1,2,3,6,7,8-HxCDD	0.292	ng/kg	EMPC J	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	2,3,4,6,7,8-HxCDF	0.133	ng/kg	EMPC J	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	2,3,4,7,8-PeCDF	0.24	ng/kg	EMPC J	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	HxCDDs	2.09	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	HxCDFs	2.26	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	PeCDDs	0.258	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	PeCDFs	2.41	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	TCDDs	0.501	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	TCDFs	3.96	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	1,2,3,4,6,7,8-HpCDF	0.377	ng/kg	EMPC J	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	1,2,3,4,7,8-HxCDF	0.109	ng/kg	EMPC J	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	2,3,4,6,7,8-HxCDF	0.0902	ng/kg	EMPC J	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	2,3,7,8-TCDF	0.113	ng/kg	EMPC J	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	HpCDDs	5.63	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	HpCDFs	1.59	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	HxCDDs	0.927	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	HxCDFs	1.23	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	PeCDFs	1.25	ng/kg	EMPC	U	22

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P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	TCDFs	1.83	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	2,3,7,8-TCDF	0.17	ng/kg	EMPC J	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	HxCDDs	0.771	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	HxCDFs	0.715	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	PeCDFs	0.295	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	TCDDs	0.167	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	TCDFs	1.74	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	1,2,3,6,7,8-HxCDF	0.218	ng/kg	EMPC J	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	1,2,3,7,8,9-HxCDD	0.443	ng/kg	EMPC J	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	HpCDDs	5.24	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	HpCDFs	0.928	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	HxCDDs	3.69	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	HxCDFs	2.44	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	OCDF	0.251	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	1,2,3,7,8-PeCDD	0.251	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	1,2,3,7,8-PeCDF	0.16	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	2,3,4,6,7,8-HxCDF	0.0633	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	2,3,4,7,8-PeCDF	0.369	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	2,3,7,8-TCDD	0.197	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	HxCDDs	1.06	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	HxCDFs	0.561	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	PeCDDs	0.251	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	PeCDFs	1.24	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	TCDDs	0.197	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	1,2,3,6,7,8-HxCDF	0.377	ng/kg	EMPC J	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	1,2,3,7,8-PeCDD	0.675	ng/kg	EMPC J	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	2,3,4,7,8-PeCDF	0.581	ng/kg	EMPC J	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	HpCDFs	1.33	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	HxCDFs	2.02	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	PeCDDs	0.675	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	PeCDFs	4.5	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	1,2,3,7,8,9-HxCDD	0.241	ng/kg	EMPC J	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	1,2,3,7,8-PeCDD	0.701	ng/kg	EMPC J	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	2,3,4,6,7,8-HxCDF	0.15	ng/kg	EMPC J	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	2,3,7,8-TCDD	0.628	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	HxCDDs	2.92	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	HxCDFs	3.94	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	PeCDDs	0.701	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	TCDDs	0.628	ng/kg	EMPC	U	22
P1395	EW-08-SB012-BR-10_T2	P1395_6907_PCB_001D5	PCB-118 23'44'5-PeCB	54100	ng/kg	*	J	20
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-105 233'44'-PeCB	42300	ng/kg	*	J	20
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-118 23'44'5-PeCB	115000	ng/kg	*	J	20
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-19 22'6-TrCB	5.92	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-204 22'344'566'-OcCB	9.04	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-68 23'45'-TeCB	168	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-82 22'33'4-PeCB	278	ng/kg	EMPC	U	22
P1395	EW-S01-GD-02_T2	P1395_6907_PCB_003	PCB-11 33'-DiCB	6.58	ng/kg		U	7
P1395	EW-S01-GD-02_T2	P1395_6907_PCB_003	PCB-137 22'344'5-HxCB	25.9	ng/kg	EMPC	U	22
P1395	EW-S01-GD-02_T2	P1395_6907_PCB_003	PCB-145 22'3466'HxCB	0.37	ng/kg	EMPC	U	22

Qualified Data Summary Table
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SDG	Sample ID	Laboratory ID	Analyte	Result	Units	Lab Qual	DV Qual	Val Reason
P1395	EW-S01-GD-02_T2	P1395_6907_PCB_003	PCB-36 33'5-TrCB	0.247	ng/kg	EMPC	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_PCB_004	PCB-11 33'-DiCB	7.25	ng/kg		U	7
P1395	EW-S01-GD-10_T2	P1395_6907_PCB_005	PCB-104 22'466'-PeCB	0.18	ng/kg	EMPC	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_PCB_005	PCB-11 33'-DiCB	7.28	ng/kg		U	7
P1395	EW-S01-GD-10_T2	P1395_6907_PCB_005	PCB-162 233'4'55'-HxCB	1.78	ng/kg	EMPC	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_PCB_005	PCB-2 3-MoCB	0.101	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-1 2-MoCB	0.384	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-104 22'466'-PeCB	0.422	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-11 33'-DiCB	13.2	ng/kg		U	7
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-204 22'344'566'-OcCB	0.722	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-24 236-TrCB	0.256	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-38 345-TrCB	0.325	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007	PCB-1 2-MoCB	0.438	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007	PCB-11 33'-DiCB	16.2	ng/kg		U	7
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007	PCB-73 23'5'6TeCB	2.92	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007	PCB-81 344'5-TeCB	2.14	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_PCB_008	PCB-145 22'3466'HxCB	1.36	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_PCB_008	PCB-24 236-TrCB	5.27	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_PCB_009	PCB-11 33'-DiCB	11.3	ng/kg		U	7
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_PCB_010	PCB-11 33'-DiCB	15.9	ng/kg		U	7
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_PCB_010	PCB-137 22'344'5-HxCB	39.1	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_PCB_010	PCB-185 22'3455'6-HpCB	37.7	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5	PCB-1 2-MoCB	3.02	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5	PCB-118 23'44'5-PeCB	73500	ng/kg	*	J	20
P1395	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5	PCB-24 236-TrCB	8.97	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5	PCB-46 22'36'-TeCB	16.8	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_PCB_012	PCB-1 2-MoCB	1.75	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_PCB_012	PCB-2 3-MoCB	0.591	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_PCB_012	PCB-3 4-MoCB	0.656	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5	PCB-105 233'44'-PeCB	112000	ng/kg	*	J	20
P1395	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5	PCB-118 23'44'5-PeCB	316000	ng/kg	*	J	20
P1395	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5	PCB-37 344'-TrCB	50.1	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5	PCB-68 23'45'-TeCB	240	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5	PCB-104 22'466'-PeCB	4.15	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5	PCB-105 233'44'-PeCB	38400	ng/kg	*	J	20
P1395	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5	PCB-118 23'44'5-PeCB	106000	ng/kg	*	J	20
P1395	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5	PCB-24 236-TrCB	8.35	ng/kg	EMPC	U	22

Qualified Data Summary Table
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SDG	Sample ID	Laboratory ID	Analyte	Result	Units	Lab Qualifiers	Validator Qualifiers	Validator Reason
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	TCDDs	0.501	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_008	TCDFs	3.96	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	1,2,3,4,6,7,8-HpCDF	0.377	ng/kg	EMPC J	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	1,2,3,4,7,8-HxCDF	0.109	ng/kg	EMPC J	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	2,3,4,6,7,8-HxCDF	0.0902	ng/kg	EMPC J	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	2,3,7,8-TCDF	0.113	ng/kg	EMPC J	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	HpCDDs	5.63	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	HpCDFs	1.59	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	HxCDDs	0.927	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	HxCDFs	1.23	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	PeCDFs	1.25	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_009	TCDFs	1.83	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	2,3,7,8-TCDF	0.17	ng/kg	EMPC J	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	HxCDDs	0.771	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	HxCDFs	0.715	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	PeCDFs	0.295	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	TCDDs	0.167	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_010	TCDFs	1.74	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	1,2,3,6,7,8-HxCDF	0.218	ng/kg	EMPC J	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	1,2,3,7,8,9-HxCDD	0.443	ng/kg	EMPC J	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	HpCDDs	5.24	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	HpCDFs	0.928	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	HxCDDs	3.69	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	HxCDFs	2.44	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_011	OCDF	0.251	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	1,2,3,7,8-PeCDD	0.251	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	1,2,3,7,8-PeCDF	0.16	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	2,3,4,6,7,8-HxCDF	0.0633	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	2,3,4,7,8-PeCDF	0.369	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	2,3,7,8-TCDD	0.197	ng/kg	EMPC J	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	HxCDDs	1.06	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	HxCDFs	0.561	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	PeCDDs	0.251	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	PeCDFs	1.24	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_012	TCDDs	0.197	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	1,2,3,6,7,8-HxCDF	0.377	ng/kg	EMPC J	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	1,2,3,7,8-PeCDD	0.675	ng/kg	EMPC J	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	2,3,4,7,8-PeCDF	0.581	ng/kg	EMPC J	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	HpCDFs	1.33	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	HxCDFs	2.02	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	PeCDDs	0.675	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_013	PeCDFs	4.5	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	1,2,3,7,8,9-HxCDD	0.241	ng/kg	EMPC J	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	1,2,3,7,8-PeCDD	0.701	ng/kg	EMPC J	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	2,3,4,6,7,8-HxCDF	0.15	ng/kg	EMPC J	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	2,3,7,8-TCDD	0.628	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	HxCDDs	2.92	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	HxCDFs	3.94	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	PeCDDs	0.701	ng/kg	EMPC	U	22

Qualified Data Summary Table
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SDG	Sample ID	Laboratory ID	Analyte	Result	Units	Lab Qualifiers	Validator Qualifiers	Validator Reason
P1395	EW-08-SB009-BR-09_T2	P1395_6907_014	TCDDs	0.628	ng/kg	EMPC	U	22
P1395	EW-08-SB012-BR-10_T2	P1395_6907_PCB_001D5	PCB-118 23'44'5-PeCB	54100	ng/kg	*	J	20
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-105 233'44'-PeCB	42300	ng/kg	*	J	20
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-118 23'44'5-PeCB	115000	ng/kg	*	J	20
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-19 22'6-TrCB	5.92	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-204 22'344'566'-OcCB	9.04	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-68 23'45'-TeCB	168	ng/kg	EMPC	U	22
P1395	EW-08-SB011-BR-11_T2	P1395_6907_PCB_002D5	PCB-82 22'33'4-PeCB	278	ng/kg	EMPC	U	22
P1395	EW-S01-GD-02_T2	P1395_6907_PCB_003	PCB-11 33'-DiCB	6.58	ng/kg		U	7
P1395	EW-S01-GD-02_T2	P1395_6907_PCB_003	PCB-137 22'344'5-HxCB	25.9	ng/kg	EMPC	U	22
P1395	EW-S01-GD-02_T2	P1395_6907_PCB_003	PCB-145 22'3466'HxCB	0.37	ng/kg	EMPC	U	22
P1395	EW-S01-GD-02_T2	P1395_6907_PCB_003	PCB-36 33'5-TrCB	0.247	ng/kg	EMPC	U	22
P1395	EW-S01-GD-04_T2	P1395_6907_PCB_004	PCB-11 33'-DiCB	7.25	ng/kg		U	7
P1395	EW-S01-GD-10_T2	P1395_6907_PCB_005	PCB-104 22'466'-PeCB	0.18	ng/kg	EMPC	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_PCB_005	PCB-11 33'-DiCB	7.28	ng/kg		U	7
P1395	EW-S01-GD-10_T2	P1395_6907_PCB_005	PCB-162 233'4'55'-HxCB	1.78	ng/kg	EMPC	U	22
P1395	EW-S01-GD-10_T2	P1395_6907_PCB_005	PCB-2 3-MoCB	0.101	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-1 2-MoCB	0.384	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-104 22'466'-PeCB	0.422	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-11 33'-DiCB	13.2	ng/kg		U	7
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-204 22'344'566'-OcCB	0.722	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-24 236-TrCB	0.256	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp01_T2	P1395_6907_PCB_006	PCB-38 345-TrCB	0.325	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007	PCB-1 2-MoCB	0.438	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007	PCB-11 33'-DiCB	16.2	ng/kg		U	7
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007	PCB-73 23'5'6TeCB	2.92	ng/kg	EMPC	U	22
P1395	EW-S01-GD-GB-comp02_T2	P1395_6907_PCB_007	PCB-81 344'5-TeCB	2.14	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_PCB_008	PCB-145 22'3466'HxCB	1.36	ng/kg	EMPC	U	22
P1395	EW-B06-BC-01-comp1_T2	P1395_6907_PCB_008	PCB-24 236-TrCB	5.27	ng/kg	EMPC	U	22
P1395	EW-B08-CN-02-comp1_T2	P1395_6907_PCB_009	PCB-11 33'-DiCB	11.3	ng/kg		U	7
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_PCB_010	PCB-11 33'-DiCB	15.9	ng/kg		U	7
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_PCB_010	PCB-137 22'344'5-HxCB	39.1	ng/kg	EMPC	U	22
P1395	EW-B10-BC-01-comp1_T2	P1395_6907_PCB_010	PCB-185 22'3455'6-HpCB	37.7	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5	PCB-1 2-MoCB	3.02	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5	PCB-118 23'44'5-PeCB	73500	ng/kg	*	J	20
P1395	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5	PCB-24 236-TrCB	8.97	ng/kg	EMPC	U	22
P1395	EW-08-SB002-BR-02_T2	P1395_6907_PCB_011D5	PCB-46 22'36'-TeCB	16.8	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_PCB_012	PCB-1 2-MoCB	1.75	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_PCB_012	PCB-2 3-MoCB	0.591	ng/kg	EMPC	U	22
P1395	EW-08-SB006-BR-06_T2	P1395_6907_PCB_012	PCB-3 4-MoCB	0.656	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5	PCB-105 233'44'-PeCB	112000	ng/kg	*	J	20
P1395	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5	PCB-118 23'44'5-PeCB	316000	ng/kg	*	J	20
P1395	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5	PCB-37 344'-TrCB	50.1	ng/kg	EMPC	U	22
P1395	EW-08-SB008-BR-08_T2	P1395_6907_PCB_013D5	PCB-68 23'45'-TeCB	240	ng/kg	EMPC	U	22

Qualified Data Summary Table
Windward
East Waterway Fish and Shellfish

SDG	Sample ID	Laboratory ID	Analyte	Result	Units	Lab Qualifiers	Validator Qualifiers	Validator Reason
P1395	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5	PCB-104 22'466'-PeCB	4.15	ng/kg	EMPC	U	22
P1395	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5	PCB-105 233'44'-PeCB	38400	ng/kg	*	J	20
P1395	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5	PCB-118 23'44'5-PeCB	106000	ng/kg	*	J	20
P1395	EW-08-SB009-BR-09_T2	P1395_6907_PCB_014D5	PCB-24 236-TrCB	8.35	ng/kg	EMPC	U	22

APPENDIX D

Laboratory Form 1s

PCB CONGENERS

Sample ID: EW08-ES-FL-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.08 g	Sample ID:	P1389_6932_PCB_004	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	oϖ	Time Analyzed:	04:35:09

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	11.1	PCB-19	107	PCB-54	73.1	PCB-72	333	PCB-104	34.1	PCB-108/119/86…	23000
PCB-2	(1.75)	PCB-30/18	1480	PCB-50/53	2480	PCB-68	112	PCB-96	236	PCB-117	1070
PCB-3	(2.1)	PCB-17	901	PCB-45	765	PCB-57	(9.3)	PCB-103	4080	PCB-116/85	4880
		PCB-27	276	PCB-51	1580	PCB-58	(8.87)	PCB-94	166	PCB-110	36800
Conc.	11.1	PCB-24	23.3	PCB-46	212	PCB-67	192	PCB-95	40000	PCB-115	(57.4)
EMPC	11.1	PCB-16	348	PCB-52	24900	PCB-63	457	PCB-100/93	3710	PCB-82	1720
		PCB-32	926	PCB-73	198	PCB-61/70/74/76	16100	PCB-102	1320	PCB-111	116
Di	**Conc.**	PCB-34	19.4	PCB-43	358	PCB-66	10700	PCB-98	(70.1)	PCB-120	843
PCB-4	79.7	PCB-23	2.85	PCB-69/49	17200	PCB-55	85.5	PCB-88	(73.4)	PCB-107/124	854
PCB-10	6.85	PCB-26/29	721	PCB-48	1430	PCB-56	1070	PCB-91	10300	PCB-109	2530
PCB-9	[14.5]	PCB-25	184	PCB-44/47/65	11600	PCB-60	2860	PCB-84	4120	PCB-123	477
PCB-7	[11.8]	PCB-31	2140	PCB-59/62/75	1380	PCB-80	(7.05)	PCB-89	182	PCB-106	(50.3)
PCB-6	[57.8]	PCB-28/20	4100	PCB-42	2710	PCB-79	217	PCB-121	130	PCB-118	36200
PCB-5	[3.75]	PCB-21/33	881	PCB-41	421	PCB-78	(9.25)	PCB-92	14000	PCB-122	(67)
PCB-8	[196]	PCB-22	654	PCB-71/40	3400	PCB-81	(9.56)	PCB-113/90/101	102000	PCB-114	679
PCB-14	(2.36)	PCB-36	(2.16)	PCB-64	4050	PCB-77	260	PCB-83	1220	PCB-105	11400
PCB-11	[20]	PCB-39	(1.88)					PCB-99	38700	PCB-127	(53.6)
PCB-13/12	[4.34]	PCB-38	20.4					PCB-112	(53.2)	PCB-126	41
PCB-15	[18]	PCB-35	(2.95)								
		PCB-37	49.4								
Conc.	413	**Conc.**	12800			**Conc.**	105000			**Conc.**	341000
EMPC	413	**EMPC**	12800			**EMPC**	105000			**EMPC**	341000

Totals	Conc.	EMPC
Mono-Tri	13300	13300
Tetra-Hexa	988000	988000
Hepta-Deca	242000	242000
Mono-Deca	1240000	1240000

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Sample ID: EW08-ES-FL-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.08 g	Sample ID:	P1389_6932_PCB_004	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	oϖ	Time Analyzed:	04:35:09

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	64	PCB-165	143	PCB-188	97.8	PCB-174	16700	PCB-202	2070	PCB-208	455
PCB-152	54.7	PCB-146	19000	PCB-179	12800	PCB-177	14900	PCB-201	1640	PCB-207	223
PCB-150	809	PCB-161	(2.69)	PCB-184	33.6	PCB-181	183	PCB-204	(1.67)	PCB-206	1660
PCB-136	20200	PCB-153/168	142000	PCB-176	4080	PCB-171/173	8130	PCB-197	453		
PCB-145	18.4	PCB-141	15500	PCB-186	(2.34)	PCB-172	3590	PCB-200	1260	**Conc.**	2340
PCB-148	423	PCB-130	4680	PCB-178	5620	PCB-192	(11)	PCB-198/199	7610	**EMPC**	2340
PCB-151/135	49500	PCB-137	1270	PCB-175	1370	PCB-180/193	46000	PCB-196	4680		
PCB-154	9670	PCB-164	5530	PCB-187	38800	PCB-191	1110	PCB-203	5280	**Deca**	**Conc.**
PCB-144	7330	PCB-163/138/129	108000	PCB-182	321	PCB-170	22400	PCB-195	2650	PCB-209	441
PCB-147/149	101000	PCB-160	(2.32)	PCB-183	20400	PCB-190	6370	PCB-194	6930		
PCB-134	3900	PCB-158	8320	PCB-185	2890	PCB-189	789	PCB-205	483		
PCB-143	(3.21)	PCB-128/166	8480								
PCB-139/140	2260	PCB-159	905								
PCB-131	608	PCB-162	156								
PCB-142	(3.38)	PCB-167	3430								
PCB-132	19200	PCB-156/157	6800								
PCB-133	2120	PCB-169	316								
		Conc.	541000			**Conc.**	207000	**Conc.**	33100		
		EMPC	541000			**EMPC**	207000	**EMPC**	33100		

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Totals	Conc.	EMPC
Mono-Tri	13300	13300
Tetra-Hexa	988000	988000
Hepta-Deca	242000	242000
Mono-Deca	1240000	1240000

Sample ID: EW08-ES-FL-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.20 g	Sample ID:	P1389_6932_PCB_005	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ηφ	Time Analyzed:	05:29:36

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	8.62	PCB-19	82.4	PCB-54	57.5	PCB-72	255	PCB-104	29.8	PCB-108/119/86…	18400
PCB-2	(2.26)	PCB-30/18	1110	PCB-50/53	1890	PCB-68	84.8	PCB-96	199	PCB-117	1070
PCB-3	(2.71)	PCB-17	651	PCB-45	495	PCB-57	52.1	PCB-103	3120	PCB-116/85	3690
		PCB-27	210	PCB-51	1310	PCB-58	(17.2)	PCB-94	128	PCB-110	28900
Conc.	8.62	PCB-24	[13.1]	PCB-46	169	PCB-67	151	PCB-95	30600	PCB-115	(58.3)
EMPC	8.62	PCB-16	259	PCB-52	19500	PCB-63	374	PCB-100/93	2830	PCB-82	1370
		PCB-32	682	PCB-73	163	PCB-61/70/74/76	12700	PCB-102	1060	PCB-111	99.3
Di	**Conc.**	PCB-34	14.2	PCB-43	271	PCB-66	8260	PCB-98	(71.1)	PCB-120	691
PCB-4	[67.9]	PCB-23	(3.4)	PCB-69/49	13300	PCB-55	(18.4)	PCB-88	(74.5)	PCB-107/124	678
PCB-10	[5.77]	PCB-26/29	564	PCB-48	1090	PCB-56	830	PCB-91	7780	PCB-109	2040
PCB-9	[14.1]	PCB-25	142	PCB-44/47/65	9110	PCB-60	2290	PCB-84	3110	PCB-123	460
PCB-7	[7.91]	PCB-31	1670	PCB-59/62/75	1090	PCB-80	(13.7)	PCB-89	142	PCB-106	(51)
PCB-6	[50.3]	PCB-28/20	3210	PCB-42	2090	PCB-79	189	PCB-121	97.5	PCB-118	29800
PCB-5	[199]	PCB-21/33	693	PCB-41	340	PCB-78	(17.9)	PCB-92	10800	PCB-122	(71.9)
PCB-8	(3.87)	PCB-22	523	PCB-71/40	2650	PCB-81	(18.6)	PCB-113/90/101	78300	PCB-114	547
PCB-14	[14.9]	PCB-36	(3.67)	PCB-64	3300	PCB-77	201	PCB-83	(91.1)	PCB-105	9670
PCB-11	(4.87)	PCB-39	19.1					PCB-99	30400	PCB-127	(56.9)
PCB-13/12	[16.2]	PCB-38	15.8					PCB-112	(54)	PCB-126	(10.8)
PCB-15	(4.97)	PCB-35	(5.01)								
		PCB-37	(4.52)								
Conc.	376	**Conc.**	9840			**Conc.**	82200			**Conc.**	266000
EMPC	376	**EMPC**	9850			**EMPC**	82200			**EMPC**	266000

Totals	Conc.	EMPC
Mono-Tri	10200	10200
Tetra-Hexa	794000	794000
Hepta-Deca	202000	202000
Mono-Deca	1010000	1010000

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Sample ID: EW08-ES-FL-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.20 g	Sample ID:	P1389_6932_PCB_005	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ηφ	Time Analyzed:	05:29:36

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	52.2	PCB-165	111	PCB-188	80.3	PCB-174	13800	PCB-202	1740	PCB-208	364
PCB-152	44.3	PCB-146	15900	PCB-179	10500	PCB-177	12100	PCB-201	1390	PCB-207	186
PCB-150	653	PCB-161	(4.26)	PCB-184	27.6	PCB-181	145	PCB-204	(3.2)	PCB-206	1320
PCB-136	15800	PCB-153/168	119000	PCB-176	3420	PCB-171/173	6610	PCB-197	391		
PCB-145	(5.38)	PCB-141	12700	PCB-186	(2.7)	PCB-172	2820	PCB-200	1090	**Conc.**	1870
PCB-148	343	PCB-130	3840	PCB-178	4630	PCB-192	(12.6)	PCB-198/199	6520	**EMPC**	1870
PCB-151/135	40000	PCB-137	1150	PCB-175	1100	PCB-180/193	38100	PCB-196	4010		
PCB-154	7790	PCB-164	4400	PCB-187	34100	PCB-191	872	PCB-203	4460	**Deca**	**Conc.**
PCB-144	5900	PCB-163/138/129	87800	PCB-182	272	PCB-170	18300	PCB-195	2180	PCB-209	356
PCB-147/149	83400	PCB-160	(3.69)	PCB-183	17200	PCB-190	4940	PCB-194	5560		
PCB-134	3130	PCB-158	6550	PCB-185	1920	PCB-189	688	PCB-205	408		
PCB-143	(5.08)	PCB-128/166	7280								
PCB-139/140	1820	PCB-159	795								
PCB-131	480	PCB-162	142								
PCB-142	(5.36)	PCB-167	2910								
PCB-132	15900	PCB-156/157	5640								
PCB-133	1740	PCB-169	271								
		Conc.	446000			**Conc.**	172000	**Conc.**	27700		
		EMPC	446000			**EMPC**	172000	**EMPC**	27700		

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Totals	Conc.	EMPC
Mono-Tri	10200	10200
Tetra-Hexa	794000	794000
Hepta-Deca	202000	202000
Mono-Deca	1010000	1010000

Sample ID: EW08-ES-FL-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.04 g	Sample ID:	P1389_6932_PCB_006	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ϖξ	Time Analyzed:	06:24:03

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	9.58	PCB-19	93.7	PCB-54	64.9	PCB-72	296	PCB-104	29.3	PCB-108/119/86…	20800
PCB-2	(1.16)	PCB-30/18	1220	PCB-50/53	2150	PCB-68	101	PCB-96	204	PCB-117	1110
PCB-3	(1.39)	PCB-17	726	PCB-45	633	PCB-57	52.5	PCB-103	3660	PCB-116/85	4090
		PCB-27	228	PCB-51	1440	PCB-58	(8.64)	PCB-94	146	PCB-110	32900
Conc.	9.58	PCB-24	18.2	PCB-46	178	PCB-67	165	PCB-95	35800	PCB-115	(51.1)
EMPC	9.58	PCB-16	284	PCB-52	22300	PCB-63	409	PCB-100/93	3340	PCB-82	1530
		PCB-32	743	PCB-73	183	PCB-61/70/74/76	14300	PCB-102	1190	PCB-111	112
Di	**Conc.**	PCB-34	16.4	PCB-43	299	PCB-66	9340	PCB-98	(62.3)	PCB-120	783
PCB-4	[70]	PCB-23	2.81	PCB-69/49	15500	PCB-55	(9.25)	PCB-88	(65.3)	PCB-107/124	753
PCB-10	[5.96]	PCB-26/29	625	PCB-48	1190	PCB-56	915	PCB-91	9230	PCB-109	2230
PCB-9	[13.4]	PCB-25	156	PCB-44/47/65	10200	PCB-60	2510	PCB-84	3630	PCB-123	448
PCB-7	[12.8]	PCB-31	1840	PCB-59/62/75	1200	PCB-80	(6.88)	PCB-89	174	PCB-106	(44.7)
PCB-6	[51.8]	PCB-28/20	3550	PCB-42	2340	PCB-79	193	PCB-121	117	PCB-118	31300
PCB-5	[4.06]	PCB-21/33	741	PCB-41	346	PCB-78	(9.02)	PCB-92	12900	PCB-122	(65)
PCB-8	[177]	PCB-22	564	PCB-71/40	2830	PCB-81	(9.32)	PCB-113/90/101	94500	PCB-114	628
PCB-14	(2.29)	PCB-36	(2.32)	PCB-64	3560	PCB-77	210	PCB-83	(79.8)	PCB-105	10100
PCB-11	[21.1]	PCB-39	(2.03)					PCB-99	36600	PCB-127	54.4
PCB-13/12	[4.48]	PCB-38	19.1					PCB-112	(47.3)	PCB-126	34.2
PCB-15	[16.5]	PCB-35	(3.18)								
		PCB-37	42.3								
Conc.	378	**Conc.**	10900			**Conc.**	92900			**Conc.**	308000
EMPC	378	**EMPC**	10900			**EMPC**	92900			**EMPC**	308000

Totals	Conc.	EMPC
Mono-Tri	11300	11300
Tetra-Hexa	856000	856000
Hepta-Deca	204000	204000
Mono-Deca	1070000	1070000

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Sample ID: EW08-ES-FL-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.04 g	Sample ID:	P1389_6932_PCB_006	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ϖξ	Time Analyzed:	06:24:03

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	53.8	PCB-165	[114]	PCB-188	83.3	PCB-174	13900	PCB-202	1700	PCB-208	384
PCB-152	46.6	PCB-146	16100	PCB-179	11700	PCB-177	12600	PCB-201	1340	PCB-207	192
PCB-150	684	PCB-161	(1.56)	PCB-184	30.4	PCB-181	138	PCB-204	(1.7)	PCB-206	1400
PCB-136	17500	PCB-153/168	121000	PCB-176	3630	PCB-171/173	6660	PCB-197	417		
PCB-145	[13.5]	PCB-141	12700	PCB-186	(1.62)	PCB-172	2890	PCB-200	1050	**Conc.**	1970
PCB-148	338	PCB-130	3710	PCB-178	4990	PCB-192	(8.56)	PCB-198/199	6600	**EMPC**	1970
PCB-151/135	41400	PCB-137	1200	PCB-175	1050	PCB-180/193	39300	PCB-196	4000		
PCB-154	7770	PCB-164	4180	PCB-187	31900	PCB-191	886	PCB-203	4530	**Deca**	**Conc.**
PCB-144	5700	PCB-163/138/129	88600	PCB-182	254	PCB-170	18900	PCB-195	2330	PCB-209	370
PCB-147/149	86200	PCB-160	(1.35)	PCB-183	17100	PCB-190	5090	PCB-194	5790		
PCB-134	3070	PCB-158	7000	PCB-185	2110	PCB-189	697	PCB-205	406		
PCB-143	(1.86)	PCB-128/166	7320								
PCB-139/140	1770	PCB-159	826								
PCB-131	465	PCB-162	136								
PCB-142	(1.97)	PCB-167	2970								
PCB-132	16300	PCB-156/157	5860								
PCB-133	1670	PCB-169	273								
		Conc.	455000			**Conc.**	174000	**Conc.**	28200		
		EMPC	455000			**EMPC**	174000	**EMPC**	28200		

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Totals	Conc.	EMPC
Mono-Tri	11300	11300
Tetra-Hexa	856000	856000
Hepta-Deca	204000	204000
Mono-Deca	1070000	1070000

Sample ID: EW08-ES-WB-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.01 g	Sample ID:	P1389_6932_PCB_001	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ψζ	Time Analyzed:	01:51:50

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	27.2	PCB-19	273	PCB-54	118	PCB-72	521	PCB-104	54.8	PCB-108/119/86…	39000
PCB-2	(1.58)	PCB-30/18	3470	PCB-50/53	3990	PCB-68	166	PCB-96	441	PCB-117	2250
PCB-3	[3.9]	PCB-17	2070	PCB-45	1320	PCB-57	106	PCB-103	6470	PCB-116/85	8210
		PCB-27	642	PCB-51	2190	PCB-58	(14.3)	PCB-94	224	PCB-110	61800
Conc.	27.2	PCB-24	54.1	PCB-46	375	PCB-67	395	PCB-95	63600	PCB-115	(132)
EMPC	31.1	PCB-16	801	PCB-52	40600	PCB-63	813	PCB-100/93	5800	PCB-82	2980
		PCB-32	2050	PCB-73	309	PCB-61/70/74/76	28500	PCB-102	2110	PCB-111	199
Di	**Conc.**	PCB-34	33.7	PCB-43	605	PCB-66	18600	PCB-98	(161)	PCB-120	1550
PCB-4	191	PCB-23	5.29	PCB-69/49	27300	PCB-55	(15.3)	PCB-88	(169)	PCB-107/124	1630
PCB-10	17.3	PCB-26/29	1320	PCB-48	2500	PCB-56	2100	PCB-91	16600	PCB-109	4720
PCB-9	[32.8]	PCB-25	348	PCB-44/47/65	18500	PCB-60	5010	PCB-84	6590	PCB-123	1080
PCB-7	[25.4]	PCB-31	4120	PCB-59/62/75	2270	PCB-80	(11.4)	PCB-89	310	PCB-106	(116)
PCB-6	[132]	PCB-28/20	7560	PCB-42	4600	PCB-79	419	PCB-121	211	PCB-118	70900
PCB-5	[9.31]	PCB-21/33	1700	PCB-41	658	PCB-78	(15)	PCB-92	23000	PCB-122	(157)
PCB-8	[454]	PCB-22	1250	PCB-71/40	5930	PCB-81	(15.5)	PCB-113/90/101	174000	PCB-114	1410
PCB-14	(1.62)	PCB-36	(1.73)	PCB-64	7000	PCB-77	508	PCB-83	(206)	PCB-105	21900
PCB-11	[26.2]	PCB-39	(1.51)					PCB-99	67500	PCB-127	(119)
PCB-13/12	[8.89]	PCB-38	34.5					PCB-112	(122)	PCB-126	114
PCB-15	40.3	PCB-35	[1.64]								
		PCB-37	125								
Conc.	938	**Conc.**	25900			**Conc.**	175000			**Conc.**	585000
EMPC	938	**EMPC**	25900			**EMPC**	175000			**EMPC**	585000

Totals	Conc.	EMPC
Mono-Tri	26800	26800
Tetra-Hexa	1800000	1800000
Hepta-Deca	541000	541000
Mono-Deca	2360000	2360000

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Sample ID: EW08-ES-WB-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.01 g	Sample ID:	P1389_6932_PCB_001	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ψζ	Time Analyzed:	01:51:50

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	131	PCB-165	283	PCB-188	221	PCB-174	29800	PCB-202	4990	PCB-208	1090
PCB-152	99.2	PCB-146	37700	PCB-179	27300	PCB-177	29300	PCB-201	4040	PCB-207	522
PCB-150	1620	PCB-161	(0.617)	PCB-184	82.6	PCB-181	350	PCB-204	11.4	PCB-206	4220
PCB-136	38200	PCB-153/168	290000	PCB-176	9130	PCB-171/173	16200	PCB-197	1150		
PCB-145	34	PCB-141	31400	PCB-186	(0.869)	PCB-172	8560	PCB-200	3280	**Conc.**	5830
PCB-148	682	PCB-130	9550	PCB-178	14600	PCB-192	(9.93)	PCB-198/199	24300	**EMPC**	5830
PCB-151/135	81400	PCB-137	3120	PCB-175	2520	PCB-180/193	112000	PCB-196	14200		
PCB-154	16300	PCB-164	10000	PCB-187	74400	PCB-191	2540	PCB-203	16700	**Deca**	**Conc.**
PCB-144	12400	PCB-163/138/129	224000	PCB-182	564	PCB-170	51800	PCB-195	6750	PCB-209	924
PCB-147/149	175000	PCB-160	(0.534)	PCB-183	40500	PCB-190	14200	PCB-194	17900		
PCB-134	6290	PCB-158	17000	PCB-185	4050	PCB-189	1870	PCB-205	1190		
PCB-143	(0.737)	PCB-128/166	15200								
PCB-139/140	3810	PCB-159	1820								
PCB-131	1050	PCB-162	325								
PCB-142	(0.777)	PCB-167	7450								
PCB-132	32400	PCB-156/157	14200								
PCB-133	4050	PCB-169	746								
		Conc.	1040000			**Conc.**	440000	**Conc.**	94500		
		EMPC	1040000			**EMPC**	440000	**EMPC**	94500		

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Totals	Conc.	EMPC
Mono-Tri	26800	26800
Tetra-Hexa	1800000	1800000
Hepta-Deca	541000	541000
Mono-Deca	2360000	2360000

Sample ID: EW08-ES-WB-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.23 g	Sample ID:	P1389_6932_PCB_002	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	μξ	Time Analyzed:	02:46:16

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[12.7]	PCB-19	164	PCB-54	77.9	PCB-72	398	PCB-104	43.8	PCB-108/119/86…	33200
PCB-2	[1.24]	PCB-30/18	2280	PCB-50/53	2930	PCB-68	131	PCB-96	353	PCB-117	[1740]
PCB-3	[2.17]	PCB-17	1340	PCB-45	913	PCB-57	80.9	PCB-103	5150	PCB-116/85	7240
		PCB-27	424	PCB-51	1660	PCB-58	(11.7)	PCB-94	182	PCB-110	52800
Conc.	0	PCB-24	34.8	PCB-46	271	PCB-67	298	PCB-95	50900	PCB-115	(114)
EMPC	16.1	PCB-16	522	PCB-52	30000	PCB-63	660	PCB-100/93	4570	PCB-82	2610
		PCB-32	1340	PCB-73	205	PCB-61/70/74/76	23000	PCB-102	1780	PCB-111	183
Di	**Conc.**	PCB-34	26	PCB-43	459	PCB-66	15100	PCB-98	(140)	PCB-120	1340
PCB-4	[108]	PCB-23	3.86	PCB-69/49	20300	PCB-55	111	PCB-88	(146)	PCB-107/124	1430
PCB-10	[8.99]	PCB-26/29	1020	PCB-48	1900	PCB-56	1700	PCB-91	13600	PCB-109	4150
PCB-9	20.5	PCB-25	266	PCB-44/47/65	13800	PCB-60	4100	PCB-84	5420	PCB-123	946
PCB-7	15.9	PCB-31	3110	PCB-59/62/75	1710	PCB-80	(9.28)	PCB-89	253	PCB-106	(100)
PCB-6	84.1	PCB-28/20	5770	PCB-42	3480	PCB-79	357	PCB-121	175	PCB-118	61900
PCB-5	5.01	PCB-21/33	1290	PCB-41	568	PCB-78	(12.2)	PCB-92	19500	PCB-122	(137)
PCB-8	289	PCB-22	964	PCB-71/40	4500	PCB-81	(12.6)	PCB-113/90/101	145000	PCB-114	1220
PCB-14	(1.66)	PCB-36	(1.83)	PCB-64	5350	PCB-77	430	PCB-83	(179)	PCB-105	19000
PCB-11	18	PCB-39	(1.6)					PCB-99	56800	PCB-127	(104)
PCB-13/12	6.04	PCB-38	26					PCB-112	(106)	PCB-126	88.6
PCB-15	26.5	PCB-35	(2.5)								
		PCB-37	90.3								
Conc.	582	**Conc.**	18700			**Conc.**	134000			**Conc.**	490000
EMPC	582	**EMPC**	18700			**EMPC**	134000			**EMPC**	492000

Totals	Conc.	EMPC
Mono-Tri	19300	19300
Tetra-Hexa	1530000	1530000
Hepta-Deca	462000	462000
Mono-Deca	2010000	2010000

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Sample ID: EW08-ES-WB-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.23 g	Sample ID:	P1389_6932_PCB_002	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	μξ	Time Analyzed:	02:46:16

