Table 1: Sample Locations

Portland Harbor Sample Receipt, Analysis, and Results Report

Location	Sample ID (EPA1-)	Collection Date	Sample Purpose	Analyzed?	Easting (NAD83)	Northing (NAD83)	Shipment
RM2E	EPA1-SB02E-01	9/22/2011	Target	Not Analyzed	7617559.5870	724490.8171	EPA 1
	EPA1-SB02E-04	9/15/2011	Target	Not Analyzed	7616831.9168	721677.8505	EPA 1
RM2W	EPA1-SB02W-02	9/16/2011	Target	Not Analyzed	7615381.2888	723941.6522	EPA 1
	EPA1-SB02W-05	9/16/2011	Target	Not Analyzed	7615077.7717	720994.6204	EPA 1
RM3E	EPA1-SB03E-04	9/15/2011	Target	Not Analyzed	7617951.5436	717347.3249	EPA 1
	EPA1-SB03E-05	9/20/2011	Target	Not Analyzed	7618807.7333	717284.6256	EPA 1
	EPA1-SB03E-08	9/22/2011	Target	Not Analyzed	7619736.8935	717037.2854	EPA 1
RM3W	EPA1-SB03W-01	9/16/2011	Target	Not Analyzed	7615068.6544	719538.6133	EPA 1
	EPA1-SB03W-03	9/16/2011	Target	Not Analyzed	7615813.7848	717984.5561	EPA 1
	EPA1-SB03W-05	9/16/2011	Target	Not Analyzed	7616463.1741	716444.7617	EPA 1
MC	EPA1-SBMC-01	9/15/2011	Target	Not Analyzed	7611620.6892	721658.7832	EPA 1
	EPA1-SBMC-03	9/15/2011	Target	Not Analyzed	7612397.2282	720301.7512	EPA 1
	EPA1-SBMC-04	9/15/2011	Target	Not Analyzed	7611374.3123	721259.7402	EPA 1
RM4E	EPA1-SB04E-02	9/29/2011	Target	Analyzed	7618740.3626	714962.8020	EPA 2
	EPA1-SB04E-06	9/29/2011	Target	Analyzed	7618995.0805	714296.5253	EPA 2
	EPA1-SB04E-08	9/14/2011	Target	Not Analyzed	7620447.4535	713407.5043	EPA 1
	EPA1-SB04E-10	9/14/2011	Target	Not Analyzed	7619734.6972	712843.0509	EPA 1
RM4W	EPA1-SB04W-02	9/16/2011	Target	Not Analyzed	7617350.9321	714289.1719	EPA 1
RM5E	EPA1-SB05E-01	9/14/2011	Target	Not Analyzed	7620479.9472	711431.5204	EPA 1
	EPA1-SB05E-02	10/3/2011	Target	Analyzed	7621025.9515	710385.5935	EPA 2
	EPA1-SB05E-03	10/3/2011	Target	Analyzed	7621611.1795	709354.4934	EPA 2
	EPA1-SB05E-04	10/6/2011	Target	Analyzed	7622425.6789	708300.1288	EPA 2
RM5W	EPA1-SB05W-02	10/2/2011	Target	Analyzed	7620011.5042	709612.5127	EPA 2
	EPA1-SB05W-03	9/28/2011	Target	Analyzed	7620605.9674	708796.5154	EPA 2
	EPA1-SB05W-04	9/22/2011	Lifecycle	Analyzed	7621193.7511	708165.8562	USACE

RM6E	RM6E	EPA1-SB06E-01	9/12/2011	Target	Not Analyzed	7623765.1730	707139.9929	EPA 1
		EPA1-SB06E-02	10/3/2011	Target	Analyzed	7625302.7482	706147.4378	EPA 2
		EPA1-SB06E-03	9/12/2011	Target	Not Analyzed	7626095.4709	705927.5462	EPA 1
		EPA1-SB06E-04	9/21/2011	Target	Not Analyzed	7626744.2407	705806.6349	EPA 1
		EPA1-SB06E-05	9/12/2011	Target	Not Analyzed	7627396.9465	705617.3686	EPA 1
		EPA1-SB06E-06	9/16/2011	Target	Not Analyzed	7627142.7577	704779.2220	EPA 1
		EPA1-SB06E-08	10/8/2011	Lifecycle	Analyzed	7627751.0048	704513.7004	USACE
		EPA1-SB06E-09	10/8/2011	Lifecycle	Analyzed	7627261.8801	704853.8424	USACE
		EPA1-SB06E-10	10/8/2011	Lifecycle	Analyzed	7627239.7773	704870.1191	USACE
		EPA1-SB06E-11	10/8/2011	Lifecycle	Analyzed	7627178.5231	704970.9609	USACE
RM6W	RM6W	EPA1-SB06W-01	10/7/2011	Target	Analyzed	7623259.7390	706089.1385	EPA 2
		EPA1-SB06W-02	9/21/2011	Target	Not Analyzed	7624486.3170	705395.1558	EPA 1
		EPA1-SB06W-04	10/6/2011	Target	Analyzed	7625793.9513	704637.7654	EPA 2
		EPA1-SB06W-05	9/20/2011	Target	Not Analyzed	7626390.2578	704033.1639	EPA 1
RM7E	RM7E	EPA1-SB07E-01	9/22/2011	Target	Not Analyzed	7627963.1834	704313.4497	EPA 1
		EPA1-SB07E-02	9/12/2011	Target	Not Analyzed	7629007.5720	703478.0664	EPA 1
		EPA1-SB07E-04	10/3/2011	Target	Analyzed	7630501.7604	702199.7767	EPA 2
		EPA1-SB07E-05	10/3/2011	Target	Analyzed	7631760.2932	701577.0326	EPA 2
		EPA1-SB07E-06	10/3/2011	Target	Analyzed	7631349.4996	701694.0680	EPA 2
RM8E	RM8E	EPA1-SB08E-01	9/19/2011	Target	Not Analyzed	7632509.7734	701744.1795	EPA 1
		EPA1-SB08E-04	9/12/2011	Target	Not Analyzed	7633809.8748	698774.8865	EPA 1
RM8W	RM8W	EPA1-SB08W-01	9/27/2011	Target	Analyzed	7630437.2081	699436.5357	EPA 2
		EPA1-SB08W-05	9/27/2011	Target	Analyzed	7633514.5928	696771.2835	EPA 2
		EPA1-SB08W-06	10/7/2011	Lifecycle	Analyzed	7630400.5316	699535.9693	USACE
SIL	SIL	EPA1-SBSIL-01	9/21/2011	Target	Not Analyzed	7633413.0652	701868.4090	EPA 1
RM9E	RM9E	EPA1-SB09E-04	9/13/2011	Target	Not Analyzed	7638082.5826	695670.2471	EPA 1
		EPA1-SB09E-05	9/28/2011	Target	Analyzed	7639620.3431	694926.9917	EPA 2
RM9W	RM9W	EPA1-SB09W-03	9/19/2011	Target	Not Analyzed	7636621.4442	694872.3983	EPA 1