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	104	PCB-165	240	PCB-188	189	PCB-174	26000	PCB-202	4150	PCB-208	948
PCB-152	79.5	PCB-146	33500	PCB-179	23500	PCB-177	26000	PCB-201	3420	PCB-207	460
PCB-150	1330	PCB-161	(1.09)	PCB-184	66.4	PCB-181	297	PCB-204	[8.33]	PCB-206	3550
PCB-136	31400	PCB-153/168	248000	PCB-176	7710	PCB-171/173	14000	PCB-197	984		
PCB-145	25.9	PCB-141	27000	PCB-186	(1.28)	PCB-172	7090	PCB-200	2630	**Conc.**	4960
PCB-148	602	PCB-130	8220	PCB-178	11600	PCB-192	(11.7)	PCB-198/199	20100	**EMPC**	4960
PCB-151/135	74300	PCB-137	2490	PCB-175	2190	PCB-180/193	94600	PCB-196	11800		
PCB-154	14600	PCB-164	8810	PCB-187	65100	PCB-191	2150	PCB-203	13900	**Deca**	**Conc.**
PCB-144	11200	PCB-163/138/129	187000	PCB-182	476	PCB-170	44100	PCB-195	5780	PCB-209	798
PCB-147/149	159000	PCB-160	(0.945)	PCB-183	34800	PCB-190	12000	PCB-194	15000		
PCB-134	5890	PCB-158	14400	PCB-185	4260	PCB-189	1600	PCB-205	1010		
PCB-143	(1.3)	PCB-128/166	14500								
PCB-139/140	3550	PCB-159	1560								
PCB-131	951	PCB-162	277								
PCB-142	(1.38)	PCB-167	6420								
PCB-132	29900	PCB-156/157	12300								
PCB-133	3620	PCB-169	680								
		Conc.	902000			**Conc.**	378000	**Conc.**	78700		
		EMPC	902000			**EMPC**	378000	**EMPC**	78700		

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Totals	Conc.	EMPC
Mono-Tri	19300	19300
Tetra-Hexa	1530000	1530000
Hepta-Deca	462000	462000
Mono-Deca	2010000	2010000

Sample ID: EW08-ES-WB-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.21 g	Sample ID:	P1389_6932_PCB_003	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	εω	Time Analyzed:	03:40:44

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	14.4	PCB-19	179	PCB-54	83.6	PCB-72	486	PCB-104	47.8	PCB-108/119/86…	39600
PCB-2	1.52	PCB-30/18	2280	PCB-50/53	3320	PCB-68	159	PCB-96	384	PCB-117	1900
PCB-3	2.4	PCB-17	1360	PCB-45	1140	PCB-57	97.6	PCB-103	6380	PCB-116/85	8620
		PCB-27	427	PCB-51	1810	PCB-58	(11.8)	PCB-94	222	PCB-110	61000
Conc.	18.3	PCB-24	35.3	PCB-46	317	PCB-67	349	PCB-95	63800	PCB-115	(107)
EMPC	18.3	PCB-16	526	PCB-52	35500	PCB-63	771	PCB-100/93	5680	PCB-82	2960
		PCB-32	1380	PCB-73	271	PCB-61/70/74/76	26900	PCB-102	2180	PCB-111	196
Di	**Conc.**	PCB-34	26.2	PCB-43	534	PCB-66	17600	PCB-98	(131)	PCB-120	1500
PCB-4	[114]	PCB-23	4.19	PCB-69/49	24200	PCB-55	125	PCB-88	(137)	PCB-107/124	1580
PCB-10	[9.43]	PCB-26/29	1030	PCB-48	2200	PCB-56	1980	PCB-91	16900	PCB-109	4540
PCB-9	[22.6]	PCB-25	280	PCB-44/47/65	16400	PCB-60	4710	PCB-84	6810	PCB-123	1080
PCB-7	[19.2]	PCB-31	3290	PCB-59/62/75	2060	PCB-80	(9.42)	PCB-89	302	PCB-106	(94)
PCB-6	[95]	PCB-28/20	6120	PCB-42	4190	PCB-79	391	PCB-121	208	PCB-118	66600
PCB-5	5.65	PCB-21/33	1390	PCB-41	690	PCB-78	(12.4)	PCB-92	23900	PCB-122	(135)
PCB-8	320	PCB-22	1030	PCB-71/40	5280	PCB-81	(12.8)	PCB-113/90/101	177000	PCB-114	1350
PCB-14	(1.37)	PCB-36	(1.45)	PCB-64	6350	PCB-77	483	PCB-83	1450	PCB-105	20400
PCB-11	23.2	PCB-39	41.8					PCB-99	66700	PCB-127	(103)
PCB-13/12	6.36	PCB-38	28.9					PCB-112	241	PCB-126	92
PCB-15	27.7	PCB-35	(1.99)								
		PCB-37	[82.3]								
Conc.	643	**Conc.**	19400			**Conc.**	158000			**Conc.**	583000
EMPC	643	**EMPC**	19500			**EMPC**	158000			**EMPC**	583000

Totals	Conc.	EMPC
Mono-Tri	20100	20200
Tetra-Hexa	1730000	1730000
Hepta-Deca	506000	506000
Mono-Deca	2260000	2260000

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Sample ID: EW08-ES-WB-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.21 g	Sample ID:	P1389_6932_PCB_003	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	εω	Time Analyzed:	03:40:44

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	120	PCB-165	270	PCB-188	207	PCB-174	29000	PCB-202	4700	PCB-208	1070
PCB-152	89.8	PCB-146	36600	PCB-179	25300	PCB-177	27500	PCB-201	3680	PCB-207	531
PCB-150	1470	PCB-161	(1.43)	PCB-184	74.1	PCB-181	342	PCB-204	9.49	PCB-206	4060
PCB-136	34100	PCB-153/168	267000	PCB-176	8270	PCB-171/173	15400	PCB-197	1070		
PCB-145	35	PCB-141	29400	PCB-186	(1.3)	PCB-172	7650	PCB-200	2850	**Conc.**	5670
PCB-148	732	PCB-130	9020	PCB-178	13100	PCB-192	(11.1)	PCB-198/199	21000	**EMPC**	5670
PCB-151/135	84900	PCB-137	2640	PCB-175	2460	PCB-180/193	104000	PCB-196	12600		
PCB-154	16600	PCB-164	9720	PCB-187	71500	PCB-191	2430	PCB-203	14600	**Deca**	**Conc.**
PCB-144	12700	PCB-163/138/129	206000	PCB-182	550	PCB-170	48600	PCB-195	6480	PCB-209	921
PCB-147/149	178000	PCB-160	(1.24)	PCB-183	38600	PCB-190	12800	PCB-194	17300		
PCB-134	6550	PCB-158	16000	PCB-185	4050	PCB-189	1750	PCB-205	1130		
PCB-143	(1.71)	PCB-128/166	16100								
PCB-139/140	3870	PCB-159	1760								
PCB-131	1050	PCB-162	318								
PCB-142	(1.8)	PCB-167	7070								
PCB-132	32400	PCB-156/157	13500								
PCB-133	3890	PCB-169	751								
		Conc.	993000			**Conc.**	414000	**Conc.**	85500		
		EMPC	993000			**EMPC**	414000	**EMPC**	85500		

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Totals	Conc.	EMPC
Mono-Tri	20100	20200
Tetra-Hexa	1730000	1730000
Hepta-Deca	506000	506000
Mono-Deca	2260000	2260000

Sample ID: EW08-RRDC-EM-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.21 g	Sample ID:	P1389_6932_PCB_010	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	βτ	Time Analyzed:	13:52:28

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	3.06	PCB-19	[2.47]	PCB-54	(0.752)	PCB-72	5.95	PCB-104	(0.777)	PCB-108/119/86…	1040
PCB-2	(0.883)	PCB-30/18	99.1	PCB-50/53	13.6	PCB-68	(1.88)	PCB-96	[1.2]	PCB-117	(2.2)
PCB-3	3.81	PCB-17	23.2	PCB-45	13.3	PCB-57	(2.39)	PCB-103	45.4	PCB-116/85	671
		PCB-27	8.53	PCB-51	(1.01)	PCB-58	(2.29)	PCB-94	[2.15]	PCB-110	1890
Conc.	6.87	PCB-24	(0.933)	PCB-46	3.07	PCB-67	(1.85)	PCB-95	1270	PCB-115	(1.83)
EMPC	6.87	PCB-16	12.9	PCB-52	1350	PCB-63	71.5	PCB-100/93	116	PCB-82	25.8
		PCB-32	6.24	PCB-73	3.13	PCB-61/70/74/76	2450	PCB-102	(2.03)	PCB-111	8.23
Di	**Conc.**	PCB-34	[1.19]	PCB-43	18.3	PCB-66	1090	PCB-98	18.4	PCB-120	6.33
PCB-4	10.8	PCB-23	(0.947)	PCB-69/49	590	PCB-55	(2.39)	PCB-88	(2.3)	PCB-107/124	96.5
PCB-10	(1.55)	PCB-26/29	74	PCB-48	20.6	PCB-56	34.5	PCB-91	175	PCB-109	198
PCB-9	8.06	PCB-25	17	PCB-44/47/65	901	PCB-60	577	PCB-84	180	PCB-123	65.3
PCB-7	(1.13)	PCB-31	903	PCB-59/62/75	47.5	PCB-80	(1.79)	PCB-89	(2.4)	PCB-106	(1.81)
PCB-6	5.75	PCB-28/20	1590	PCB-42	114	PCB-79	19.5	PCB-121	(1.47)	PCB-118	2380
PCB-5	(1.21)	PCB-21/33	23.6	PCB-41	4.53	PCB-78	(2.42)	PCB-92	745	PCB-122	22
PCB-8	27.5	PCB-22	89.1	PCB-71/40	18	PCB-81	(2.53)	PCB-113/90/101	3600	PCB-114	127
PCB-14	(1.23)	PCB-36	(1.03)	PCB-64	342	PCB-77	75.8	PCB-83	141	PCB-105	1590
PCB-11	36.5	PCB-39	(0.907)					PCB-99	3650	PCB-127	9.41
PCB-13/12	13.6	PCB-38	(1.13)					PCB-112	(1.75)	PCB-126	(2.41)
PCB-15	173	PCB-35	[9.2]								
		PCB-37	298								
Conc.	275	**Conc.**	3150			**Conc.**	7770			**Conc.**	18100
EMPC	275	**EMPC**	3160			**EMPC**	7770			**EMPC**	18100

Totals	Conc.	EMPC
Mono-Tri	3430	3440
Tetra-Hexa	68000	68000
Hepta-Deca	24100	24200
Mono-Deca	95600	95600

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Sample ID: EW08-RRDC-EM-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.21 g	Sample ID:	P1389_6932_PCB_010	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	βτ	Time Analyzed:	13:52:28

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	6.47	PCB-165	15.7	PCB-188	[8.62]	PCB-174	910	PCB-202	286	PCB-208	40.4
PCB-152	[1.36]	PCB-146	1210	PCB-179	877	PCB-177	1410	PCB-201	165	PCB-207	14.6
PCB-150	47.9	PCB-161	(0.738)	PCB-184	4.5	PCB-181	18.2	PCB-204	(0.787)	PCB-206	104
PCB-136	407	PCB-153/168	12900	PCB-176	317	PCB-171/173	750	PCB-197	58.6		
PCB-145	(0.835)	PCB-141	1200	PCB-186	(0.735)	PCB-172	396	PCB-200	81.2	**Conc.**	159
PCB-148	[1.82]	PCB-130	405	PCB-178	1020	PCB-192	(2.82)	PCB-198/199	770	**EMPC**	159
PCB-151/135	2210	PCB-137	255	PCB-175	64.2	PCB-180/193	6330	PCB-196	304		
PCB-154	175	PCB-164	582	PCB-187	5040	PCB-191	46.9	PCB-203	310	**Deca**	**Conc.**
PCB-144	93.2	PCB-163/138/129	15000	PCB-182	18.2	PCB-170	2490	PCB-195	214	PCB-209	35.5
PCB-147/149	3690	PCB-160	(0.655)	PCB-183	734	PCB-190	516	PCB-194	581		
PCB-134	271	PCB-158	238	PCB-185	112	PCB-189	101	PCB-205	28.7		
PCB-143	(0.787)	PCB-128/166	1230								
PCB-139/140	117	PCB-159	50.3								
PCB-131	41.9	PCB-162	16.2								
PCB-142	(0.912)	PCB-167	333								
PCB-132	448	PCB-156/157	987								
PCB-133	272	PCB-169	31.3								
		Conc.	42200			**Conc.**	21200	**Conc.**	2800		
		EMPC	42200			**EMPC**	21200	**EMPC**	2800		

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Totals	Conc.	EMPC
Mono-Tri	3430	3440
Tetra-Hexa	68000	68000
Hepta-Deca	24100	24200
Mono-Deca	95600	95600

Sample ID: EW08-RRDC-EM-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.15 g	Sample ID:	P1389_6932_PCB_011	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	υμ	Time Analyzed:	14:43:52

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[4.36]	PCB-19	2.52	PCB-54	(0.586)	PCB-72	7.89	PCB-104	(0.645)	PCB-108/119/86…	1210
PCB-2	(1.2)	PCB-30/18	104	PCB-50/53	16.6	PCB-68	3.07	PCB-96	(0.679)	PCB-117	[88.5]
PCB-3	4.48	PCB-17	22.9	PCB-45	16.3	PCB-57	(2.46)	PCB-103	59.6	PCB-116/85	703
		PCB-27	8.53	PCB-51	(1.3)	PCB-58	(2.35)	PCB-94	2.76	PCB-110	2160
Conc.	4.48	PCB-24	(0.943)	PCB-46	[3.41]	PCB-67	5.73	PCB-95	1650	PCB-115	(2.11)
EMPC	8.83	PCB-16	14.1	PCB-52	1720	PCB-63	83.9	PCB-100/93	144	PCB-82	31.3
		PCB-32	6.79	PCB-73	3.43	PCB-61/70/74/76	2860	PCB-102	(2.33)	PCB-111	8.03
Di	**Conc.**	PCB-34	(1.37)	PCB-43	23.5	PCB-66	1260	PCB-98	18.7	PCB-120	7.26
PCB-4	[12.4]	PCB-23	(1.14)	PCB-69/49	748	PCB-55	(2.46)	PCB-88	(2.65)	PCB-107/124	103
PCB-10	(1.5)	PCB-26/29	75	PCB-48	26.5	PCB-56	39.4	PCB-91	214	PCB-109	203
PCB-9	7.82	PCB-25	17.7	PCB-44/47/65	1140	PCB-60	663	PCB-84	226	PCB-123	79.1
PCB-7	1.59	PCB-31	959	PCB-59/62/75	60.2	PCB-80	(1.84)	PCB-89	(2.76)	PCB-106	(2.08)
PCB-6	6.16	PCB-28/20	1670	PCB-42	154	PCB-79	24	PCB-121	(1.7)	PCB-118	2570
PCB-5	(1.47)	PCB-21/33	23.7	PCB-41	(1.41)	PCB-78	(2.48)	PCB-92	912	PCB-122	(2.81)
PCB-8	26.6	PCB-22	96.4	PCB-71/40	24.5	PCB-81	(2.6)	PCB-113/90/101	4240	PCB-114	134
PCB-14	(1.49)	PCB-36	(1.24)	PCB-64	431	PCB-77	83.4	PCB-83	(3.5)	PCB-105	1700
PCB-11	35.2	PCB-39	2.27					PCB-99	4400	PCB-127	11.1
PCB-13/12	14.2	PCB-38	(1.36)					PCB-112	(2.02)	PCB-126	5.38
PCB-15	179	PCB-35	10.5								
		PCB-37	312								
Conc.	283	**Conc.**	3320			**Conc.**	9400			**Conc.**	20800
EMPC	283	**EMPC**	3320			**EMPC**	9400			**EMPC**	20900

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Totals	Conc.	EMPC
Mono-Tri	3610	3620
Tetra-Hexa	75800	75900
Hepta-Deca	25000	25000
Mono-Deca	104000	104000

Sample ID: EW08-RRDC-EM-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.15 g	Sample ID:	P1389_6932_PCB_011	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	υμ	Time Analyzed:	14:43:52

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	6.32	PCB-165	15	PCB-188	9.8	PCB-174	889	PCB-202	306	PCB-208	40.3
PCB-152	(0.743)	PCB-146	1310	PCB-179	928	PCB-177	1380	PCB-201	175	PCB-207	15.5
PCB-150	50.2	PCB-161	(0.818)	PCB-184	[3.47]	PCB-181	17.4	PCB-204	(0.746)	PCB-206	110
PCB-136	446	PCB-153/168	13800	PCB-176	321	PCB-171/173	711	PCB-197	59		
PCB-145	(0.831)	PCB-141	1320	PCB-186	(0.712)	PCB-172	413	PCB-200	89	**Conc.**	166
PCB-148	2.13	PCB-130	457	PCB-178	1050	PCB-192	(2.62)	PCB-198/199	839	**EMPC**	166
PCB-151/135	2600	PCB-137	235	PCB-175	61.3	PCB-180/193	6850	PCB-196	329		
PCB-154	191	PCB-164	656	PCB-187	4880	PCB-191	44.2	PCB-203	352	**Deca**	**Conc.**
PCB-144	106	PCB-163/138/129	16000	PCB-182	18.3	PCB-170	2670	PCB-195	229	PCB-209	38.4
PCB-147/149	4090	PCB-160	(0.726)	PCB-183	692	PCB-190	565	PCB-194	625		
PCB-134	326	PCB-158	260	PCB-185	116	PCB-189	111	PCB-205	32		
PCB-143	(0.872)	PCB-128/166	1220								
PCB-139/140	124	PCB-159	57.5								
PCB-131	46.9	PCB-162	17.9								
PCB-142	(1.01)	PCB-167	361								
PCB-132	506	PCB-156/157	1090								
PCB-133	307	PCB-169	31.1								
		Conc.	45600			**Conc.**	21700	**Conc.**	3040		
		EMPC	45600			**EMPC**	21700	**EMPC**	3040		

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Totals	Conc.	EMPC
Mono-Tri	3610	3620
Tetra-Hexa	75800	75900
Hepta-Deca	25000	25000
Mono-Deca	104000	104000

Sample ID: EW08-RRDC-EM-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.20 g	Sample ID:	P1389_6932_PCB_012	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	νβ	Time Analyzed:	15:38:18

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[3.03]	PCB-19	2.93	PCB-54	(0.841)	PCB-72	7.49	PCB-104	(0.927)	PCB-108/119/86…	1300
PCB-2	(0.869)	PCB-30/18	103	PCB-50/53	17.8	PCB-68	[2.48]	PCB-96	(0.977)	PCB-117	(3.98)
PCB-3	(1.03)	PCB-17	22.7	PCB-45	14.8	PCB-57	(3.15)	PCB-103	59.2	PCB-116/85	823
		PCB-27	8.99	PCB-51	(1.3)	PCB-58	(3.02)	PCB-94	(3.88)	PCB-110	2230
Conc.	0	PCB-24	(1.2)	PCB-46	4.5	PCB-67	(2.45)	PCB-95	1660	PCB-115	(3.31)
EMPC	3.03	PCB-16	13.5	PCB-52	1620	PCB-63	87.1	PCB-100/93	155	PCB-82	31.6
		PCB-32	6.53	PCB-73	(0.992)	PCB-61/70/74/76	2930	PCB-102	(3.66)	PCB-111	8.66
Di	**Conc.**	PCB-34	[1.46]	PCB-43	22.4	PCB-66	1310	PCB-98	23.8	PCB-120	[6.03]
PCB-4	[11.9]	PCB-23	(1.32)	PCB-69/49	689	PCB-55	(3.16)	PCB-88	(4.17)	PCB-107/124	107
PCB-10	(2.07)	PCB-26/29	78.2	PCB-48	26.1	PCB-56	44.2	PCB-91	236	PCB-109	228
PCB-9	[9.21]	PCB-25	19.6	PCB-44/47/65	1070	PCB-60	667	PCB-84	227	PCB-123	69.9
PCB-7	[2.16]	PCB-31	1010	PCB-59/62/75	56.8	PCB-80	(2.36)	PCB-89	(4.34)	PCB-106	(3.27)
PCB-6	[8.09]	PCB-28/20	1720	PCB-42	137	PCB-79	25.3	PCB-121	(2.66)	PCB-118	2770
PCB-5	(2.1)	PCB-21/33	27.5	PCB-41	6.12	PCB-78	(3.19)	PCB-92	968	PCB-122	27.3
PCB-8	[31.6]	PCB-22	101	PCB-71/40	23.3	PCB-81	(3.34)	PCB-113/90/101	4630	PCB-114	154
PCB-14	(2.13)	PCB-36	(1.43)	PCB-64	416	PCB-77	81.9	PCB-83	(5.49)	PCB-105	1850
PCB-11	[34.4]	PCB-39	[2.26]					PCB-99	4630	PCB-127	(3.31)
PCB-13/12	[14.6]	PCB-38	(1.57)					PCB-112	(3.17)	PCB-126	[5.09]
PCB-15	173	PCB-35	10.9								
		PCB-37	325								
Conc.	285	**Conc.**	3440			**Conc.**	9260			**Conc.**	22200
EMPC	285	**EMPC**	3450			**EMPC**	9260			**EMPC**	22200

Totals	Conc.	EMPC
Mono-Tri	3730	3730
Tetra-Hexa	83100	83100
Hepta-Deca	28100	28100
Mono-Deca	115000	115000

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Sample ID: EW08-RRDC-EM-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.20 g	Sample ID:	P1389_6932_PCB_012	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	νβ	Time Analyzed:	15:38:18

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	8.3	PCB-165	18.4	PCB-188	[7.9]	PCB-174	1010	PCB-202	345	PCB-208	49.2
PCB-152	[1.88]	PCB-146	1450	PCB-179	979	PCB-177	1540	PCB-201	192	PCB-207	16.9
PCB-150	56.1	PCB-161	(1.43)	PCB-184	4.74	PCB-181	20.7	PCB-204	(1.3)	PCB-206	132
PCB-136	448	PCB-153/168	15700	PCB-176	347	PCB-171/173	809	PCB-197	65.9		
PCB-145	(1.36)	PCB-141	1450	PCB-186	(1.06)	PCB-172	473	PCB-200	108	**Conc.**	198
PCB-148	(1.53)	PCB-130	483	PCB-178	1180	PCB-192	(2.34)	PCB-198/199	1000	**EMPC**	198
PCB-151/135	2880	PCB-137	247	PCB-175	69.5	PCB-180/193	7450	PCB-196	376		
PCB-154	228	PCB-164	722	PCB-187	5650	PCB-191	56.9	PCB-203	400	**Deca**	**Conc.**
PCB-144	123	PCB-163/138/129	18500	PCB-182	21.5	PCB-170	3050	PCB-195	268	PCB-209	44.2
PCB-147/149	4510	PCB-160	(1.27)	PCB-183	814	PCB-190	645	PCB-194	723		
PCB-134	339	PCB-158	282	PCB-185	113	PCB-189	123	PCB-205	35.5		
PCB-143	(1.52)	PCB-128/166	1470								
PCB-139/140	138	PCB-159	67.2								
PCB-131	49.3	PCB-162	21								
PCB-142	(1.76)	PCB-167	426								
PCB-132	571	PCB-156/157	1200								
PCB-133	324	PCB-169	36.1								
		Conc.	51700			**Conc.**	24300	**Conc.**	3520		
		EMPC	51700			**EMPC**	24400	**EMPC**	3520		

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Totals	Conc.	EMPC
Mono-Tri	3730	3730
Tetra-Hexa	83100	83100
Hepta-Deca	28100	28100
Mono-Deca	115000	115000

Sample ID: EW08-RRDC-HP-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.07 g	Sample ID:	P1389_6932_PCB_013	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ηρ	Time Analyzed:	16:32:46

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[3.93]	PCB-19	7.67	PCB-54	1.4	PCB-72	60.7	PCB-104	[1.63]	PCB-108/119/86…	5960
PCB-2	1.47	PCB-30/18	330	PCB-50/53	150	PCB-68	20.3	PCB-96	14.3	PCB-117	457
PCB-3	5.17	PCB-17	76.4	PCB-45	56.8	PCB-57	14	PCB-103	451	PCB-116/85	2630
		PCB-27	35.9	PCB-51	9.19	PCB-58	(5.18)	PCB-94	24.9	PCB-110	16100
Conc.	6.64	PCB-24	1.26	PCB-46	32	PCB-67	35.6	PCB-95	8960	PCB-115	(6.72)
EMPC	10.6	PCB-16	32.9	PCB-52	8110	PCB-63	256	PCB-100/93	609	PCB-82	254
		PCB-32	12.8	PCB-73	[22.4]	PCB-61/70/74/76	9620	PCB-102	84.4	PCB-111	42.5
Di	**Conc.**	PCB-34	7.1	PCB-43	112	PCB-66	4450	PCB-98	(8.97)	PCB-120	58.4
PCB-4	[27.6]	PCB-23	(0.827)	PCB-69/49	3460	PCB-55	(5.42)	PCB-88	(8.45)	PCB-107/124	588
PCB-10	(1.27)	PCB-26/29	356	PCB-48	156	PCB-56	307	PCB-91	1470	PCB-109	1200
PCB-9	[12.2]	PCB-25	79.6	PCB-44/47/65	4050	PCB-60	1750	PCB-84	1240	PCB-123	318
PCB-7	[3.16]	PCB-31	2480	PCB-59/62/75	220	PCB-80	(4.06)	PCB-89	(8.8)	PCB-106	(6.64)
PCB-6	[20.1]	PCB-28/20	3880	PCB-42	604	PCB-79	[92.8]	PCB-121	3.9	PCB-118	14300
PCB-5	(1.32)	PCB-21/33	101	PCB-41	30.6	PCB-78	(5.47)	PCB-92	4420	PCB-122	(9.01)
PCB-8	[60.9]	PCB-22	249	PCB-71/40	142	PCB-81	22.2	PCB-113/90/101	23100	PCB-114	530
PCB-14	(1.34)	PCB-36	4.83	PCB-64	1120	PCB-77	303	PCB-83	619	PCB-105	7590
PCB-11	[58.1]	PCB-39	7.15					PCB-99	16600	PCB-127	63.2
PCB-13/12	[28.8]	PCB-38	4.24					PCB-112	(6.42)	PCB-126	[30.8]
PCB-15	365	PCB-35	28								
		PCB-37	702								
Conc.	576	**Conc.**	8390			**Conc.**	35100			**Conc.**	108000
EMPC	576	**EMPC**	8390			**EMPC**	35200			**EMPC**	108000

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Totals	Conc.	EMPC
Mono-Tri	8980	8980
Tetra-Hexa	389000	389000
Hepta-Deca	148000	148000
Mono-Deca	546000	546000

Sample ID: EW08-RRDC-HP-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.07 g	Sample ID:	P1389_6932_PCB_013	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ηρ	Time Analyzed:	16:32:46

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	25.9	PCB-165	74.3	PCB-188	55.5	PCB-174	5700	PCB-202	1650	PCB-208	239
PCB-152	11.4	PCB-146	7720	PCB-179	5580	PCB-177	8380	PCB-201	993	PCB-207	90.3
PCB-150	267	PCB-161	(0.769)	PCB-184	[16.3]	PCB-181	104	PCB-204	2.71	PCB-206	818
PCB-136	3050	PCB-153/168	73700	PCB-176	1750	PCB-171/173	4080	PCB-197	298		
PCB-145	(0.836)	PCB-141	7250	PCB-186	(0.635)	PCB-172	2420	PCB-200	525	**Conc.**	1150
PCB-148	36.5	PCB-130	2540	PCB-178	5800	PCB-192	(5.24)	PCB-198/199	4980	**EMPC**	1150
PCB-151/135	15000	PCB-137	1190	PCB-175	415	PCB-180/193	39500	PCB-196	2100		
PCB-154	1280	PCB-164	3150	PCB-187	27200	PCB-191	385	PCB-203	2420	**Deca**	**Conc.**
PCB-144	923	PCB-163/138/129	80700	PCB-182	102	PCB-170	15700	PCB-195	1420	PCB-209	195
PCB-147/149	24600	PCB-160	(0.683)	PCB-183	5800	PCB-190	3500	PCB-194	4250		
PCB-134	1720	PCB-158	2130	PCB-185	750	PCB-189	720	PCB-205	237		
PCB-143	(0.82)	PCB-128/166	6180								
PCB-139/140	631	PCB-159	340								
PCB-131	232	PCB-162	102								
PCB-142	(0.95)	PCB-167	2220								
PCB-132	3830	PCB-156/157	5560								
PCB-133	1400	PCB-169	185								
		Conc.	246000			**Conc.**	128000	**Conc.**	18900		
		EMPC	246000			**EMPC**	128000	**EMPC**	18900		

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Totals	Conc.	EMPC
Mono-Tri	8980	8980
Tetra-Hexa	389000	389000
Hepta-Deca	148000	148000
Mono-Deca	546000	546000

Sample ID: EW08-RRDC-HP-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.05 g	Sample ID:	P1389_6932_PCB_014	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	σν	Time Analyzed:	17:27:12

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	3.53	PCB-19	8.31	PCB-54	1.12	PCB-72	59.3	PCB-104	1.95	PCB-108/119/86…	6320
PCB-2	1.44	PCB-30/18	351	PCB-50/53	148	PCB-68	17.4	PCB-96	13.9	PCB-117	440
PCB-3	5.46	PCB-17	78.9	PCB-45	58	PCB-57	[13.3]	PCB-103	480	PCB-116/85	2890
		PCB-27	37	PCB-51	5.72	PCB-58	(4.36)	PCB-94	24.8	PCB-110	17200
Conc.	10.4	PCB-24	1.23	PCB-46	31.9	PCB-67	34.6	PCB-95	9500	PCB-115	(7.11)
EMPC	10.4	PCB-16	32.8	PCB-52	8020	PCB-63	249	PCB-100/93	650	PCB-82	263
		PCB-32	13.4	PCB-73	25.8	PCB-61/70/74/76	9890	PCB-102	17.3	PCB-111	41.2
Di	**Conc.**	PCB-34	7.31	PCB-43	111	PCB-66	4550	PCB-98	87.3	PCB-120	56.9
PCB-4	[29]	PCB-23	(0.881)	PCB-69/49	3460	PCB-55	31.9	PCB-88	(8.95)	PCB-107/124	599
PCB-10	(1.04)	PCB-26/29	383	PCB-48	158	PCB-56	304	PCB-91	1580	PCB-109	1220
PCB-9	[10.8]	PCB-25	85	PCB-44/47/65	4120	PCB-60	1830	PCB-84	1340	PCB-123	347
PCB-7	[3.42]	PCB-31	2620	PCB-59/62/75	219	PCB-80	(3.42)	PCB-89	(9.31)	PCB-106	(7.02)
PCB-6	[20]	PCB-28/20	4130	PCB-42	602	PCB-79	105	PCB-121	(5.72)	PCB-118	14800
PCB-5	(1.04)	PCB-21/33	110	PCB-41	28.1	PCB-78	(4.61)	PCB-92	4710	PCB-122	145
PCB-8	[64.6]	PCB-22	267	PCB-71/40	145	PCB-81	(4.82)	PCB-113/90/101	24900	PCB-114	541
PCB-14	(1.05)	PCB-36	(0.957)	PCB-64	1150	PCB-77	318	PCB-83	431	PCB-105	7880
PCB-11	[56.6]	PCB-39	8.11					PCB-99	18200	PCB-127	55.8
PCB-13/12	[31.5]	PCB-38	(1.05)					PCB-112	(6.8)	PCB-126	41.1
PCB-15	[388]	PCB-35	29								
		PCB-37	764								
Conc.	604	**Conc.**	8920			**Conc.**	35700			**Conc.**	115000
EMPC	604	**EMPC**	8920			**EMPC**	35700			**EMPC**	115000

Totals	Conc.	EMPC
Mono-Tri	9530	9530
Tetra-Hexa	403000	403000
Hepta-Deca	154000	154000
Mono-Deca	566000	566000

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Sample ID: EW08-RRDC-HP-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.05 g	Sample ID:	P1389_6932_PCB_014	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	σν	Time Analyzed:	17:27:12

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	28.1	PCB-165	74.2	PCB-188	56.5	PCB-174	5830	PCB-202	1770	PCB-208	244
PCB-152	11.7	PCB-146	7820	PCB-179	5780	PCB-177	8440	PCB-201	1040	PCB-207	91.8
PCB-150	279	PCB-161	(0.621)	PCB-184	19.7	PCB-181	106	PCB-204	2.53	PCB-206	822
PCB-136	3240	PCB-153/168	75700	PCB-176	1810	PCB-171/173	4200	PCB-197	332		
PCB-145	(0.737)	PCB-141	7470	PCB-186	(0.547)	PCB-172	2460	PCB-200	542	**Conc.**	1160
PCB-148	37.8	PCB-130	2570	PCB-178	5980	PCB-192	(4.25)	PCB-198/199	5350	**EMPC**	1160
PCB-151/135	15200	PCB-137	1300	PCB-175	431	PCB-180/193	41100	PCB-196	2180		
PCB-154	1320	PCB-164	3180	PCB-187	28400	PCB-191	388	PCB-203	2570	**Deca**	**Conc.**
PCB-144	955	PCB-163/138/129	82700	PCB-182	103	PCB-170	16300	PCB-195	1450	PCB-209	199
PCB-147/149	25600	PCB-160	(0.551)	PCB-183	6100	PCB-190	3610	PCB-194	4320		
PCB-134	1780	PCB-158	2180	PCB-185	675	PCB-189	755	PCB-205	247		
PCB-143	(0.661)	PCB-128/166	6580								
PCB-139/140	638	PCB-159	349								
PCB-131	229	PCB-162	96.2								
PCB-142	(0.767)	PCB-167	2310								
PCB-132	3930	PCB-156/157	5790								
PCB-133	1450	PCB-169	187								
		Conc.	253000			**Conc.**	132000	**Conc.**	19800		
		EMPC	253000			**EMPC**	132000	**EMPC**	19800		

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Totals	Conc.	EMPC
Mono-Tri	9530	9530
Tetra-Hexa	403000	403000
Hepta-Deca	154000	154000
Mono-Deca	566000	566000

Sample ID: EW08-RRDC-HP-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.03 g	Sample ID:	P1389_6932_PCB_015	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ιζ	Time Analyzed:	18:21:38

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	3.82	PCB-19	9.06	PCB-54	[1.07]	PCB-72	67.1	PCB-104	2.13	PCB-108/119/86…	6710
PCB-2	1.59	PCB-30/18	371	PCB-50/53	150	PCB-68	23.9	PCB-96	15.1	PCB-117	523
PCB-3	5.78	PCB-17	85.8	PCB-45	63.1	PCB-57	15.5	PCB-103	507	PCB-116/85	2870
		PCB-27	40.3	PCB-51	[6.52]	PCB-58	(5.69)	PCB-94	28.9	PCB-110	17900
Conc.	11.2	PCB-24	[1.13]	PCB-46	33.1	PCB-67	39.8	PCB-95	9740	PCB-115	(8.03)
EMPC	11.2	PCB-16	36.2	PCB-52	8610	PCB-63	265	PCB-100/93	645	PCB-82	280
		PCB-32	15.2	PCB-73	31.8	PCB-61/70/74/76	10200	PCB-102	31.2	PCB-111	43.5
Di	**Conc.**	PCB-34	7.52	PCB-43	120	PCB-66	4730	PCB-98	80.5	PCB-120	61.8
PCB-4	[29]	PCB-23	(0.89)	PCB-69/49	3680	PCB-55	37	PCB-88	(10.1)	PCB-107/124	642
PCB-10	(1.21)	PCB-26/29	404	PCB-48	171	PCB-56	334	PCB-91	1620	PCB-109	1290
PCB-9	[10.7]	PCB-25	90.2	PCB-44/47/65	4310	PCB-60	1930	PCB-84	1400	PCB-123	373
PCB-7	[3.55]	PCB-31	2710	PCB-59/62/75	237	PCB-80	(4.46)	PCB-89	[3.5]	PCB-106	(7.93)
PCB-6	[19]	PCB-28/20	4230	PCB-42	656	PCB-79	115	PCB-121	4.93	PCB-118	15800
PCB-5	(1.39)	PCB-21/33	114	PCB-41	34.3	PCB-78	(6.01)	PCB-92	4900	PCB-122	158
PCB-8	[63.5]	PCB-22	284	PCB-71/40	163	PCB-81	(6.29)	PCB-113/90/101	26300	PCB-114	568
PCB-14	(1.41)	PCB-36	5.28	PCB-64	1190	PCB-77	345	PCB-83	755	PCB-105	8410
PCB-11	63.3	PCB-39	9.12					PCB-99	18600	PCB-127	61.5
PCB-13/12	31.9	PCB-38	4.79					PCB-112	(7.68)	PCB-126	40.3
PCB-15	390	PCB-35	32.2								
		PCB-37	797								
Conc.	611	**Conc.**	9250			**Conc.**	37600			**Conc.**	120000
EMPC	611	**EMPC**	9250			**EMPC**	37600			**EMPC**	120000

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Totals	Conc.	EMPC
Mono-Tri	9870	9870
Tetra-Hexa	427000	427000
Hepta-Deca	160000	160000
Mono-Deca	597000	597000

Sample ID: EW08-RRDC-HP-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.03 g	Sample ID:	P1389_6932_PCB_015	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	ιζ	Time Analyzed:	18:21:38

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	28.3	PCB-165	78.5	PCB-188	59.8	PCB-174	5890	PCB-202	1830	PCB-208	261
PCB-152	12.7	PCB-146	8440	PCB-179	6100	PCB-177	8680	PCB-201	1100	PCB-207	97.9
PCB-150	288	PCB-161	(0.71)	PCB-184	20.2	PCB-181	107	PCB-204	(0.834)	PCB-206	889
PCB-136	3460	PCB-153/168	80600	PCB-176	1910	PCB-171/173	4380	PCB-197	336		
PCB-145	(0.865)	PCB-141	7920	PCB-186	(0.822)	PCB-172	2600	PCB-200	566	**Conc.**	1250
PCB-148	42.7	PCB-130	2710	PCB-178	6260	PCB-192	(4.44)	PCB-198/199	5580	**EMPC**	1250
PCB-151/135	16400	PCB-137	1330	PCB-175	446	PCB-180/193	42800	PCB-196	2340		
PCB-154	1450	PCB-164	3360	PCB-187	29100	PCB-191	410	PCB-203	2760	**Deca**	**Conc.**
PCB-144	1050	PCB-163/138/129	87100	PCB-182	98.1	PCB-170	16900	PCB-195	1510	PCB-209	209
PCB-147/149	28300	PCB-160	(0.63)	PCB-183	6220	PCB-190	3740	PCB-194	4580		
PCB-134	1900	PCB-158	2360	PCB-185	805	PCB-189	798	PCB-205	260		
PCB-143	(0.757)	PCB-128/166	6850								
PCB-139/140	674	PCB-159	372								
PCB-131	254	PCB-162	114								
PCB-142	(0.877)	PCB-167	2470								
PCB-132	4220	PCB-156/157	6100								
PCB-133	1530	PCB-169	197								
		Conc.	270000			**Conc.**	137000	**Conc.**	20900		
		EMPC	270000			**EMPC**	137000	**EMPC**	20900		