RM10E	RM10E	EPA1-SB10E-01	9/13/2011	Target	Not Analyzed	7640156.5257	694052.8473	EPA 1
		EPA1-SB10E-03	9/13/2011	Target	Not Analyzed	7641370.1634	692238.8199	EPA 1
		EPA1-SB10E-04	9/28/2011	Target	Analyzed	7641543.9453	692043.6338	EPA 2
		EPA1-SB10E-06	9/28/2011	Lifecycle	Analyzed	7640465.8526	693421.9495	USACE
RM11E	RM11E	EPA1-SB11E-01	9/19/2011	Target	Not Analyzed	7643282.6779	690004.2714	EPA 1
		EPA1-SB11E-02	9/13/2011	Target	Not Analyzed	7644492.4098	689157.4272	EPA 1
		EPA1-SB11E-03	9/13/2011	Target	Not Analyzed	7645051.2669	688194.8416	EPA 1
		EPA1-SB11E-04	9/13/2011	Target	Not Analyzed	7645545.6549	687339.7093	EPA 1
		EPA1-SB11E-05	9/13/2011	Target	Not Analyzed	7646028.5524	686729.8025	EPA 1
		EPA1-SB11E-06	9/13/2011	Target	Not Analyzed	7644188.9814	689349.8960	EPA 1
		EPA1-SB11E-07	9/19/2011	Lifecycle	Analyzed	7643279.6427	690016.3478	USACE
		EPA1-SB11E-08	10/7/2011	Lifecycle	Analyzed	7644062.9295	689439.2818	USACE
		EPA1-SB11E-09	10/7/2011	Lifecycle	Analyzed	7643687.4064	689713.2152	USACE
		EPA1-SB11E-10	10/7/2011	Lifecycle	Analyzed	7643305.4448	689983.1343	USACE
RM11W	RM11W	EPA1-SB11W-04	9/16/2011	Target	Not Analyzed	7644463.1731	687488.7531	EPA 1
		EPA1-SB11W-05	9/28/2011	Target	Analyzed	7645552.1395	686305.2547	EPA 2
		EPA1-SB11W-06	9/16/2011	Lifecycle	Analyzed	7645637.3541	686200.0404	USACE
		EPA1-SB11W-07	9/28/2011	Lifecycle	Analyzed	7643703.1530	688248.8439	USACE
		EPA1-SB11W-08	9/28/2011	Lifecycle	Analyzed	7642440.5451	689464.8130	USACE
RM15E	RM15E	EPA1-SB15E-01	9/26/2011	Target	Not Analyzed	7646308.0338	668795.0119	EPA 1
		EPA1-SB15E-02	9/23/2011	Target	Not Analyzed	7647151.9207	668742.9954	EPA 1
		EPA1-SB15E-03	9/23/2011	Target	Not Analyzed	7646369.0729	668317.7888	EPA 1
		EPA1-SB15E-04	9/26/2011	Target	Not Analyzed	7646307.1184	668494.3107	EPA 1
		EPA1-SB15E-05	9/26/2011	Target	Not Analyzed	7647121.2253	667554.4248	EPA 1
RM16W	RM16W	EPA1-SB16W-01	9/26/2011	Target	Not Analyzed	7646073.9461	662735.8685	EPA 1
		EPA1-SB16W-02	9/26/2011	Target	Not Analyzed	7646177.9411	662992.9936	EPA 1
RM17W	RM17W	EPA1-SB17W-01	9/26/2011	Target	Not Analyzed	7648317.5271	657983.1762	EPA 1
		EPA1-SB17W-02	9/26/2011	Target	Not Analyzed	7648171.4210	658470.3637	EPA 1
		EPA1-SB17W-03	9/26/2011	Target	Not Analyzed	7647825.1467	659142.0138	EPA 1

Table 2: Data Validation Results
Portland Harbor Sample Receipt, Analysis, and Results Report

Analysis	Matrix	Number Qualified as Estimated	Number Qualified as Rejected	Total Number of Results	Percent Qualified as Estimated	Percent Qualified as Rejected
Polychlorinated Biphenyls	Fish Tissue	39	0	11084	0.35%	0.00%
Lipids	Fish Tissue	0	0	64	0.00%	0.00%
Total Fish Tissue		39	0	11148	0.35%	0.00%

Table 3. Summary of Analyte Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

Summed Analyte	Analytes Included in the Summed Analyte Total	TEF	Summation Rules Used
Total PCB Congeners	All PCB congeners	1	RI Rules
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	PCB-77	0.0001	RI Rules
	PCB-81	0.0003	
	PCB-105	0.00003	
	PCB-114	0.00003	
	PCB-118	0.00003	
	PCB-123	0.00003	
	PCB-126	0.1	
	PCB-156	0.00003	
	PCB-157	0.00003	
	PCB-167	0.00003	
	PCB-169	0.03	
	PCB-189	0.00003	
Monochlorobiphenyl homologs	PCB-1 through PCB-3	1	Risk Assessment Rules
Dichlorobiphenyl homologs	PCB-4 through PCB-15	1	Risk Assessment Rules
Trichlorobiphenyl homologs	PCB-16 through PCB-39	1	Risk Assessment Rules
Tetrachlorobiphenyl homologs	PCB-40 through PCB-81	1	Risk Assessment Rules
Pentachlorobiphenyl homologs	PCB-82 through PCB-127	1	Risk Assessment Rules
Hexachlorobiphenyl homologs	PCB-129 through PCB-169	1	Risk Assessment Rules
Heptachlorobiphenyl homologs	PCB-170 through PCB-193	1	Risk Assessment Rules
Octachlorobiphenyl homologs	PCB-194 through PCB-205	1	Risk Assessment Rules
Nonachlorobiphenyl homologs	PCB-206 through PCB-208	1	Risk Assessment Rules
Total PCB Congeners (calc'd)	All PCB congeners	1	Risk Assessment Rules
PCB TEQ - Mammals	PCB-77	0.0001	Risk Assessment Rules
	PCB-81	0.0003	
	PCB-105	0.00003	
	PCB-114	0.00003	
	PCB-118	0.00003	
	PCB-123	0.00003	
	PCB-126	0.1	
	PCB-156	0.00003	
	PCB-157	0.00003	
	PCB-167	0.00003	
	PCB-169	0.03	
	PCB-189	0.00003	

PCB TEQ - Birds	PCB TEQ - Birds	PCB-77	0.05
		PCB-81	0.1
		PCB-105	0.0001
		PCB-114	0.0001
		PCB-118	0.00001
		PCB-123	0.00001
		PCB-126	0.1
		PCB-156	0.0001
		PCB-157	0.0001
		PCB-167	0.00001
		PCB-169	0.001
		PCB-189	0.00001
PCB TEQ - Fish	PCB TEQ - Fish	PCB-77	0.0001
		PCB-81	0.0005
		PCB-105	0.000005
		PCB-114	0.000005
		PCB-118	0.000005
		PCB-123	0.000005
		PCB-126	0.005
		PCB-156	0.000005
		PCB-157	0.000005
		PCB-167	0.000005
		PCB-169	0.00005
		PCB-189	0.000005

Notes:	**Notes:**	
PCB	PCB	Polychlorinated biphenyl
RI	RI	Remedial investigation
TEF	TEF	Toxic equivalency factor
TEQ	TEQ	Toxic equivalent

RI rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. Non-detection concentrations are treated as zero.