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Totals	Conc.	EMPC
Mono-Tri	9870	9870
Tetra-Hexa	427000	427000
Hepta-Deca	160000	160000
Mono-Deca	597000	597000

Sample ID: EW08-SS-WB-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.02 g	Sample ID:	P1389_6932_PCB_007	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	βπ	Time Analyzed:	07:18:30

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[4.85]	PCB-19	45	PCB-54	10.5	PCB-72	186	PCB-104	5.37	PCB-108/119/86…	9460
PCB-2	(0.753)	PCB-30/18	360	PCB-50/53	947	PCB-68	84.1	PCB-96	69.1	PCB-117	918
PCB-3	2.09	PCB-17	133	PCB-45	114	PCB-57	48	PCB-103	1450	PCB-116/85	790
		PCB-27	85.1	PCB-51	344	PCB-58	(8.27)	PCB-94	22.5	PCB-110	12600
Conc.	2.09	PCB-24	5.67	PCB-46	95	PCB-67	163	PCB-95	13800	PCB-115	(30.6)
EMPC	6.94	PCB-16	17.8	PCB-52	11900	PCB-63	284	PCB-100/93	1130	PCB-82	285
		PCB-32	310	PCB-73	47.5	PCB-61/70/74/76	8340	PCB-102	273	PCB-111	64
Di	**Conc.**	PCB-34	8.81	PCB-43	52.8	PCB-66	4140	PCB-98	55.5	PCB-120	470
PCB-4	[29.1]	PCB-23	1.02	PCB-69/49	7170	PCB-55	[42.3]	PCB-88	(39)	PCB-107/124	556
PCB-10	[3.04]	PCB-26/29	654	PCB-48	300	PCB-56	495	PCB-91	2500	PCB-109	1880
PCB-9	[9.35]	PCB-25	161	PCB-44/47/65	4130	PCB-60	1070	PCB-84	1160	PCB-123	404
PCB-7	[2.71]	PCB-31	1330	PCB-59/62/75	557	PCB-80	(6.58)	PCB-89	29.2	PCB-106	(26.7)
PCB-6	[12.4]	PCB-28/20	2500	PCB-42	463	PCB-79	[88.5]	PCB-121	50.7	PCB-118	25600
PCB-5	(1.24)	PCB-21/33	97.6	PCB-41	10.9	PCB-78	(8.63)	PCB-92	5420	PCB-122	(38.5)
PCB-8	[41.1]	PCB-22	213	PCB-71/40	847	PCB-81	39	PCB-113/90/101	43800	PCB-114	544
PCB-14	(1.3)	PCB-36	(1.43)	PCB-64	1580	PCB-77	475	PCB-83	(47.7)	PCB-105	8280
PCB-11	[29.2]	PCB-39	(1.25)					PCB-99	22000	PCB-127	(29.3)
PCB-13/12	3.37	PCB-38	8.13					PCB-112	(28.3)	PCB-126	42.9
PCB-15	49.8	PCB-35	(1.96)								
		PCB-37	406								
Conc.	180	**Conc.**	6340			**Conc.**	43900			**Conc.**	154000
EMPC	180	**EMPC**	6340			**EMPC**	44100			**EMPC**	154000

Totals	Conc.	EMPC
Mono-Tri	6520	6520
Tetra-Hexa	482000	482000
Hepta-Deca	156000	156000
Mono-Deca	644000	644000

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Sample ID: EW08-SS-WB-SUPCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.02 g	Sample ID:	P1389_6932_PCB_007	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	βπ	Time Analyzed:	07:18:30

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	43.6	PCB-165	85.5	PCB-188	63.8	PCB-174	2030	PCB-202	1500	PCB-208	220
PCB-152	15.2	PCB-146	13400	PCB-179	4300	PCB-177	7820	PCB-201	973	PCB-207	127
PCB-150	302	PCB-161	(1.13)	PCB-184	22.4	PCB-181	117	PCB-204	(1.38)	PCB-206	1010
PCB-136	6980	PCB-153/168	96700	PCB-176	977	PCB-171/173	5020	PCB-197	344		
PCB-145	(1.49)	PCB-141	6700	PCB-186	(1.39)	PCB-172	2350	PCB-200	126	**Conc.**	1350
PCB-148	165	PCB-130	3310	PCB-178	4570	PCB-192	(6.52)	PCB-198/199	4510	**EMPC**	1350
PCB-151/135	20700	PCB-137	1240	PCB-175	859	PCB-180/193	38900	PCB-196	3460		
PCB-154	4720	PCB-164	1380	PCB-187	28000	PCB-191	767	PCB-203	3900	**Deca**	**Conc.**
PCB-144	2990	PCB-163/138/129	72700	PCB-182	158	PCB-170	17100	PCB-195	1830	PCB-209	194
PCB-147/149	24400	PCB-160	(0.977)	PCB-183	14600	PCB-190	3850	PCB-194	4290		
PCB-134	1620	PCB-158	5820	PCB-185	779	PCB-189	604	PCB-205	307		
PCB-143	(1.35)	PCB-128/166	5910								
PCB-139/140	949	PCB-159	134								
PCB-131	210	PCB-162	141								
PCB-142	(1.42)	PCB-167	2810								
PCB-132	3820	PCB-156/157	5530								
PCB-133	1430	PCB-169	191								
		Conc.	284000			**Conc.**	133000	**Conc.**	21200		
		EMPC	284000			**EMPC**	133000	**EMPC**	21200		

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Totals	Conc.	EMPC
Mono-Tri	6520	6520
Tetra-Hexa	482000	482000
Hepta-Deca	156000	156000
Mono-Deca	644000	644000

Sample ID: EW08-SS-WB-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.11 g	Sample ID:	P1389_6932_PCB_008	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	βω	Time Analyzed:	12:00:17

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	4.74	PCB-19	50.5	PCB-54	11.3	PCB-72	222	PCB-104	5.98	PCB-108/119/86…	11400
PCB-2	[1.44]	PCB-30/18	385	PCB-50/53	1030	PCB-68	102	PCB-96	73.6	PCB-117	1240
PCB-3	2.09	PCB-17	135	PCB-45	115	PCB-57	55.6	PCB-103	1790	PCB-116/85	748
		PCB-27	89.2	PCB-51	371	PCB-58	(7.11)	PCB-94	[23.3]	PCB-110	15100
Conc.	6.83	PCB-24	6.05	PCB-46	99.9	PCB-67	188	PCB-95	17000	PCB-115	(38.1)
EMPC	8.27	PCB-16	17.6	PCB-52	13600	PCB-63	328	PCB-100/93	1420	PCB-82	334
		PCB-32	323	PCB-73	55.3	PCB-61/70/74/76	9370	PCB-102	354	PCB-111	75.9
Di	**Conc.**	PCB-34	9.26	PCB-43	57.3	PCB-66	4510	PCB-98	(50.9)	PCB-120	555
PCB-4	[30.6]	PCB-23	1.11	PCB-69/49	8070	PCB-55	51.7	PCB-88	(47.9)	PCB-107/124	632
PCB-10	[2.95]	PCB-26/29	687	PCB-48	327	PCB-56	541	PCB-91	3150	PCB-109	2200
PCB-9	[9.31]	PCB-25	168	PCB-44/47/65	4670	PCB-60	1150	PCB-84	1420	PCB-123	498
PCB-7	[2.35]	PCB-31	1420	PCB-59/62/75	630	PCB-80	(5.57)	PCB-89	34.1	PCB-106	(37.6)
PCB-6	[12.2]	PCB-28/20	2570	PCB-42	519	PCB-79	127	PCB-121	60.6	PCB-118	28800
PCB-5	(1.58)	PCB-21/33	95.3	PCB-41	[11.5]	PCB-78	(7.51)	PCB-92	6630	PCB-122	(46.6)
PCB-8	[45.2]	PCB-22	218	PCB-71/40	957	PCB-81	51	PCB-113/90/101	52900	PCB-114	578
PCB-14	(1.6)	PCB-36	(1.45)	PCB-64	1800	PCB-77	513	PCB-83	(63.2)	PCB-105	9340
PCB-11	[25.8]	PCB-39	7.41					PCB-99	26000	PCB-127	(37.4)
PCB-13/12	[3.67]	PCB-38	8.92					PCB-112	(36.4)	PCB-126	56.7
PCB-15	[54]	PCB-35	(1.97)								
		PCB-37	437								
Conc.	186	**Conc.**	6630			**Conc.**	49600			**Conc.**	183000
EMPC	186	**EMPC**	6630			**EMPC**	49600			**EMPC**	183000

Totals	Conc.	EMPC
Mono-Tri	6830	6830
Tetra-Hexa	557000	557000
Hepta-Deca	173000	173000
Mono-Deca	737000	737000

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Sample ID: EW08-SS-WB-SUPCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.11 g	Sample ID:	P1389_6932_PCB_008	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	βω	Time Analyzed:	12:00:17

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	44.6	PCB-165	99.7	PCB-188	69.9	PCB-174	2060	PCB-202	1710	PCB-208	260
PCB-152	17.7	PCB-146	14700	PCB-179	4650	PCB-177	8350	PCB-201	1160	PCB-207	152
PCB-150	326	PCB-161	(0.915)	PCB-184	24.3	PCB-181	128	PCB-204	3.37	PCB-206	1170
PCB-136	7290	PCB-153/168	110000	PCB-176	1020	PCB-171/173	5800	PCB-197	373		
PCB-145	(1.08)	PCB-141	8090	PCB-186	(0.575)	PCB-172	2870	PCB-200	144	**Conc.**	1590
PCB-148	182	PCB-130	4050	PCB-178	5340	PCB-192	(6.04)	PCB-198/199	5060	**EMPC**	1590
PCB-151/135	21600	PCB-137	1580	PCB-175	908	PCB-180/193	45700	PCB-196	3580		
PCB-154	5270	PCB-164	1630	PCB-187	28700	PCB-191	914	PCB-203	4210	**Deca**	**Conc.**
PCB-144	3250	PCB-163/138/129	88700	PCB-182	188	PCB-170	19700	PCB-195	2190	PCB-209	223
PCB-147/149	25600	PCB-160	(0.812)	PCB-183	15300	PCB-190	4400	PCB-194	4560		
PCB-134	1920	PCB-158	6870	PCB-185	930	PCB-189	704	PCB-205	359		
PCB-143	(0.975)	PCB-128/166	6280								
PCB-139/140	1050	PCB-159	132								
PCB-131	223	PCB-162	143								
PCB-142	(1.13)	PCB-167	3120								
PCB-132	4240	PCB-156/157	6300								
PCB-133	1590	PCB-169	215								
		Conc.	325000			**Conc.**	148000	**Conc.**	23300		
		EMPC	325000			**EMPC**	148000	**EMPC**	23300		

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Totals	Conc.	EMPC
Mono-Tri	6830	6830
Tetra-Hexa	557000	557000
Hepta-Deca	173000	173000
Mono-Deca	737000	737000

Sample ID: EW08-SS-WB-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.20 g	Sample ID:	P1389_6932_PCB_009	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	γκ	Time Analyzed:	12:54:43

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	4.56	PCB-19	50.3	PCB-54	12	PCB-72	228	PCB-104	5.83	PCB-108/119/86…	11000
PCB-2	(0.898)	PCB-30/18	390	PCB-50/53	1040	PCB-68	106	PCB-96	76.5	PCB-117	1210
PCB-3	[2.02]	PCB-17	135	PCB-45	117	PCB-57	53.5	PCB-103	1790	PCB-116/85	735
		PCB-27	91.9	PCB-51	375	PCB-58	(7.11)	PCB-94	25.4	PCB-110	14900
Conc.	4.56	PCB-24	5.81	PCB-46	104	PCB-67	192	PCB-95	16400	PCB-115	(36.3)
EMPC	6.57	PCB-16	18.4	PCB-52	13800	PCB-63	342	PCB-100/93	1450	PCB-82	305
		PCB-32	330	PCB-73	56.8	PCB-61/70/74/76	9500	PCB-102	309	PCB-111	77.9
Di	**Conc.**	PCB-34	[8.02]	PCB-43	55.7	PCB-66	4550	PCB-98	[56]	PCB-120	576
PCB-4	[28.8]	PCB-23	(1.51)	PCB-69/49	8070	PCB-55	52.2	PCB-88	(45.6)	PCB-107/124	626
PCB-10	[3.29]	PCB-26/29	692	PCB-48	325	PCB-56	542	PCB-91	3150	PCB-109	2260
PCB-9	[8.32]	PCB-25	162	PCB-44/47/65	4630	PCB-60	1160	PCB-84	1390	PCB-123	517
PCB-7	[2.7]	PCB-31	1380	PCB-59/62/75	630	PCB-80	(5.57)	PCB-89	32.5	PCB-106	(35.8)
PCB-6	[13.1]	PCB-28/20	2540	PCB-42	513	PCB-79	103	PCB-121	61.4	PCB-118	29700
PCB-5	(2.32)	PCB-21/33	96.3	PCB-41	[13.3]	PCB-78	(7.51)	PCB-92	6550	PCB-122	116
PCB-8	[41.5]	PCB-22	219	PCB-71/40	954	PCB-81	35.9	PCB-113/90/101	53400	PCB-114	605
PCB-14	(2.34)	PCB-36	(1.64)	PCB-64	1820	PCB-77	518	PCB-83	(60.1)	PCB-105	9700
PCB-11	[34.8]	PCB-39	7.7					PCB-99	26300	PCB-127	(37.7)
PCB-13/12	[3.81]	PCB-38	8.95					PCB-112	(34.6)	PCB-126	58.5
PCB-15	[54.1]	PCB-35	(2.23)								
		PCB-37	418								
Conc.	190	**Conc.**	6550			**Conc.**	49900			**Conc.**	183000
EMPC	190	**EMPC**	6550			**EMPC**	49900			**EMPC**	184000

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Totals	Conc.	EMPC
Mono-Tri	6740	6750
Tetra-Hexa	570000	571000
Hepta-Deca	187000	187000
Mono-Deca	765000	765000

Sample ID: EW08-SS-WB-SUPCOMP3 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11-Jun-09
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	1.20 g	Sample ID:	P1389_6932_PCB_009	Date Extracted:	7-Jul-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6932	Date Analyzed:	16-Jul-09
		Units	pg/g	Checkcode:	γκ	Time Analyzed:	12:54:43

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	49.7	PCB-165	105	PCB-188	77.1	PCB-174	2070	PCB-202	1830	PCB-208	259
PCB-152	16.9	PCB-146	15700	PCB-179	4860	PCB-177	8780	PCB-201	1250	PCB-207	153
PCB-150	335	PCB-161	(0.897)	PCB-184	26.5	PCB-181	132	PCB-204	(1.37)	PCB-206	1180
PCB-136	7380	PCB-153/168	117000	PCB-176	1040	PCB-171/173	6120	PCB-197	410		
PCB-145	(1.12)	PCB-141	8260	PCB-186	(0.992)	PCB-172	3090	PCB-200	151	**Conc.**	1590
PCB-148	189	PCB-130	4110	PCB-178	5760	PCB-192	(5.75)	PCB-198/199	5750	**EMPC**	1590
PCB-151/135	21800	PCB-137	1570	PCB-175	939	PCB-180/193	50400	PCB-196	4130		
PCB-154	5520	PCB-164	1600	PCB-187	30200	PCB-191	995	PCB-203	4920	**Deca**	**Conc.**
PCB-144	3280	PCB-163/138/129	92000	PCB-182	187	PCB-170	21700	PCB-195	2300	PCB-209	217
PCB-147/149	25000	PCB-160	(0.796)	PCB-183	16800	PCB-190	4790	PCB-194	4900		
PCB-134	1920	PCB-158	7030	PCB-185	948	PCB-189	759	PCB-205	382		
PCB-143	(0.956)	PCB-128/166	6380								
PCB-139/140	1060	PCB-159	134								
PCB-131	219	PCB-162	153								
PCB-142	(1.11)	PCB-167	3430								
PCB-132	4230	PCB-156/157	6740								
PCB-133	1700	PCB-169	228								
		Conc.	337000			**Conc.**	160000	**Conc.**	26000		
		EMPC	337000			**EMPC**	160000	**EMPC**	26000		

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Totals	Conc.	EMPC
Mono-Tri	6740	6750
Tetra-Hexa	570000	571000
Hepta-Deca	187000	187000
Mono-Deca	765000	765000

Sample ID: EW-08-SB002-BR-02 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.03 g	Sample ID:	P1395_6907_PCB_011-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	ϖη	Time Analyzed:	15:23:04

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[3.02]	PCB-19	16.8	PCB-54	10.8	PCB-72	503	PCB-104	(3.43)	PCB-108/119/86…	22500
PCB-2	(3.15)	PCB-30/18	204	PCB-50/53	182	PCB-68	184	PCB-96	16.5	PCB-117	(29.6)
PCB-3	(3.51)	PCB-17	189	PCB-45	111	PCB-57	64.9	PCB-103	1640	PCB-116/85	9730
		PCB-27	80.5	PCB-51	138	PCB-58	(20.2)	PCB-94	(25.6)	PCB-110	60100
Conc.	0	PCB-24	[8.97]	PCB-46	[16.8]	PCB-67	(16.3)	PCB-95	10300	PCB-115	(20.9)
EMPC	3.02	PCB-16	22.4	PCB-52	17500	PCB-63	818	PCB-100/93	3640	PCB-82	396
		PCB-32	389	PCB-73	(4.24)	PCB-61/70/74/76	20000	PCB-102	508	PCB-111	256
Di	**Conc.**	PCB-34	(5.56)	PCB-43	(5.65)	PCB-66	18000	PCB-98	(25.3)	PCB-120	1370
PCB-4	13.1	PCB-23	(4.52)	PCB-69/49	7520	PCB-55	(20.7)	PCB-88	(27)	PCB-107/124	1070
PCB-10	(3.73)	PCB-26/29	420	PCB-48	683	PCB-56	219	PCB-91	3000	PCB-109	4880
PCB-9	(5.61)	PCB-25	43.6	PCB-44/47/65	11100	PCB-60	5000	PCB-84	402	PCB-123	1090
PCB-7	(6.45)	PCB-31	590	PCB-59/62/75	1080	PCB-80	(15.1)	PCB-89	(28.5)	PCB-106	(18.6)
PCB-6	15.3	PCB-28/20	5790	PCB-42	539	PCB-79	224	PCB-121	164	PCB-118	73500
PCB-5	(7.07)	PCB-21/33	226	PCB-41	(5.69)	PCB-78	(20)	PCB-92	16300	PCB-122	(26.7)
PCB-8	43.5	PCB-22	166	PCB-71/40	841	PCB-81	(20.6)	PCB-113/90/101	92600	PCB-114	1580
PCB-14	(6.88)	PCB-36	(4.81)	PCB-64	2070	PCB-77	671	PCB-83	(35.8)	PCB-105	27800
PCB-11	22.6	PCB-39	(4.23)					PCB-99	63500	PCB-127	166
PCB-13/12	(7.1)	PCB-38	(5.38)					PCB-112	(21.1)	PCB-126	140
PCB-15	7.03	PCB-35	(6.39)								
		PCB-37	108								
Conc.	102	**Conc.**	8240			**Conc.**	87400			**Conc.**	397000
EMPC	102	**EMPC**	8250			**EMPC**	87400			**EMPC**	397000

Totals	Conc.	EMPC
Mono-Tri	8350	8360
Tetra-Hexa	1260000	1260000
Hepta-Deca	366000	366000
Mono-Deca	1640000	1640000

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Sample ID: EW-08-SB002-BR-02

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.03 g	Sample ID:	P1395_6907_PCB_011-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	ϖη	Time Analyzed:	15:23:04

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	52.8	PCB-165	244	PCB-188	65.7	PCB-174	18000	PCB-202	3310	PCB-208	373
PCB-152	(5.36)	PCB-146	36900	PCB-179	3300	PCB-177	12000	PCB-201	1700	PCB-207	182
PCB-150	131	PCB-161	(4.85)	PCB-184	35.5	PCB-181	206	PCB-204	(3.64)	PCB-206	1250
PCB-136	2470	PCB-153/168	251000	PCB-176	979	PCB-171/173	13300	PCB-197	625		
PCB-145	(5.88)	PCB-141	29500	PCB-186	(3.56)	PCB-172	6440	PCB-200	503	**Conc.**	1800
PCB-148	302	PCB-130	9450	PCB-178	12900	PCB-192	(13.8)	PCB-198/199	11400	**EMPC**	1800
PCB-151/135	33700	PCB-137	3770	PCB-175	2200	PCB-180/193	100000	PCB-196	6630		
PCB-154	13300	PCB-164	11300	PCB-187	68200	PCB-191	2290	PCB-203	5510	**Deca**	**Conc.**
PCB-144	3890	PCB-163/138/129	218000	PCB-182	611	PCB-170	38400	PCB-195	2640	PCB-209	222
PCB-147/149	84600	PCB-160	(4.48)	PCB-183	34400	PCB-190	5370	PCB-194	8350		
PCB-134	1050	PCB-158	17300	PCB-185	2610	PCB-189	1110	PCB-205	394		
PCB-143	(6.06)	PCB-128/166	22000								
PCB-139/140	2830	PCB-159	1010								
PCB-131	254	PCB-162	408								
PCB-142	(6.14)	PCB-167	7300								
PCB-132	11000	PCB-156/157	13600								
PCB-133	4620	PCB-169	(21.4)								
		Conc.	779000			**Conc.**	322000	**Conc.**	41100		
		EMPC	779000			**EMPC**	322000	**EMPC**	41100		

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Totals	Conc.	EMPC
Mono-Tri	8350	8360
Tetra-Hexa	1260000	1260000
Hepta-Deca	366000	366000
Mono-Deca	1640000	1640000

Sample ID: EW-08-SB006-BR-06

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.06 g	Sample ID:	P1395_6907_PCB_012	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	$\phi\chi$	Time Analyzed:	03:43:28

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[1.75]	PCB-19	18.2	PCB-54	8.6	PCB-72	122	PCB-104	4.14	PCB-108/119/86…	8370
PCB-2	[0.591]	PCB-30/18	166	PCB-50/53	200	PCB-68	53.4	PCB-96	18.7	PCB-117	(17.7)
PCB-3	[0.656]	PCB-17	98.7	PCB-45	43.9	PCB-57	14.2	PCB-103	804	PCB-116/85	2610
		PCB-27	48.9	PCB-51	134	PCB-58	(3.36)	PCB-94	(15.9)	PCB-110	13500
Conc.	0	PCB-24	3.28	PCB-46	20.1	PCB-67	23.7	PCB-95	6990	PCB-115	(14.1)
EMPC	3	PCB-16	18.3	PCB-52	8870	PCB-63	195	PCB-100/93	1040	PCB-82	178
		PCB-32	142	PCB-73	(0.987)	PCB-61/70/74/76	4240	PCB-102	231	PCB-111	58.7
Di	**Conc.**	PCB-34	2.99	PCB-43	69.4	PCB-66	3390	PCB-98	(16.3)	PCB-120	329
PCB-4	14.8	PCB-23	(1.2)	PCB-69/49	4820	PCB-55	(3.46)	PCB-88	(16.7)	PCB-107/124	163
PCB-10	1.66	PCB-26/29	257	PCB-48	246	PCB-56	68.8	PCB-91	1980	PCB-109	1670
PCB-9	2.54	PCB-25	31.5	PCB-44/47/65	3840	PCB-60	845	PCB-84	331	PCB-123	258
PCB-7	1.73	PCB-31	242	PCB-59/62/75	441	PCB-80	(2.93)	PCB-89	(18.9)	PCB-106	(13.1)
PCB-6	11.1	PCB-28/20	1650	PCB-42	384	PCB-79	99.1	PCB-121	44.5	PCB-118	22200
PCB-5	(0.648)	PCB-21/33	76.4	PCB-41	(1.15)	PCB-78	(3.88)	PCB-92	4960	PCB-122	(18.2)
PCB-8	21.6	PCB-22	76.9	PCB-71/40	347	PCB-81	(3.88)	PCB-113/90/101	30600	PCB-114	487
PCB-14	(0.64)	PCB-36	(1.28)	PCB-64	964	PCB-77	103	PCB-83	(24.5)	PCB-105	5610
PCB-11	24.9	PCB-39	(1.11)					PCB-99	21300	PCB-127	53.8
PCB-13/12	(0.656)	PCB-38	(1.36)					PCB-112	(14.5)	PCB-126	37.9
PCB-15	4.51	PCB-35	(1.59)								
		PCB-37	32.7								
Conc.	82.7	**Conc.**	2870			**Conc.**	29500			**Conc.**	124000
EMPC	82.7	**EMPC**	2870			**EMPC**	29500			**EMPC**	124000

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Totals	Conc.	EMPC
Mono-Tri	2950	2950
Tetra-Hexa	416000	416000
Hepta-Deca	201000	201000
Mono-Deca	619000	619000

Sample ID: EW-08-SB006-BR-06

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.06 g	Sample ID:	P1395_6907_PCB_012	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	$\phi\chi$	Time Analyzed:	03:43:28

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	26.7	PCB-165	96.9	PCB-188	50.9	PCB-174	5850	PCB-202	3430	PCB-208	382
PCB-152	5.52	PCB-146	12700	PCB-179	1550	PCB-177	6450	PCB-201	1280	PCB-207	210
PCB-150	121	PCB-161	(0.991)	PCB-184	22.2	PCB-181	130	PCB-204	(0.897)	PCB-206	1340
PCB-136	1890	PCB-153/168	104000	PCB-176	599	PCB-171/173	6050	PCB-197	460		
PCB-145	(1.08)	PCB-141	8910	PCB-186	(0.905)	PCB-172	3440	PCB-200	270	**Conc.**	1930
PCB-148	127	PCB-130	3160	PCB-178	5450	PCB-192	(5.72)	PCB-198/199	9250	**EMPC**	1930
PCB-151/135	11100	PCB-137	1340	PCB-175	942	PCB-180/193	59600	PCB-196	4280		
PCB-154	3750	PCB-164	3030	PCB-187	30600	PCB-191	1090	PCB-203	4000	**Deca**	**Conc.**
PCB-144	1440	PCB-163/138/129	62800	PCB-182	212	PCB-170	21100	PCB-195	1840	PCB-209	274
PCB-147/149	24200	PCB-160	(0.714)	PCB-183	17200	PCB-190	3160	PCB-194	7960		
PCB-134	643	PCB-158	4530	PCB-185	874	PCB-189	827	PCB-205	366		
PCB-143	(0.978)	PCB-128/166	4460								
PCB-139/140	991	PCB-159	306								
PCB-131	133	PCB-162	142								
PCB-142	(1.2)	PCB-167	2380								
PCB-132	3690	PCB-156/157	5040								
PCB-133	1650	PCB-169	(6.12)								
		Conc.	262000			**Conc.**	165000	**Conc.**	33100		
		EMPC	262000			**EMPC**	165000	**EMPC**	33100		

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Totals	Conc.	EMPC
Mono-Tri	2950	2950
Tetra-Hexa	416000	416000
Hepta-Deca	201000	201000
Mono-Deca	619000	619000

Sample ID: EW-08-SB008-BR-08 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.07 g	Sample ID:	P1395_6907_PCB_013-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	δδ	Time Analyzed:	16:17:33

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	(20.9)	PCB-19	(17.4)	PCB-54	(12.3)	PCB-72	874	PCB-104	(12.9)	PCB-108/119/86…	52300
PCB-2	(17.6)	PCB-30/18	112	PCB-50/53	99.6	PCB-68	[240]	PCB-96	(13.9)	PCB-117	5740
PCB-3	(19.5)	PCB-17	110	PCB-45	47.7	PCB-57	(68.3)	PCB-103	3140	PCB-116/85	19900
		PCB-27	44.6	PCB-51	74	PCB-58	(68.4)	PCB-94	(27.9)	PCB-110	76400
Conc.	0	PCB-24	(13.7)	PCB-46	(18.2)	PCB-67	(55.3)	PCB-95	5560	PCB-115	(22.9)
EMPC	0	PCB-16	(17.5)	PCB-52	22600	PCB-63	1720	PCB-100/93	9810	PCB-82	(31.1)
		PCB-32	212	PCB-73	(14.1)	PCB-61/70/74/76	34200	PCB-102	387	PCB-111	832
Di	**Conc.**	PCB-34	(19.3)	PCB-43	(18.8)	PCB-66	40700	PCB-98	(27.7)	PCB-120	6000
PCB-4	(30.5)	PCB-23	(15.7)	PCB-69/49	10700	PCB-55	(70.1)	PCB-88	(29.5)	PCB-107/124	607
PCB-10	(19.7)	PCB-26/29	134	PCB-48	367	PCB-56	187	PCB-91	1610	PCB-109	14800
PCB-9	(26)	PCB-25	(14.6)	PCB-44/47/65	20400	PCB-60	12200	PCB-84	209	PCB-123	3670
PCB-7	(29.9)	PCB-31	106	PCB-59/62/75	1720	PCB-80	(51.4)	PCB-89	(31.1)	PCB-106	(20.3)
PCB-6	(26.9)	PCB-28/20	4570	PCB-42	408	PCB-79	536	PCB-121	451	PCB-118	316000
PCB-5	(32.8)	PCB-21/33	212	PCB-41	(18.9)	PCB-78	(68)	PCB-92	31700	PCB-122	(29.9)
PCB-8	17.2	PCB-22	58.5	PCB-71/40	443	PCB-81	(69.8)	PCB-113/90/101	313000	PCB-114	5590
PCB-14	(31.9)	PCB-36	(16.7)	PCB-64	1740	PCB-77	540	PCB-83	(39.1)	PCB-105	112000
PCB-11	41.5	PCB-39	(14.7)					PCB-99	263000	PCB-127	722
PCB-13/12	(32.9)	PCB-38	(18.7)					PCB-112	(23.1)	PCB-126	426
PCB-15	(32.2)	PCB-35	(22.2)								
		PCB-37	[50.1]								
Conc.	58.7	**Conc.**	5560			**Conc.**	150000			**Conc.**	1240000
EMPC	58.7	**EMPC**	5610			**EMPC**	150000			**EMPC**	1240000

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Totals	Conc.	EMPC
Mono-Tri	5620	5670
Tetra-Hexa	4270000	4270000
Hepta-Deca	1680000	1680000
Mono-Deca	5960000	5960000

Sample ID: EW-08-SB008-BR-08 Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.07 g	Sample ID:	P1395_6907_PCB_013-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	δδ	Time Analyzed:	16:17:33

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	148	PCB-165	406	PCB-188	173	PCB-174	36100	PCB-202	10400	PCB-208	1580
PCB-152	(16)	PCB-146	168000	PCB-179	2400	PCB-177	5440	PCB-201	6020	PCB-207	843
PCB-150	63.7	PCB-161	(13)	PCB-184	134	PCB-181	735	PCB-204	(13.1)	PCB-206	5410
PCB-136	2010	PCB-153/168	1230000	PCB-176	689	PCB-171/173	64900	PCB-197	3420		
PCB-145	(17.6)	PCB-141	116000	PCB-186	(10.9)	PCB-172	30200	PCB-200	716	**Conc.**	7840
PCB-148	762	PCB-130	19600	PCB-178	18000	PCB-192	(70.7)	PCB-198/199	56500	**EMPC**	7840
PCB-151/135	(18.2)	PCB-137	12800	PCB-175	10500	PCB-180/193	551000	PCB-196	38300		
PCB-154	48100	PCB-164	34300	PCB-187	304000	PCB-191	11800	PCB-203	27000	**Deca**	**Conc.**
PCB-144	9930	PCB-163/138/129	826000	PCB-182	2980	PCB-170	212000	PCB-195	11900	PCB-209	1100
PCB-147/149	116000	PCB-160	(12)	PCB-183	188000	PCB-190	24000	PCB-194	47200		
PCB-134	466	PCB-158	68000	PCB-185	(77.6)	PCB-189	5900	PCB-205	1870		
PCB-143	(16.2)	PCB-128/166	99900								
PCB-139/140	10300	PCB-159	2060								
PCB-131	(19.3)	PCB-162	1960								
PCB-142	(16.4)	PCB-167	31200								
PCB-132	5810	PCB-156/157	63400								
PCB-133	12800	PCB-169	(82.1)								
		Conc.	2880000			**Conc.**	1470000	**Conc.**	203000		
		EMPC	2880000			**EMPC**	1470000	**EMPC**	203000		

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Totals	Conc.	EMPC
Mono-Tri	5620	5670
Tetra-Hexa	4270000	4270000
Hepta-Deca	1680000	1680000
Mono-Deca	5960000	5960000

Sample ID: EW-08-SB009-BR-09

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.07 g	Sample ID:	P1395_6907_PCB_014-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	ϖτ	Time Analyzed:	17:12:03

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	(3.05)	PCB-19	17	PCB-54	8.11	PCB-72	706	PCB-104	[4.15]	PCB-108/119/86…	29600
PCB-2	(3.01)	PCB-30/18	299	PCB-50/53	137	PCB-68	236	PCB-96	20.3	PCB-117	(29.7)
PCB-3	(3.35)	PCB-17	227	PCB-45	57.2	PCB-57	48.6	PCB-103	1590	PCB-116/85	12800
		PCB-27	56.5	PCB-51	162	PCB-58	(20.5)	PCB-94	(25.7)	PCB-110	70600
Conc.	0	PCB-24	[8.35]	PCB-46	9.9	PCB-67	(16.5)	PCB-95	6590	PCB-115	(21)
EMPC	0	PCB-16	30.3	PCB-52	22500	PCB-63	1050	PCB-100/93	4890	PCB-82	348
		PCB-32	326	PCB-73	256	PCB-61/70/74/76	21800	PCB-102	462	PCB-111	263
Di	**Conc.**	PCB-34	8.11	PCB-43	207	PCB-66	24000	PCB-98	(25.4)	PCB-120	1920
PCB-4	19.7	PCB-23	(5.48)	PCB-69/49	9400	PCB-55	(21)	PCB-88	(27.1)	PCB-107/124	841
PCB-10	(4.43)	PCB-26/29	427	PCB-48	840	PCB-56	196	PCB-91	2070	PCB-109	6710
PCB-9	(6.1)	PCB-25	41	PCB-44/47/65	13900	PCB-60	6150	PCB-84	302	PCB-123	1350
PCB-7	(7.02)	PCB-31	325	PCB-59/62/75	1210	PCB-80	(15.4)	PCB-89	(28.6)	PCB-106	(18.6)
PCB-6	17.4	PCB-28/20	6770	PCB-42	664	PCB-79	334	PCB-121	188	PCB-118	106000
PCB-5	(7.69)	PCB-21/33	215	PCB-41	32.8	PCB-78	(20.3)	PCB-92	20900	PCB-122	(26.6)
PCB-8	31.8	PCB-22	148	PCB-71/40	888	PCB-81	(20.8)	PCB-113/90/101	128000	PCB-114	1980
PCB-14	(7.48)	PCB-36	(5.83)	PCB-64	2160	PCB-77	613	PCB-83	(35.9)	PCB-105	38400
PCB-11	24.2	PCB-39	17.1					PCB-99	104000	PCB-127	(20.7)
PCB-13/12	(7.72)	PCB-38	16.2					PCB-112	(21.2)	PCB-126	168
PCB-15	(7.55)	PCB-35	(7.74)								
		PCB-37	101								
Conc.	93	**Conc.**	9020			**Conc.**	108000			**Conc.**	540000
EMPC	93	**EMPC**	9030			**EMPC**	108000			**EMPC**	540000

Totals	Conc.	EMPC
Mono-Tri	9120	9120
Tetra-Hexa	1730000	1730000
Hepta-Deca	578000	578000
Mono-Deca	2320000	2320000

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Sample ID: EW-08-SB009-BR-09

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.07 g	Sample ID:	P1395_6907_PCB_014-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	ϖτ	Time Analyzed:	17:12:03

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	68.8	PCB-165	258	PCB-188	95.4	PCB-174	21400	PCB-202	5130	PCB-208	565
PCB-152	(4.26)	PCB-146	53000	PCB-179	3540	PCB-177	12500	PCB-201	2500	PCB-207	266
PCB-150	115	PCB-161	(4.18)	PCB-184	49.2	PCB-181	331	PCB-204	(4.34)	PCB-206	1940
PCB-136	1390	PCB-153/168	390000	PCB-176	1230	PCB-171/173	19200	PCB-197	1000		
PCB-145	(4.67)	PCB-141	38900	PCB-186	(4.25)	PCB-172	10200	PCB-200	894	**Conc.**	2770
PCB-148	246	PCB-130	11800	PCB-178	16200	PCB-192	(20.7)	PCB-198/199	22300	**EMPC**	2770
PCB-151/135	34800	PCB-137	5970	PCB-175	3290	PCB-180/193	167000	PCB-196	12000		
PCB-154	19400	PCB-164	15000	PCB-187	110000	PCB-191	3790	PCB-203	9880	**Deca**	**Conc.**
PCB-144	4440	PCB-163/138/129	303000	PCB-182	786	PCB-170	63500	PCB-195	4750	PCB-209	304
PCB-147/149	97300	PCB-160	(3.87)	PCB-183	56200	PCB-190	9280	PCB-194	15200		
PCB-134	706	PCB-158	24700	PCB-185	(22.7)	PCB-189	2090	PCB-205	729		
PCB-143	(5.23)	PCB-128/166	31300								
PCB-139/140	3950	PCB-159	1210								
PCB-131	253	PCB-162	577								
PCB-142	(5.3)	PCB-167	11000								
PCB-132	7620	PCB-156/157	20400								
PCB-133	5810	PCB-169	(30.7)								
		Conc.	1080000			**Conc.**	500000	**Conc.**	74400		
		EMPC	1080000			**EMPC**	500000	**EMPC**	74400		

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Totals	Conc.	EMPC
Mono-Tri	9120	9120
Tetra-Hexa	1730000	1730000
Hepta-Deca	578000	578000
Mono-Deca	2320000	2320000

Sample ID: EW-08-SB012-BR-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.04 g	Sample ID:	P1395_6907_PCB_001-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	ϖψ	Time Analyzed:	13:34:00

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	(1.85)	PCB-19	7.91	PCB-54	3.69	PCB-72	291	PCB-104	(1.97)	PCB-108/119/86…	13300
PCB-2	(1.9)	PCB-30/18	53.4	PCB-50/53	56	PCB-68	104	PCB-96	4.98	PCB-117	1560
PCB-3	(2.11)	PCB-17	45.9	PCB-45	32.5	PCB-57	26.2	PCB-103	980	PCB-116/85	4860
		PCB-27	26	PCB-51	38.4	PCB-58	(13.8)	PCB-94	(11.3)	PCB-110	21200
Conc.	0	PCB-24	(1.92)	PCB-46	6.97	PCB-67	(11.2)	PCB-95	4670	PCB-115	(9.21)
EMPC	0	PCB-16	5.97	PCB-52	10700	PCB-63	478	PCB-100/93	2050	PCB-82	(12.5)
		PCB-32	127	PCB-73	(2.85)	PCB-61/70/74/76	9660	PCB-102	198	PCB-111	147
Di	**Conc.**	PCB-34	3.27	PCB-43	81.1	PCB-66	10100	PCB-98	(11.2)	PCB-120	884
PCB-4	7.45	PCB-23	(3.14)	PCB-69/49	5100	PCB-55	(14.2)	PCB-88	(11.9)	PCB-107/124	310
PCB-10	(1.87)	PCB-26/29	249	PCB-48	199	PCB-56	47.8	PCB-91	1650	PCB-109	3470
PCB-9	(3.7)	PCB-25	21	PCB-44/47/65	6030	PCB-60	2780	PCB-84	123	PCB-123	636
PCB-7	(4.26)	PCB-31	189	PCB-59/62/75	586	PCB-80	(10.4)	PCB-89	(12.5)	PCB-106	(8.18)
PCB-6	(3.84)	PCB-28/20	2470	PCB-42	197	PCB-79	133	PCB-121	86.8	PCB-118	54100
PCB-5	(4.67)	PCB-21/33	(3.34)	PCB-41	(3.82)	PCB-78	(13.8)	PCB-92	8030	PCB-122	(11.7)
PCB-8	16.3	PCB-22	54	PCB-71/40	206	PCB-81	(14.1)	PCB-113/90/101	55900	PCB-114	1080
PCB-14	(4.54)	PCB-36	(3.34)	PCB-64	1240	PCB-77	186	PCB-83	(15.7)	PCB-105	19700
PCB-11	37	PCB-39	(2.93)					PCB-99	43700	PCB-127	135
PCB-13/12	(4.69)	PCB-38	(3.74)					PCB-112	(9.31)	PCB-126	113
PCB-15	(4.59)	PCB-35	(4.43)								
		PCB-37	32.2								
Conc.	60.7	**Conc.**	3290			**Conc.**	48300			**Conc.**	239000
EMPC	60.7	**EMPC**	3290			**EMPC**	48300			**EMPC**	239000

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Totals	Conc.	EMPC
Mono-Tri	3350	3350
Tetra-Hexa	812000	812000
Hepta-Deca	291000	291000
Mono-Deca	1110000	1110000

Sample ID: EW-08-SB012-BR-10

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.04 g	Sample ID:	P1395_6907_PCB_001-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	ϖψ	Time Analyzed:	13:34:00

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	34.5	PCB-165	(3.29)	PCB-188	55.1	PCB-174	9210	PCB-202	3480	PCB-208	470
PCB-152	(2.55)	PCB-146	26100	PCB-179	1450	PCB-177	8120	PCB-201	1450	PCB-207	175
PCB-150	50.7	PCB-161	(2.49)	PCB-184	28.8	PCB-181	167	PCB-204	(2.32)	PCB-206	1360
PCB-136	1420	PCB-153/168	186000	PCB-176	408	PCB-171/173	9940	PCB-197	544		
PCB-145	(2.8)	PCB-141	18000	PCB-186	(2.61)	PCB-172	5100	PCB-200	248	**Conc.**	2000
PCB-148	220	PCB-130	6220	PCB-178	9480	PCB-192	(11.5)	PCB-198/199	10700	**EMPC**	2000
PCB-151/135	16100	PCB-137	2520	PCB-175	1730	PCB-180/193	82400	PCB-196	5660		
PCB-154	8550	PCB-164	6450	PCB-187	53800	PCB-191	1790	PCB-203	5010	**Deca**	**Conc.**
PCB-144	2380	PCB-163/138/129	155000	PCB-182	413	PCB-170	31900	PCB-195	2300	PCB-209	367
PCB-147/149	39700	PCB-160	(2.3)	PCB-183	29700	PCB-190	4710	PCB-194	7860		
PCB-134	347	PCB-158	12700	PCB-185	(12.6)	PCB-189	1120	PCB-205	382		
PCB-143	(3.12)	PCB-128/166	16400								
PCB-139/140	1940	PCB-159	515								
PCB-131	135	PCB-162	314								
PCB-142	(3.16)	PCB-167	5110								
PCB-132	4340	PCB-156/157	10800								
PCB-133	3130	PCB-169	(13.8)								
		Conc.	524000			**Conc.**	251000	**Conc.**	37600		
		EMPC	524000			**EMPC**	251000	**EMPC**	37600		

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Totals	Conc.	EMPC
Mono-Tri	3350	3350
Tetra-Hexa	812000	812000
Hepta-Deca	291000	291000
Mono-Deca	1110000	1110000

Sample ID: EW-08-SB011-BR-11

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.07 g	Sample ID:	P1395_6907_PCB_002-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	αφ	Time Analyzed:	14:28:30

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	(2.5)	PCB-19	[5.92]	PCB-54	6.79	PCB-72	497	PCB-104	3.26	PCB-108/119/86…	29900
PCB-2	(2.55)	PCB-30/18	159	PCB-50/53	63.3	PCB-68	[168]	PCB-96	10.1	PCB-117	3620
PCB-3	(2.84)	PCB-17	153	PCB-45	36.4	PCB-57	25.8	PCB-103	1010	PCB-116/85	11500
		PCB-27	26.4	PCB-51	116	PCB-58	(24.2)	PCB-94	(14.3)	PCB-110	55600
Conc.	0	PCB-24	(2.76)	PCB-46	(4.71)	PCB-67	(19.6)	PCB-95	4120	PCB-115	(11.7)
EMPC	0	PCB-16	14.3	PCB-52	14900	PCB-63	1030	PCB-100/93	6150	PCB-82	[278]
		PCB-32	209	PCB-73	(3.64)	PCB-61/70/74/76	19500	PCB-102	260	PCB-111	396
Di	**Conc.**	PCB-34	4.13	PCB-43	103	PCB-66	24400	PCB-98	(14.2)	PCB-120	2460
PCB-4	10.3	PCB-23	(4.52)	PCB-69/49	8920	PCB-55	(24.8)	PCB-88	(15.1)	PCB-107/124	467
PCB-10	(4.04)	PCB-26/29	177	PCB-48	767	PCB-56	127	PCB-91	1180	PCB-109	6880
PCB-9	3.92	PCB-25	17	PCB-44/47/65	14000	PCB-60	6960	PCB-84	143	PCB-123	1450
PCB-7	(4.73)	PCB-31	132	PCB-59/62/75	986	PCB-80	(18.2)	PCB-89	(15.9)	PCB-106	(10.4)
PCB-6	11.3	PCB-28/20	5100	PCB-42	476	PCB-79	258	PCB-121	218	PCB-118	115000
PCB-5	(5.19)	PCB-21/33	130	PCB-41	(4.88)	PCB-78	(24.1)	PCB-92	20600	PCB-122	(14.1)
PCB-8	17.4	PCB-22	70.9	PCB-71/40	553	PCB-81	(24.7)	PCB-113/90/101	129000	PCB-114	2300
PCB-14	(5.05)	PCB-36	(4.81)	PCB-64	2010	PCB-77	394	PCB-83	(20)	PCB-105	42300
PCB-11	22.4	PCB-39	15.6					PCB-99	107000	PCB-127	(10.8)
PCB-13/12	(5.21)	PCB-38	16.2					PCB-112	(11.8)	PCB-126	209
PCB-15	(5.09)	PCB-35	(6.38)								
		PCB-37	55.3								
Conc.	65.3	**Conc.**	6280			**Conc.**	96100			**Conc.**	541000
EMPC	65.3	**EMPC**	6280			**EMPC**	96300			**EMPC**	541000

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Totals	Conc.	EMPC
Mono-Tri	6340	6350
Tetra-Hexa	1800000	1810000
Hepta-Deca	624000	624000
Mono-Deca	2440000	2440000

Sample ID: EW-08-SB011-BR-11 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	1.07 g	Sample ID:	P1395_6907_PCB_002-D5	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	αφ	Time Analyzed:	14:28:30

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	96.2	PCB-165	275	PCB-188	97.6	PCB-174	18100	PCB-202	4740	PCB-208	696
PCB-152	(3.71)	PCB-146	62100	PCB-179	2890	PCB-177	9790	PCB-201	2600	PCB-207	359
PCB-150	57.8	PCB-161	(3.34)	PCB-184	59.9	PCB-181	355	PCB-204	[9.04]	PCB-206	2650
PCB-136	891	PCB-153/168	433000	PCB-176	925	PCB-171/173	23100	PCB-197	1240		
PCB-145	(4.07)	PCB-141	42000	PCB-186	(3.5)	PCB-172	11900	PCB-200	745	**Conc.**	3700
PCB-148	171	PCB-130	12800	PCB-178	11800	PCB-192	(17.6)	PCB-198/199	23600	**EMPC**	3700
PCB-151/135	26700	PCB-137	4840	PCB-175	3190	PCB-180/193	186000	PCB-196	13500		
PCB-154	22500	PCB-164	16000	PCB-187	109000	PCB-191	3970	PCB-203	11700	**Deca**	**Conc.**
PCB-144	4300	PCB-163/138/129	337000	PCB-182	976	PCB-170	77300	PCB-195	5720	PCB-209	480
PCB-147/149	91300	PCB-160	(3.08)	PCB-183	60900	PCB-190	11000	PCB-194	18300		
PCB-134	494	PCB-158	26000	PCB-185	3030	PCB-189	2390	PCB-205	861		
PCB-143	(4.17)	PCB-128/166	34500								
PCB-139/140	4590	PCB-159	1030								
PCB-131	252	PCB-162	645								
PCB-142	(4.23)	PCB-167	11800								
PCB-132	4360	PCB-156/157	23100								
PCB-133	6910	PCB-169	(44.5)								
		Conc.	1170000			**Conc.**	537000	**Conc.**	83000		
		EMPC	1170000			**EMPC**	537000	**EMPC**	83000		

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Totals	Conc.	EMPC
Mono-Tri	6340	6350
Tetra-Hexa	1800000	1810000
Hepta-Deca	624000	624000
Mono-Deca	2440000	2440000

Sample ID: EW-B06-BC-01-COMP01 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.15 g	Sample ID:	P1395_6907_PCB_008	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	σλ	Time Analyzed:	00:05:30

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	17.1	PCB-19	28.3	PCB-54	2.66	PCB-72	16.5	PCB-104	0.619	PCB-108/119/86…	1750
PCB-2	1.86	PCB-30/18	458	PCB-50/53	174	PCB-68	7.85	PCB-96	15.2	PCB-117	(7.24)
PCB-3	7.54	PCB-17	336	PCB-45	139	PCB-57	6.94	PCB-103	69.3	PCB-116/85	380
		PCB-27	54.5	PCB-51	68.4	PCB-58	(0.541)	PCB-94	8.88	PCB-110	2350
Conc.	26.5	PCB-24	[5.27]	PCB-46	62	PCB-67	29.9	PCB-95	2160	PCB-115	(5.77)
EMPC	26.5	PCB-16	165	PCB-52	1580	PCB-63	54.2	PCB-100/93	75.1	PCB-82	353
		PCB-32	235	PCB-73	(0.0674)	PCB-61/70/74/76	1840	PCB-102	60	PCB-111	(4.3)
Di	**Conc.**	PCB-34	5.55	PCB-43	44	PCB-66	844	PCB-98	(6.69)	PCB-120	15.7
PCB-4	37.1	PCB-23	0.953	PCB-69/49	932	PCB-55	36.7	PCB-88	(6.83)	PCB-107/124	92.7
PCB-10	3.4	PCB-26/29	223	PCB-48	199	PCB-56	428	PCB-91	359	PCB-109	184
PCB-9	10.8	PCB-25	92.5	PCB-44/47/65	1130	PCB-60	286	PCB-84	503	PCB-123	41.1
PCB-7	12.2	PCB-31	1230	PCB-59/62/75	112	PCB-80	(0.47)	PCB-89	23.5	PCB-106	(5.37)
PCB-6	37.5	PCB-28/20	1290	PCB-42	307	PCB-79	16.8	PCB-121	(4.73)	PCB-118	1750
PCB-5	1.74	PCB-21/33	525	PCB-41	111	PCB-78	(0.623)	PCB-92	634	PCB-122	34.1
PCB-8	163	PCB-22	342	PCB-71/40	416	PCB-81	6.43	PCB-113/90/101	3180	PCB-114	50.9
PCB-14	(0.0721)	PCB-36	1.28	PCB-64	418	PCB-77	99.8	PCB-83	(10.1)	PCB-105	731
PCB-11	21.2	PCB-39	5.81					PCB-99	1160	PCB-127	(5.67)
PCB-13/12	31.3	PCB-38	1.97					PCB-112	(5.95)	PCB-126	6.1
PCB-15	126	PCB-35	19.5								
		PCB-37	302								
Conc.	444	**Conc.**	5320			**Conc.**	9360			**Conc.**	16000
EMPC	444	**EMPC**	5320			**EMPC**	9360			**EMPC**	16000

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Totals	Conc.	EMPC
Mono-Tri	5790	5790
Tetra-Hexa	49400	49400
Hepta-Deca	17400	17400
Mono-Deca	72600	72600

Sample ID: EW-B06-BC-01-COMP01

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.15 g	Sample ID:	P1395_6907_PCB_008	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	σλ	Time Analyzed:	00:05:30

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	1.38	PCB-165	4.56	PCB-188	2.83	PCB-174	1530	PCB-202	142	PCB-208	51.6
PCB-152	2.21	PCB-146	739	PCB-179	736	PCB-177	1150	PCB-201	121	PCB-207	26.7
PCB-150	20	PCB-161	(0.0722)	PCB-184	1.3	PCB-181	11.2	PCB-204	(0.0734)	PCB-206	185
PCB-136	933	PCB-153/168	4840	PCB-176	233	PCB-171/173	665	PCB-197	30.8		
PCB-145	[1.36]	PCB-141	985	PCB-186	(0.0686)	PCB-172	270	PCB-200	102	**Conc.**	263
PCB-148	10.3	PCB-130	494	PCB-178	359	PCB-192	(0.583)	PCB-198/199	615	**EMPC**	263
PCB-151/135	1960	PCB-137	109	PCB-175	81.8	PCB-180/193	3390	PCB-196	301		
PCB-154	153	PCB-164	381	PCB-187	1890	PCB-191	81.7	PCB-203	265	**Deca**	**Conc.**
PCB-144	240	PCB-163/138/129	5370	PCB-182	12.5	PCB-170	2450	PCB-195	301	PCB-209	62.7
PCB-147/149	3870	PCB-160	(0.0521)	PCB-183	1210	PCB-190	273	PCB-194	559		
PCB-134	271	PCB-158	398	PCB-185	173	PCB-189	62.2	PCB-205	41.3		
PCB-143	(0.0713)	PCB-128/166	569								
PCB-139/140	74.2	PCB-159	71.1								
PCB-131	44.6	PCB-162	10.7								
PCB-142	(0.0874)	PCB-167	170								
PCB-132	1750	PCB-156/157	459								
PCB-133	104	PCB-169	(0.536)								
		Conc.	24000			**Conc.**	14600	**Conc.**	2480		
		EMPC	24100			**EMPC**	14600	**EMPC**	2480		

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Totals	Conc.	EMPC
Mono-Tri	5790	5790
Tetra-Hexa	49400	49400
Hepta-Deca	17400	17400
Mono-Deca	72600	72600

Sample ID: EW-B08-CN-02-COMP01 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.03 g	Sample ID:	P1395_6907_PCB_009	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	κν	Time Analyzed:	01:00:03

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	1.62	PCB-19	17.9	PCB-54	1.9	PCB-72	8.24	PCB-104	0.608	PCB-108/119/86…	618
PCB-2	0.235	PCB-30/18	166	PCB-50/53	102	PCB-68	3.36	PCB-96	9.55	PCB-117	(3.9)
PCB-3	0.823	PCB-17	92.2	PCB-45	54.6	PCB-57	3.07	PCB-103	55.7	PCB-116/85	168
		PCB-27	36.3	PCB-51	34.1	PCB-58	(0.332)	PCB-94	3.03	PCB-110	1230
Conc.	2.68	PCB-24	2.05	PCB-46	19.7	PCB-67	16.5	PCB-95	1220	PCB-115	(3.11)
EMPC	2.68	PCB-16	29	PCB-52	814	PCB-63	14	PCB-100/93	68.9	PCB-82	94.9
		PCB-32	74.6	PCB-73	(0.113)	PCB-61/70/74/76	637	PCB-102	46.7	PCB-111	2.01
Di	**Conc.**	PCB-34	2.15	PCB-43	13.5	PCB-66	389	PCB-98	(3.61)	PCB-120	9.58
PCB-4	24.7	PCB-23	0.2	PCB-69/49	390	PCB-55	9.45	PCB-88	(3.68)	PCB-107/124	37.9
PCB-10	1.23	PCB-26/29	133	PCB-48	80.7	PCB-56	164	PCB-91	249	PCB-109	73.4
PCB-9	2.97	PCB-25	65.6	PCB-44/47/65	462	PCB-60	104	PCB-84	239	PCB-123	15.4
PCB-7	2.4	PCB-31	298	PCB-59/62/75	53.9	PCB-80	(0.288)	PCB-89	10.1	PCB-106	(2.9)
PCB-6	33.1	PCB-28/20	388	PCB-42	113	PCB-79	9.34	PCB-121	1.6	PCB-118	828
PCB-5	(0.0893)	PCB-21/33	109	PCB-41	25.9	PCB-78	(0.382)	PCB-92	274	PCB-122	16
PCB-8	56	PCB-22	69.7	PCB-71/40	175	PCB-81	1.84	PCB-113/90/101	1880	PCB-114	16.9
PCB-14	(0.0881)	PCB-36	0.565	PCB-64	155	PCB-77	41.5	PCB-83	(5.42)	PCB-105	328
PCB-11	11.3	PCB-39	2.29					PCB-99	740	PCB-127	1.46
PCB-13/12	12.4	PCB-38	0.906					PCB-112	(3.21)	PCB-126	1.49
PCB-15	34.5	PCB-35	5.7								
		PCB-37	81.6								
Conc.	179	**Conc.**	1570			**Conc.**	3900			**Conc.**	8230
EMPC	179	**EMPC**	1570			**EMPC**	3900			**EMPC**	8230

Totals	Conc.	EMPC
Mono-Tri	1760	1760
Tetra-Hexa	22700	22700
Hepta-Deca	5790	5790
Mono-Deca	30200	30200

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Sample ID: EW-B08-CN-02-COMP01

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.03 g	Sample ID:	P1395_6907_PCB_009	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	κν	Time Analyzed:	01:00:03

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	1.58	PCB-165	2.71	PCB-188	3	PCB-174	632	PCB-202	59.7	PCB-208	16
PCB-152	1.22	PCB-146	301	PCB-179	328	PCB-177	415	PCB-201	51	PCB-207	7.54
PCB-150	19.6	PCB-161	(0.091)	PCB-184	0.703	PCB-181	4.09	PCB-204	(0.0714)	PCB-206	47.3
PCB-136	460	PCB-153/168	2110	PCB-176	102	PCB-171/173	240	PCB-197	11.7		
PCB-145	0.718	PCB-141	410	PCB-186	(0.0805)	PCB-172	91.7	PCB-200	35.8	**Conc.**	70.8
PCB-148	5.85	PCB-130	128	PCB-178	149	PCB-192	(0.372)	PCB-198/199	216	**EMPC**	70.8
PCB-151/135	872	PCB-137	36.6	PCB-175	39.4	PCB-180/193	1010	PCB-196	106		
PCB-154	115	PCB-164	192	PCB-187	684	PCB-191	34.4	PCB-203	82.6	**Deca**	**Conc.**
PCB-144	117	PCB-163/138/129	1950	PCB-182	4.87	PCB-170	576	PCB-195	69.3	PCB-209	9.9
PCB-147/149	2200	PCB-160	(0.0656)	PCB-183	408	PCB-190	112	PCB-194	157		
PCB-134	160	PCB-158	203	PCB-185	46.6	PCB-189	22.2	PCB-205	14.2		
PCB-143	(0.0898)	PCB-128/166	226								
PCB-139/140	36.1	PCB-159	30.3								
PCB-131	26.7	PCB-162	4.04								
PCB-142	(0.11)	PCB-167	73.1								
PCB-132	656	PCB-156/157	169								
PCB-133	35.8	PCB-169	(0.347)								
		Conc.	10500			**Conc.**	4910	**Conc.**	803		
		EMPC	10500			**EMPC**	4910	**EMPC**	803		

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Totals	Conc.	EMPC
Mono-Tri	1760	1760
Tetra-Hexa	22700	22700
Hepta-Deca	5790	5790
Mono-Deca	30200	30200

Sample ID: EW-B10-BC-01-COMP01 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.06 g	Sample ID:	P1395_6907_PCB_010	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	βδ	Time Analyzed:	01:54:29

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	0.936	PCB-19	16.1	PCB-54	1.21	PCB-72	9.56	PCB-104	0.286	PCB-108/119/86…	717
PCB-2	0.284	PCB-30/18	140	PCB-50/53	87.9	PCB-68	5.15	PCB-96	7.19	PCB-117	(2.58)
PCB-3	0.807	PCB-17	121	PCB-45	56.1	PCB-57	2.73	PCB-103	28.6	PCB-116/85	157
		PCB-27	37.3	PCB-51	37.7	PCB-58	(0.229)	PCB-94	4.01	PCB-110	889
Conc.	2.03	PCB-24	1.35	PCB-46	29.2	PCB-67	12	PCB-95	764	PCB-115	(2.06)
EMPC	2.03	PCB-16	28	PCB-52	645	PCB-63	20	PCB-100/93	33.7	PCB-82	179
		PCB-32	76.1	PCB-73	4.5	PCB-61/70/74/76	616	PCB-102	28.3	PCB-111	(1.53)
Di	**Conc.**	PCB-34	2.74	PCB-43	14.5	PCB-66	316	PCB-98	(2.38)	PCB-120	6.27
PCB-4	15.9	PCB-23	(0.103)	PCB-69/49	451	PCB-55	13.6	PCB-88	(2.43)	PCB-107/124	36.3
PCB-10	0.867	PCB-26/29	137	PCB-48	74.8	PCB-56	146	PCB-91	146	PCB-109	75.4
PCB-9	1.34	PCB-25	76.1	PCB-44/47/65	465	PCB-60	86.7	PCB-84	195	PCB-123	18.7
PCB-7	1.34	PCB-31	373	PCB-59/62/75	50.2	PCB-80	(0.2)	PCB-89	10.1	PCB-106	(1.91)
PCB-6	26.4	PCB-28/20	383	PCB-42	126	PCB-79	5.83	PCB-121	(1.69)	PCB-118	614
PCB-5	(0.0703)	PCB-21/33	87.7	PCB-41	32.3	PCB-78	(0.264)	PCB-92	243	PCB-122	14.5
PCB-8	36.3	PCB-22	67	PCB-71/40	185	PCB-81	2.21	PCB-113/90/101	1120	PCB-114	17.6
PCB-14	(0.0694)	PCB-36	0.732	PCB-64	155	PCB-77	33.4	PCB-83	(3.58)	PCB-105	279
PCB-11	15.9	PCB-39	2.53					PCB-99	473	PCB-127	(1.94)
PCB-13/12	12	PCB-38	0.674					PCB-112	(2.12)	PCB-126	2.16
PCB-15	26.3	PCB-35	5.87								
		PCB-37	68.7								
Conc.	136	**Conc.**	1620			**Conc.**	3680			**Conc.**	6060
EMPC	136	**EMPC**	1620			**EMPC**	3680			**EMPC**	6060

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Totals	Conc.	EMPC
Mono-Tri	1760	1760
Tetra-Hexa	19300	19300
Hepta-Deca	6980	7010
Mono-Deca	28000	28100

Sample ID: EW-B10-BC-01-COMP01

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.06 g	Sample ID:	P1395_6907_PCB_010	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	2-Jul-09
		Units	pg/g	Checkcode:	βδ	Time Analyzed:	01:54:29

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	0.536	PCB-165	(0.104)	PCB-188	1.35	PCB-174	577	PCB-202	57.9	PCB-208	22.3
PCB-152	0.907	PCB-146	283	PCB-179	247	PCB-177	481	PCB-201	45.8	PCB-207	12.1
PCB-150	8.09	PCB-161	(0.081)	PCB-184	(0.0564)	PCB-181	4.41	PCB-204	(0.0667)	PCB-206	82.7
PCB-136	316	PCB-153/168	1780	PCB-176	81.9	PCB-171/173	272	PCB-197	11.9		
PCB-145	(0.0816)	PCB-141	343	PCB-186	(0.0562)	PCB-172	97.3	PCB-200	34.6	**Conc.**	117
PCB-148	4.88	PCB-130	296	PCB-178	129	PCB-192	(0.327)	PCB-198/199	254	**EMPC**	117
PCB-151/135	709	PCB-137	[39.1]	PCB-175	31.3	PCB-180/193	1200	PCB-196	147		
PCB-154	69.9	PCB-164	157	PCB-187	716	PCB-191	30.9	PCB-203	123	**Deca**	**Conc.**
PCB-144	88.6	PCB-163/138/129	2350	PCB-182	5.81	PCB-170	1350	PCB-195	131	PCB-209	25.6
PCB-147/149	1480	PCB-160	(0.0584)	PCB-183	473	PCB-190	91.6	PCB-194	205		
PCB-134	107	PCB-158	144	PCB-185	[37.7]	PCB-189	22.4	PCB-205	15.1		
PCB-143	(0.0799)	PCB-128/166	243								
PCB-139/140	32.6	PCB-159	26.8								
PCB-131	17.8	PCB-162	4.62								
PCB-142	(0.098)	PCB-167	62.2								
PCB-132	774	PCB-156/157	187								
PCB-133	41.1	PCB-169	(0.377)								
		Conc.	9530			**Conc.**	5810	**Conc.**	1020		
		EMPC	9560			**EMPC**	5850	**EMPC**	1020		

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Totals	Conc.	EMPC
Mono-Tri	1760	1760
Tetra-Hexa	19300	19300
Hepta-Deca	6980	7010
Mono-Deca	28000	28100

Sample ID: EW-S01-GD02

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.12 g	Sample ID:	P1395_6907_PCB_003	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	νφ	Time Analyzed:	16:38:42

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	0.201	PCB-19	1.01	PCB-54	0.403	PCB-72	2.23	PCB-104	0.235	PCB-108/119/86…	184
PCB-2	(0.0697)	PCB-30/18	7.52	PCB-50/53	12.6	PCB-68	0.973	PCB-96	2.72	PCB-117	(1.76)
PCB-3	(0.077)	PCB-17	4.17	PCB-45	6.6	PCB-57	0.537	PCB-103	33	PCB-116/85	43.6
		PCB-27	1.94	PCB-51	3.71	PCB-58	(0.217)	PCB-94	(1.55)	PCB-110	435
Conc.	0.201	PCB-24	(0.0756)	PCB-46	2.51	PCB-67	2.34	PCB-95	533	PCB-115	(1.32)
EMPC	0.201	PCB-16	2.83	PCB-52	134	PCB-63	2.77	PCB-100/93	20.9	PCB-82	20.7
		PCB-32	5.05	PCB-73	1.21	PCB-61/70/74/76	99.7	PCB-102	11.4	PCB-111	0.803
Di	**Conc.**	PCB-34	0.169	PCB-43	2.07	PCB-66	48.1	PCB-98	(1.69)	PCB-120	5.34
PCB-4	0.852	PCB-23	(0.0959)	PCB-69/49	64.7	PCB-55	(0.223)	PCB-88	(1.62)	PCB-107/124	8
PCB-10	(0.08)	PCB-26/29	5.29	PCB-48	6.65	PCB-56	19	PCB-91	134	PCB-109	18.8
PCB-9	(0.0728)	PCB-25	1.79	PCB-44/47/65	57.2	PCB-60	15	PCB-84	74.6	PCB-123	9.87
PCB-7	(0.0833)	PCB-31	16.2	PCB-59/62/75	9.3	PCB-80	(0.167)	PCB-89	2.56	PCB-106	(1.18)
PCB-6	0.392	PCB-28/20	18.6	PCB-42	12.6	PCB-79	2.07	PCB-121	(1.08)	PCB-118	259
PCB-5	(0.0915)	PCB-21/33	6.55	PCB-41	2.57	PCB-78	(0.219)	PCB-92	87	PCB-122	3.44
PCB-8	2.03	PCB-22	4.52	PCB-71/40	22	PCB-81	0.651	PCB-113/90/101	733	PCB-114	19.5
PCB-14	(0.091)	PCB-36	[0.247]	PCB-64	25.9	PCB-77	6.86	PCB-83	(2.2)	PCB-105	73.8
PCB-11	6.58	PCB-39	0.242					PCB-99	228	PCB-127	(1.28)
PCB-13/12	(0.0925)	PCB-38	(0.114)					PCB-112	(1.32)	PCB-126	0.627
PCB-15	2.08	PCB-35	0.56								
		PCB-37	5.73								
Conc.	11.9	**Conc.**	82.3			**Conc.**	564			**Conc.**	2940
EMPC	11.9	**EMPC**	82.5			**EMPC**	564			**EMPC**	2940

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Totals	Conc.	EMPC
Mono-Tri	94.4	94.6
Tetra-Hexa	9850	9880
Hepta-Deca	3540	3540
Mono-Deca	13500	13500

Sample ID: EW-S01-GD02 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.12 g	Sample ID:	P1395_6907_PCB_003	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	νφ	Time Analyzed:	16:38:42

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	0.593	PCB-165	1.73	PCB-188	1.3	PCB-174	389	PCB-202	72.9	PCB-208	22.8
PCB-152	0.521	PCB-146	174	PCB-179	200	PCB-177	296	PCB-201	40.6	PCB-207	9.47
PCB-150	11.2	PCB-161	(0.117)	PCB-184	0.794	PCB-181	6.3	PCB-204	(0.0965)	PCB-206	22.3
PCB-136	285	PCB-153/168	1530	PCB-176	85.9	PCB-171/173	189	PCB-197	15.5		
PCB-145	[0.37]	PCB-141	156	PCB-186	(0.0878)	PCB-172	6.74	PCB-200	43.1	**Conc.**	54.5
PCB-148	3.63	PCB-130	64.4	PCB-178	112	PCB-192	(0.231)	PCB-198/199	105	**EMPC**	54.5
PCB-151/135	472	PCB-137	[25.9]	PCB-175	28.5	PCB-180/193	320	PCB-196	56.4		
PCB-154	72.4	PCB-164	118	PCB-187	589	PCB-191	21.9	PCB-203	111	**Deca**	**Conc.**
PCB-144	92	PCB-163/138/129	1030	PCB-182	4.2	PCB-170	60.7	PCB-195	90.4	PCB-209	21.3
PCB-147/149	1500	PCB-160	(0.102)	PCB-183	491	PCB-190	112	PCB-194	3.3		
PCB-134	71.2	PCB-158	135	PCB-185	(0.258)	PCB-189	0.917	PCB-205	12		
PCB-143	(0.127)	PCB-128/166	133								
PCB-139/140	29.4	PCB-159	18.9								
PCB-131	11.6	PCB-162	0.662								
PCB-142	(0.14)	PCB-167	31.1								
PCB-132	362	PCB-156/157	26.4								
PCB-133	21.1	PCB-169	(0.245)								
		Conc.	6350			**Conc.**	2910	**Conc.**	551		
		EMPC	6370			**EMPC**	2910	**EMPC**	551		

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Totals	Conc.	EMPC
Mono-Tri	94.4	94.6
Tetra-Hexa	9850	9880
Hepta-Deca	3540	3540
Mono-Deca	13500	13500

Sample ID: EW-S01-GD04 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.13 g	Sample ID:	P1395_6907_PCB_004	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	δθ	Time Analyzed:	17:33:17

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	0.199	PCB-19	1.07	PCB-54	0.406	PCB-72	3.78	PCB-104	0.2	PCB-108/119/86…	274
PCB-2	0.138	PCB-30/18	8.09	PCB-50/53	13	PCB-68	2.85	PCB-96	3.93	PCB-117	(2.73)
PCB-3	0.164	PCB-17	5.25	PCB-45	8.25	PCB-57	0.882	PCB-103	42.7	PCB-116/85	72.5
		PCB-27	1.82	PCB-51	7.46	PCB-58	(0.415)	PCB-94	1.87	PCB-110	570
Conc.	0.5	PCB-24	(0.0732)	PCB-46	3.03	PCB-67	3.83	PCB-95	769	PCB-115	(2.04)
EMPC	0.5	PCB-16	2.71	PCB-52	203	PCB-63	5.11	PCB-100/93	25.3	PCB-82	33.2
		PCB-32	5.75	PCB-73	1.17	PCB-61/70/74/76	175	PCB-102	15.6	PCB-111	(1.61)
Di	**Conc.**	PCB-34	0.238	PCB-43	3	PCB-66	75.7	PCB-98	(2.62)	PCB-120	9.49
PCB-4	0.811	PCB-23	(0.104)	PCB-69/49	78.9	PCB-55	1.75	PCB-88	(2.51)	PCB-107/124	20.2
PCB-10	(0.0657)	PCB-26/29	7.28	PCB-48	10.3	PCB-56	27.5	PCB-91	126	PCB-109	47.2
PCB-9	(0.0645)	PCB-25	2.36	PCB-44/47/65	86.5	PCB-60	20.7	PCB-84	110	PCB-123	13.8
PCB-7	0.874	PCB-31	23.1	PCB-59/62/75	12.8	PCB-80	(0.32)	PCB-89	3.73	PCB-106	(1.82)
PCB-6	0.429	PCB-28/20	25	PCB-42	18.4	PCB-79	3.55	PCB-121	(1.67)	PCB-118	480
PCB-5	(0.0811)	PCB-21/33	7.56	PCB-41	2.77	PCB-78	(0.418)	PCB-92	174	PCB-122	8.84
PCB-8	1.88	PCB-22	5.12	PCB-71/40	29.7	PCB-81	1.01	PCB-113/90/101	1270	PCB-114	19.7
PCB-14	(0.0807)	PCB-36	0.664	PCB-64	33.2	PCB-77	13.8	PCB-83	(3.4)	PCB-105	146
PCB-11	7.25	PCB-39	0.398					PCB-99	334	PCB-127	(1.89)
PCB-13/12	0.331	PCB-38	0.192					PCB-112	(2.03)	PCB-126	1.49
PCB-15	2.11	PCB-35	0.839								
		PCB-37	8.54								
Conc.	13.7	**Conc.**	106			**Conc.**	847			**Conc.**	4580
EMPC	13.7	**EMPC**	106			**EMPC**	847			**EMPC**	4580

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Totals	Conc.	EMPC
Mono-Tri	120	120
Tetra-Hexa	17100	17100
Hepta-Deca	8710	8710
Mono-Deca	25900	25900

Sample ID: EW-S01-GD04 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.13 g	Sample ID:	P1395_6907_PCB_004	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	δθ	Time Analyzed:	17:33:17

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	0.791	PCB-165	3.22	PCB-188	2.62	PCB-174	924	PCB-202	143	PCB-208	70.5
PCB-152	1.14	PCB-146	398	PCB-179	387	PCB-177	540	PCB-201	93.6	PCB-207	26.4
PCB-150	16.3	PCB-161	(0.0996)	PCB-184	1.38	PCB-181	8.44	PCB-204	0.366	PCB-206	109
PCB-136	418	PCB-153/168	2950	PCB-176	166	PCB-171/173	321	PCB-197	32.9		
PCB-145	0.589	PCB-141	429	PCB-186	(0.0676)	PCB-172	64.7	PCB-200	103	**Conc.**	206
PCB-148	7.69	PCB-130	144	PCB-178	235	PCB-192	(0.606)	PCB-198/199	475	**EMPC**	206
PCB-151/135	906	PCB-137	45.9	PCB-175	69.5	PCB-180/193	1280	PCB-196	254		
PCB-154	96.3	PCB-164	228	PCB-187	1160	PCB-191	50.5	PCB-203	286	**Deca**	**Conc.**
PCB-144	170	PCB-163/138/129	1960	PCB-182	8.58	PCB-170	408	PCB-195	198	PCB-209	88.5
PCB-147/149	2300	PCB-160	(0.0868)	PCB-183	845	PCB-190	197	PCB-194	55.4		
PCB-134	130	PCB-158	262	PCB-185	75.9	PCB-189	8.45	PCB-205	24.6		
PCB-143	(0.109)	PCB-128/166	221								
PCB-139/140	43.7	PCB-159	46.4								
PCB-131	21.7	PCB-162	3.26								
PCB-142	(0.119)	PCB-167	85.4								
PCB-132	583	PCB-156/157	122								
PCB-133	47.2	PCB-169	(0.433)								
		Conc.	11600			**Conc.**	6750	**Conc.**	1670		
		EMPC	11600			**EMPC**	6750	**EMPC**	1670		

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Totals	Conc.	EMPC
Mono-Tri	120	120
Tetra-Hexa	17100	17100
Hepta-Deca	8710	8710
Mono-Deca	25900	25900

Sample ID: EW-S01-GD10 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.09 g	Sample ID:	P1395_6907_PCB_005	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	κμ	Time Analyzed:	18:27:52

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	0.2	PCB-19	1.06	PCB-54	0.427	PCB-72	3.83	PCB-104	[0.18]	PCB-108/119/86…	225
PCB-2	[0.101]	PCB-30/18	8.24	PCB-50/53	12.6	PCB-68	1.66	PCB-96	3.94	PCB-117	23.1
PCB-3	0.135	PCB-17	5.14	PCB-45	7.34	PCB-57	0.774	PCB-103	43.9	PCB-116/85	43.8
		PCB-27	1.92	PCB-51	4.97	PCB-58	(0.281)	PCB-94	1.65	PCB-110	502
Conc.	0.335	PCB-24	0.177	PCB-46	2.91	PCB-67	3.46	PCB-95	777	PCB-115	(1.43)
EMPC	0.435	PCB-16	2.95	PCB-52	197	PCB-63	4.32	PCB-100/93	24.2	PCB-82	25.8
		PCB-32	5.61	PCB-73	(0.0791)	PCB-61/70/74/76	144	PCB-102	11.6	PCB-111	1.18
Di	**Conc.**	PCB-34	0.224	PCB-43	(0.0967)	PCB-66	63.4	PCB-98	2.54	PCB-120	8.65
PCB-4	0.843	PCB-23	(0.0729)	PCB-69/49	72.6	PCB-55	1.54	PCB-88	(1.76)	PCB-107/124	13.5
PCB-10	(0.0551)	PCB-26/29	6.86	PCB-48	9.04	PCB-56	23.4	PCB-91	130	PCB-109	31.6
PCB-9	0.114	PCB-25	2.11	PCB-44/47/65	72.1	PCB-60	17.9	PCB-84	100	PCB-123	13.6
PCB-7	0.121	PCB-31	20.8	PCB-59/62/75	12.2	PCB-80	(0.217)	PCB-89	3.15	PCB-106	(1.28)
PCB-6	0.441	PCB-28/20	23.2	PCB-42	16.6	PCB-79	3.14	PCB-121	1.19	PCB-118	379
PCB-5	(0.0747)	PCB-21/33	7	PCB-41	3.75	PCB-78	(0.283)	PCB-92	146	PCB-122	6.17
PCB-8	1.98	PCB-22	4.84	PCB-71/40	25.6	PCB-81	0.817	PCB-113/90/101	1140	PCB-114	19.9
PCB-14	(0.0743)	PCB-36	0.324	PCB-64	31.1	PCB-77	11.7	PCB-83	(2.38)	PCB-105	104
PCB-11	7.28	PCB-39	0.304					PCB-99	287	PCB-127	(1.41)
PCB-13/12	(0.0756)	PCB-38	0.177					PCB-112	(1.43)	PCB-126	1.03
PCB-15	2.84	PCB-35	0.74								
		PCB-37	7.83								
Conc.	13.6	**Conc.**	99.5			**Conc.**	748			**Conc.**	4080
EMPC	13.6	**EMPC**	99.5			**EMPC**	748			**EMPC**	4080