If none of the analytes are detected in a sample, the highest reporting limit is used for total, and a U qualifier is used to indicate the lack of detected values.

RI rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. Non-detection concentrations are treated as zero.

If none of the analytes are detected in a sample, the highest reporting limit is used for total, and a U qualifier is used to indicate the lack of detected values.

Risk assessment rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. For any analyte detected in the data set within the study area for the study area, the result is included in the summation at one-half the detection limit.

If none of the analytes are detected in a sample, the highest reporting limit is used for total, and a U qualifier is used to indicate the lack of detected values.

Non-detect results for analytes that were never detected within a data set for a given medium are treated as zero.

Risk assessment rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. For any analyte detected in the data set within the study area for the study area, the result is included in the summation at one-half the detection limit.

If none of the analytes are detected in a sample, the highest reporting limit is used for total, and a U qualifier is used to indicate the lack of detected values.

Non-detect results for analytes that were never detected within a data set for a given medium are treated as zero.

Table 3. Summary of Analyte Summation Groups

Portland Harbor Sample Receipt, Analysis, and Results Report

Summed Analyte	Summation Rules Used
Total PCB Congeners	RI Rules
Dioxin-like PCB congener TCDD toxicity equivalent (ND = 0)	RI Rules
Monochlorobiphenyl homologs	Risk Assessment Rules
Dichlorobiphenyl homologs	Risk Assessment Rules
Trichlorobiphenyl homologs	Risk Assessment Rules
Tetrachlorobiphenyl homologs	Risk Assessment Rules
Pentachlorobiphenyl homologs	Risk Assessment Rules
Hexachlorobiphenyl homologs	Risk Assessment Rules
Heptachlorobiphenyl homologs	Risk Assessment Rules
Octachlorobiphenyl homologs	Risk Assessment Rules
Nonachlorobiphenyl homologs	Risk Assessment Rules
Total PCB Congeners (Aroclors)	Risk Assessment Rules
PCB TEQ Mammals	Risk Assessment Rules

PCB TEQ Risk Assessment Rules Birds	
PCB TEQ Risk Assessment Rules Fish	

Notes:

PCB

RI

TEF

TEQ

RI rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. Non-detected concentrations are treated as zero.

If none of the analytes are detected in a sample, the highest reporting limit is used for the calculated total, and a U qualifier is used to indicate the lack of detected values.

Risk assessment rules for summation are as follows:

Calculated totals are the sum of all detected concentrations. For any analyte detected at least once in the data set within the study area for a given medium, the result is included in the summation at one-half the detection limit.

If none of the analytes are detected in a sample, the highest reporting limit is used for the calculated total, and a U qualifier is used to indicate the lack of detected values.

Non-detect results for analytes that were never detected within a data set for a given medium were treated as zero.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

LocationID	EPA1-SB04E-02			EPA1-SB04E-06			EPA1-SB05E-02		
Tissue	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)
X-coordinate	7618740.36258	7618740.36258	7618740.36258	7618995.08054	7618995.08054	7618995.08054	7621025.9515	7621025.9515	7621025.9515
Y-coordinate	714962.80202	714962.80202	714962.80202	714296.52532	714296.52532	714296.52532	710385.59352	710385.59352	710385.59352
RiverMile	4.2	4.2	4.2	4.3	4.3	4.3	5.2	5.2	5.2
Sample Date	29-Sep-11	29-Sep-11	29-Sep-11	29-Sep-11	29-Sep-11	29-Sep-11	3-Oct-11	3-Oct-11	3-Oct-11
Sample Time	18:34	18:34	18:34	17:10	17:10	17:10	9:54	9:54	9:54
Sample Mass (g)	198.45	148.75	347.2	184.84	171.54	356.38	252.22	226.9	479.12
PCB001	21.6 U	21.4 U	NC	38.6	22.3 U	NC	36.8 U	15 U	NC
PCB002	26.8 U	26.6 U	NC	26.6 U	27.6 U	NC	45.6 U	18.6 U	NC
PCB003	16.9	14 U	NC	34.2	16.3	NC	24 U	9.8 U	NC
PCB004	465	88.2	NC	757	151	NC	264	46.5	NC
PCB005	26.8 U	26.6 U	NC	26.6 U	27.6 U	NC	45.6 U	18.6 U	NC
PCB006	79.1	24.9 U	NC	113	28.7	NC	42.6 U	17.4 U	NC
PCB007	34 U	33.7 U	NC	33.7 U	35 U	NC	57.8 U	23.6 U	NC
PCB008	384	93.1	NC	407	106	NC	130 U	46.7 U	NC
PCB009	25.8	16.3 U	NC	23.8 J	16.9 U	NC	27.9 U	11.4 U	NC
PCB010	22.8	17.7 U	NC	38.4	18.4 U	NC	30.4 U	12.4 U	NC
PCB011	241	172	NC	269	159	NC	239 U	154	NC
PCB012 & 013	23.9 U	23.7 U	NC	23.7 U	24.7 U	NC	40.7 U	16.6 U	NC
PCB014	26.3 U	26 U	NC	26 U	27 U	NC	44.6 U	18.2 U	NC
PCB015	170	57.2	NC	169	86.8	NC	67.2 U	27.4 U	NC
PCB016	471	102	NC	382	108	NC	163	36.4	NC
PCB017	942	181	NC	1,010	224	NC	418	67.6	NC
PCB018 & 030	1,370	273	NC	1,250	327	NC	491	92.1 U	NC
PCB019	751	132	NC	687	146	NC	528	78.7	NC
PCB020 & 028	5,770	1,110	NC	8,570	1,820	NC	2,150	348 U	NC
PCB021 & 033	1,090	249	NC	873	277	NC	367	90.2 U	NC
PCB022	1,310	269	NC	1,330	336	NC	418	79.3	NC
PCB023	31.7 U	31.4 U	NC	31.4 U	32.7 U	NC	53.9 U	22 U	NC
PCB024	27.3	19.1 U	NC	28.5	19.9 U	NC	32.8 U	13.4 U	NC
PCB025	301	56.5	NC	326	69.5	NC	110	19.6 U	NC
PCB026 & 029	773	145	NC	787	170	NC	284	45.2	NC
PCB027	162	31.9	NC	294	61.7	NC	97.8	19 U	NC
PCB031	3,140	616	NC	3,100	717	NC	1,010	183 U	NC
PCB032	497	97.1 U	NC	1,420	283	NC	216	40.1 U	NC
PCB034	22.8 U	22.6 U	NC	24.2	23.5 U	NC	38.7 U	15.8 U	NC
PCB035	23.7 U	23.4 U	NC	23.4 U	24.4 U	NC	40.2 U	16.4 U	NC
PCB036	25.1 U	24.9 U	NC	24.9 U	25.8 U	NC	42.6 U	17.4 U	NC
PCB037	930	195	NC	482	195	NC	142	46.1	NC
PCB038	18.2 U	18 U	NC	23	18.7 U	NC	30.9 U	12.6 U	NC
PCB039	22.8 U	22.6 U	NC	22.6 U	23.5 U	NC	38.7 U	15.8 U	NC
PCB040 & 041 & 071	2,620	501	NC	10,600	1,920	NC	1,120	204	NC
PCB042	2,160	403	NC	6,110	1,100	NC	878	145	NC
PCB043 & 073	226	40.7	NC	672	119	NC	174	27.5	NC
PCB044 & 047 & 065	10,600	1,890	NC	29,000	5,170	NC	5,550	928	NC
PCB045 & 051	1,420	256	NC	3,010	516	NC	592	89.2	NC
PCB046	273	71.4 U	NC	669	120	NC	123 U	50 U	NC
PCB048	1,240	223	NC	3,530	648	NC	513	90.2	NC
PCB049 & 069	7,030	1,270	NC	21,100	3,770	NC	3,540	565	NC

PCB050 & 053	PCB050 & 053	908	159	NC	2,730	477	NC	432
PCB052	PCB052	11,400	2,140	NC	35,700	6,610	NC	5,660
PCB054	PCB054	120	22.5	NC	99.7	21.1 U	NC	109
PCB055	PCB055	21.6 U	21.4 U	NC	21.4 U	22.3 U	NC	36.8 U
PCB056	PCB056	1,990	375	NC	5,910	1,090	NC	889
PCB057	PCB057	47.7	18 U	NC	87.1	18.7 U	NC	30.9 U
PCB058	PCB058	30.6	19.1 U	NC	54.7	19.9 U	NC	32.8 U
PCB059 & 062 & 075	PCB059 & 062 & 075	872	214 U	NC	2,190	369	NC	368 U
PCB060	PCB060	2,010	377	NC	7,940	1,440	NC	1,270
PCB061 & 070 & 074 & 076	PCB061 & 070 & 074 & 076	12,900	2,340	NC	36,600	6,250	NC	6,320
PCB063	PCB063	511	88.5	NC	1,390	228	NC	269
PCB064	PCB064	4,320	801	NC	14,600	2,600	NC	1,490
PCB066	PCB066	9,640	1,770	NC	34,300	6,030	NC	6,490
PCB067	PCB067	226	41.7	NC	366	63.6	NC	107
PCB068	PCB068	109	57.1 U	NC	128	59.4 U	NC	98 U
PCB072	PCB072	134	22.9	NC	232	38.6	NC	85.8
PCB073	PCB073	31.7 U	31.4 U	NC	31.4 U	32.7 U	NC	53.9 U
PCB077	PCB077	625	111	NC	1,140	198	NC	276
PCB078	PCB078	13.3 U	13.1 U	NC	13.1 U	13.7 U	NC	22.5 U
PCB079	PCB079	75.9	22.3 U	NC	260	51.2	NC	47
PCB080	PCB080	21.3 U	21.1 U	NC	21.1 U	22 U	NC	36.3 U
PCB081	PCB081	46	25.7 U	NC	85.9	26.7 U	NC	44.1 U
PCB082	PCB082	1,010	185	NC	2,710	480	NC	663
PCB083	PCB083	739	111	NC	1,580	274	NC	489
PCB084	PCB084	2,620	467	NC	4,910	809	NC	1,230
PCB085 & 117 & 116	PCB085 & 117 & 116	3,450	591	NC	10,700	1,980	NC	3,710
PCB086 & 087 & 097 & 108 & 119 & 125	PCB086 & 087 & 097 & 108 & 119 & 125	8,710	1,550	NC	22,800	4,090	NC	7,290
PCB088 & 091	PCB088 & 091	2,380	407	NC	5,020	818	NC	1,170
PCB089	PCB089	78.5	16.6 U	NC	352	62.7	NC	48.4
PCB090 & 101 & 113	PCB090 & 101 & 113	17,000	2,980	NC	38,200	6,690	NC	16,300
PCB092	PCB092	3,540	602	NC	7,800	1,310	NC	3,430
PCB093 & 098 & 100 & 102	PCB093 & 098 & 100 & 102	983	329 U	NC	1,620	342 U	NC	942
PCB094	PCB094	79.5	71.4 U	NC	140	74.3 U	NC	123 U
PCB095	PCB095	9,910	1,770	NC	18,200	3,010	NC	5,240
PCB096	PCB096	91.7	32 U	NC	254	42.7	NC	54.9 U
PCB099	PCB099	9,460	1,660	NC	25,000	4,170	NC	11,600
PCB103	PCB103	281	47.9	NC	321	57	NC	244
PCB104	PCB104	43 U	42.6 U	NC	42.6 U	44.3 U	NC	73 U
PCB105	PCB105	6,610	1,180	NC	19,400	3,440	NC	7,370
PCB106	PCB106	42.7 U	42.3 U	NC	42.3 U	44 U	NC	72.5 U
PCB107 & 124	PCB107 & 124	509	87.2	NC	1,050	182	NC	490
PCB109	PCB109	1,360	232	NC	2,950	501	NC	1,660
PCB110 & 115	PCB110 & 115	14,000	2,590	NC	32,900	5,890	NC	11,900
PCB111	PCB111	21.3 U	21.1 U	NC	23.5	22 U	NC	53.1
PCB112	PCB112	31.7 U	31.4 U	NC	31.4 U	32.7 U	NC	53.9 U
PCB114	PCB114	508	89.3	NC	1,390	251	NC	616
PCB118	PCB118	19,800	3,520	NC	44,900	8,110	NC	23,100
PCB120	PCB120	90.7	71.4 U	NC	113	74.3 U	NC	170
PCB121	PCB121	20.9	19.7 U	NC	19.7 U	20.5 U	NC	38.9
PCB122	PCB122	117	26 U	NC	217	42.1	NC	77.4
PCB123	PCB123	340	57.9	NC	918	162	NC	508
PCB126	PCB126	41.5	38.6 U	NC	77.3	40.1 U	NC	66.2 U
PCB127	PCB127	39.5	24.6 U	NC	74.1	25.5 U	NC	42.2
PCB128 & 166	PCB128 & 166	3,140	515	NC	5,890	968	NC	4,580