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Totals	Conc.	EMPC
Mono-Tri	113	114
Tetra-Hexa	15800	15800
Hepta-Deca	8700	8700
Mono-Deca	24600	24600

Sample ID: EW-S01-GD10 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.09 g	Sample ID:	P1395_6907_PCB_005	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	κμ	Time Analyzed:	18:27:52

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	0.746	PCB-165	2.94	PCB-188	2.65	PCB-174	912	PCB-202	157	PCB-208	71.4
PCB-152	0.997	PCB-146	336	PCB-179	395	PCB-177	625	PCB-201	95	PCB-207	28.6
PCB-150	18	PCB-161	(0.0867)	PCB-184	1.46	PCB-181	10.5	PCB-204	0.387	PCB-206	115
PCB-136	465	PCB-153/168	2760	PCB-176	173	PCB-171/173	350	PCB-197	37.8		
PCB-145	(0.0874)	PCB-141	377	PCB-186	(0.0477)	PCB-172	45.7	PCB-200	103	**Conc.**	215
PCB-148	6.79	PCB-130	122	PCB-178	220	PCB-192	(0.428)	PCB-198/199	387	**EMPC**	215
PCB-151/135	894	PCB-137	45.4	PCB-175	61.1	PCB-180/193	1030	PCB-196	236		
PCB-154	99.8	PCB-164	222	PCB-187	1170	PCB-191	57.7	PCB-203	407	**Deca**	**Conc.**
PCB-144	169	PCB-163/138/129	1730	PCB-182	8.17	PCB-170	272	PCB-195	240	PCB-209	90.8
PCB-147/149	2230	PCB-160	(0.0756)	PCB-183	984	PCB-190	215	PCB-194	51.8		
PCB-134	136	PCB-158	277	PCB-185	105	PCB-189	7.32	PCB-205	32.6		
PCB-143	(0.0946)	PCB-128/166	192								
PCB-139/140	45.1	PCB-159	41.1								
PCB-131	20.3	PCB-162	[1.78]								
PCB-142	(0.104)	PCB-167	63.9								
PCB-132	573	PCB-156/157	83.1								
PCB-133	42.5	PCB-169	(0.394)								
		Conc.	11000			**Conc.**	6650	**Conc.**	1750		
		EMPC	11000			**EMPC**	6650	**EMPC**	1750		

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Totals	Conc.	EMPC
Mono-Tri	113	114
Tetra-Hexa	15800	15800
Hepta-Deca	8700	8700
Mono-Deca	24600	24600

Sample ID: EW-S01-GD-GBCOMP1

Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.17 g	Sample ID:	P1395_6907_PCB_006	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	νδ	Time Analyzed:	19:22:21

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[0.384]	PCB-19	2.5	PCB-54	0.845	PCB-72	7.45	PCB-104	[0.422]	PCB-108/119/86…	714
PCB-2	0.18	PCB-30/18	20.3	PCB-50/53	28.3	PCB-68	3.47	PCB-96	8.53	PCB-117	(5.44)
PCB-3	0.327	PCB-17	12.9	PCB-45	16.7	PCB-57	1.82	PCB-103	93	PCB-116/85	177
		PCB-27	3.92	PCB-51	11.8	PCB-58	(0.49)	PCB-94	(4.78)	PCB-110	1400
Conc.	0.506	PCB-24	[0.256]	PCB-46	6.83	PCB-67	8.47	PCB-95	1610	PCB-115	(4.06)
EMPC	0.891	PCB-16	6.4	PCB-52	375	PCB-63	9.15	PCB-100/93	61.5	PCB-82	89.7
		PCB-32	13.3	PCB-73	2.3	PCB-61/70/74/76	392	PCB-102	41.9	PCB-111	(3.22)
Di	**Conc.**	PCB-34	0.471	PCB-43	5.6	PCB-66	180	PCB-98	(5.23)	PCB-120	20.2
PCB-4	1.93	PCB-23	(0.0906)	PCB-69/49	187	PCB-55	3.77	PCB-88	(5)	PCB-107/124	40.7
PCB-10	0.148	PCB-26/29	16	PCB-48	25.4	PCB-56	70.2	PCB-91	327	PCB-109	97.2
PCB-9	0.282	PCB-25	5.8	PCB-44/47/65	180	PCB-60	40.2	PCB-84	244	PCB-123	21.5
PCB-7	0.475	PCB-31	51.4	PCB-59/62/75	24.8	PCB-80	(0.377)	PCB-89	10.1	PCB-106	(3.64)
PCB-6	1.14	PCB-28/20	60.3	PCB-42	44.3	PCB-79	7.96	PCB-121	(3.32)	PCB-118	1090
PCB-5	(0.084)	PCB-21/33	19.9	PCB-41	9.63	PCB-78	(0.493)	PCB-92	353	PCB-122	15.2
PCB-8	5.33	PCB-22	12.6	PCB-71/40	69.7	PCB-81	1.35	PCB-113/90/101	2670	PCB-114	17.6
PCB-14	(0.0836)	PCB-36	1.08	PCB-64	66.5	PCB-77	27.3	PCB-83	(6.78)	PCB-105	333
PCB-11	13.2	PCB-39	0.823					PCB-99	845	PCB-127	(3.83)
PCB-13/12	0.883	PCB-38	[0.325]					PCB-112	(4.06)	PCB-126	3.06
PCB-15	5.38	PCB-35	1.74								
		PCB-37	18.7								
Conc.	28.8	**Conc.**	248			**Conc.**	1810			**Conc.**	10300
EMPC	28.8	**EMPC**	249			**EMPC**	1810			**EMPC**	10300

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Totals	Conc.	EMPC
Mono-Tri	277	278
Tetra-Hexa	36300	36300
Hepta-Deca	16400	16400
Mono-Deca	52900	52900

Sample ID: EW-S01-GD-GBCOMP1 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.17 g	Sample ID:	P1395_6907_PCB_006	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	νδ	Time Analyzed:	19:22:21

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	2.06	PCB-165	5.9	PCB-188	5.3	PCB-174	1560	PCB-202	296	PCB-208	126
PCB-152	2.16	PCB-146	754	PCB-179	829	PCB-177	1170	PCB-201	193	PCB-207	47.2
PCB-150	37	PCB-161	(0.0787)	PCB-184	3.11	PCB-181	15.8	PCB-204	[0.722]	PCB-206	149
PCB-136	884	PCB-153/168	5910	PCB-176	368	PCB-171/173	742	PCB-197	69.3		
PCB-145	(0.0876)	PCB-141	662	PCB-186	(0.0775)	PCB-172	81.4	PCB-200	203	**Conc.**	323
PCB-148	14.1	PCB-130	284	PCB-178	490	PCB-192	(0.834)	PCB-198/199	704	**EMPC**	323
PCB-151/135	1770	PCB-137	56.2	PCB-175	144	PCB-180/193	2020	PCB-196	408		
PCB-154	248	PCB-164	440	PCB-187	2430	PCB-191	88.6	PCB-203	629	**Deca**	**Conc.**
PCB-144	335	PCB-163/138/129	4580	PCB-182	14.7	PCB-170	568	PCB-195	369	PCB-209	159
PCB-147/149	4950	PCB-160	(0.0686)	PCB-183	1750	PCB-190	399	PCB-194	77.9		
PCB-134	254	PCB-158	510	PCB-185	188	PCB-189	13.2	PCB-205	45.9		
PCB-143	(0.0858)	PCB-128/166	518								
PCB-139/140	92.9	PCB-159	71.9								
PCB-131	42.7	PCB-162	4.65								
PCB-142	(0.0944)	PCB-167	149								
PCB-132	1340	PCB-156/157	186								
PCB-133	90.3	PCB-169	(0.462)								
		Conc.	24200			**Conc.**	12900	**Conc.**	3000		
		EMPC	24200			**EMPC**	12900	**EMPC**	3000		

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Totals	Conc.	EMPC
Mono-Tri	277	278
Tetra-Hexa	36300	36300
Hepta-Deca	16400	16400
Mono-Deca	52900	52900

Sample ID: EW-S01-GD-GBCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.12 g	Sample ID:	P1395_6907_PCB_007	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	oχ	Time Analyzed:	23:10:58

Mono	Conc.	Tri	Conc.	Tetra	Conc.	Tetra	Conc.	Penta	Conc.	Penta	Conc.
PCB-1	[0.438]	PCB-19	3.97	PCB-54	1.36	PCB-72	9.25	PCB-104	0.711	PCB-108/119/86…	1100
PCB-2	0.232	PCB-30/18	32.6	PCB-50/53	54.5	PCB-68	4.42	PCB-96	12.6	PCB-117	(7.38)
PCB-3	0.364	PCB-17	20.3	PCB-45	29.5	PCB-57	2.07	PCB-103	127	PCB-116/85	278
		PCB-27	6.5	PCB-51	23.1	PCB-58	(0.578)	PCB-94	6.3	PCB-110	2070
Conc.	0.596	PCB-24	0.45	PCB-46	12.6	PCB-67	8.77	PCB-95	2290	PCB-115	(5.88)
EMPC	1.03	PCB-16	9.42	PCB-52	677	PCB-63	11.4	PCB-100/93	85.4	PCB-82	130
		PCB-32	21.5	PCB-73	[2.92]	PCB-61/70/74/76	511	PCB-102	65.4	PCB-111	(4.38)
Di	**Conc.**	PCB-34	0.857	PCB-43	9.54	PCB-66	254	PCB-98	(6.82)	PCB-120	23.2
PCB-4	2.87	PCB-23	(0.108)	PCB-69/49	334	PCB-55	5.15	PCB-88	(6.96)	PCB-107/124	55.3
PCB-10	(0.0645)	PCB-26/29	26.6	PCB-48	43.5	PCB-56	108	PCB-91	443	PCB-109	140
PCB-9	0.347	PCB-25	10.3	PCB-44/47/65	314	PCB-60	60.4	PCB-84	338	PCB-123	36.9
PCB-7	0.434	PCB-31	87.7	PCB-59/62/75	41	PCB-80	(0.502)	PCB-89	15.1	PCB-106	(5.47)
PCB-6	1.52	PCB-28/20	114	PCB-42	72.7	PCB-79	14.1	PCB-121	(4.82)	PCB-118	1610
PCB-5	(0.103)	PCB-21/33	35.3	PCB-41	16.2	PCB-78	(0.665)	PCB-92	513	PCB-122	24.6
PCB-8	7.49	PCB-22	22.2	PCB-71/40	115	PCB-81	[2.14]	PCB-113/90/101	3820	PCB-114	27.8
PCB-14	(0.102)	PCB-36	1.82	PCB-64	99.5	PCB-77	41	PCB-83	(10.2)	PCB-105	522
PCB-11	16.2	PCB-39	1.34					PCB-99	1270	PCB-127	(5.4)
PCB-13/12	1.16	PCB-38	0.576					PCB-112	(6.06)	PCB-126	4.44
PCB-15	8.68	PCB-35	2.82								
		PCB-37	28.6								
Conc.	38.7	**Conc.**	427			**Conc.**	2870			**Conc.**	15000
EMPC	38.7	**EMPC**	427			**EMPC**	2880			**EMPC**	15000

ANALYTICAL PERSPECTIVES

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Totals	Conc.	EMPC
Mono-Tri	466	466
Tetra-Hexa	49800	49800
Hepta-Deca	21400	21400
Mono-Deca	71700	71700

Sample ID: EW-S01-GD-GBCOMP2 — Method HR-PCB

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12-Jun-09
Project ID:	Environmental Excellence	Weight/Volume:	10.12 g	Sample ID:	P1395_6907_PCB_007	Date Extracted:	25-Jun-09
Date Collected:	28-May-09	% Lipids	0.0 %	QC Batch No.:	6907	Date Analyzed:	1-Jul-09
		Units	pg/g	Checkcode:	oχ	Time Analyzed:	23:10:58

Hexa	Conc.	Hexa	Conc.	Hepta	Conc.	Hepta	Conc.	Octa	Conc.	Nona	Conc.
PCB-155	2.8	PCB-165	8.62	PCB-188	7.33	PCB-174	2340	PCB-202	407	PCB-208	195
PCB-152	3.04	PCB-146	1090	PCB-179	1190	PCB-177	1660	PCB-201	269	PCB-207	80.9
PCB-150	50.7	PCB-161	(0.0698)	PCB-184	3.87	PCB-181	17.2	PCB-204	(0.154)	PCB-206	198
PCB-136	1280	PCB-153/168	8260	PCB-176	474	PCB-171/173	988	PCB-197	85.7		
PCB-145	1.79	PCB-141	1020	PCB-186	(0.0658)	PCB-172	88.7	PCB-200	252	**Conc.**	474
PCB-148	18.2	PCB-130	394	PCB-178	595	PCB-192	(0.986)	PCB-198/199	755	**EMPC**	474
PCB-151/135	2230	PCB-137	102	PCB-175	90	PCB-180/193	2790	PCB-196	447		
PCB-154	295	PCB-164	560	PCB-187	3050	PCB-191	137	PCB-203	707	**Deca**	**Conc.**
PCB-144	421	PCB-163/138/129	5340	PCB-182	20.3	PCB-170	714	PCB-195	456	PCB-209	233
PCB-147/149	6330	PCB-160	(0.0503)	PCB-183	2470	PCB-190	525	PCB-194	77.2		
PCB-134	364	PCB-158	583	PCB-185	(1.04)	PCB-189	17	PCB-205	72.3		
PCB-143	(0.0688)	PCB-128/166	702								
PCB-139/140	129	PCB-159	119								
PCB-131	60.2	PCB-162	8.78								
PCB-142	(0.0844)	PCB-167	221								
PCB-132	1950	PCB-156/157	273								
PCB-133	127	PCB-169	(0.537)								
		Conc.	31900			**Conc.**	17200	**Conc.**	3530		
		EMPC	31900			**EMPC**	17200	**EMPC**	3530		

ANALYTICAL PERSPECTIVES

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Totals	Conc.	EMPC
Mono-Tri	466	466
Tetra-Hexa	49800	49800
Hepta-Deca	21400	21400
Mono-Deca	71700	71700

PCB AROCLORS

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-FL-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-004	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**400**		9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**320**		9.9	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	89	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-FL-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-004	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	9.9	1.7	400	310	25.4		1	06/23/09
Aroclor 1260	9.9	1.7	320	250	24.6		1	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-FL-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-005	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	100	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**610**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**640**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	92	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-FL-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-005	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	50	8.5	610	520	15.9	D	5	06/23/09
Aroclor 1260	50	8.5	640	600	6.5	D	5	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-FL-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-006	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	100	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**790**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**850**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	107	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-FL-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-006	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	50	8.5	790	680	15.0	D	5	06/23/09
Aroclor 1260	50	8.5	850	780	8.6	D	5	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-WB-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-001	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	99	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**1100**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**1200**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	104	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-WB-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-001	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	50	8.5	1100	940	15.7	D	5	06/23/09
Aroclor 1260	50	8.5	1200	1100	8.7	D	5	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-WB-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-002	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	99	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**1200**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**1300**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	96	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-WB-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-002	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	50	8.5	1200	950	23.3	D	5	06/23/09
Aroclor 1260	50	8.5	1300	1100	16.7	D	5	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-WB-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-003	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	100	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**1300**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**1400**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	104	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-ES-WB-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-003	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	50	8.5	1300	1000	26.1	D	5	06/23/09
Aroclor 1260	50	8.5	1400	1200	15.4	D	5	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-EM-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-010	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**33**		10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**60**		10	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	82	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-EM-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-010	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	10	1.7	33	22	40.0		1	06/23/09
Aroclor 1260	10	1.7	60	48	22.2		1	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-EM-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-011	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**24**	P	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**46**		9.8	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	94	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-EM-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-011	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	9.8	1.7	24	15	46.2	P	1	06/23/09
Aroclor 1260	9.8	1.7	46	37	21.7		1	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-EM-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-012	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**17**	P	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**34**		10	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	88	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-EM-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-012	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	10	1.7	17	11	42.9	P	1	06/23/09
Aroclor 1260	10	1.7	34	28	19.4		1	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-HP-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-013	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**310**	P	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**510**		10	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	78	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-HP-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-013	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	10	1.7	310	180	53.1	P	1	06/23/09
Aroclor 1260	10	1.7	510	370	31.8		1	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-HP-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-014	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**350**	P	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**580**		9.9	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	78	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-HP-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-014	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	9.9	1.7	350	200	54.5	P	1	06/23/09
Aroclor 1260	9.9	1.7	580	420	32.0		1	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-HP-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-015	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**340**	P	9.8	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**570**		9.8	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	78	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-RRDC-HP-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-015	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	9.8	1.7	340	200	51.9	P	1	06/23/09
Aroclor 1260	9.8	1.7	570	420	30.3		1	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-SS-WB-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-007	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	100	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**440**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**700**	D	50	8.5	5	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	95	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-SS-WB-SUPCOMP1	**Units:**	ug/Kg
Lab Code:	K0905254-007	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	50	8.5	440	350	22.8	D	5	06/23/09
Aroclor 1260	50	8.5	700	550	24.0	D	5	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-SS-WB-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-008	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**370**		9.9	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**570**		9.9	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	74	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-SS-WB-SUPCOMP2	**Units:**	ug/Kg
Lab Code:	K0905254-008	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	9.9	1.7	370	260	34.9		1	06/23/09
Aroclor 1260	9.9	1.7	570	450	23.5		1	06/23/09

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-SS-WB-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-009	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1221	ND	U	20	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1232	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1242	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1248	ND	U	10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1254	**370**		10	1.7	1	06/16/09	06/23/09	KWG0905200	
Aroclor 1260	**560**		10	1.7	1	06/16/09	06/23/09	KWG0905200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	74	10-202	06/23/09	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client:	Anchor Environmental	**Service Request:**	K0905254
Project:	EW RI/FS Fish and Crab Sampling	**Date Collected:**	05/28/2009
Sample Matrix:	Animal tissue	**Date Received:**	06/11/2009
		Date Extracted:	06/16/2009

Polychlorinated Biphenyls (PCBs)

Sample Name:	EW08-SS-WB-SUPCOMP3	**Units:**	ug/Kg
Lab Code:	K0905254-009	**Basis:**	Wet
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082		

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	%RSD	Q	Dilution Factor	Date Analyzed
Aroclor 1254	10	1.7	370	260	34.9		1	06/23/09
Aroclor 1260	10	1.7	560	440	24.0		1	06/23/09

DIOXINS AND FURANS

P1389 - WHO 2005 TEF-TEQ

Project ID: EW RI/FS Fish Crab Samp

Sample Summary Part 1

ANALYTICAL PERSPECTIVES

Method 1613

Analyte	0_6964_MB001 pg/g	EW08-ES-WB-SUPC pg/g	EW08-ES-WB-SUPC pg/g	EW08-ES-WB-SUPC pg/g	EW08-ES-FL-SUPC pg/g	EW08-ES-FL-SUPC pg/g	EW08-ES-FL-SUPC pg/g	EW08-SS-WB-SUPC pg/g	EW08-SS-WB-SUPC pg/g	EW08-SS-WB-SUPC pg/g	EW08-RRD C-EM-SUPC pg/g	EW08-RRD C-EM-SUPC pg/g	EW08-RRD C-EM-SUPC pg/g	EW08-RRD C-HP-SUPC pg/g	EW08-RRD C-HP-SUPC pg/g	EW08-RRD C-HP-SUPC pg/g
2,3,7,8-TCDD	0.0328	0.487	0.519	0.48	[0.214]	0.246	0.212	[0.344]	0.319	0.287	0.086	0.075	0.07	0.22	[0.227]	0.285
1,2,3,7,8-PeCDD	0.0473	[0.551]	0.589	0.634	0.287	[0.24]	0.276	[0.353]	0.409	0.373	0.123	[0.135]	0.135	0.664	0.678	0.591
1,2,3,4,7,8-HxCDD	0.0729	0.146	0.13	[0.132]	0.0461	0.074	0.0662	[0.104]	0.105	[0.113]	0.0756	[0.128]	0.11	0.526	0.509	0.536
1,2,3,6,7,8-HxCDD	0.0826	0.718	0.681	0.69	[0.273]	0.238	0.306	0.292	[0.212]	0.308	0.282	0.355	0.256	1.62	1.86	1.92
1,2,3,7,8,9-HxCDD	0.0834	0.117	[0.113]	[0.135]	0.0831	0.0646	(0.099)	0.0453	0.0678	0.0667	0.093	0.091	0.0809	0.476	0.54	[0.47]
1,2,3,4,6,7,8-HpCDD	0.0655	1.84	1.96	2.39	0.427	0.332	0.375	0.689	0.753	[0.713]	0.611	0.794	0.817	5.83	6.4	6.49
OCDD	(0.148)	10.3	10.3	15.5	1.4	0.776	[1.04]	3.52	3.29	4.36	1.46	1.91	3.7	8.96	10.9	10.6
2,3,7,8-TCDF	0.0452	1.69	1.76	1.76	0.857	0.822	0.791	3.56	3.4	3.54	1.25	1.54	1.31	4.78	4.83	4.87
1,2,3,7,8-PeCDF	0.0457	0.233	0.216	0.23	0.106	0.155	0.0821	[0.219]	0.27	0.262	0.127	0.174	0.137	0.571	0.659	0.626
2,3,4,7,8-PeCDF	0.0435	1.4	1.42	1.39	0.612	0.57	0.519	0.693	0.676	0.662	[0.253]	0.35	0.214	1.56	1.58	1.69
1,2,3,4,7,8-HxCDF	0.24	0.499	0.444	0.448	0.309	0.808	0.277	0.279	0.22	0.269	0.249	0.185	[0.111]	0.586	0.639	1.04
1,2,3,6,7,8-HxCDF	0.0685	0.154	0.196	0.161	0.117	0.204	[0.064]	0.183	0.143	[0.136]	0.073	0.0541	0.064	0.255	0.328	0.337
2,3,4,6,7,8-HxCDF	0.0485	0.153	0.156	0.164	0.0617	0.0609	0.0512	0.087	[0.05]	0.095	0.033	0.0604	0.0288	0.226	0.227	0.238
1,2,3,7,8,9-HxCDF	0.0706	0.0308	0.0459	0.0333	0.0366	0.0495	0.0526	0.0366	0.0463	0.0822	(0.039)	0.0861	0.0251	0.0314	(0.037)	0.0433
1,2,3,4,6,7,8-HpCDF	0.413	0.765	0.729	0.756	0.556	1.41	0.465	0.503	0.428	0.589	0.542	0.326	0.227	1.03	1.21	1.9
1,2,3,4,7,8,9-HpCDF	0.0585	0.044	(0.058)	(0.037)	0.0416	0.0685	0.0419	0.0474	0.0534	(0.06)	0.0364	0.0435	0.0239	0.045	0.0544	[0.045]
OCDF	(0.101)	1.09	1.1	1.23	[0.227]	0.951	0.398	[0.359]	0.315	0.518	0.387	(0.196)	[0.133]	0.374	0.555	0.682
WHO 2005 TEF TEQ (ND=0; EMPC=0)	**0.028**	**1.29**	**1.91**	**1.90**	**0.612**	**0.655**	**0.790**	**0.661**	**1.34**	**1.29**	**0.422**	**0.414**	**0.459**	**2.29**	**2.14**	**2.38**
WHO 2005 TEF TEQ (ND=0; EMPC=EMPC)	**0.035**	**1.84**	**1.92**	**1.92**	**0.865**	**0.901**	**0.811**	**1.38**	**1.37**	**1.33**	**0.505**	**0.561**	**0.481**	**2.29**	**2.37**	**2.43**
WHO 2005 TEF TEQ (ND=DL/2; EMPC=0)	**0.098**	**1.33**	**1.91**	**1.90**	**0.639**	**0.72**	**0.807**	**0.758**	**1.35**	**1.31**	**0.432**	**0.487**	**0.467**	**2.29**	**2.16**	**2.39**
WHO 2005 TEF TEQ (ND=DL/2; EMPC=EMPC)	**0.103**	**1.84**	**1.92**	**1.93**	**0.871**	**0.907**	**0.819**	**1.38**	**1.37**	**1.34**	**0.507**	**0.572**	**0.482**	**2.29**	**2.37**	**2.43**
WHO 2005 TEF TEQ (ND=DL; EMPC=EMPC)	**0.171**	**1.85**	**1.92**	**1.93**	**0.877**	**0.913**	**0.827**	**1.38**	**1.38**	**1.34**	**0.51**	**0.582**	**0.484**	**2.29**	**2.38**	**2.43**
Checkcode	1220	1480	1740	2006	2273	2532	2797	3058	4841	2092	2353	2608	3511	3787	4046	1190

( ) = DL
[ ] = EMPC

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P1395 - WHO 2005 TEF-TEQ

Project ID: General Analytical HRMS

Sample Summary Part 1

ANALYTICAL PERSPECTIVES

Method 1613

Analyte	0_6907_MB001 pg/g	EW-08-SB012-BR- pg/g	EW-08-SB011-BR- pg/g	EW-S01-GD02 pg/g	EW-S01-GD04 pg/g	EW-S01-GD10 pg/g	EW-S01-GD-GBCO pg/g	EW-S01-GD-GBCO pg/g	EW-B06-BC-01-COMP pg/g	EW-B08-CN-02-COMP pg/g	EW-B10-BC-01-COMP pg/g	EW-08-SB002-BR- pg/g	EW-08-SB006-BR- pg/g	EW-08-SB008-BR- pg/g	EW-08-SB009-BR- pg/g
2,3,7,8-TCDD	(0.136)	0.436	0.829	(0.119)	(0.108)	(0.138)	0.0951	(0.177)	0.0957	0.0926	(0.105)	0.765	[0.197]	0.946	[0.628]
1,2,3,7,8-PeCDD	0.0913	[0.416]	0.877	(0.21)	(0.178)	(0.121)	[0.122]	[0.169]	(0.246)	0.0941	(0.158)	0.958	[0.251]	[0.675]	[0.701]
1,2,3,4,7,8-HxCDD	(0.16)	(0.14)	(0.164)	(0.242)	(0.259)	(0.125)	0.128	0.243	(0.256)	(0.192)	(0.189)	0.0905	(0.18)	(0.152)	(0.17)
1,2,3,6,7,8-HxCDD	(0.173)	1.74	2.5	(0.273)	(0.272)	(0.147)	0.25	0.422	[0.292]	(0.195)	(0.208)	3.25	0.593	3.99	2.68
1,2,3,7,8,9-HxCDD	(0.182)	0.265	[0.348]	(0.276)	(0.289)	(0.145)	0.122	0.213	(0.284)	(0.215)	(0.22)	[0.443]	(0.199)	0.522	[0.241]
1,2,3,4,6,7,8-HpCDD	(0.398)	2.11	3.73	(0.15)	[0.424]	[0.416]	2.39	3.24	4.8	2.13	2.31	4.83	1.6	5	3.19
OCDD	(0.257)	3.11	9.55	0.807	2.59	2.18	17.2	21.1	47.3	14.1	17	7.44	3.66	13.4	5.7
2,3,7,8-TCDF	0.0636	7.6	3.5	0.0837	0.173	0.22	[0.259]	0.495	0.291	[0.113]	[0.17]	4.96	2.59	2.74	5.57
1,2,3,7,8-PeCDF	(0.187)	1.28	1.08	(0.151)	(0.133)	(0.15)	0.0609	(0.212)	(0.113)	(0.13)	(0.116)	0.899	[0.16]	1.09	1.03
2,3,4,7,8-PeCDF	(0.164)	0.713	0.914	(0.134)	(0.121)	0.0534	[0.203]	0.379	[0.24]	0.177	(0.112)	0.853	[0.369]	[0.581]	0.704
1,2,3,4,7,8-HxCDF	0.0698	0.316	0.567	0.0615	0.0616	0.0883	0.199	0.246	[0.191]	[0.109]	(0.075)	0.436	0.0854	0.607	0.397
1,2,3,6,7,8-HxCDF	0.0636	[0.211]	0.307	0.0604	0.0577	0.0811	0.0547	(0.111)	0.0839	0.0857	(0.064)	[0.218]	0.0827	[0.377]	0.405
2,3,4,6,7,8-HxCDF	0.0754	0.181	0.256	0.0628	0.0601	0.0919	0.0608	(0.119)	[0.133]	0.0902	(0.076)	0.223	0.0633	0.429	[0.15]
1,2,3,7,8,9-HxCDF	(0.107)	0.0726	0.0838	0.0895	0.0841	(0.116)	0.0777	(0.169)	(0.117)	(0.125)	(0.11)	(0.168)	(0.113)	0.0837	0.0909
1,2,3,4,6,7,8-HpCDF	(0.092)	0.453	0.589	0.0769	0.088	0.102	0.645	0.921	1.01	[0.377]	0.268	0.778	0.313	1.02	0.782
1,2,3,4,7,8,9-HpCDF	(0.132)	0.0694	0.0717	(0.114)	(0.105)	(0.114)	0.0958	(0.156)	(0.139)	(0.147)	(0.106)	(0.171)	(0.159)	(0.115)	(0.14)
OCDF	(0.21)	(0.24)	0.351	(0.226)	(0.588)	(0.463)	1.34	1.73	2.11	1.05	0.829	[0.251]	(0.383)	0.676	(0.182)
WHO 2005 TEF TEQ (ND=0; EMPC=0)	**0.00**	**1.73**	**2.77**	**2E-04**	**0.019**	**0.024**	**0.106**	**0.324**	**0.102**	**0.079**	**0.031**	**2.95**	**0.339**	**1.87**	**1.19**
WHO 2005 TEF TEQ (ND=0; EMPC=EMPC)	**0.00**	**2.16**	**2.81**	**2E-04**	**0.023**	**0.044**	**0.314**	**0.493**	**0.236**	**0.114**	**0.048**	**3.02**	**0.908**	**2.76**	**2.56**
WHO 2005 TEF TEQ (ND=DL/2; EMPC=0)	**0.189**	**1.89**	**2.79**	**0.246**	**0.238**	**0.216**	**0.272**	**0.536**	**0.349**	**0.232**	**0.236**	**2.98**	**0.576**	**2.05**	**1.49**
WHO 2005 TEF TEQ (ND=DL/2; EMPC=EMPC)	**0.189**	**2.17**	**2.82**	**0.246**	**0.241**	**0.216**	**0.373**	**0.606**	**0.446**	**0.250**	**0.246**	**3.03**	**0.942**	**2.77**	**2.57**
WHO 2005 TEF TEQ (ND=DL; EMPC=EMPC)	**0.378**	**2.18**	**2.83**	**0.492**	**0.459**	**0.388**	**0.431**	**0.718**	**0.656**	**0.387**	**0.443**	**3.04**	**0.976**	**2.78**	**2.59**
Checkcode	5111	5390	5651	5894	0139	0390	0649	0899	1223	1925	1741	2000	2269	2552	2826

( ) = DL
[ ] = EMPC

Reviewer .....
Date .....

Sample ID: EW08-ES-FL-SUPCOMP1 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.48 g	Sample ID:	P1389_6964_004	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	24 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	23:16:49

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	EMPC	[Ra=0.626]	0.214		13C-2,3,7,8-TCDD	71.8	
1,2,3,7,8-PeCDD	0.287			J	13C-1,2,3,7,8-PeCDD	65	
1,2,3,4,7,8-HxCDD	EMPC		0.0461	J	13C-1,2,3,4,7,8-HxCDD	57.3	
1,2,3,6,7,8-HxCDD	EMPC		0.273	J	13C-1,2,3,6,7,8-HxCDD	57.7	
1,2,3,7,8,9-HxCDD	ND	0.0831			13C-1,2,3,7,8,9-HxCDD	59.5	
1,2,3,4,6,7,8-HpCDD	0.427			J	13C-1,2,3,4,6,7,8-HpCDD	55.1	
OCDD	1.4			J	13C-OCDD	52	
2,3,7,8-TCDF	0.857				13C-2,3,7,8-TCDF	87.8	
1,2,3,7,8-PeCDF	0.106			J	13C-1,2,3,7,8-PeCDF	80.8	
2,3,4,7,8-PeCDF	0.612			J	13C-2,3,4,7,8-PeCDF	80.9	
1,2,3,4,7,8-HxCDF	0.309			J B	13C-1,2,3,4,7,8-HxCDF	61.4	
1,2,3,6,7,8-HxCDF	0.117			J B	13C-1,2,3,6,7,8-HxCDF	59.6	
2,3,4,6,7,8-HxCDF	EMPC		0.0617	J	13C-2,3,4,6,7,8-HxCDF	65.2	
1,2,3,7,8,9-HxCDF	ND	0.0366			13C-1,2,3,7,8,9-HxCDF	63.2	
1,2,3,4,6,7,8-HpCDF	0.556			J B	13C-1,2,3,4,6,7,8-HpCDF	55.3	
1,2,3,4,7,8,9-HpCDF	ND	0.0416			13C-1,2,3,4,7,8,9-HpCDF	60.6	
OCDF	EMPC		0.227	J	13C-OCDF	49.5	
Totals						**CS Recoveries**	
TCDDs	ND		0.293		37Cl-2,3,7,8-TCDD	95	
PeCDDs	0.287				13C-1,2,3,4,7-PeCDD	91.1	
HxCDDs	ND		0.319		13C-1,2,3,4,6-PeCDF	104	
HpCDDs	0.562				13C-1,2,3,4,6,9-HxCDF	93.1	
					13C-1,2,3,4,6,8,9-HpCDF	95.1	
TCDFs	1.9		2.03				
PeCDFs	2.07		2.47			**AS Recoveries**	
HxCDFs	1.28		1.5		13C-1,3,6,8-TCDD	76.6	
HpCDFs	0.715				13C-1,3,6,8-TCDF	100	
Total PCDD/Fs	**8.21**		**9.81**				
ITEF TEQs							
TEQ: ND=0	0.594		0.847				
TEQ: ND=DL/2	0.621		0.853				
TEQ: ND=DL	0.648		0.859				

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Reviewer
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Sample ID: EW08-ES-FL-SUPCOMP2 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.87 g	Sample ID:	P1389_6964_005	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	0:06:24

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.246	[Ra=0.777]			13C-2,3,7,8-TCDD	71.9	
1,2,3,7,8-PeCDD	EMPC		0.24	J	13C-1,2,3,7,8-PeCDD	68.7	
1,2,3,4,7,8-HxCDD	0.0737			J	13C-1,2,3,4,7,8-HxCDD	67.3	
1,2,3,6,7,8-HxCDD	0.238			J	13C-1,2,3,6,7,8-HxCDD	65.3	
1,2,3,7,8,9-HxCDD	ND	0.0646			13C-1,2,3,7,8,9-HxCDD	68.5	
1,2,3,4,6,7,8-HpCDD	0.332			J	13C-1,2,3,4,6,7,8-HpCDD	62.6	
OCDD	0.776			J	13C-OCDD	54.9	
2,3,7,8-TCDF	0.822				13C-2,3,7,8-TCDF	83.8	
1,2,3,7,8-PeCDF	0.155			J	13C-1,2,3,7,8-PeCDF	81.7	
2,3,4,7,8-PeCDF	0.57			J	13C-2,3,4,7,8-PeCDF	82.2	
1,2,3,4,7,8-HxCDF	0.808			J B	13C-1,2,3,4,7,8-HxCDF	69.1	
1,2,3,6,7,8-HxCDF	0.204			J B	13C-1,2,3,6,7,8-HxCDF	67	
2,3,4,6,7,8-HxCDF	EMPC		0.0609	J	13C-2,3,4,6,7,8-HxCDF	70.5	
1,2,3,7,8,9-HxCDF	ND	0.0495			13C-1,2,3,7,8,9-HxCDF	70.2	
1,2,3,4,6,7,8-HpCDF	1.41			B	13C-1,2,3,4,6,7,8-HpCDF	63.6	
1,2,3,4,7,8,9-HpCDF	ND	0.0685			13C-1,2,3,4,7,8,9-HpCDF	68.8	
OCDF	0.951			J	13C-OCDF	57.5	
Totals						**CS Recoveries**	
TCDDs	0.304				37Cl-2,3,7,8-TCDD	95.8	
PeCDDs	ND		0.24		13C-1,2,3,4,7-PeCDD	89.6	
HxCDDs	0.312				13C-1,2,3,4,6-PeCDF	103	
HpCDDs	0.332		0.41		13C-1,2,3,4,6,9-HxCDF	96.3	
					13C-1,2,3,4,6,8,9-HpCDF	98.6	
TCDFs	2.75		2.93				
PeCDFs	2.81		3.35			**AS Recoveries**	
HxCDFs	2.48		2.54		13C-1,3,6,8-TCDD	75.6	
HpCDFs	1.41		1.58		13C-1,3,6,8-TCDF	96.2	
Total PCDD/Fs	**12.1**		**13.4**				
ITEF TEQs							
TEQ: ND=0	0.773		0.899				
TEQ: ND=DL/2	0.809		0.905				
TEQ: ND=DL	0.846		0.911				

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Reviewer .....
Date .....