PCB129 & 138 & 163	PCB129 & 138 & 163	29,500	4,780	NC	43,200	6,920	NC	45,700
PCB130	PCB130	1,490	238	NC	2,090	323	NC	1,600
PCB131	PCB131	149	26.8	NC	206	32.5	NC	140
PCB132	PCB132	4,270	722	NC	5,260	799	NC	3,590
PCB133	PCB133	521	83.6	NC	648	98	NC	1,260
PCB134 & 143	PCB134 & 143	734	143 U	NC	1,010	149	NC	710
PCB135 & 151	PCB135 & 151	7,610	1,300	NC	8,990	1,390	NC	10,400
PCB136	PCB136	1,790	307	NC	2,270	357	NC	1,650
PCB137	PCB137	1,480	226	NC	2,180	364	NC	1,760
PCB139 & 140	PCB139 & 140	428	68.8	NC	790	117	NC	662
PCB141	PCB141	4,100	692	NC	6,440	982	NC	5,440
PCB142	PCB142	24.5 U	24.3 U	NC	24.3 U	25.2 U	NC	41.7 U
PCB144	PCB144	897	145	NC	1,160	172	NC	825
PCB145	PCB145	27.1 U	26.9 U	NC	26.9 U	27.9 U	NC	46.1 U
PCB146	PCB146	5,070	818	NC	6,360	970	NC	11,700
PCB147 & 149	PCB147 & 149	15,200	2,590	NC	16,000	2,430	NC	13,200
PCB148	PCB148	69.1	42.9 U	NC	70.6	44.6 U	NC	108
PCB150	PCB150	47	30.9 U	NC	39.3	32.1 U	NC	52.9 U
PCB152	PCB152	33.8	33.4 U	NC	35.5	34.8 U	NC	57.4 U
PCB153 & 168	PCB153 & 168	29,000	4,640	NC	36,000	5,690	NC	52,400
PCB154	PCB154	467	77.1	NC	572	84.8	NC	860
PCB155	PCB155	35.5	35.1 U	NC	35.1 U	36.5 U	NC	60.3 U
PCB156 & 157	PCB156 & 157	2,920	502	NC	4,500	804	NC	4,660
PCB158	PCB158	2,300	367	NC	4,030	652	NC	3,290
PCB159	PCB159	72.1 U	71.4 U	NC	71.4 U	74.3 U	NC	123 U
PCB160	PCB160	2.6 U	2.57 U	NC	2.57 U	2.67 U	NC	4.41 U
PCB161	PCB161	34.3 U	34 U	NC	34 U	35.3 U	NC	58.3 U
PCB162	PCB162	92.4	24.1 U	NC	150	25.1 U	NC	92.6
PCB164	PCB164	1,210	211	NC	1,970	301	NC	1,870
PCB165	PCB165	34 U	33.7 U	NC	33.7 U	35 U	NC	68.5
PCB167	PCB167	1,210	201	NC	1,510	256	NC	1,710
PCB169	PCB169	84.7	22.6 U	NC	22.6 J	23.5 U	NC	38.8 U
PCB170	PCB170	4,140	697	NC	4,090	827	NC	7,800
PCB171 & 173	PCB171 & 173	1,520	241	NC	1,660	290	NC	2,610
PCB172	PCB172	976	149	NC	954	167	NC	1,600
PCB174	PCB174	3,640	603	NC	3,060	524	NC	3,400
PCB175	PCB175	223	42 U	NC	215	43.7 U	NC	318
PCB176	PCB176	406	63.2	NC	324	54.4 U	NC	361
PCB177	PCB177	2,970	484	NC	2,660	455	NC	3,730
PCB178	PCB178	1,500	231	NC	1,460	236	NC	2,910
PCB179	PCB179	1,740	286	NC	1,550	258	NC	2,070
PCB180 & 193	PCB180 & 193	13,600	2,260	NC	11,200	2,190	NC	26,200
PCB181	PCB181	65.9	38.3 U	NC	68.7	39.8 U	NC	103
PCB182	PCB182	37.1	26 U	NC	44.4	27 U	NC	44.6 U
PCB183 & 185	PCB183 & 185	4,410	701	NC	4,220	718	NC	7,960
PCB184	PCB184	31.4 U	31.1 U	NC	31.1 U	32.4 U	NC	53.4 U
PCB186	PCB186	45.6 U	45.1 U	NC	45.1 U	46.9 U	NC	77.5 U
PCB187	PCB187	10,200	1,640	NC	8,860	1,480	NC	23,700
PCB188	PCB188	45.6 U	36.3 U	NC	36.3 U	37.7 U	NC	62.3 U
PCB189	PCB189	191	30.1	NC	185	38	NC	434
PCB190	PCB190	442	86.8	NC	432	120	NC	1,490
PCB191	PCB191	209	36.3 U	NC	208	37.7 U	NC	375
PCB192	PCB192	25.4 U	25.1 U	NC	25.1 U	26.1 U	NC	43.1 U
PCB194	PCB194	1,540	286	NC	1,210	252	NC	3,570

PCB195	PCB195	708	118	NC	619	115	NC	1,650
PCB196	PCB196	918	163	NC	731	146	NC	1,920
PCB197 & 200	PCB197 & 200	260	59.3 U	NC	198	61.7 U	NC	367
PCB198 & 199	PCB198 & 199	1,960	391	NC	1,450	334	NC	5,280
PCB201	PCB201	328	51.3	NC	263	43.4	NC	595
PCB202	PCB202	691	111	NC	578	106	NC	1,340
PCB203	PCB203	1,570	264	NC	1,300	236	NC	2,860
PCB204	PCB204	35.2 U	34.8 U	NC	34.8 U	36.2 U	NC	59.8 U
PCB205	PCB205	91.7	34.7 U	NC	81	36 U	NC	223
PCB206	PCB206	710	142	NC	496	102	NC	2,560
PCB207	PCB207	113	68.6 U	NC	78.8	71.3 U	NC	313
PCB208	PCB208	300	69.8 U	NC	194	72.6 U	NC	866
PCB209	PCB209	316	65.3	NC	208	51.3	NC	966

Monochlorobiphenyl homologs	Monochlorobiphenyl homologs	27.7 T	26.6 UT	NC	72.8 T	27.5 T	NC	45.6 UT
Dichlorobiphenyl homologs	Dichlorobiphenyl homologs	1,390 T	440 T	NC	1,780 JT	549 T	NC	533 T
Trichlorobiphenyl homologs	Trichlorobiphenyl homologs	17,600 T	3,450 T	NC	20,600 T	4,780 T	NC	6,470 T
Tetrachlorobiphenyl homologs	Tetrachlorobiphenyl homologs	71,600 T	13,100 T	NC	219,000 T	38,900 T	NC	36,200 T
Pentachlorobiphenyl homologs	Pentachlorobiphenyl homologs	104,000 T	18,500 T	NC	244,000 T	42,700 T	NC	98,500 T
Hexachlorobiphenyl homologs	Hexachlorobiphenyl homologs	114,000 T	18,700 T	NC	151,000 JT	24,000 T	NC	168,000 T
Heptachlorobiphenyl homologs	Heptachlorobiphenyl homologs	46,300 T	7,580 T	NC	41,200 T	7,440 T	NC	85,100 T
Octachlorobiphenyl homologs	Octachlorobiphenyl homologs	8,070 T	1,430 T	NC	6,430 T	1,280 T	NC	17,800 T
Nonachlorobiphenyl homologs	Nonachlorobiphenyl homologs	1,120 T	211 T	NC	769 T	174 T	NC	3,740 T
Total PCB Congeners	Total PCB Congeners	364,000 JT	62,300 JT	235,000 JT	685,000 JT	119,000 JT	412,000 JT	417,000 JT
Total PCB Congeners (calc'd)	Total PCB Congeners (calc'd)	364,000 JT	63,500 JT	235,000 JT	685,000 JT	120,000 JT	413,000 JT	418,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (PCB-Co)	Dioxin-like PCB Congener TCDD toxicity	7.71 T	0.179 JT	4.49 JT	10.7 JT	0.412 JT	5.76 JT	1.18 JT
LWG RA Total PCB Congener TEQ 2005 (WHO-RA Total PCB Congener TEQ 2005)	LWG RA Total PCB Congener TEQ 2005	7.71 T	2.45 JT	5.46 JT	10.7 JT	2.77 JT	6.9 JT	5.08 JT
LWG RA Total PCB Congener TEQ 1998 (WHO-RA Total PCB Congener TEQ 1998)	LWG RA Total PCB Congener TEQ 1998	41.3 T	8.99 JT	27.5 JT	76.3 JT	13.8 JT	46.2 JT	20.9 JT
LWG RA Total PCB Congener TEQ 1998 (WHO-RA Total PCB Congener TEQ 1998)	LWG RA Total PCB Congener TEQ 1998	0.455 T	0.142 JT	0.321 JT	0.909 JT	0.193 JT	0.564 JT	0.397 JT

Notes:

J	
LWG	
NA	
NC	
ND	
PCB	
RA	
T	
TCDD	
TEQ	
U	

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB05E-02 LocationID	EPA1-SB05E-03			EPA1-SB05E-04			EPA1-SB05W-02		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7621025.9515	7621025.9515	7621611.17954	7621611.17954	7621611.17954	7622425.67887	7622425.67887	7622425.67887	7620011.50418
Y-coordinate	710385.59352	710385.59352	709354.49337	709354.49337	709354.49337	708300.12878	708300.12878	708300.12878	709612.51266
RiverMile	5.2	5.2	5.4	5.4	5.4	5.7	5.7	5.7	5.2
Sample Date	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	6-Oct-11	6-Oct-11	6-Oct-11	2-Oct-11
Sample Time	9:54	9:54	9:32	9:32	9:32	18:10	18:10	18:10	12:50
Sample Mass (g)	226.9	479.12	198.04	155.69	353.73	278.69	235.07	513.76	416.91
PCB001	15 U	NC	21 U	22.1 U	NC	32.9 U	35 U	NC	27.3
PCB002	18.6 U	NC	26.1 U	27.4 U	NC	40.8 U	43.5 U	NC	27.4 U
PCB003	9.8 U	NC	16.9	14.4 U	NC	21.5 U	22.9 U	NC	15.9
PCB004	46.5	NC	500	154	NC	405	83.1	NC	606
PCB005	18.6 U	NC	26.1 U	27.4 U	NC	40.8 U	43.5 U	NC	27.4 U
PCB006	17.4 U	NC	48.2	25.6 U	NC	44.8	40.7 U	NC	91.1
PCB007	23.6 U	NC	33.1 U	34.7 U	NC	51.8 U	55.1 U	NC	34.7 U
PCB008	46.7 U	NC	204	95	NC	182	58.1	NC	447
PCB009	11.4 U	NC	16 U	16.8 U	NC	25 U	26.6 U	NC	19.3 J
PCB010	12.4 U	NC	19.5	18.2 U	NC	27.2 U	29 U	NC	32.3
PCB011	154	NC	329	182	NC	308	228 U	NC	292
PCB012 & 013	16.6 U	NC	23.3 U	24.4 U	NC	36.4 U	38.8 U	NC	24.4 U
PCB014	18.2 U	NC	25.5 U	26.8 U	NC	39.9 U	42.5 U	NC	26.8 U
PCB015	27.4 U	NC	115	59.9	NC	79.5	64 U	NC	111
PCB016	36.4	NC	167	113	NC	224	51.4 U	NC	279
PCB017	67.6	NC	587	250	NC	627	114	NC	803
PCB018 & 030	92.1 U	NC	528 U	314	NC	737	149 U	NC	892
PCB019	78.7	NC	822	250	NC	712	142	NC	549
PCB020 & 028	348 U	NC	1,840	1,340	NC	3,650	423	NC	4,250
PCB021 & 033	90.2 U	NC	366	231	NC	444	211 U	NC	775
PCB022	79.3	NC	331	310	NC	781	87.9	NC	711
PCB023	22 U	NC	30.8 U	32.4 U	NC	48.2 U	51.4 U	NC	32.4 U
PCB024	13.4 U	NC	18.8 U	19.7 U	NC	29.4 U	31.3 U	NC	19.7 U
PCB025	19.6 U	NC	121	86.7	NC	233	45.8 U	NC	229
PCB026 & 029	45.2	NC	282	195	NC	516	98.1 U	NC	608
PCB027	19 U	NC	127	42.8	NC	116	44.4 U	NC	128
PCB031	183 U	NC	930	812	NC	2,080	267	NC	1,980
PCB032	40.1 U	NC	326	126	NC	288	66.7	NC	523
PCB034	15.8 U	NC	22.1 U	23.2 U	NC	34.6 U	36.9 U	NC	23.2 U
PCB035	16.4 U	NC	23 U	24.1 U	NC	36 U	38.3 U	NC	24.1 U
PCB036	17.4 U	NC	24.4 U	25.6 U	NC	38.2 U	40.7 U	NC	25.6 U
PCB037	46.1	NC	239	148	NC	414	50.8	NC	180
PCB038	12.6 U	NC	17.7 U	18.5 U	NC	27.6 U	29.4 U	NC	18.5 U
PCB039	15.8 U	NC	22.1 U	23.2 U	NC	34.6 U	36.9 U	NC	23.2 U
PCB040 & 041 & 071	204	NC	1,430	659	NC	1,850	274	NC	2,620
PCB042	145	NC	725	602	NC	1,740	167	NC	1,860
PCB043 & 073	27.5	NC	161	66.9	NC	194	51.4 U	NC	205
PCB044 & 047 & 065	928	NC	10,500	3,170	NC	9,620	1,090	NC	11,100
PCB045 & 051	89.2	NC	1,760	439	NC	1,200	140	NC	1,000
PCB046	50 U	NC	145	73.5 U	NC	181	117 U	NC	159
PCB048	90.2	NC	433	288	NC	816	91.6	NC	1,240
PCB049 & 069	565	NC	5,330	2,190	NC	6,330	754	NC	8,400