Sample ID: EW08-ES-FL-SUPCOMP3 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.27 g	Sample ID:	P1389_6964_006	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	0:55:58

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.212	[Ra=0.724]			13C-2,3,7,8-TCDD	68.8	
1,2,3,7,8-PeCDD	0.276			J	13C-1,2,3,7,8-PeCDD	62.4	
1,2,3,4,7,8-HxCDD	EMPC		0.0662	J	13C-1,2,3,4,7,8-HxCDD	56.4	
1,2,3,6,7,8-HxCDD	0.306			J	13C-1,2,3,6,7,8-HxCDD	56.4	
1,2,3,7,8,9-HxCDD	ND	0.099			13C-1,2,3,7,8,9-HxCDD	60.3	
1,2,3,4,6,7,8-HpCDD	0.375			J	13C-1,2,3,4,6,7,8-HpCDD	53.8	
OCDD	EMPC		1.04	J	13C-OCDD	49.7	
2,3,7,8-TCDF	0.791				13C-2,3,7,8-TCDF	84.9	
1,2,3,7,8-PeCDF	EMPC		0.0821	J	13C-1,2,3,7,8-PeCDF	78.7	
2,3,4,7,8-PeCDF	0.519			J	13C-2,3,4,7,8-PeCDF	78.5	
1,2,3,4,7,8-HxCDF	0.277			J B	13C-1,2,3,4,7,8-HxCDF	60.6	
1,2,3,6,7,8-HxCDF	EMPC		0.064	J B	13C-1,2,3,6,7,8-HxCDF	59.7	
2,3,4,6,7,8-HxCDF	EMPC		0.0512	J	13C-2,3,4,6,7,8-HxCDF	65.6	
1,2,3,7,8,9-HxCDF	ND	0.0526			13C-1,2,3,7,8,9-HxCDF	63.1	
1,2,3,4,6,7,8-HpCDF	0.465			J B	13C-1,2,3,4,6,7,8-HpCDF	54.5	
1,2,3,4,7,8,9-HpCDF	ND	0.0419			13C-1,2,3,4,7,8,9-HpCDF	59.7	
OCDF	0.398			J	13C-OCDF	48.3	
Totals						**CS Recoveries**	
TCDDs	0.212		0.258		37Cl-2,3,7,8-TCDD	91.9	
PeCDDs	0.276				13C-1,2,3,4,7-PeCDD	89.3	
HxCDDs	0.306		0.372		13C-1,2,3,4,6-PeCDF	104	
HpCDDs	0.375		0.476		13C-1,2,3,4,6,9-HxCDF	95.9	
					13C-1,2,3,4,6,8,9-HpCDF	100	
TCDFs	1.5						
PeCDFs	1.3		1.61			**AS Recoveries**	
HxCDFs	0.829		1.05		13C-1,3,6,8-TCDD	76.9	
HpCDFs	0.465		0.562		13C-1,3,6,8-TCDF	97	
Total PCDD/Fs	**5.66**		**7.54**				
ITEF TEQs							
TEQ: ND=0	0.756		0.779				
TEQ: ND=DL/2	0.774		0.787				
TEQ: ND=DL	0.791		0.795				

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Reviewer
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Sample ID: EW08-ES-WB-SUPCOMP1 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.76 g	Sample ID:	P1389_6964_001	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	24 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	20:48:08

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.487	[Ra=0.708]			13C-2,3,7,8-TCDD	90.3	
1,2,3,7,8-PeCDD	EMPC		0.551	J	13C-1,2,3,7,8-PeCDD	89.2	
1,2,3,4,7,8-HxCDD	0.146			J	13C-1,2,3,4,7,8-HxCDD	81.8	
1,2,3,6,7,8-HxCDD	0.718			J	13C-1,2,3,6,7,8-HxCDD	77.6	
1,2,3,7,8,9-HxCDD	0.117			J	13C-1,2,3,7,8,9-HxCDD	83	
1,2,3,4,6,7,8-HpCDD	1.84				13C-1,2,3,4,6,7,8-HpCDD	86.5	
OCDD	10.3				13C-OCDD	90.8	
2,3,7,8-TCDF	1.69				13C-2,3,7,8-TCDF	103	
1,2,3,7,8-PeCDF	0.233			J	13C-1,2,3,7,8-PeCDF	107	
2,3,4,7,8-PeCDF	1.4				13C-2,3,4,7,8-PeCDF	103	
1,2,3,4,7,8-HxCDF	0.499			J B	13C-1,2,3,4,7,8-HxCDF	82.7	
1,2,3,6,7,8-HxCDF	0.154			J B	13C-1,2,3,6,7,8-HxCDF	82.5	
2,3,4,6,7,8-HxCDF	0.153			J	13C-2,3,4,6,7,8-HxCDF	84.1	
1,2,3,7,8,9-HxCDF	ND	0.0308			13C-1,2,3,7,8,9-HxCDF	83.3	
1,2,3,4,6,7,8-HpCDF	0.765			J B	13C-1,2,3,4,6,7,8-HpCDF	84.2	
1,2,3,4,7,8,9-HpCDF	0.0443			J	13C-1,2,3,4,7,8,9-HpCDF	89.4	
OCDF	1.09			J	13C-OCDF	86.8	
Totals						**CS Recoveries**	
TCDDs	0.547				37Cl-2,3,7,8-TCDD	89.6	
PeCDDs	ND		0.551		13C-1,2,3,4,7-PeCDD	87	
HxCDDs	0.982		1.29		13C-1,2,3,4,6-PeCDF	97.7	
HpCDDs	3.67				13C-1,2,3,4,6,9-HxCDF	83.5	
					13C-1,2,3,4,6,8,9-HpCDF	90	
TCDFs	2.51		2.75				
PeCDFs	2.77		3.21			**AS Recoveries**	
HxCDFs	2.51				13C-1,3,6,8-TCDD	74.4	
HpCDFs	1.57				13C-1,3,6,8-TCDF	94.3	
Total PCDD/Fs	**25.9**		**27.5**				
ITEF TEQs							
TEQ: ND=0	1.58		1.86				
TEQ: ND=DL/2	1.6		1.86				
TEQ: ND=DL	1.62		1.86				

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AP D/F 2009 Rev. J

Reviewer
Date 26 Jul 09

Sample ID: EW08-ES-WB-SUPCOMP2 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.37 g	Sample ID:	P1389_6964_002	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	24 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	21:37:39

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.519	[Ra=0.834]			13C-2,3,7,8-TCDD	84.6	
1,2,3,7,8-PeCDD	0.589			J	13C-1,2,3,7,8-PeCDD	86	
1,2,3,4,7,8-HxCDD	0.13			J	13C-1,2,3,4,7,8-HxCDD	76.5	
1,2,3,6,7,8-HxCDD	0.681			J	13C-1,2,3,6,7,8-HxCDD	77.2	
1,2,3,7,8,9-HxCDD	EMPC		0.113	J	13C-1,2,3,7,8,9-HxCDD	80.2	
1,2,3,4,6,7,8-HpCDD	1.96				13C-1,2,3,4,6,7,8-HpCDD	78.5	
OCDD	10.3				13C-OCDD	78.8	
2,3,7,8-TCDF	1.76				13C-2,3,7,8-TCDF	99	
1,2,3,7,8-PeCDF	0.216			J	13C-1,2,3,7,8-PeCDF	104	
2,3,4,7,8-PeCDF	1.42				13C-2,3,4,7,8-PeCDF	100	
1,2,3,4,7,8-HxCDF	0.444			J B	13C-1,2,3,4,7,8-HxCDF	80.6	
1,2,3,6,7,8-HxCDF	0.196			J B	13C-1,2,3,6,7,8-HxCDF	79.8	
2,3,4,6,7,8-HxCDF	0.156			J	13C-2,3,4,6,7,8-HxCDF	82.4	
1,2,3,7,8,9-HxCDF	ND	0.0459			13C-1,2,3,7,8,9-HxCDF	81.6	
1,2,3,4,6,7,8-HpCDF	0.729			J B	13C-1,2,3,4,6,7,8-HpCDF	78.5	
1,2,3,4,7,8,9-HpCDF	ND	0.058			13C-1,2,3,4,7,8,9-HpCDF	80	
OCDF	1.1			J	13C-OCDF	75.3	
Totals						**CS Recoveries**	
TCDDs	0.585				37Cl-2,3,7,8-TCDD	92.1	
PeCDDs	0.589				13C-1,2,3,4,7-PeCDD	89.7	
HxCDDs	0.98		1.28		13C-1,2,3,4,6-PeCDF	106	
HpCDDs	3.77				13C-1,2,3,4,6,9-HxCDF	90	
					13C-1,2,3,4,6,8,9-HpCDF	96.2	
TCDFs	3.74		3.84				
PeCDFs	3.72		4.62			**AS Recoveries**	
HxCDFs	2.86		2.94		13C-1,3,6,8-TCDD	74.8	
HpCDFs	0.729		1.43		13C-1,3,6,8-TCDF	96.1	
Total PCDD/Fs	**28.3**		**30.4**				
ITEF TEQs							
TEQ: ND=0	1.91		1.92				
TEQ: ND=DL/2	1.91		1.92				
TEQ: ND=DL	1.92		1.92				

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Reviewer .....
Date .....

Sample ID: EW08-ES-WB-SUPCOMP3 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.97 g	Sample ID:	P1389_6964_003	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	24 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	22:27:15

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.48	[Ra=0.792]			13C-2,3,7,8-TCDD	89.4	
1,2,3,7,8-PeCDD	0.634			J	13C-1,2,3,7,8-PeCDD	89.5	
1,2,3,4,7,8-HxCDD	EMPC		0.132	J	13C-1,2,3,4,7,8-HxCDD	82	
1,2,3,6,7,8-HxCDD	0.69			J	13C-1,2,3,6,7,8-HxCDD	83.7	
1,2,3,7,8,9-HxCDD	EMPC		0.135	J	13C-1,2,3,7,8,9-HxCDD	88.8	
1,2,3,4,6,7,8-HpCDD	2.39				13C-1,2,3,4,6,7,8-HpCDD	89.2	
OCDD	15.5				13C-OCDD	95.4	
2,3,7,8-TCDF	1.76				13C-2,3,7,8-TCDF	101	
1,2,3,7,8-PeCDF	0.23			J	13C-1,2,3,7,8-PeCDF	107	
2,3,4,7,8-PeCDF	1.39				13C-2,3,4,7,8-PeCDF	106	
1,2,3,4,7,8-HxCDF	0.448			J B	13C-1,2,3,4,7,8-HxCDF	87.2	
1,2,3,6,7,8-HxCDF	0.161			J B	13C-1,2,3,6,7,8-HxCDF	84.4	
2,3,4,6,7,8-HxCDF	0.164			J	13C-2,3,4,6,7,8-HxCDF	86.9	
1,2,3,7,8,9-HxCDF	ND	0.0333			13C-1,2,3,7,8,9-HxCDF	84.9	
1,2,3,4,6,7,8-HpCDF	0.756			J B	13C-1,2,3,4,6,7,8-HpCDF	87.2	
1,2,3,4,7,8,9-HpCDF	ND	0.037			13C-1,2,3,4,7,8,9-HpCDF	91.9	
OCDF	1.23			J	13C-OCDF	89.6	
Totals						**CS Recoveries**	
TCDDs	0.527				37Cl-2,3,7,8-TCDD	94.5	
PeCDDs	0.634				13C-1,2,3,4,7-PeCDD	92.2	
HxCDDs	0.87		1.26		13C-1,2,3,4,6-PeCDF	106	
HpCDDs	4.44				13C-1,2,3,4,6,9-HxCDF	92.9	
					13C-1,2,3,4,6,8,9-HpCDF	98.6	
TCDFs	2.96		3.25				
PeCDFs	3.27		3.47			**AS Recoveries**	
HxCDFs	2.49		2.67		13C-1,3,6,8-TCDD	74.2	
HpCDFs	1.75				13C-1,3,6,8-TCDF	95.9	
Total PCDD/Fs	**33.7**		**34.8**				
ITEF TEQs							
TEQ: ND=0	1.87		1.9				
TEQ: ND=DL/2	1.88		1.9				
TEQ: ND=DL	1.89		1.91				

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AP D/F 2009 Rev. J

Reviewer .....
Date .....

Sample ID: EW08-RRDC-EM-SUPCOMP1 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.42 g	Sample ID:	P1389_6964_010	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	6:55:43

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.0856	[Ra=0.832]		J	13C-2,3,7,8-TCDD	84.4	
1,2,3,7,8-PeCDD	0.123			J	13C-1,2,3,7,8-PeCDD	82.1	
1,2,3,4,7,8-HxCDD	EMPC		0.0756	J	13C-1,2,3,4,7,8-HxCDD	78.5	
1,2,3,6,7,8-HxCDD	0.282			J	13C-1,2,3,6,7,8-HxCDD	75.7	
1,2,3,7,8,9-HxCDD	0.0926			J	13C-1,2,3,7,8,9-HxCDD	78.3	
1,2,3,4,6,7,8-HpCDD	0.611			J	13C-1,2,3,4,6,7,8-HpCDD	82.2	
OCDD	1.46			J	13C-OCDD	81.4	
2,3,7,8-TCDF	1.25				13C-2,3,7,8-TCDF	97.8	
1,2,3,7,8-PeCDF	0.127			J	13C-1,2,3,7,8-PeCDF	101	
2,3,4,7,8-PeCDF	EMPC		0.253	J	13C-2,3,4,7,8-PeCDF	97.6	
1,2,3,4,7,8-HxCDF	0.249			J B	13C-1,2,3,4,7,8-HxCDF	79.1	
1,2,3,6,7,8-HxCDF	0.0732			J B	13C-1,2,3,6,7,8-HxCDF	81.2	
2,3,4,6,7,8-HxCDF	0.0333			J	13C-2,3,4,6,7,8-HxCDF	80.8	
1,2,3,7,8,9-HxCDF	ND	0.039			13C-1,2,3,7,8,9-HxCDF	80.9	
1,2,3,4,6,7,8-HpCDF	0.542			J B	13C-1,2,3,4,6,7,8-HpCDF	80.4	
1,2,3,4,7,8,9-HpCDF	ND	0.0364			13C-1,2,3,4,7,8,9-HpCDF	85.8	
OCDF	0.387			J	13C-OCDF	78.1	
Totals						**CS Recoveries**	
TCDDs	0.608		0.802		37Cl-2,3,7,8-TCDD	94.9	
PeCDDs	0.123		0.388		13C-1,2,3,4,7-PeCDD	92.1	
HxCDDs	0.623		0.698		13C-1,2,3,4,6-PeCDF	110	
HpCDDs	1.1				13C-1,2,3,4,6,9-HxCDF	93.7	
					13C-1,2,3,4,6,8,9-HpCDF	99.3	
TCDFs	7.4		7.51				
PeCDFs	1.53		1.89			**AS Recoveries**	
HxCDFs	0.7		0.848		13C-1,3,6,8-TCDD	74.5	
HpCDFs	0.542		0.645		13C-1,3,6,8-TCDF	96.9	
Total PCDD/Fs	**14.5**		**15.7**				
ITEF TEQs							
TEQ: ND=0	0.365		0.498				
TEQ: ND=DL/2	0.377		0.501				
TEQ: ND=DL	0.39		0.503				

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AP D/F 2009 Rev. J

Reviewer .....
Date ..... 26 Jun 09

Sample ID: EW08-RRDC-EM-SUPCOMP2 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.96 g	Sample ID:	P1389_6964_011	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	7:45:17

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.0752	[Ra=0.808]		J	13C-2,3,7,8-TCDD	62.3	
1,2,3,7,8-PeCDD	EMPC		0.135	J	13C-1,2,3,7,8-PeCDD	62.7	
1,2,3,4,7,8-HxCDD	EMPC		0.128	J	13C-1,2,3,4,7,8-HxCDD	60.4	
1,2,3,6,7,8-HxCDD	0.355			J	13C-1,2,3,6,7,8-HxCDD	60.1	
1,2,3,7,8,9-HxCDD	0.091			J	13C-1,2,3,7,8,9-HxCDD	63.1	
1,2,3,4,6,7,8-HpCDD	0.794			J	13C-1,2,3,4,6,7,8-HpCDD	66.1	
OCDD	1.91			J	13C-OCDD	65.7	
2,3,7,8-TCDF	1.54				13C-2,3,7,8-TCDF	71.2	
1,2,3,7,8-PeCDF	0.174			J	13C-1,2,3,7,8-PeCDF	75.5	
2,3,4,7,8-PeCDF	0.35			J	13C-2,3,4,7,8-PeCDF	73.8	
1,2,3,4,7,8-HxCDF	0.185			J B	13C-1,2,3,4,7,8-HxCDF	64.2	
1,2,3,6,7,8-HxCDF	ND	0.0541			13C-1,2,3,6,7,8-HxCDF	63	
2,3,4,6,7,8-HxCDF	ND	0.0604			13C-2,3,4,6,7,8-HxCDF	64.4	
1,2,3,7,8,9-HxCDF	ND	0.0861			13C-1,2,3,7,8,9-HxCDF	63	
1,2,3,4,6,7,8-HpCDF	0.326			J B	13C-1,2,3,4,6,7,8-HpCDF	64.7	
1,2,3,4,7,8,9-HpCDF	ND	0.0435			13C-1,2,3,4,7,8,9-HpCDF	67.1	
OCDF	ND	0.196			13C-OCDF	61.2	
Totals						**CS Recoveries**	
TCDDs	0.754				37Cl-2,3,7,8-TCDD	96.7	
PeCDDs	0.225		0.36		13C-1,2,3,4,7-PeCDD	93.1	
HxCDDs	0.538		0.972		13C-1,2,3,4,6-PeCDF	111	
HpCDDs	0.794		1.36		13C-1,2,3,4,6,9-HxCDF	98.3	
					13C-1,2,3,4,6,8,9-HpCDF	103	
TCDFs	8.08		8.52				
PeCDFs	1.65		2.12			**AS Recoveries**	
HxCDFs	0.413		0.712		13C-1,3,6,8-TCDD	76.1	
HpCDFs	0.326		0.433		13C-1,3,6,8-TCDF	98.2	
Total PCDD/Fs	**14.7**		**17.1**				
ITEF TEQs							
TEQ: ND=0	0.489		0.569				
TEQ: ND=DL/2	0.533		0.579				
TEQ: ND=DL	0.578		0.59				

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Reviewer .....
Date .....

Sample ID: EW08-RRDC-EM-SUPCOMP3 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.08 g	Sample ID:	P1389_6964_012	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	8:34:46

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.0701	[Ra=0.887]		J	13C-2,3,7,8-TCDD	80.8	
1,2,3,7,8-PeCDD	0.135			J	13C-1,2,3,7,8-PeCDD	81.9	
1,2,3,4,7,8-HxCDD	0.11			J	13C-1,2,3,4,7,8-HxCDD	79.8	
1,2,3,6,7,8-HxCDD	0.256			J	13C-1,2,3,6,7,8-HxCDD	76.2	
1,2,3,7,8,9-HxCDD	EMPC		0.0809	J	13C-1,2,3,7,8,9-HxCDD	81.9	
1,2,3,4,6,7,8-HpCDD	0.817			J	13C-1,2,3,4,6,7,8-HpCDD	84.8	
OCDD	3.7				13C-OCDD	80	
2,3,7,8-TCDF	1.31				13C-2,3,7,8-TCDF	91.2	
1,2,3,7,8-PeCDF	0.137			J	13C-1,2,3,7,8-PeCDF	99.4	
2,3,4,7,8-PeCDF	0.214			J	13C-2,3,4,7,8-PeCDF	96.8	
1,2,3,4,7,8-HxCDF	EMPC		0.111	J B	13C-1,2,3,4,7,8-HxCDF	81.1	
1,2,3,6,7,8-HxCDF	0.0643			J B	13C-1,2,3,6,7,8-HxCDF	82.5	
2,3,4,6,7,8-HxCDF	EMPC		0.0288	J	13C-2,3,4,6,7,8-HxCDF	81.6	
1,2,3,7,8,9-HxCDF	ND	0.0251			13C-1,2,3,7,8,9-HxCDF	80.6	
1,2,3,4,6,7,8-HpCDF	0.227			J B	13C-1,2,3,4,6,7,8-HpCDF	81.3	
1,2,3,4,7,8,9-HpCDF	ND	0.0239			13C-1,2,3,4,7,8,9-HpCDF	87.5	
OCDF	EMPC		0.133	J	13C-OCDF	78.7	
Totals						**CS Recoveries**	
TCDDs	0.768				37Cl-2,3,7,8-TCDD	96.4	
PeCDDs	0.135		0.304		13C-1,2,3,4,7-PeCDD	96.8	
HxCDDs	0.464		0.707		13C-1,2,3,4,6-PeCDF	111	
HpCDDs	2.39				13C-1,2,3,4,6,9-HxCDF	96.8	
					13C-1,2,3,4,6,8,9-HpCDF	105	
TCDFs	7.14		7.73				
PeCDFs	1.4		1.76			**AS Recoveries**	
HxCDFs	0.346		0.533		13C-1,3,6,8-TCDD	72.4	
HpCDFs	0.227		0.354		13C-1,3,6,8-TCDF	90.9	
Total PCDD/Fs	**16.6**		**18.4**				
ITEF TEQs							
TEQ: ND=0	0.439		0.462				
TEQ: ND=DL/2	0.448		0.463				
TEQ: ND=DL	0.456		0.464				

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AP D/F 2009 Rev. J

Reviewer .....
Date .....

Sample ID: EW08-RRDC-HP-SUPCOMP1 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.06 g	Sample ID:	P1389_6964_013	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	9:25:47

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.22	[Ra=0.732]			13C-2,3,7,8-TCDD	92.7	
1,2,3,7,8-PeCDD	0.664			J	13C-1,2,3,7,8-PeCDD	92.5	
1,2,3,4,7,8-HxCDD	0.526			J	13C-1,2,3,4,7,8-HxCDD	85.5	
1,2,3,6,7,8-HxCDD	1.62				13C-1,2,3,6,7,8-HxCDD	83.4	
1,2,3,7,8,9-HxCDD	0.476			J	13C-1,2,3,7,8,9-HxCDD	86.1	
1,2,3,4,6,7,8-HpCDD	5.83				13C-1,2,3,4,6,7,8-HpCDD	90.3	
OCDD	8.96				13C-OCDD	87.8	
2,3,7,8-TCDF	4.78				13C-2,3,7,8-TCDF	105	
1,2,3,7,8-PeCDF	0.571			J	13C-1,2,3,7,8-PeCDF	118	
2,3,4,7,8-PeCDF	1.56				13C-2,3,4,7,8-PeCDF	112	
1,2,3,4,7,8-HxCDF	0.586			J B	13C-1,2,3,4,7,8-HxCDF	87.7	
1,2,3,6,7,8-HxCDF	0.255			J B	13C-1,2,3,6,7,8-HxCDF	92.2	
2,3,4,6,7,8-HxCDF	0.226			J	13C-2,3,4,6,7,8-HxCDF	91.4	
1,2,3,7,8,9-HxCDF	ND	0.0314			13C-1,2,3,7,8,9-HxCDF	87.6	
1,2,3,4,6,7,8-HpCDF	1.03			B	13C-1,2,3,4,6,7,8-HpCDF	86.3	
1,2,3,4,7,8,9-HpCDF	0.0447			J	13C-1,2,3,4,7,8,9-HpCDF	93.8	
OCDF	0.374			J	13C-OCDF	85.3	
Totals						**CS Recoveries**	
TCDDs	2.76		3.26		37Cl-2,3,7,8-TCDD	96.1	
PeCDDs	1.94		2.75		13C-1,2,3,4,7-PeCDD	96.4	
HxCDDs	5.27		5.42		13C-1,2,3,4,6-PeCDF	114	
HpCDDs	10.4				13C-1,2,3,4,6,9-HxCDF	92.9	
					13C-1,2,3,4,6,8,9-HpCDF	99.2	
TCDFs	26.4		26.8				
PeCDFs	9.25					**AS Recoveries**	
HxCDFs	3.85				13C-1,3,6,8-TCDD	78.4	
HpCDFs	1.56				13C-1,3,6,8-TCDF	100	
Total PCDD/Fs	**70.7**		**72.6**				
ITEF TEQs							
TEQ: ND=0	2.29		2.29				
TEQ: ND=DL/2	2.29		2.29				
TEQ: ND=DL	2.29		2.29				

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AP D/F 2009 Rev. J

Reviewer
Date 26 Jul 09

Sample ID: EW08-RRDC-HP-SUPCOMP2 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.39 g	Sample ID:	P1389_6964_014	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	10:16:58

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	EMPC	[Ra=1.03]	0.227		13C-2,3,7,8-TCDD	94.4	
1,2,3,7,8-PeCDD	0.678			J	13C-1,2,3,7,8-PeCDD	102	
1,2,3,4,7,8-HxCDD	0.509			J	13C-1,2,3,4,7,8-HxCDD	89.1	
1,2,3,6,7,8-HxCDD	1.86				13C-1,2,3,6,7,8-HxCDD	89.4	
1,2,3,7,8,9-HxCDD	0.54			J	13C-1,2,3,7,8,9-HxCDD	92.1	
1,2,3,4,6,7,8-HpCDD	6.4				13C-1,2,3,4,6,7,8-HpCDD	88.5	
OCDD	10.9				13C-OCDD	84.7	
2,3,7,8-TCDF	4.83				13C-2,3,7,8-TCDF	106	
1,2,3,7,8-PeCDF	0.659			J	13C-1,2,3,7,8-PeCDF	120	
2,3,4,7,8-PeCDF	1.58				13C-2,3,4,7,8-PeCDF	115	
1,2,3,4,7,8-HxCDF	0.639			J B	13C-1,2,3,4,7,8-HxCDF	87.8	
1,2,3,6,7,8-HxCDF	0.328			J B	13C-1,2,3,6,7,8-HxCDF	87.5	
2,3,4,6,7,8-HxCDF	0.227			J	13C-2,3,4,6,7,8-HxCDF	90	
1,2,3,7,8,9-HxCDF	ND	0.037			13C-1,2,3,7,8,9-HxCDF	89.3	
1,2,3,4,6,7,8-HpCDF	1.21			B	13C-1,2,3,4,6,7,8-HpCDF	89.5	
1,2,3,4,7,8,9-HpCDF	ND	0.0544			13C-1,2,3,4,7,8,9-HpCDF	91.4	
OCDF	0.555			J	13C-OCDF	85	
Totals						**CS Recoveries**	
TCDDs	2.83		3.43		37Cl-2,3,7,8-TCDD	93	
PeCDDs	1.39				13C-1,2,3,4,7-PeCDD	99	
HxCDDs	5.54		5.93		13C-1,2,3,4,6-PeCDF	118	
HpCDDs	12				13C-1,2,3,4,6,9-HxCDF	90.1	
					13C-1,2,3,4,6,8,9-HpCDF	95.7	
TCDFs	29.3		29.4				
PeCDFs	10.3		10.3			**AS Recoveries**	
HxCDFs	4.36		4.5		13C-1,3,6,8-TCDD	79.2	
HpCDFs	1.76				13C-1,3,6,8-TCDF	100	
Total PCDD/Fs	**78.9**		**80.1**				
ITEF TEQs							
TEQ: ND=0	2.14		2.37				
TEQ: ND=DL/2	2.16		2.37				
TEQ: ND=DL	2.17		2.37				

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AP D/F 2009 Rev. J

Reviewer .....
Date 26 July 09

Sample ID: EW08-RRDC-HP-SUPCOMP3 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	25.22 g	Sample ID:	P1389_6964_015	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	11:06:34

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.285	[Ra=0.779]			13C-2,3,7,8-TCDD	93.6	
1,2,3,7,8-PeCDD	0.591			J	13C-1,2,3,7,8-PeCDD	92.4	
1,2,3,4,7,8-HxCDD	0.536			J	13C-1,2,3,4,7,8-HxCDD	90	
1,2,3,6,7,8-HxCDD	1.92				13C-1,2,3,6,7,8-HxCDD	88.9	
1,2,3,7,8,9-HxCDD	EMPC		0.47	J	13C-1,2,3,7,8,9-HxCDD	92.8	
1,2,3,4,6,7,8-HpCDD	6.49				13C-1,2,3,4,6,7,8-HpCDD	97.9	
OCDD	10.6				13C-OCDD	101	
2,3,7,8-TCDF	4.87				13C-2,3,7,8-TCDF	107	
1,2,3,7,8-PeCDF	0.626			J	13C-1,2,3,7,8-PeCDF	116	
2,3,4,7,8-PeCDF	1.69				13C-2,3,4,7,8-PeCDF	111	
1,2,3,4,7,8-HxCDF	1.04			B	13C-1,2,3,4,7,8-HxCDF	92.7	
1,2,3,6,7,8-HxCDF	0.337			J B	13C-1,2,3,6,7,8-HxCDF	96	
2,3,4,6,7,8-HxCDF	0.238			J	13C-2,3,4,6,7,8-HxCDF	93.9	
1,2,3,7,8,9-HxCDF	ND	0.0433			13C-1,2,3,7,8,9-HxCDF	92.5	
1,2,3,4,6,7,8-HpCDF	1.9			B	13C-1,2,3,4,6,7,8-HpCDF	94.1	
1,2,3,4,7,8,9-HpCDF	EMPC		0.045	J	13C-1,2,3,4,7,8,9-HpCDF	101	
OCDF	0.682			J	13C-OCDF	96.5	
Totals						**CS Recoveries**	
TCDDs	3.27		3.62		37Cl-2,3,7,8-TCDD	96.5	
PeCDDs	1.82		2.94		13C-1,2,3,4,7-PeCDD	94.2	
HxCDDs	5.34		6.14		13C-1,2,3,4,6-PeCDF	110	
HpCDDs	12				13C-1,2,3,4,6,9-HxCDF	94.6	
					13C-1,2,3,4,6,8,9-HpCDF	102	
TCDFs	28.1		28.8				
PeCDFs	8.9		10.3			**AS Recoveries**	
HxCDFs	5.29				13C-1,3,6,8-TCDD	77.2	
HpCDFs	2.67		2.71		13C-1,3,6,8-TCDF	100	
Total PCDD/Fs	**78.6**		**83**				
ITEF TEQs							
TEQ: ND=0	2.45		2.49				
TEQ: ND=DL/2	2.46		2.49				
TEQ: ND=DL	2.47		2.5				

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AP D/F 2009 Rev. J

Reviewer
Date

Sample ID: EW08-SS-WB-SUPCOMP1 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	17.14 g	Sample ID:	P1389_6964_007	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	1:45:28

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	EMPC	[Ra=0.993]	0.344		13C-2,3,7,8-TCDD	92.5	
1,2,3,7,8-PeCDD	EMPC		0.353	J	13C-1,2,3,7,8-PeCDD	98.2	
1,2,3,4,7,8-HxCDD	EMPC		0.104	J	13C-1,2,3,4,7,8-HxCDD	87.8	
1,2,3,6,7,8-HxCDD	0.292			J	13C-1,2,3,6,7,8-HxCDD	88.2	
1,2,3,7,8,9-HxCDD	EMPC		0.0453	J	13C-1,2,3,7,8,9-HxCDD	93	
1,2,3,4,6,7,8-HpCDD	0.689			J	13C-1,2,3,4,6,7,8-HpCDD	92.8	
OCDD	3.52				13C-OCDD	90.9	
2,3,7,8-TCDF	3.56				13C-2,3,7,8-TCDF	105	
1,2,3,7,8-PeCDF	EMPC		0.219	J	13C-1,2,3,7,8-PeCDF	109	
2,3,4,7,8-PeCDF	0.693			J	13C-2,3,4,7,8-PeCDF	110	
1,2,3,4,7,8-HxCDF	0.279			J B	13C-1,2,3,4,7,8-HxCDF	85.7	
1,2,3,6,7,8-HxCDF	0.183			J B	13C-1,2,3,6,7,8-HxCDF	84.2	
2,3,4,6,7,8-HxCDF	0.0873			J	13C-2,3,4,6,7,8-HxCDF	86.5	
1,2,3,7,8,9-HxCDF	ND	0.0366			13C-1,2,3,7,8,9-HxCDF	88.3	
1,2,3,4,6,7,8-HpCDF	0.503			J B	13C-1,2,3,4,6,7,8-HpCDF	92	
1,2,3,4,7,8,9-HpCDF	ND	0.0474			13C-1,2,3,4,7,8,9-HpCDF	95	
OCDF	EMPC		0.359	J	13C-OCDF	85	
Totals						**CS Recoveries**	
TCDDs	ND		0.374		37Cl-2,3,7,8-TCDD	95.3	
PeCDDs	ND		0.521		13C-1,2,3,4,7-PeCDD	93.7	
HxCDDs	0.292		0.517		13C-1,2,3,4,6-PeCDF	106	
HpCDDs	1.34				13C-1,2,3,4,6,9-HxCDF	88.2	
					13C-1,2,3,4,6,8,9-HpCDF	96.3	
TCDFs	5.85						
PeCDFs	3.2		3.49			**AS Recoveries**	
HxCDFs	1.35		1.8		13C-1,3,6,8-TCDD	76	
HpCDFs	0.784				13C-1,3,6,8-TCDF	97.5	
Total PCDD/Fs	**16.3**		**18.6**				
ITEF TEQs							
TEQ: ND=0	0.802		1.35				
TEQ: ND=DL/2	0.866		1.35				
TEQ: ND=DL	0.931		1.35				

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AP D/F 2009 Rev. J

Reviewer
Date 26 Jun

Sample ID: EW08-SS-WB-SUPCOMP2 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	16.88 g	Sample ID:	P1389_6964_008	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	2:34:57

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.319	[Ra=0.853]			13C-2,3,7,8-TCDD	91.8	
1,2,3,7,8-PeCDD	0.409			J	13C-1,2,3,7,8-PeCDD	95.9	
1,2,3,4,7,8-HxCDD	0.105			J	13C-1,2,3,4,7,8-HxCDD	91	
1,2,3,6,7,8-HxCDD	EMPC		0.212	J	13C-1,2,3,6,7,8-HxCDD	86	
1,2,3,7,8,9-HxCDD	EMPC		0.0678	J	13C-1,2,3,7,8,9-HxCDD	94.7	
1,2,3,4,6,7,8-HpCDD	0.753			J	13C-1,2,3,4,6,7,8-HpCDD	95.9	
OCDD	3.29				13C-OCDD	102	
2,3,7,8-TCDF	3.4				13C-2,3,7,8-TCDF	104	
1,2,3,7,8-PeCDF	0.27			J	13C-1,2,3,7,8-PeCDF	108	
2,3,4,7,8-PeCDF	0.676			J	13C-2,3,4,7,8-PeCDF	107	
1,2,3,4,7,8-HxCDF	0.22			J B	13C-1,2,3,4,7,8-HxCDF	90.1	
1,2,3,6,7,8-HxCDF	0.143			J B	13C-1,2,3,6,7,8-HxCDF	89.2	
2,3,4,6,7,8-HxCDF	EMPC		0.05	J	13C-2,3,4,6,7,8-HxCDF	89.9	
1,2,3,7,8,9-HxCDF	ND	0.0463			13C-1,2,3,7,8,9-HxCDF	90	
1,2,3,4,6,7,8-HpCDF	0.428			J B	13C-1,2,3,4,6,7,8-HpCDF	93.4	
1,2,3,4,7,8,9-HpCDF	ND	0.0534			13C-1,2,3,4,7,8,9-HpCDF	98.4	
OCDF	0.315			J	13C-OCDF	96.6	
Totals						**CS Recoveries**	
TCDDs	0.386				37Cl-2,3,7,8-TCDD	96.6	
PeCDDs	0.409				13C-1,2,3,4,7-PeCDD	92.3	
HxCDDs	0.222		0.612		13C-1,2,3,4,6-PeCDF	104	
HpCDDs	1.42				13C-1,2,3,4,6,9-HxCDF	92.9	
					13C-1,2,3,4,6,8,9-HpCDF	98	
TCDFs	5.36		5.56				
PeCDFs	3.13		3.3			**AS Recoveries**	
HxCDFs	1.46		1.54		13C-1,3,6,8-TCDD	74.6	
HpCDFs	0.757				13C-1,3,6,8-TCDF	95.5	
Total PCDD/Fs	**16.8**		**17.6**				
ITEF TEQs							
TEQ: ND=0	1.28		1.31				
TEQ: ND=DL/2	1.29		1.31				
TEQ: ND=DL	1.3		1.32				

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AP D/F 2009 Rev. J

Reviewer
Date

Sample ID: EW08-SS-WB-SUPCOMP3 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1389	Date Received:	11 Jun 2009
Project ID:	EW RI/FS Fish & Crab Samp	Weight/Volume:	17.03 g	Sample ID:	P1389_6964_009	Date Extracted:	17 Jul 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6964	Date Analyzed:	25 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	6:06:12

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.287	[Ra=0.663]		J	13C-2,3,7,8-TCDD	88.4	
1,2,3,7,8-PeCDD	0.373			J	13C-1,2,3,7,8-PeCDD	91.7	
1,2,3,4,7,8-HxCDD	EMPC		0.113	J	13C-1,2,3,4,7,8-HxCDD	85.6	
1,2,3,6,7,8-HxCDD	0.308			J	13C-1,2,3,6,7,8-HxCDD	85.6	
1,2,3,7,8,9-HxCDD	EMPC		0.0667	J	13C-1,2,3,7,8,9-HxCDD	89.7	
1,2,3,4,6,7,8-HpCDD	EMPC		0.713	J	13C-1,2,3,4,6,7,8-HpCDD	90	
OCDD	4.36				13C-OCDD	91.3	
2,3,7,8-TCDF	3.54				13C-2,3,7,8-TCDF	101	
1,2,3,7,8-PeCDF	0.262			J	13C-1,2,3,7,8-PeCDF	108	
2,3,4,7,8-PeCDF	0.662			J	13C-2,3,4,7,8-PeCDF	106	
1,2,3,4,7,8-HxCDF	0.269			J B	13C-1,2,3,4,7,8-HxCDF	87.2	
1,2,3,6,7,8-HxCDF	EMPC		0.136	J B	13C-1,2,3,6,7,8-HxCDF	86.7	
2,3,4,6,7,8-HxCDF	0.0951			J	13C-2,3,4,6,7,8-HxCDF	88.3	
1,2,3,7,8,9-HxCDF	ND	0.0822			13C-1,2,3,7,8,9-HxCDF	86.5	
1,2,3,4,6,7,8-HpCDF	0.589			J B	13C-1,2,3,4,6,7,8-HpCDF	89.7	
1,2,3,4,7,8,9-HpCDF	ND	0.06			13C-1,2,3,4,7,8,9-HpCDF	92.3	
OCDF	0.518			J	13C-OCDF	87.6	
Totals						**CS Recoveries**	
TCDDs	0.287		0.365		37Cl-2,3,7,8-TCDD	93.9	
PeCDDs	0.373				13C-1,2,3,4,7-PeCDD	93.6	
HxCDDs	0.421		0.728		13C-1,2,3,4,6-PeCDF	107	
HpCDDs	0.735		1.45		13C-1,2,3,4,6,9-HxCDF	91.9	
					13C-1,2,3,4,6,8,9-HpCDF	96.9	
TCDFs	5.89		5.93				
PeCDFs	2.63		3.11			**AS Recoveries**	
HxCDFs	1.24		1.65		13C-1,3,6,8-TCDD	73.1	
HpCDFs	0.589		0.9		13C-1,3,6,8-TCDF	94.3	
Total PCDD/Fs	**17.1**		**19.4**				
ITEF TEQs							
TEQ: ND=0	1.25		1.29				
TEQ: ND=DL/2	1.26		1.29				
TEQ: ND=DL	1.28		1.3				

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Sample ID: EW-08-SB002-BR-02 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.12 g	Sample ID:	P1395_6907_011	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	13:58:36

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.765	[Ra=0.872]			13C-2,3,7,8-TCDD	83.6	
1,2,3,7,8-PeCDD	0.958			J	13C-1,2,3,7,8-PeCDD	89.3	
1,2,3,4,7,8-HxCDD	ND	0.0905			13C-1,2,3,4,7,8-HxCDD	83.5	
1,2,3,6,7,8-HxCDD	3.25				13C-1,2,3,6,7,8-HxCDD	88.1	
1,2,3,7,8,9-HxCDD	EMPC		0.443	J	13C-1,2,3,7,8,9-HxCDD	94.4	
1,2,3,4,6,7,8-HpCDD	4.83				13C-1,2,3,4,6,7,8-HpCDD	93.9	
OCDD	7.44				13C-OCDD	101	
2,3,7,8-TCDF	4.96				13C-2,3,7,8-TCDF	96.5	
1,2,3,7,8-PeCDF	0.899			J	13C-1,2,3,7,8-PeCDF	101	
2,3,4,7,8-PeCDF	0.853			J	13C-2,3,4,7,8-PeCDF	100	
1,2,3,4,7,8-HxCDF	0.436			J	13C-1,2,3,4,7,8-HxCDF	77.8	
1,2,3,6,7,8-HxCDF	EMPC		0.218	J	13C-1,2,3,6,7,8-HxCDF	79.9	
2,3,4,6,7,8-HxCDF	0.223			J	13C-2,3,4,6,7,8-HxCDF	81.8	
1,2,3,7,8,9-HxCDF	ND	0.168			13C-1,2,3,7,8,9-HxCDF	81.8	
1,2,3,4,6,7,8-HpCDF	0.778			J	13C-1,2,3,4,6,7,8-HpCDF	84.4	
1,2,3,4,7,8,9-HpCDF	ND	0.171			13C-1,2,3,4,7,8,9-HpCDF	87.7	
OCDF	EMPC		0.251	J	13C-OCDF	91.7	
Totals						**CS Recoveries**	
TCDDs	0.765				37Cl-2,3,7,8-TCDD	87	
PeCDDs	0.958				13C-1,2,3,4,7-PeCDD	94.2	
HxCDDs	3.25		3.69		13C-1,2,3,4,6-PeCDF	112	
HpCDDs	4.83		5.24		13C-1,2,3,4,6,9-HxCDF	90.8	
					13C-1,2,3,4,6,8,9-HpCDF	103	
TCDFs	5.85						
PeCDFs	4.05					**AS Recoveries**	
HxCDFs	0.659		2.44		13C-1,3,6,8-TCDD	79.8	
HpCDFs	0.778		0.928		13C-1,3,6,8-TCDF	104	
Total PCDD/Fs	**28.6**		**31.6**				
ITEF TEQs							
TEQ: ND=0	2.67		2.73				
TEQ: ND=DL/2	2.69		2.75				
TEQ: ND=DL	2.72		2.76				

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Sample ID: EW-08-SB006-BR-06

Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.00 g	Sample ID:	P1395_6907_012	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	14:48:09

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	EMPC	[Ra=0.644]	0.197	J	13C-2,3,7,8-TCDD	86.2	
1,2,3,7,8-PeCDD	EMPC		0.251	J	13C-1,2,3,7,8-PeCDD	91.8	
1,2,3,4,7,8-HxCDD	ND	0.18			13C-1,2,3,4,7,8-HxCDD	86.3	
1,2,3,6,7,8-HxCDD	0.593			J	13C-1,2,3,6,7,8-HxCDD	91	
1,2,3,7,8,9-HxCDD	ND	0.199			13C-1,2,3,7,8,9-HxCDD	93.7	
1,2,3,4,6,7,8-HpCDD	1.6			J	13C-1,2,3,4,6,7,8-HpCDD	91.5	
OCDD	3.66			J	13C-OCDD	114	
2,3,7,8-TCDF	2.59				13C-2,3,7,8-TCDF	103	
1,2,3,7,8-PeCDF	EMPC		0.16	J	13C-1,2,3,7,8-PeCDF	103	
2,3,4,7,8-PeCDF	EMPC		0.369	J	13C-2,3,4,7,8-PeCDF	99.2	
1,2,3,4,7,8-HxCDF	ND	0.0854			13C-1,2,3,4,7,8-HxCDF	76.3	
1,2,3,6,7,8-HxCDF	ND	0.0827			13C-1,2,3,6,7,8-HxCDF	75.7	
2,3,4,6,7,8-HxCDF	EMPC		0.0633	J	13C-2,3,4,6,7,8-HxCDF	81.2	
1,2,3,7,8,9-HxCDF	ND	0.113			13C-1,2,3,7,8,9-HxCDF	80.4	
1,2,3,4,6,7,8-HpCDF	0.313			J	13C-1,2,3,4,6,7,8-HpCDF	82.2	
1,2,3,4,7,8,9-HpCDF	ND	0.159			13C-1,2,3,4,7,8,9-HpCDF	87	
OCDF	ND	0.383			13C-OCDF	102	
Totals						**CS Recoveries**	
TCDDs	ND		0.197		37Cl-2,3,7,8-TCDD	85.4	
PeCDDs	ND		0.251		13C-1,2,3,4,7-PeCDD	90.3	
HxCDDs	0.593		1.06		13C-1,2,3,4,6-PeCDF	104	
HpCDDs	2.34				13C-1,2,3,4,6,9-HxCDF	86.4	
					13C-1,2,3,4,6,8,9-HpCDF	92.3	
TCDFs	3.1						
PeCDFs	0.712		1.24			**AS Recoveries**	
HxCDFs	ND		0.561		13C-1,3,6,8-TCDD	79.7	
HpCDFs	0.487				13C-1,3,6,8-TCDF	100	
Total PCDD/Fs	**10.9**		**12.9**				
ITEF TEQs							
TEQ: ND=0	0.341		0.862				
TEQ: ND=DL/2	0.545		0.896				
TEQ: ND=DL	0.749		0.93				

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Sample ID: EW-08-SB008-BR-08

Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.04 g	Sample ID:	P1395_6907_013	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	15:37:43

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.946	[Ra=0.827]			13C-2,3,7,8-TCDD	91.2	
1,2,3,7,8-PeCDD	EMPC		0.675	J	13C-1,2,3,7,8-PeCDD	98.8	
1,2,3,4,7,8-HxCDD	ND	0.152			13C-1,2,3,4,7,8-HxCDD	87.5	
1,2,3,6,7,8-HxCDD	3.99				13C-1,2,3,6,7,8-HxCDD	88.8	
1,2,3,7,8,9-HxCDD	0.522			J	13C-1,2,3,7,8,9-HxCDD	91.9	
1,2,3,4,6,7,8-HpCDD	5				13C-1,2,3,4,6,7,8-HpCDD	106	
OCDD	13.4				13C-OCDD	109	
2,3,7,8-TCDF	2.74				13C-2,3,7,8-TCDF	103	
1,2,3,7,8-PeCDF	1.09			J	13C-1,2,3,7,8-PeCDF	111	
2,3,4,7,8-PeCDF	EMPC		0.581	J	13C-2,3,4,7,8-PeCDF	106	
1,2,3,4,7,8-HxCDF	0.607			J	13C-1,2,3,4,7,8-HxCDF	78.8	
1,2,3,6,7,8-HxCDF	EMPC		0.377	J	13C-1,2,3,6,7,8-HxCDF	78.5	
2,3,4,6,7,8-HxCDF	0.429			J	13C-2,3,4,6,7,8-HxCDF	79.9	
1,2,3,7,8,9-HxCDF	ND	0.0837			13C-1,2,3,7,8,9-HxCDF	81.4	
1,2,3,4,6,7,8-HpCDF	1.02			J	13C-1,2,3,4,6,7,8-HpCDF	90.1	
1,2,3,4,7,8,9-HpCDF	ND	0.115			13C-1,2,3,4,7,8,9-HpCDF	98.6	
OCDF	0.676			J	13C-OCDF	98.2	
Totals						**CS Recoveries**	
TCDDs	0.946				37Cl-2,3,7,8-TCDD	93	
PeCDDs	ND		0.675		13C-1,2,3,4,7-PeCDD	97.5	
HxCDDs	4.51				13C-1,2,3,4,6-PeCDF	109	
HpCDDs	5.41				13C-1,2,3,4,6,9-HxCDF	84.7	
					13C-1,2,3,4,6,8,9-HpCDF	101	
TCDFs	3.34						
PeCDFs	3.69		4.5			**AS Recoveries**	
HxCDFs	1.65		2.02		13C-1,3,6,8-TCDD	81.2	
HpCDFs	1.02		1.33		13C-1,3,6,8-TCDF	103	
Total PCDD/Fs	**34.6**		**36.8**				
ITEF TEQs							
TEQ: ND=0	1.9		2.57				
TEQ: ND=DL/2	2.02		2.58				
TEQ: ND=DL	2.14		2.59				

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Reviewer .....
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Sample ID: EW-08-SB009-BR-09 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.09 g	Sample ID:	P1395_6907_014	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	16:27:18

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	EMPC	[Ra=0.99]	0.628		13C-2,3,7,8-TCDD	81	
1,2,3,7,8-PeCDD	EMPC		0.701	J	13C-1,2,3,7,8-PeCDD	91	
1,2,3,4,7,8-HxCDD	ND	0.17			13C-1,2,3,4,7,8-HxCDD	81.1	
1,2,3,6,7,8-HxCDD	2.68				13C-1,2,3,6,7,8-HxCDD	83.1	
1,2,3,7,8,9-HxCDD	EMPC		0.241	J	13C-1,2,3,7,8,9-HxCDD	86.3	
1,2,3,4,6,7,8-HpCDD	3.19				13C-1,2,3,4,6,7,8-HpCDD	97.2	
OCDD	5.7				13C-OCDD	104	
2,3,7,8-TCDF	5.57				13C-2,3,7,8-TCDF	94.2	
1,2,3,7,8-PeCDF	1.03			J	13C-1,2,3,7,8-PeCDF	102	
2,3,4,7,8-PeCDF	0.704			J	13C-2,3,4,7,8-PeCDF	101	
1,2,3,4,7,8-HxCDF	0.397			J	13C-1,2,3,4,7,8-HxCDF	75.3	
1,2,3,6,7,8-HxCDF	0.405			J	13C-1,2,3,6,7,8-HxCDF	74.8	
2,3,4,6,7,8-HxCDF	EMPC		0.15	J	13C-2,3,4,6,7,8-HxCDF	77.1	
1,2,3,7,8,9-HxCDF	ND	0.0909			13C-1,2,3,7,8,9-HxCDF	79.8	
1,2,3,4,6,7,8-HpCDF	0.782			J	13C-1,2,3,4,6,7,8-HpCDF	84.2	
1,2,3,4,7,8,9-HpCDF	ND	0.14			13C-1,2,3,4,7,8,9-HpCDF	92.1	
OCDF	ND	0.182			13C-OCDF	92.9	
Totals						**CS Recoveries**	
TCDDs	ND		0.628		37Cl-2,3,7,8-TCDD	87.2	
PeCDDs	ND		0.701		13C-1,2,3,4,7-PeCDD	98.7	
HxCDDs	2.68		2.92		13C-1,2,3,4,6-PeCDF	113	
HpCDDs	3.59				13C-1,2,3,4,6,9-HxCDF	85.8	
					13C-1,2,3,4,6,8,9-HpCDF	102	
TCDFs	6.55						
PeCDFs	5.52					**AS Recoveries**	
HxCDFs	3.25		3.94		13C-1,3,6,8-TCDD	79.6	
HpCDFs	0.999				13C-1,3,6,8-TCDF	105	
Total PCDD/Fs	**28.3**		**30.5**				
ITEF TEQs							
TEQ: ND=0	1.35		2.37				
TEQ: ND=DL/2	1.55		2.39				
TEQ: ND=DL	1.74		2.4				

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Sample ID: EW-08-SB012-BR-10 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.03 g	Sample ID:	P1395_6907_001	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	3:05:32

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.436	[Ra=0.829]		J	13C-2,3,7,8-TCDD	92.6	
1,2,3,7,8-PeCDD	EMPC		0.416	J	13C-1,2,3,7,8-PeCDD	96.3	
1,2,3,4,7,8-HxCDD	ND	0.14			13C-1,2,3,4,7,8-HxCDD	87.6	
1,2,3,6,7,8-HxCDD	1.74			J	13C-1,2,3,6,7,8-HxCDD	92.6	
1,2,3,7,8,9-HxCDD	0.265			J	13C-1,2,3,7,8,9-HxCDD	94.3	
1,2,3,4,6,7,8-HpCDD	2.11			J	13C-1,2,3,4,6,7,8-HpCDD	110	
OCDD	3.11			J	13C-OCDD	107	
2,3,7,8-TCDF	7.6				13C-2,3,7,8-TCDF	104	
1,2,3,7,8-PeCDF	1.28			J	13C-1,2,3,7,8-PeCDF	110	
2,3,4,7,8-PeCDF	0.713			J	13C-2,3,4,7,8-PeCDF	110	
1,2,3,4,7,8-HxCDF	0.316			J	13C-1,2,3,4,7,8-HxCDF	79.2	
1,2,3,6,7,8-HxCDF	EMPC		0.211	J	13C-1,2,3,6,7,8-HxCDF	77.2	
2,3,4,6,7,8-HxCDF	0.181			J	13C-2,3,4,6,7,8-HxCDF	85.5	
1,2,3,7,8,9-HxCDF	ND	0.0726			13C-1,2,3,7,8,9-HxCDF	85.8	
1,2,3,4,6,7,8-HpCDF	0.453			J	13C-1,2,3,4,6,7,8-HpCDF	95.1	
1,2,3,4,7,8,9-HpCDF	ND	0.0694			13C-1,2,3,4,7,8,9-HpCDF	102	
OCDF	ND	0.24			13C-OCDF	102	
Totals						**CS Recoveries**	
TCDDs	0.436				37Cl-2,3,7,8-TCDD	87.7	
PeCDDs	ND		0.416		13C-1,2,3,4,7-PeCDD	93.9	
HxCDDs	2.01				13C-1,2,3,4,6-PeCDF	107	
HpCDDs	2.11				13C-1,2,3,4,6,9-HxCDF	88.4	
					13C-1,2,3,4,6,8,9-HpCDF	108	
TCDFs	8.11						
PeCDFs	2.94		3.21			**AS Recoveries**	
HxCDFs	1.66		1.87		13C-1,3,6,8-TCDD	79.9	
HpCDFs	0.453		0.576		13C-1,3,6,8-TCDF	98.9	
Total PCDD/Fs	**20.8**		**21.9**				
ITEF TEQs							
TEQ: ND=0	1.9		2.12				
TEQ: ND=DL/2	1.99		2.14				
TEQ: ND=DL	2.08		2.15				

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Reviewer
Date
HD 9 9 Dec 09

Sample ID: EW-08-SB011-BR-11 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.05 g	Sample ID:	P1395_6907_002	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	3:55:12

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	0.829	[Ra=0.773]			13C-2,3,7,8-TCDD	82.9	
1,2,3,7,8-PeCDD	0.877			J	13C-1,2,3,7,8-PeCDD	88.6	
1,2,3,4,7,8-HxCDD	ND	0.164			13C-1,2,3,4,7,8-HxCDD	84.5	
1,2,3,6,7,8-HxCDD	2.5				13C-1,2,3,6,7,8-HxCDD	85.6	
1,2,3,7,8,9-HxCDD	EMPC		0.348	J	13C-1,2,3,7,8,9-HxCDD	90.8	
1,2,3,4,6,7,8-HpCDD	3.73				13C-1,2,3,4,6,7,8-HpCDD	94.1	
OCDD	9.55				13C-OCDD	92.5	
2,3,7,8-TCDF	3.5				13C-2,3,7,8-TCDF	99.8	
1,2,3,7,8-PeCDF	1.08			J	13C-1,2,3,7,8-PeCDF	105	
2,3,4,7,8-PeCDF	0.914			J	13C-2,3,4,7,8-PeCDF	103	
1,2,3,4,7,8-HxCDF	0.567			J	13C-1,2,3,4,7,8-HxCDF	75.8	
1,2,3,6,7,8-HxCDF	0.307			J	13C-1,2,3,6,7,8-HxCDF	76.3	
2,3,4,6,7,8-HxCDF	0.256			J	13C-2,3,4,6,7,8-HxCDF	78.3	
1,2,3,7,8,9-HxCDF	ND	0.0838			13C-1,2,3,7,8,9-HxCDF	79.6	
1,2,3,4,6,7,8-HpCDF	0.589			J	13C-1,2,3,4,6,7,8-HpCDF	82.1	
1,2,3,4,7,8,9-HpCDF	ND	0.0717			13C-1,2,3,4,7,8,9-HpCDF	88.3	
OCDF	0.351			J	13C-OCDF	85.9	
Totals						**CS Recoveries**	
TCDDs	0.829				37Cl-2,3,7,8-TCDD	81.3	
PeCDDs	0.877				13C-1,2,3,4,7-PeCDD	86.9	
HxCDDs	2.5		2.85		13C-1,2,3,4,6-PeCDF	104	
HpCDDs	3.73		4.17		13C-1,2,3,4,6,9-HxCDF	81.6	
					13C-1,2,3,4,6,8,9-HpCDF	90.5	
TCDFs	3.5		3.69				
PeCDFs	2.95		3.01			**AS Recoveries**	
HxCDFs	2.23		2.36		13C-1,3,6,8-TCDD	74.6	
HpCDFs	0.589		0.82		13C-1,3,6,8-TCDF	93.4	
Total PCDD/Fs	**27.1**		**28.5**				
ITEF TEQs							
TEQ: ND=0	2.54		2.58				
TEQ: ND=DL/2	2.57		2.59				
TEQ: ND=DL	2.59		2.6				

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Sample ID: EW-S01-GD02 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.12 g	Sample ID:	P1395_6907_003	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	4:44:52

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.119			13C-2,3,7,8-TCDD	88.8	
1,2,3,7,8-PeCDD	ND	0.21			13C-1,2,3,7,8-PeCDD	93.9	
1,2,3,4,7,8-HxCDD	ND	0.242			13C-1,2,3,4,7,8-HxCDD	79	
1,2,3,6,7,8-HxCDD	ND	0.273			13C-1,2,3,6,7,8-HxCDD	81.7	
1,2,3,7,8,9-HxCDD	ND	0.276			13C-1,2,3,7,8,9-HxCDD	84.6	
1,2,3,4,6,7,8-HpCDD	ND	0.15			13C-1,2,3,4,6,7,8-HpCDD	91.2	
OCDD	0.807			J	13C-OCDD	91.5	
2,3,7,8-TCDF	ND	0.0837			13C-2,3,7,8-TCDF	102	
1,2,3,7,8-PeCDF	ND	0.151			13C-1,2,3,7,8-PeCDF	110	
2,3,4,7,8-PeCDF	ND	0.134			13C-2,3,4,7,8-PeCDF	108	
1,2,3,4,7,8-HxCDF	ND	0.0615			13C-1,2,3,4,7,8-HxCDF	73.6	
1,2,3,6,7,8-HxCDF	ND	0.0604			13C-1,2,3,6,7,8-HxCDF	74.8	
2,3,4,6,7,8-HxCDF	ND	0.0628			13C-2,3,4,6,7,8-HxCDF	75.5	
1,2,3,7,8,9-HxCDF	ND	0.0895			13C-1,2,3,7,8,9-HxCDF	77.6	
1,2,3,4,6,7,8-HpCDF	ND	0.0769			13C-1,2,3,4,6,7,8-HpCDF	81.2	
1,2,3,4,7,8,9-HpCDF	ND	0.114			13C-1,2,3,4,7,8,9-HpCDF	85.8	
OCDF	ND	0.226			13C-OCDF	85.1	
Totals						**CS Recoveries**	
TCDDs	0.291				37Cl-2,3,7,8-TCDD	87	
PeCDDs	ND	0.21			13C-1,2,3,4,7-PeCDD	95.9	
HxCDDs	ND	0.263			13C-1,2,3,4,6-PeCDF	110	
HpCDDs	ND		0.299		13C-1,2,3,4,6,9-HxCDF	82	
					13C-1,2,3,4,6,8,9-HpCDF	94.9	
TCDFs	ND	0.0837					
PeCDFs	ND	0.142				**AS Recoveries**	
HxCDFs	0.122				13C-1,3,6,8-TCDD	80.7	
HpCDFs	ND		0.0661		13C-1,3,6,8-TCDF	102	
Total PCDD/Fs	**1.22**		**1.58**				
ITEF TEQs							
TEQ: ND=0	0.000807		0.000807				
TEQ: ND=DL/2	0.209		0.209				
TEQ: ND=DL	0.418		0.418				

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Sample ID: EW-S01-GD04 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.13 g	Sample ID:	P1395_6907_004	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	5:34:27

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.108			13C-2,3,7,8-TCDD	87.4	
1,2,3,7,8-PeCDD	ND	0.178			13C-1,2,3,7,8-PeCDD	93.6	
1,2,3,4,7,8-HxCDD	ND	0.259			13C-1,2,3,4,7,8-HxCDD	86.1	
1,2,3,6,7,8-HxCDD	ND	0.272			13C-1,2,3,6,7,8-HxCDD	87.1	
1,2,3,7,8,9-HxCDD	ND	0.289			13C-1,2,3,7,8,9-HxCDD	88.8	
1,2,3,4,6,7,8-HpCDD	EMPC		0.424	J	13C-1,2,3,4,6,7,8-HpCDD	93.1	
OCDD	2.59			J	13C-OCDD	93.2	
2,3,7,8-TCDF	0.173			J	13C-2,3,7,8-TCDF	101	
1,2,3,7,8-PeCDF	ND	0.133			13C-1,2,3,7,8-PeCDF	109	
2,3,4,7,8-PeCDF	ND	0.121			13C-2,3,4,7,8-PeCDF	108	
1,2,3,4,7,8-HxCDF	ND	0.0616			13C-1,2,3,4,7,8-HxCDF	77.6	
1,2,3,6,7,8-HxCDF	ND	0.0577			13C-1,2,3,6,7,8-HxCDF	81.1	
2,3,4,6,7,8-HxCDF	ND	0.0601			13C-2,3,4,6,7,8-HxCDF	82.5	
1,2,3,7,8,9-HxCDF	ND	0.0841			13C-1,2,3,7,8,9-HxCDF	83.9	
1,2,3,4,6,7,8-HpCDF	0.0879			J	13C-1,2,3,4,6,7,8-HpCDF	82.2	
1,2,3,4,7,8,9-HpCDF	ND	0.105			13C-1,2,3,4,7,8,9-HpCDF	88.5	
OCDF	ND	0.588			13C-OCDF	87.5	
Totals						**CS Recoveries**	
TCDDs	ND		0.311		37Cl-2,3,7,8-TCDD	86.7	
PeCDDs	ND	0.178			13C-1,2,3,4,7-PeCDD	97.5	
HxCDDs	0.24				13C-1,2,3,4,6-PeCDF	109	
HpCDDs	ND		1.05		13C-1,2,3,4,6,9-HxCDF	85.2	
					13C-1,2,3,4,6,8,9-HpCDF	90	
TCDFs	0.173		0.607				
PeCDFs	0.308		0.474			**AS Recoveries**	
HxCDFs	0.261		0.355		13C-1,3,6,8-TCDD	82.3	
HpCDFs	0.0879		0.291		13C-1,3,6,8-TCDF	103	
Total PCDD/Fs	**3.67**		**5.92**				
ITEF TEQs							
TEQ: ND=0	0.0208		0.025				
TEQ: ND=DL/2	0.209		0.212				
TEQ: ND=DL	0.398		0.399				

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Sample ID: EW-S01-GD10 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.09 g	Sample ID:	P1395_6907_005	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	6:24:07

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.138			13C-2,3,7,8-TCDD	90	
1,2,3,7,8-PeCDD	ND	0.121			13C-1,2,3,7,8-PeCDD	95.7	
1,2,3,4,7,8-HxCDD	ND	0.125			13C-1,2,3,4,7,8-HxCDD	87	
1,2,3,6,7,8-HxCDD	ND	0.147			13C-1,2,3,6,7,8-HxCDD	88.6	
1,2,3,7,8,9-HxCDD	ND	0.145			13C-1,2,3,7,8,9-HxCDD	90.3	
1,2,3,4,6,7,8-HpCDD	EMPC		0.416	J	13C-1,2,3,4,6,7,8-HpCDD	92.4	
OCDD	2.18			J	13C-OCDD	94.5	
2,3,7,8-TCDF	0.22			J	13C-2,3,7,8-TCDF	102	
1,2,3,7,8-PeCDF	ND	0.15			13C-1,2,3,7,8-PeCDF	112	
2,3,4,7,8-PeCDF	EMPC		0.0534	J	13C-2,3,4,7,8-PeCDF	111	
1,2,3,4,7,8-HxCDF	ND	0.0883			13C-1,2,3,4,7,8-HxCDF	79.4	
1,2,3,6,7,8-HxCDF	ND	0.0811			13C-1,2,3,6,7,8-HxCDF	83.1	
2,3,4,6,7,8-HxCDF	ND	0.0919			13C-2,3,4,6,7,8-HxCDF	83.8	
1,2,3,7,8,9-HxCDF	ND	0.116			13C-1,2,3,7,8,9-HxCDF	84.8	
1,2,3,4,6,7,8-HpCDF	0.102			J	13C-1,2,3,4,6,7,8-HpCDF	79.9	
1,2,3,4,7,8,9-HpCDF	ND	0.114			13C-1,2,3,4,7,8,9-HpCDF	88.2	
OCDF	ND	0.463			13C-OCDF	86.6	
Totals						**CS Recoveries**	
TCDDs	ND	0.138			37Cl-2,3,7,8-TCDD	87.9	
PeCDDs	ND	0.121			13C-1,2,3,4,7-PeCDD	97.2	
HxCDDs	ND		0.263		13C-1,2,3,4,6-PeCDF	111	
HpCDDs	0.484		0.9		13C-1,2,3,4,6,9-HxCDF	86.7	
					13C-1,2,3,4,6,8,9-HpCDF	87.5	
TCDFs	0.316						
PeCDFs	0.149		0.203			**AS Recoveries**	
HxCDFs	0.302				13C-1,3,6,8-TCDD	80.2	
HpCDFs	0.363				13C-1,3,6,8-TCDF	102	
Total PCDD/Fs	**3.8**		**4.53**				
ITEF TEQs							
TEQ: ND=0	0.0252		0.056				
TEQ: ND=DL/2	0.202		0.2				
TEQ: ND=DL	0.38		0.343				

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Sample ID: EW-S01-GD-GBCOMP1 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.17 g	Sample ID:	P1395_6907_006	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	7:13:41

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0951			13C-2,3,7,8-TCDD	94	
1,2,3,7,8-PeCDD	EMPC		0.122	J	13C-1,2,3,7,8-PeCDD	96.4	
1,2,3,4,7,8-HxCDD	0.128			J	13C-1,2,3,4,7,8-HxCDD	85.8	
1,2,3,6,7,8-HxCDD	0.25			J	13C-1,2,3,6,7,8-HxCDD	88.6	
1,2,3,7,8,9-HxCDD	0.122			J	13C-1,2,3,7,8,9-HxCDD	90.8	
1,2,3,4,6,7,8-HpCDD	2.39			J	13C-1,2,3,4,6,7,8-HpCDD	90.8	
OCDD	17.2				13C-OCDD	92.3	
2,3,7,8-TCDF	EMPC		0.259	J	13C-2,3,7,8-TCDF	104	
1,2,3,7,8-PeCDF	ND	0.0609			13C-1,2,3,7,8-PeCDF	113	
2,3,4,7,8-PeCDF	EMPC		0.203	J	13C-2,3,4,7,8-PeCDF	111	
1,2,3,4,7,8-HxCDF	0.199			J	13C-1,2,3,4,7,8-HxCDF	80.5	
1,2,3,6,7,8-HxCDF	ND	0.0547			13C-1,2,3,6,7,8-HxCDF	83.9	
2,3,4,6,7,8-HxCDF	ND	0.0608			13C-2,3,4,6,7,8-HxCDF	81.7	
1,2,3,7,8,9-HxCDF	ND	0.0777			13C-1,2,3,7,8,9-HxCDF	82.3	
1,2,3,4,6,7,8-HpCDF	0.645			J	13C-1,2,3,4,6,7,8-HpCDF	79.1	
1,2,3,4,7,8,9-HpCDF	ND	0.0958			13C-1,2,3,4,7,8,9-HpCDF	84.2	
OCDF	1.34			J	13C-OCDF	84.2	
Totals						**CS Recoveries**	
TCDDs	0.206		0.576		37Cl-2,3,7,8-TCDD	89.4	
PeCDDs	0.141		0.53		13C-1,2,3,4,7-PeCDD	96.6	
HxCDDs	2.31		2.56		13C-1,2,3,4,6-PeCDF	109	
HpCDDs	6.74				13C-1,2,3,4,6,9-HxCDF	84.9	
					13C-1,2,3,4,6,8,9-HpCDF	87.7	
TCDFs	1.09		2.17				
PeCDFs	0.937		1.89			**AS Recoveries**	
HxCDFs	1.89				13C-1,3,6,8-TCDD	81.2	
HpCDFs	2.32				13C-1,3,6,8-TCDF	100	
Total PCDD/Fs	**34.2**		**37.2**				
ITEF TEQs							
TEQ: ND=0	0.119		0.307				
TEQ: ND=DL/2	0.244		0.366				
TEQ: ND=DL	0.368		0.425				

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Sample ID: EW-S01-GD-GBCOMP2 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.12 g	Sample ID:	P1395_6907_007	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	8:03:20

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.177			13C-2,3,7,8-TCDD	90.2	
1,2,3,7,8-PeCDD	EMPC		0.169	J	13C-1,2,3,7,8-PeCDD	92.9	
1,2,3,4,7,8-HxCDD	0.243			J	13C-1,2,3,4,7,8-HxCDD	87.5	
1,2,3,6,7,8-HxCDD	0.422			J	13C-1,2,3,6,7,8-HxCDD	91.1	
1,2,3,7,8,9-HxCDD	0.213			J	13C-1,2,3,7,8,9-HxCDD	92.4	
1,2,3,4,6,7,8-HpCDD	3.24				13C-1,2,3,4,6,7,8-HpCDD	91.7	
OCDD	21.1				13C-OCDD	91.8	
2,3,7,8-TCDF	0.495				13C-2,3,7,8-TCDF	105	
1,2,3,7,8-PeCDF	ND	0.212			13C-1,2,3,7,8-PeCDF	111	
2,3,4,7,8-PeCDF	0.379			J	13C-2,3,4,7,8-PeCDF	109	
1,2,3,4,7,8-HxCDF	0.246			J	13C-1,2,3,4,7,8-HxCDF	82.6	
1,2,3,6,7,8-HxCDF	ND	0.111			13C-1,2,3,6,7,8-HxCDF	85.9	
2,3,4,6,7,8-HxCDF	ND	0.119			13C-2,3,4,6,7,8-HxCDF	86.1	
1,2,3,7,8,9-HxCDF	ND	0.169			13C-1,2,3,7,8,9-HxCDF	85.2	
1,2,3,4,6,7,8-HpCDF	0.921			J	13C-1,2,3,4,6,7,8-HpCDF	82.2	
1,2,3,4,7,8,9-HpCDF	ND	0.156			13C-1,2,3,4,7,8,9-HpCDF	89.3	
OCDF	1.73			J	13C-OCDF	87.4	
Totals						**CS Recoveries**	
TCDDs	0.175		0.989		37Cl-2,3,7,8-TCDD	87.1	
PeCDDs	0.497		1.1		13C-1,2,3,4,7-PeCDD	92.9	
HxCDDs	3.16		3.37		13C-1,2,3,4,6-PeCDF	109	
HpCDDs	8.57				13C-1,2,3,4,6,9-HxCDF	89.8	
					13C-1,2,3,4,6,8,9-HpCDF	91.7	
TCDFs	1.61		3.54				
PeCDFs	3.3		3.46			**AS Recoveries**	
HxCDFs	2.28		2.49		13C-1,3,6,8-TCDD	81.7	
HpCDFs	3.16				13C-1,3,6,8-TCDF	103	
Total PCDD/Fs	**45.6**		**49.5**				
ITEF TEQs							
TEQ: ND=0	0.416		0.5				
TEQ: ND=DL/2	0.58		0.615				
TEQ: ND=DL	0.745		0.73				

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Reviewer
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WS 9 Jul 09

Sample ID: EW-B06-BC-01-COMP01 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.15 g	Sample ID:	P1395_6907_008	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	11:29:50

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0957			13C-2,3,7,8-TCDD	96.2	
1,2,3,7,8-PeCDD	ND	0.246			13C-1,2,3,7,8-PeCDD	98	
1,2,3,4,7,8-HxCDD	ND	0.256			13C-1,2,3,4,7,8-HxCDD	82.1	
1,2,3,6,7,8-HxCDD	EMPC		0.292	J	13C-1,2,3,6,7,8-HxCDD	86.8	
1,2,3,7,8,9-HxCDD	ND	0.284			13C-1,2,3,7,8,9-HxCDD	84	
1,2,3,4,6,7,8-HpCDD	4.8				13C-1,2,3,4,6,7,8-HpCDD	84	
OCDD	47.3				13C-OCDD	81.9	
2,3,7,8-TCDF	0.291			J	13C-2,3,7,8-TCDF	103	
1,2,3,7,8-PeCDF	ND	0.113			13C-1,2,3,7,8-PeCDF	111	
2,3,4,7,8-PeCDF	EMPC		0.24	J	13C-2,3,4,7,8-PeCDF	112	
1,2,3,4,7,8-HxCDF	EMPC		0.191	J	13C-1,2,3,4,7,8-HxCDF	72.5	
1,2,3,6,7,8-HxCDF	ND	0.0839			13C-1,2,3,6,7,8-HxCDF	81.2	
2,3,4,6,7,8-HxCDF	EMPC		0.133	J	13C-2,3,4,6,7,8-HxCDF	83.4	
1,2,3,7,8,9-HxCDF	ND	0.117			13C-1,2,3,7,8,9-HxCDF	79.9	
1,2,3,4,6,7,8-HpCDF	1.01			J	13C-1,2,3,4,6,7,8-HpCDF	74.8	
1,2,3,4,7,8,9-HpCDF	ND	0.139			13C-1,2,3,4,7,8,9-HpCDF	80.4	
OCDF	2.11			J	13C-OCDF	75.7	
Totals						**CS Recoveries**	
TCDDs	0.273		0.501		37Cl-2,3,7,8-TCDD	96.3	
PeCDDs	ND		0.258		13C-1,2,3,4,7-PeCDD	106	
HxCDDs	0.997		2.09		13C-1,2,3,4,6-PeCDF	110	
HpCDDs	17.5				13C-1,2,3,4,6,9-HxCDF	89.4	
					13C-1,2,3,4,6,8,9-HpCDF	89.3	
TCDFs	2.02		3.96				
PeCDFs	2.03		2.41			**AS Recoveries**	
HxCDFs	1.16		2.26		13C-1,3,6,8-TCDD	84.7	
HpCDFs	3.31				13C-1,3,6,8-TCDF	101	
Total PCDD/Fs	**76.7**		**81.7**				
ITEF TEQs							
TEQ: ND=0	0.137		0.318				
TEQ: ND=DL/2	0.334		0.468				
TEQ: ND=DL	0.531		0.618				

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Reviewer .....
Date .....
HD 9 Jul 09

Sample ID: EW-B08-CN-02-COMP01 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.03 g	Sample ID:	P1395_6907_009	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	12:19:28

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0926			13C-2,3,7,8-TCDD	88.7	
1,2,3,7,8-PeCDD	ND	0.0941			13C-1,2,3,7,8-PeCDD	97.4	
1,2,3,4,7,8-HxCDD	ND	0.192			13C-1,2,3,4,7,8-HxCDD	80.3	
1,2,3,6,7,8-HxCDD	ND	0.195			13C-1,2,3,6,7,8-HxCDD	82.7	
1,2,3,7,8,9-HxCDD	ND	0.215			13C-1,2,3,7,8,9-HxCDD	84.9	
1,2,3,4,6,7,8-HpCDD	2.13			J	13C-1,2,3,4,6,7,8-HpCDD	82.5	
OCDD	14.1				13C-OCDD	80.3	
2,3,7,8-TCDF	EMPC		0.113	J	13C-2,3,7,8-TCDF	101	
1,2,3,7,8-PeCDF	ND	0.13			13C-1,2,3,7,8-PeCDF	109	
2,3,4,7,8-PeCDF	0.177			J	13C-2,3,4,7,8-PeCDF	109	
1,2,3,4,7,8-HxCDF	EMPC		0.109	J	13C-1,2,3,4,7,8-HxCDF	74.4	
1,2,3,6,7,8-HxCDF	ND	0.0857			13C-1,2,3,6,7,8-HxCDF	80.1	
2,3,4,6,7,8-HxCDF	EMPC		0.0902	J	13C-2,3,4,6,7,8-HxCDF	78.5	
1,2,3,7,8,9-HxCDF	ND	0.125			13C-1,2,3,7,8,9-HxCDF	79.5	
1,2,3,4,6,7,8-HpCDF	EMPC		0.377	J	13C-1,2,3,4,6,7,8-HpCDF	74.5	
1,2,3,4,7,8,9-HpCDF	ND	0.147			13C-1,2,3,4,7,8,9-HpCDF	80.6	
OCDF	1.05			J	13C-OCDF	74.8	
Totals						**CS Recoveries**	
TCDDs	0.348				37Cl-2,3,7,8-TCDD	87.1	
PeCDDs	ND	0.0941			13C-1,2,3,4,7-PeCDD	102	
HxCDDs	0.797		0.927		13C-1,2,3,4,6-PeCDF	107	
HpCDDs	2.13		5.63		13C-1,2,3,4,6,9-HxCDF	84	
					13C-1,2,3,4,6,8,9-HpCDF	88.9	
TCDFs	1.55		1.83				
PeCDFs	1.13		1.25			**AS Recoveries**	
HxCDFs	1.03		1.23		13C-1,3,6,8-TCDD	84.3	
HpCDFs	1.21		1.59		13C-1,3,6,8-TCDF	102	
Total PCDD/Fs	**23.4**		**28**				
ITEF TEQs							
TEQ: ND=0	0.125		0.16				
TEQ: ND=DL/2	0.255		0.274				
TEQ: ND=DL	0.386		0.389				

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Reviewer .....
Date .....