PCB050 & 053	63.7	NC	1,080	226	NC	597	103	NC	857
PCB052	873	NC	7,150	3,270	NC	9,860	1,190	NC	12,500
PCB054	16.3	NC	232	45.6	NC	136	33.2 U	NC	105
PCB055	15 U	NC	21 U	22.1 U	NC	32.9 U	35 U	NC	22.1 U
PCB056	156	NC	611	656	NC	2,050	152	NC	1,390
PCB057	12.6 U	NC	22.7	18.5 U	NC	35.9	29.4 U	NC	54.8
PCB058	13.4 U	NC	23.3	19.7 U	NC	34.6	31.3 U	NC	37.9
PCB059 & 062 & 075	150 U	NC	427	221 U	NC	674	350 U	NC	801
PCB060	207	NC	710	509	NC	1,670	166	NC	2,290
PCB061 & 070 & 074 & 076	1,180	NC	6,190	3,640	NC	11,600	1,210	NC	14,000
PCB063	53.1	NC	278	120	NC	393	49.8	NC	657
PCB064	289	NC	1,450	1,180	NC	3,500	352	NC	3,900
PCB066	1,030	NC	5,170	2,500	NC	7,780	910	NC	12,200
PCB067	19.6	NC	99	64.3	NC	210	28 U	NC	199
PCB068	40 U	NC	181	58.8 U	NC	112	93.5 U	NC	132
PCB072	15.5	NC	137	43.3	NC	133	21 U	NC	187
PCB073	22 U	NC	30.8 U	32.4 U	NC	194	0 U	NC	32.4 U
PCB077	42.5	NC	249	149	NC	535	48.7	NC	486
PCB078	9.2 U	NC	12.9 U	13.5 U	NC	20.2 U	21.5 U	NC	13.5 U
PCB079	15.6 U	NC	93.8	30.8	NC	94.8	36.4 U	NC	92.1
PCB080	14.8 U	NC	20.7 U	21.8 U	NC	32.5 U	34.6 U	NC	21.8 U
PCB081	18 U	NC	25.7	26.5 U	NC	53.6	42.1 U	NC	38.7
PCB082	103	NC	612	330	NC	1,080	83.2	NC	911
PCB083	74.2	NC	752	256	NC	632	67.2	NC	828
PCB084	200	NC	1,850	904	NC	2,660	215	NC	2,040
PCB085 & 117 & 116	545	NC	3,120	1,010	NC	3,290	444	NC	6,130
PCB086 & 087 & 097 & 108 & 119 & 125	1,100	NC	7,430	2,900	NC	9,420	887	NC	10,800
PCB088 & 091	228	NC	2,130	846	NC	2,530	236	NC	2,400
PCB089	11.6 U	NC	52.8	25.8	NC	72.5	27.1 U	NC	84.9
PCB090 & 101 & 113	2,380	NC	20,100	5,580	NC	18,000	1,970	NC	22,400
PCB092	496	NC	4,520	1,140	NC	3,560	416	NC	4,990
PCB093 & 098 & 100 & 102	230 U	NC	1,970	343	NC	1,070	537 U	NC	1,130
PCB094	50 U	NC	129	73.5 U	NC	110 U	117 U	NC	73.5 U
PCB095	955	NC	10,100	3,090	NC	8,970	1,000	NC	10,000
PCB096	22.4 U	NC	156	32.9 U	NC	85.4	52.3 U	NC	117
PCB099	1,680	NC	12,700	2,810	NC	9,690	1,640	NC	16,700
PCB103	40.7	NC	625	116	NC	331	43 U	NC	327
PCB104	29.8 U	NC	41.8 U	43.8 U	NC	65.4 U	69.6 U	NC	43.8 U
PCB105	1,070	NC	5,330	1,760	NC	6,110	755	NC	12,100
PCB106	29.6 U	NC	41.5 U	43.5 U	NC	64.9 U	69.2 U	NC	43.5 U
PCB107 & 124	65.5	NC	349	146	NC	534	50.9 U	NC	697
PCB109	230	NC	1,500	373	NC	1,300	206	NC	2,250
PCB110 & 115	1,730	NC	11,500	4,710	NC	15,300	1,520	NC	16,700
PCB111	14.8 U	NC	67.3	21.8 U	NC	32.5 U	34.6 U	NC	40.1
PCB112	22 U	NC	30.8 U	32.4 U	NC	48.2 U	51.4 U	NC	32.4 U
PCB114	83.1	NC	427	120	NC	429	57.5 U	NC	983
PCB118	3,180	NC	23,300	5,310	NC	18,600	2,740	NC	36,900
PCB120	50 U	NC	235	73.5 U	NC	110 U	117 U	NC	139
PCB121	13.8 U	NC	56.6	20.3 U	NC	30.3 U	32.2 U	NC	31.8
PCB122	18.2 U	NC	25.5 U	35.5	NC	141	42.5 U	NC	116
PCB123	62.9	NC	303	89.7	NC	426	56.2	NC	607
PCB126	27 U	NC	49.7	39.7 U	NC	59.2 U	63.1 U	NC	67.4
PCB127	17.2 U	NC	67.7	25.3 U	NC	37.7 U	40.2 U	NC	87.3
PCB128 & 166	571	NC	5,530	822	NC	3,020	406	NC	6,300