Sample ID: EW-B10-BC-01-COMP01 — Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Windward Environmental LLC	Matrix:	Tissue	Project No.:	P1395	Date Received:	12 Jun 2009
Project ID:	General Analytical HRMS	Weight/Volume:	10.06 g	Sample ID:	P1395_6907_010	Date Extracted:	25 Jun 2009
Date Collected:	28 May 2009	% Lipids:	n/a	QC Batch No.:	6907	Date Analyzed:	04 Jul 2009
		Split:	-	Dilution:	-	Time Analyzed:	13:09:02

Analyte	Conc. (pg/g)	DL (pg/g)	EMPC (pg/g)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.105			13C-2,3,7,8-TCDD	92.1	
1,2,3,7,8-PeCDD	ND	0.158			13C-1,2,3,7,8-PeCDD	92.6	
1,2,3,4,7,8-HxCDD	ND	0.189			13C-1,2,3,4,7,8-HxCDD	82.7	
1,2,3,6,7,8-HxCDD	ND	0.208			13C-1,2,3,6,7,8-HxCDD	84.6	
1,2,3,7,8,9-HxCDD	ND	0.22			13C-1,2,3,7,8,9-HxCDD	86.8	
1,2,3,4,6,7,8-HpCDD	2.31			J	13C-1,2,3,4,6,7,8-HpCDD	87	
OCDD	17				13C-OCDD	84.7	
2,3,7,8-TCDF	EMPC		0.17	J	13C-2,3,7,8-TCDF	104	
1,2,3,7,8-PeCDF	ND	0.116			13C-1,2,3,7,8-PeCDF	113	
2,3,4,7,8-PeCDF	ND	0.112			13C-2,3,4,7,8-PeCDF	111	
1,2,3,4,7,8-HxCDF	ND	0.075			13C-1,2,3,4,7,8-HxCDF	77.9	
1,2,3,6,7,8-HxCDF	ND	0.064			13C-1,2,3,6,7,8-HxCDF	82.6	
2,3,4,6,7,8-HxCDF	ND	0.076			13C-2,3,4,6,7,8-HxCDF	82.2	
1,2,3,7,8,9-HxCDF	ND	0.11			13C-1,2,3,7,8,9-HxCDF	79.1	
1,2,3,4,6,7,8-HpCDF	0.268			J	13C-1,2,3,4,6,7,8-HpCDF	77.2	
1,2,3,4,7,8,9-HpCDF	ND	0.106			13C-1,2,3,4,7,8,9-HpCDF	80.9	
OCDF	0.829			J	13C-OCDF	77.8	
Totals						**CS Recoveries**	
TCDDs	ND		0.167		37Cl-2,3,7,8-TCDD	88.2	
PeCDDs	ND	0.158			13C-1,2,3,4,7-PeCDD	99.1	
HxCDDs	0.311		0.771		13C-1,2,3,4,6-PeCDF	110	
HpCDDs	6.92				13C-1,2,3,4,6,9-HxCDF	84.8	
					13C-1,2,3,4,6,8,9-HpCDF	90.2	
TCDFs	0.45		1.74				
PeCDFs	ND		0.295			**AS Recoveries**	
HxCDFs	0.4		0.715		13C-1,3,6,8-TCDD	80.4	
HpCDFs	1.18				13C-1,3,6,8-TCDF	104	
Total PCDD/Fs	**27.1**		**29.6**				
ITEF TEQs							
TEQ: ND=0	0.0436		0.0606				
TEQ: ND=DL/2	0.221		0.231				
TEQ: ND=DL	0.399		0.402				

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CONVENTIONALS

ANALYTICAL RESOURCES INCORPORATED

LIPIDS ANALYSIS DATA SHEET
Percent Lipids by Method Bligh&Dyer

Data Release Authorized:
Reported: 06/03/09
Date Received: 05/28/09

QC Report No: PA65-Windward Environmental, LLC
Project: EW RI/FS Fish and Crab Sampling

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	RL	Result
EW08-ES-WB-SUPCOMP1 PA65A 09-12185	05/28/09	Tissue	06/01/09	0.0010	3.08 %
EW08-ES-WB-SUPCOMP2 PA65B 09-12186	05/28/09	Tissue	06/01/09	0.0010	2.88 %
EW08-ES-WB-SUPCOMP3 PA65C 09-12187	05/28/09	Tissue	06/01/09	0.0009	2.93 %
EW08-ES-FL-SUPCOMP1 PA65D 09-12188	05/28/09	Tissue	06/01/09	0.0010	1.53 %
EW08-ES-FL-SUPCOMP2 PA65E 09-12189	05/28/09	Tissue	06/01/09	0.0009	1.40 %
EW08-ES-FL-SUPCOMP3 PA65F 09-12190	05/28/09	Tissue	06/01/09	0.0010	1.61 %
Method Blank			06/01/09	0.0010	0.0100 %
EW08-ES-WB-SUPCOMP1 DUP PA65ADUP 09-12185	05/28/09	Tissue	06/01/09	0.0010	3.08 % RPD: 0.0 %

Results Are On A Wet Weight Basis

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

LIPIDS ANALYSIS DATA SHEET
Percent Lipids by Method Bligh&Dyer

Data Release Authorized:
Reported: 06/09/09
Date Received: 05/28/09
Page 1 of 1

QC Report No: PA65-Windward Environmental, LLC
Project: EW RI/FS Fish and Crab Sampling

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	RL	Result
EW08-RRDC-EM-SUPCOMP1 PA65J 09-12194	05/28/09	Tissue	06/03/09	0.0009	0.151 %
EW08-RRDC-EM-SUPCOMP2 PA65K 09-12195	05/28/09	Tissue	06/03/09	0.0010	0.159 %
EW08-RRDC-EM-SUPCOMP3 PA65L 09-12196	05/28/09	Tissue	06/03/09	0.0009	0.151 %
EW08-RRDC-HP-SUPCOMP1 PA65M 09-12197	05/28/09	Tissue	06/03/09	0.0010	2.13 %
EW08-RRDC-HP-SUPCOMP2 PA65N 09-12198	05/28/09	Tissue	06/03/09	0.0010	2.18 %
EW08-RRDC-HP-SUPCOMP3 PA65O 09-12199	05/28/09	Tissue	06/03/09	0.0009	2.25 %
Method Blank			06/03/09	0.0010	< 0.0010 % U

Results Are On A Wet Weight Basis

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

LIPIDS ANALYSIS DATA SHEET
Percent Lipids by Method Bligh&Dyer

Data Release Authorized:
Reported: 06/09/09
Date Received: 05/28/09
Page 1 of 1

QC Report No: PA65-Windward Environmental, LLC
Project: EW RI/FS Fish and Crab Sampling

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	RL	Result
EW08-SS-WB-SUPCOMP1 PA65G 09-12191	05/28/09	Tissue	06/04/09	0.0038	5.50 %
EW08-SS-WB-SUPCOMP2 PA65H 09-12192	05/28/09	Tissue	06/04/09	0.0038	5.34 %
EW08-SS-WB-SUPCOMP3 PA65I 09-12193	05/28/09	Tissue	06/04/09	0.0047	5.37 %
Method Blank			06/04/09	0.0050	0.0500 %

Results Are On A Wet Weight Basis

RL-Analytical reporting limit
U-Undetected at reported detection limit

TOTAL SOLIDS ANALYSIS DATA SHEET
Total Solids by Method EPA 160.3

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 06/01/09
Date Received: 05/28/09

QC Report No: PA65-Windward Environmental, LLC
Project: EW RI/FS Fish and Crab Sampling

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	RL	Result
EW08-ES-WB-SUPCOMP1 PA65A 09-12185	05/28/09	Tissue	05/30/09	0.01	21.90 %
EW08-ES-WB-SUPCOMP2 PA65B 09-12186	05/28/09	Tissue	05/30/09	0.01	22.37 %
EW08-ES-WB-SUPCOMP2 DUP PA65BDUP 09-12186	05/28/09	Tissue	05/30/09	0.01	21.74 % RPD: 2.9 %
EW08-ES-WB-SUPCOMP3 PA65C 09-12187	05/28/09	Tissue	05/30/09	0.01	22.31 %
EW08-ES-FL-SUPCOMP1 PA65D 09-12188	05/28/09	Tissue	05/30/09	0.01	20.32 %
EW08-ES-FL-SUPCOMP2 PA65E 09-12189	05/28/09	Tissue	05/30/09	0.01	22.62 %
EW08-ES-FL-SUPCOMP3 PA65F 09-12190	05/28/09	Tissue	05/30/09	0.01	20.44 %

Results Are On A Wet Weight Basis

RL-Analytical reporting limit
U-Undetected at reported detection limit

TOTAL SOLIDS ANALYSIS DATA SHEET
Total Solids by Method EPA 160.3

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 06/08/09
Date Received: 05/28/09
Page 1 of 1

QC Report No: PA65-Windward Environmental, LLC
Project: EW RI/FS Fish and Crab Sampling

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	RL	Result
EW08-RRDC-EM-SUPCOMP1 PA65J 09-12194	05/28/09	Tissue	06/03/09	0.01	18.85 %
EW08-RRDC-EM-SUPCOMP2 PA65K 09-12195	05/28/09	Tissue	06/03/09	0.01	19.11 %
EW08-RRDC-EM-SUPCOMP3 PA65L 09-12196	05/28/09	Tissue	06/03/09	0.01	18.58 %
EW08-RRDC-HP-SUPCOMP1 PA65M 09-12197	05/28/09	Tissue	06/03/09	0.01	14.47 %
EW08-RRDC-HP-SUPCOMP2 PA65N 09-12198	05/28/09	Tissue	06/03/09	0.01	15.26 %
EW08-RRDC-HP-SUPCOMP3 PA65O 09-12199	05/28/09	Tissue	06/03/09	0.01	15.43 %

Results Are On A Wet Weight Basis

RL-Analytical reporting limit
U-Undetected at reported detection limit

TOTAL SOLIDS ANALYSIS DATA SHEET
Total Solids by Method EPA 160.3

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 06/09/09
Date Received: 05/28/09

QC Report No: PA65-Windward Environmental, LLC
Project: EW RI/FS Fish and Crab Sampling

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	RL	Result
EW08-SS-WB-SUPCOMP1 PA65G 09-12191	05/28/09	Tissue	06/04/09	0.01	27.72 %
EW08-SS-WB-SUPCOMP2 PA65H 09-12192	05/28/09	Tissue	06/04/09	0.01	28.78 %
EW08-SS-WB-SUPCOMP3 PA65I 09-12193	05/28/09	Tissue	06/04/09	0.01	28.36 %

Results Are On A Wet Weight Basis

RL-Analytical reporting limit
U-Undetected at reported detection limit

APPENDIX E

Sample Selection Memorandum

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MEMORANDUM

To:	Ravi Sanga
From:	EWG
Subject:	Selection of tissue samples for PCB congener and dioxin and furan analysis
Date:	April 3, 2009

Attached to this memorandum are preliminary, unvalidated data representing concentrations of total PCBs (based on detected Aroclor sums) in crab, fish, clam, mussel, geoduck and shrimp tissue collected from the EW (Table 1). The purpose of releasing these data at this time (i.e., pre-validation) is for EWG and EPA to select which composite samples will be analyzed for PCB congeners and dioxin and furans. These data are not suitable for other purposes at this time. The draft data report with validated fish and crab tissue data will be submitted to EPA in May 2009.

Two approaches are proposed for the analysis of PCB congeners and dioxins and furans. For species that have home ranges that are greater than the EW (i.e. crab [edible meat and hepatopancreas], shiner surfperch, English sole fillets and whole body) the creation of "super composites" is proposed. These composites would contain tissue from all available tissue composite samples. For example, there are 11 composite samples of English sole fillets and the super composite would be made up of an equal amount of tissue from all 11 composite samples, creating one sample with contributions from 55 individual English sole fillets (11 composite samples each containing 5 fillets). The advantages of this approach are:

- The "super" composite sample would include contributions from all collected organisms/composite samples. This provides an estimate of the population mean TEQ concentration using tissue from all collected organisms.
- Compositing reduces analytical costs while still providing an estimate of the population mean which is the value required for the risk assessments.

Each super composite would be created from a aliquot of tissue collected from all available tissue composite samples. These composites would be analyzed in triplicate. The triplicates would be created from additional aliquots of tissue collected from each composite sample following additional homogenization (stirring). The variability among the triplicate samples would reflect the variability within the tissue homogenates as well as analytical variability associated with the analytical method.

Crab

Crabs were analyzed as composite edible meat and composite hepatopancreas samples. There were 8 composites of each tissue type for red rock crabs and 1 composite of each tissue type for the Dungeness crab. The range of total PCB concentrations was 310-550 µg/kg ww for the red rock hepatopancreas samples and 48-214 µg/kg ww for the edible meat samples. The Dungeness crab hepatopancreas sample had a total PCB concentration of 1,910 µg/kg ww) The Dungeness crab edible meat concentration was consistent with the red rock crab edible meat concentrations (177µg/kg ww).

The creation of a super-composite samples for crab edible meat and hepatopancreas tissue is proposed. These samples would include contributions from the existing red rock crab tissue sample and the Dungeness crab samples. The edible meat and hepatopancreas composite samples each contain tissue from seven individual crabs. Therefore the super composite sample contains contributions from 63 individual crabs.

English sole

English sole were analyzed as fillet and whole body composite samples. The consumption of English sole fillets is an important component of the seafood market basket for the human health risk assessment. The total PCB concentrations in the eleven English sole fillet composite samples ranged from 530-1,960 µg/kg ww. The total PCB concentrations in the eleven English sole whole body samples ranged from 1,460-5,000 µg/kg ww. The English sole whole body tissue is a minor component of the seafood market basket for the human health risk assessment. In addition, the whole body TEQ concentration will be evaluated in the ERA for the protection of English sole as a ecological receptor.

The creation of separate super-composite samples for English sole fillets and whole body samples is proposed. These samples would include contributions from all the existing English sole fillet and whole body composite samples. The fillet and whole body composite samples each contain tissue from five individual fish. Therefore the super composite sample contains contributions from 55 individual fish.

Shiner surfperch

Eight shiner surfperch composite samples containing ten fish per composite were analyzed. The range of total PCB concentrations was 380-1,130 µg/kg ww.

The creation of a super-composite samples for shiner surfperch whole body samples is proposed. These samples would include contributions from all the existing shiner

surfperch whole body composite samples. The whole body composite samples each contain tissue from ten individual fish. Therefore the super composite sample contains contributions from 80 individual fish.

Brown Rockfish

Thirteen brown rockfish were collected from locations throughout EW. The brown rockfish has a small home range and therefore these individual fish reflect conditions proximate to the sampling location. Six brown rockfish are proposed for PCB congener and dioxin and furan analysis. These samples represent a range of total PCB concentrations in brown rockfish (500-4,300 µg/kg ww). Samples were also selected to represent the spatial extent of the waterway (Map 1).

Eight of the 13 rockfish samples contained only Aroclor 1260. The remaining five samples contained both Aroclor 1254 and Aroclor 1260. The samples selected for PCB congener and dioxin and furan analysis represent both of these Aroclor patterns.

Clams

There were four different species of clams analyzed for total PCBs. Most clams (and biomass) were found in the southern end of the waterway followed by Beach 6 (Map 1). Seven samples of butter clams were analyzed from four different beaches (Beaches 3,6,8,10). There were two samples of cockles from Beaches 8 and 10. Finally, one sample of softshell clam from Beach 9 was analyzed and one sample of Little Neck clams from Beach 8. Three samples are proposed for analysis of PCB congeners and dioxins and furans.

Two butter clam samples which represent the minimum and maximum butter clam tissue concentrations (38 µg/kg ww and 78 µg/kg ww). In addition, the cockle sample from Beach 8 is proposed to evaluate another species.

Two Aroclors were reported as detected in all the clam samples. Aroclor 1254 and Aroclor 1260 were detected in all samples with the exception of the one Mya sample contained only Aroclor 1260. There was very little variability in the Aroclor composition of the clam tissue samples with the exception of the little neck clam sample that contained predominately Aroclor 1260.

Three samples of clams are proposed for analysis due to the relatively low total PCB concentrations in the clam tissues.

Geoducks

Six geoduck edible meat samples were analyzed for total PCBs. The concentrations ranged from 14-23 µg/Kg ww. Three geoduck edible meat samples are proposed for PCB congener and dioxin analysis. These sample represent the range of total PCB concentrations (17.1-23 µg/kg ww). All the geoduck edible meat samples contained mixtures of Aroclor 1254 and Aroclor 1260 with the exception of EW-S01-GD01 which contained only Aroclor 1260. There was insufficient tissue remaining for this sample for the analysis of PCB congeners and dioxins.

Three geoduck gutball composite samples were analyzed. The total PCB concentrations range from 51-78 µg/kg ww. There was sufficient tissue remaining for two samples to be analyzed for PCB congeners and dioxins and furans.

Mussels

The total PCB concentrations in the 11 composite mussel tissues are all less than 50 µg/kg ww. The mussel tissue is a minor component of the seafood consumption for the HHRA and the diet of otters in the ERA. Clam tissue TEQ concentrations could represent a health protective level for the mussel component of the diet for human and ecological receptors for the calculation of TEQ risk. Therefore, no mussel samples are proposed for analysis.

Shrimp

One composite sample of shrimp was collected in EW. The total PCB concentration was 440 µg/kg ww. There is insufficient sample mass remaining for additional analysis of this sample.

Table 1. Preliminary unvalidated Aroclor results

	Aroclor 1254 (µg/kg ww)	Q	Aroclor 1260 (µg/kg ww)	Q	Total PCBs	Sample selected?	Aroclor 1254 (% of total PCBs)	Aroclor 1260 (% of total PCBs)
Red Rock Crab hepatopancreas								
EW-08-RR-HP-COMP1	nd	Ui	380	P	380	composite	0%	100%
EW-08-RR-HP-COMP2	nd	Ui	450	P	450	composite	0%	100%
EW-08-RR-HP-COMP3	nd	Ui	550		550	composite	0%	100%
EW-08-RR-HP-COMP4	nd	Ui	440	P	440	composite	0%	100%
EW-08-RR-HP-COMP5	nd	Ui	330	P	330	composite	0%	100%
EW-08-RR-HP-COMP6	nd	Ui	490		490	composite	0%	100%
EW-08-RR-HP-COMP7	nd	Ui	310	P	310	composite	0%	100%
EW-08-RR-HP-COMP8	130		360		490	composite	27%	73%
Red Rock Crab- Edible meat								
EW-08-RR-EM-COMP1	nd	Ui	70		70	composite	0%	100%
EW-08-RR-EM-COMP2	nd	Ui	110		110	composite	0%	100%
EW-08-RR-EM-COMP3	nd	Ui	48	P	48	composite	0%	100%
EW-08-RR-EM-COMP4	nd	Ui	130	P	130	composite	0%	100%
EW-08-RR-EM-COMP5	54	P	160		214	composite	25%	75%
EW-08-RR-EM-COMP6	nd	Ui	68		68	composite	0%	100%
EW-08-RR-EM-COMP7	nd	Ui	98	P	98	composite	0%	100%
EW-08-RR-EM-COMP8	nd	Ui	77		77	composite	0%	100%

	Aroclor 1254 (µg/kg ww)	Q	Aroclor 1260 (µg/kg ww)	Q	Total PCBs	Sample selected?	Aroclor 1254 (% of total PCBs)	Aroclor 1260 (% of total PCBs)
Dungeness Crab								
EW-08-DC-HP-COMP1	910	D	1000	D	1910	composite	48%	52%
EW-08-DC-EM-COMP1	85		92		177	composite	48%	52%
English sole - fillet								
EW-08-ES-FL-COMP01	330		250		580	composite	57%	43%
EW-08-ES-FL-COMP02	410		420		830	composite	49%	51%
EW-08-ES-FL-COMP03	460		380		840	composite	55%	45%
EW-08-ES-FL-COMP05	1000	D	960	D	1960	composite	51%	49%
EW-08-ES-FL-COMP06	620		570		1190	composite	52%	48%
EW-08-ES-FL-COMP07	530		550		1080	composite	49%	51%
EW-08-ES-FL-COMP08	630		570		1200	composite	53%	48%
EW-08-ES-FL-COMP09	920	D	890	D	1810	composite	51%	49%
EW-08-ES-FL-COMP10	610		550		1160	composite	53%	47%
EW-08-ES-FL-COMP11	320		360		680	composite	47%	53%
EW-08-ES-FL-COMP04	240		290		530	composite	45%	55%
Brown Rockfish - Whole body								
EW-08-SB002-BR-01	nd	Ui	710		710	no	0%	100%
EW-08-SB002-BR-02	nd	Ui	740	P	740	yes	0%	100%
EW-08-SB002-BR-03	1100	D	1700	PD	2800	no	39%	61%
EW-08-SB002-BR-04	nd	Ui	600		600	no	0%	100%
EW-08-SB002-BR-05	nd	Ui	610	P	610	no	0%	100%
EW-08-SB002-BR-06	nd	Ui	500	P	500	yes	0%	100%
EW-08-SB002-BR-07	860	D	1300	D	2160	no	40%	60%
EW-08-SB002-BR-08	nd	Ui	4300	D	4300	yes	0%	100%
EW-08-SB002-BR-09	1000	D	1900	D	2900	yes	34%	66%
EW-08-SB002-BR-10	770	D	1200	D	1970	yes	39%	61%
EW-08-SB002-BR-11	920	D	1900	D	2820	yes	33%	67%
EW-08-SB002-BR-12	nd	Ui	570	P	570	no	0%	100%
EW-08-SB002-BR-13	nd	Ui	400	P	400	no	0%	100%
Shiner Surfperch - whole body								
EW-08-SS-WB-COMP1	350		350		700	composite	50%	50%
EW-08-SS-WB-COMP2	590	D	510	D	1100	composite	54%	46%
EW-08-SS-WB-COMP3	570	D	560	D	1130	composite	50%	50%
EW-08-SS-WB-COMP4	540	D	490	D	1030	composite	52%	48%
EW-08-SS-WB-COMP5	450	D	470	D	920	composite	49%	51%

	Aroclor 1254 (µg/kg ww)	Q	Aroclor 1260 (µg/kg ww)	Q	Total PCBs	Sample selected?	Aroclor 1254 (% of total PCBs)	Aroclor 1260 (% of total PCBs)
EW-08-SS-WB-COMP6	640	D	600	D	1240	composite	52%	48%
EW-08-SS-WB-COMP7	560	PD	520	D	1080	composite	52%	48%
EW-08-SS-WB-COMP8	140	P	240		380	composite	37%	63%
English sole - whole body								
EW-08-ES-WB-COMP01	880	D	900	D	1780	composite	49%	51%
EW-08-ES-WB-COMP02	1600	D	1600	D	3200	composite	50%	50%
EW-08-ES-WB-COMP03	1100	D	1200	D	2300	composite	48%	52%
EW-08-ES-WB-COMP04	2400	D	2600	D	5000	composite	48%	52%
EW-08-ES-WB-COMP05	700	D	760	D	1460	composite	48%	52%
EW-08-ES-WB-COMP06	1900	D	2200	D	4100	composite	46%	54%
EW-08-ES-WB-COMP07	1500	D	1800	D	3300	composite	45%	55%
EW-08-ES-WB-COMP08	1100	D	1400	D	2500	composite	44%	56%
EW-08-ES-WB-COMP09	1000	D	1000	D	2000	composite	50%	50%
EW-08-ES-WB-COMP10	1200	D	1600	D	2800	composite	43%	57%
EW-08-ES-WB-COMP11	810	D	850	D	1660	composite	49%	51%
Clam Tissue								
Butter clams								
EW-B03-BC-03-COMP01	17		34		51	no	33%	67%
EW-B06-BC-01-COMP01	31		47		78	yes	40%	60%
EW-B06-BC-01-COMP02	27		44	P	71	no	38%	62%
EW-B08-BC-01-COMP01	26		49		75	no	35%	65%
EW-B08-BC-01-COMP02	15		27	P	42	no	36%	64%
EW-B10-BC-01-COMP01	16		22	P	38	yes	42%	58%
EW-B10-BC-01-COMP02	16		24	P	40	no	40%	60%
Little neck clam								
EW-B08-NL-03-COMP01	15	P	68	P	83	no	18%	82%
Cockles								
EW-B08-CN-02-COMP01	35		47		82	yes	43%	57%
EW-B10-CN-05-COMP01	30		36	P	66	no	45%	55%
Softshell clam								
EW-B09-NY-M-COMP01	nd	U	4.7	JP	4.7	no	0%	100%
Shrimp								
EW-SR-WB-COMP01	240		220	P	460	no *	52%	48%

	Aroclor 1254 (µg/kg ww)	Q	Aroclor 1260 (µg/kg ww)	Q	Total PCBs	Sample selected?	Aroclor 1254 (% of total PCBs)	Aroclor 1260 (% of total PCBs)
Geoducks								
Geoduck -Edible meat								
EW-S01-GD01	nd	U	14		14	no*	0%	100%
EW-S01-GD02	12	P	11		23	yes	52%	48%
EW-S01-GD03	8.6		9.6		18.2	no	47%	53%
EW-S01-GD04	8		9.1		17.1	yes	47%	53%
EW-S01-GD07	9.9		7.9		17.8	no	56%	44%
EW-S01-GD10	12	P	12		24	yes	50%	50%
Geoduck -Gutball								
EW-S01-GD-GBCOMP1	26	P	25		51	yes	51%	49%
EW-S01-GD-GBCOMP2	42		36		78	yes	54%	46%
EW-S01-GD-GBCOMP3	34		36		70	no*	49%	51%
Whole Body Mussels								
EW-08-MS-WB-COMP1	nd	Ui	22	P	22	no	0%	100%
EW-08-MS-WB-COMP2	nd	Ui	44	P	44	no	0%	100%
EW-08-MS-WB-COMP3	nd	Ui	28	P	28	no	0%	100%
EW-08-MS-WB-COMP4	nd	Ui	31	P	31	no	0%	100%
EW-08-MS-WB-COMP5	nd	Ui	29	P	29	no	0%	100%
EW-08-MS-WB-COMP6	nd	Ui	34	P	34	no	0%	100%
EW-08-MS-WB-COMP7	nd	Ui	35	P	35	no	0%	100%
EW-08-MS-WB-COMP8	nd	Ui	26	P	26	no	0%	100%
EW-08-MS-WB-COMP9	nd	Ui	32	P	32	no	0%	100%
EW-08-MS-WB-COMP10	nd	Ui	26	P	26	no	0%	100%
EW-08-MS-WB-COMP11	nd	Ui	19	P	19	no	0%	100%
* insufficient tissue remaining for PCB congener and dioxin analysis								

Summary

The number of samples selected for PCB congener and dioxin and furan analysis for each tissue type ranged from 2-6. A summary of the samples proposed for each matrix is provided in Table 2. The 95th UCL will be calculated using proUCL 4.0 for brown rockfish (n=6). For all the other tissue matrices the maximum PCB congener and dioxin and furan concentrations for the analyzed samples will be proposed for use in the human health and ecological risk assessments.

Table 2. Summary of proposed samples for each matrix

MATRIX	SAMPLES	NUMBER OF INDIVIDUALS IN EACH SAMPLE (n)	DATA USE
Crab – edible meat[a]	3 replicate super composites	63	maximum value
Crab – hepatopancreas[a]	3 replicate super composites	63	maximum value
English sole – fillets	3 replicate super composites	55	maximum value
English sole –whole body	3 replicate super composites	55	maximum value
Brown rockfish	6 individual fish samples	1	95th UCL
Shiner surfperch –whole body	3 replicate super composites	80	maximum value
Clams	3 existing composite samples	13-17	maximum value[b]
Geoduck – edible meat	3 individual geoduck samples	1	maximum value
Geoduck – gut ball	2 existing gut ball composite samples	2-3	maximum value

[a] Red rock crab and Dungeness crab homogenates will be combined

APPENDIX F

Graphical Comparison of Total PCBs (sum of Aroclors) and Total PCBs (sum of congeners)

Appendix F Graphical comparison of total PCBs (sum of Aroclors) and total PCBs (sum of congeners

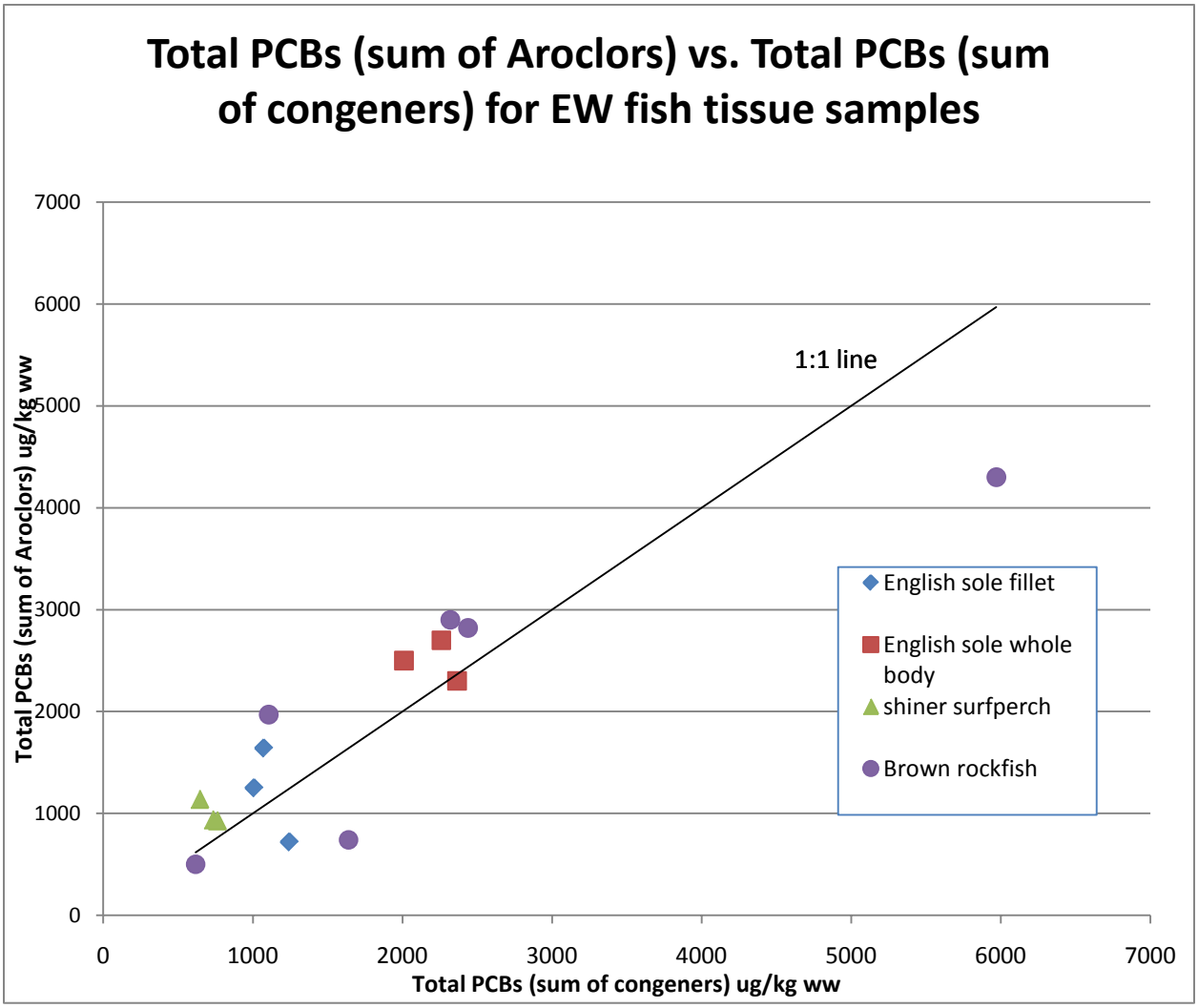

Figure F-1. Comparison of total PCBs calculated as the sum of congeners and total PCBs calculated as the sum of Aroclors for EW fish tissue samples

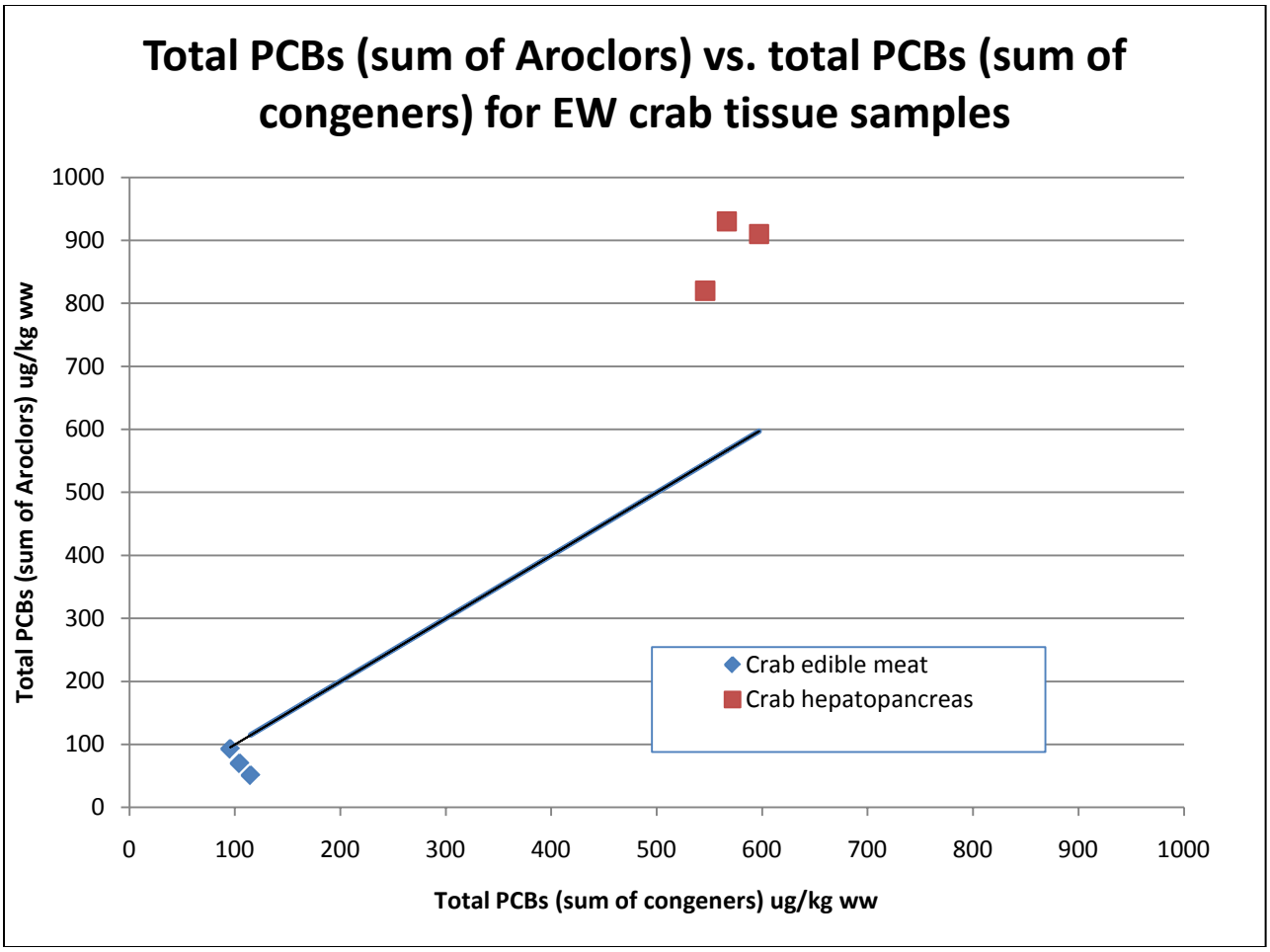

Figure F-2. Comparison of total PCBs calculated as the sum of congeners and total PCBs calculated as the sum of Aroclors for EW crab tissue samples

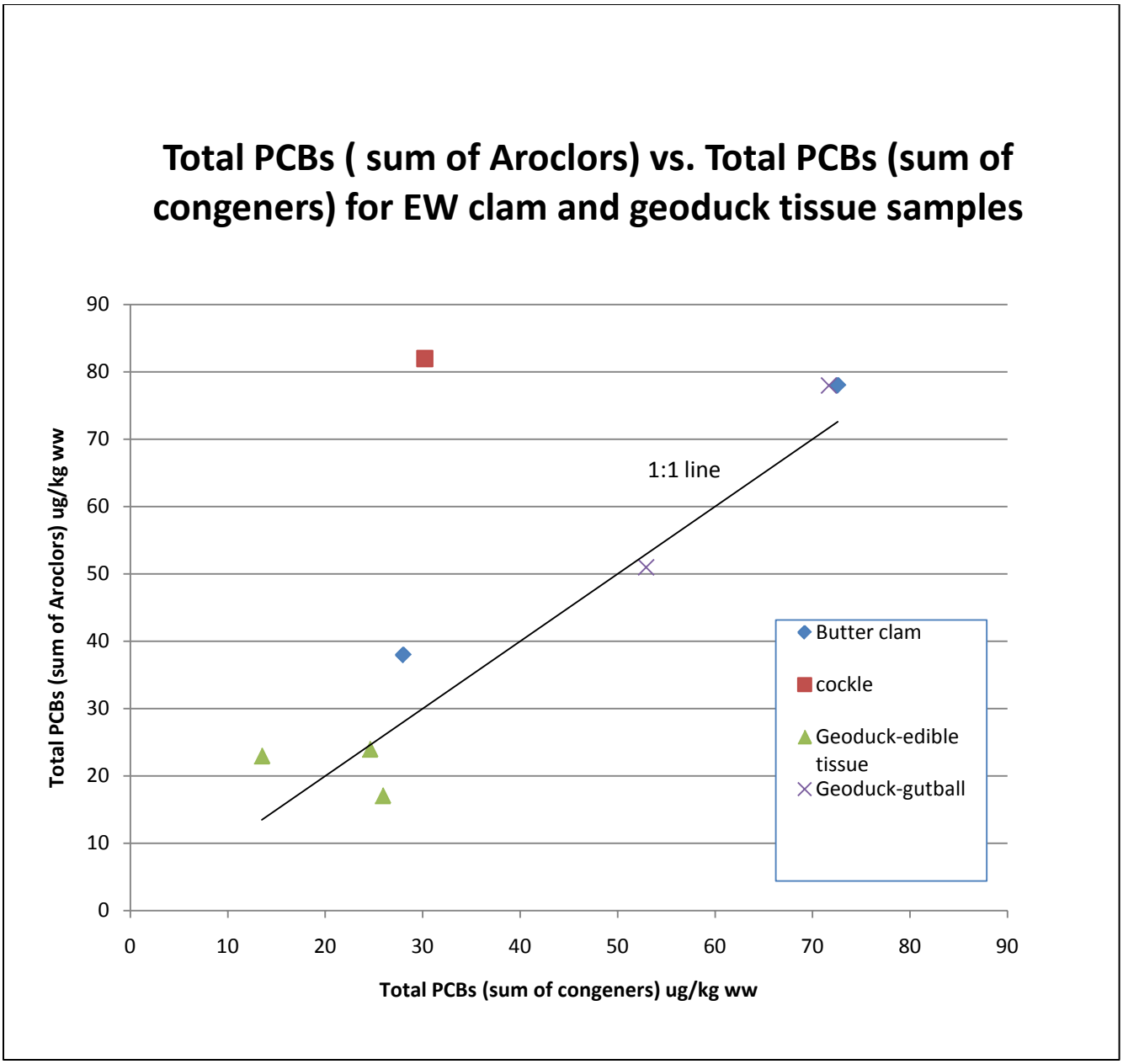

Figure F-3. Comparison of total PCBs calculated as the sum of congeners and total PCBs calculated as the sum of Aroclors for EW clam and geoduck tissue samples