PCB129 & 138 & 163	5,500	NC	74,900	8,120	NC	29,800	4,420	NC	54,200
PCB130	196	NC	2,010	407	NC	1,530	157	NC	2,030
PCB131	20.6	NC	155	56.5	NC	213	39.7 U	NC	159
PCB132	509	NC	4,330	1,440	NC	5,140	416	NC	3,990
PCB133	152	NC	1,510	149	NC	580	153	NC	985
PCB134 & 143	100 U	NC	937	236	NC	835	234 U	NC	832
PCB135 & 151	1,370	NC	16,100	2,420	NC	8,010	1,090	NC	9,400
PCB136	224	NC	3,120	622	NC	1,880	216	NC	1,990
PCB137	215	NC	2,100	326	NC	1,070	185	NC	3,150
PCB139 & 140	86.8	NC	729	114	NC	426	67.3	NC	900
PCB141	668	NC	10,400	1,220	NC	4,310	428	NC	6,180
PCB142	17 U	NC	23.8 U	25 U	NC	37.3 U	39.7 U	NC	25 U
PCB144	109	NC	1,340	264	NC	906	96.5	NC	941
PCB145	18.8 U	NC	26.4 U	27.6 U	NC	41.2 U	43.9 U	NC	27.6 U
PCB146	1,410	NC	14,100	1,470	NC	5,770	1,320	NC	8,530
PCB147 & 149	1,850	NC	16,200	5,150	NC	17,300	1,630	NC	12,700
PCB148	30 U	NC	168	44.1 U	NC	82.5	70.1 U	NC	93.2
PCB150	21.6 U	NC	72.8	31.8 U	NC	63.5	50.5 U	NC	39.5
PCB152	23.4 U	NC	93.8	34.4 U	NC	51.3 U	54.7 U	NC	34.7
PCB153 & 168	6,210	NC	93,100	8,280	NC	31,000	5,500	NC	55,900
PCB154	101	NC	1,510	153	NC	538	103	NC	850
PCB155	24.6 U	NC	34.5 U	36.2 U	NC	53.9 U	57.5 U	NC	36.2 U
PCB156 & 157	599	NC	6,410	680	NC	2,500	457	NC	5,980
PCB158	398	NC	6,100	2.65	NC	2,210	319	NC	4,650
PCB159	50 U	NC	91.6	73.5 U	NC	110 U	117 U	NC	73.5 U
PCB160	1.8 U	NC	2.52 U	2.65 U	NC	3.95 U	4.21 U	NC	2.65 U
PCB161	23.8 U	NC	33.4 U	35 U	NC	52.2 U	55.6 U	NC	35 U
PCB162	16.9 U	NC	201	24.9 U	NC	73.5	39.5 U	NC	158
PCB164	225	NC	2,200	355	NC	1,410	150	NC	1,540
PCB165	23.6 U	NC	82	34.7 U	NC	51.8 U	55.1 U	NC	44.8
PCB167	205	NC	2,440	275	NC	1,120	177	NC	2,020
PCB169	15.8 U	NC	318	0 J	NC	57.5 U	37 U	NC	130
PCB170	911	NC	20,100	1,200	NC	4,320	856	NC	7,730
PCB171 & 173	312	NC	7,360	413	NC	1,420	257	NC	2,870
PCB172	172	NC	3,850	261	NC	943	167	NC	1,540
PCB174	420	NC	4,550	1,110	NC	3,630	333	NC	2,750
PCB175	37.4	NC	633	62.3	NC	212	68.7 U	NC	272
PCB176	44.6	NC	470	134	NC	478	85.5 U	NC	297
PCB177	446	NC	5,660	885	NC	2,990	418	NC	2,900
PCB178	317	NC	4,940	435	NC	1,480	339	NC	2,320
PCB179	265	NC	3,090	554	NC	1,870	199	NC	1,730
PCB180 & 193	2,970	NC	61,700	4,100	NC	13,500	4,080	NC	25,100
PCB181	26.8 U	NC	174	39.4 U	NC	58.8 U	62.6 U	NC	133
PCB182	18.2 U	NC	88.9	26.8 U	NC	39.9 U	42.5 U	NC	83
PCB183 & 185	921	NC	18,200	1,280	NC	4,660	798	NC	7,270
PCB184	21.8 U	NC	30.6 U	32.1 U	NC	47.8 U	50.9 U	NC	32.1 U
PCB186	31.6 U	NC	44.3 U	46.5 U	NC	69.3 U	73.8 U	NC	46.5 U
PCB187	2,490	NC	31,200	2,910	NC	10,100	2,830	NC	14,600
PCB188	25.4 U	NC	58.4	37.4 U	NC	55.7 U	59.3 U	NC	37.4 U
PCB189	46	NC	1,010	48.7	NC	195	45.9	NC	376
PCB190	176	NC	2,130	144	NC	650	162	NC	897
PCB191	41.6	NC	1,180	58.7	NC	214	59.3 U	NC	439
PCB192	17.6 U	NC	24.7 U	25.9 U	NC	38.6 U	41.1 U	NC	25.9 U
PCB194	343	NC	7,960	458	NC	1,670	1,140	NC	3,150

PCB195	175	NC	4,150	196	NC	725	326	NC	1,450
PCB196	203	NC	4,660	277	NC	1,010	603	NC	1,670
PCB197 & 200	41.5 U	NC	672	77	NC	272	97 U	NC	350
PCB198 & 199	537	NC	6,070	679	NC	2,610	1,440	NC	2,860
PCB201	63.5	NC	1,020	85.9	NC	310	143	NC	450
PCB202	141	NC	1,940	195	NC	723	269	NC	1,150
PCB203	310	NC	5,910	442	NC	1,620	589	NC	3,190
PCB204	24.4 U	NC	34.2 U	35.9 U	NC	53.5 U	57 U	NC	35.9 U
PCB205	24.3 U	NC	528	35.7 U	NC	97.8	56.7 U	NC	196
PCB206	294	NC	2,090	340	NC	1,200	1,250	NC	1,380
PCB207	48 U	NC	377	70.6 U	NC	147	194	NC	221
PCB208	97.2	NC	563	169	NC	597	458	NC	405
PCB209	151	NC	618	201	NC	612	601	NC	573

Monochlorobiphenyl homologs	18.6 UT	NC	27.4 T	27.4 UT	NC	40.8 UT	43.5 UT	NC	43.2 T
Dichlorobiphenyl homologs	258 T	NC	1,220 T	521 T	NC	1,050 T	335 T	NC	1,600 JT
Trichlorobiphenyl homologs	778 T	NC	6,440 T	4,260 T	NC	10,900 T	1,520 T	NC	11,900 T
Tetrachlorobiphenyl homologs	6,160 T	NC	44,600 T	20,100 T	NC	61,600 T	7,110 T	NC	76,500 T
Pentachlorobiphenyl homologs	14,500 T	NC	109,000 T	32,100 T	NC	104,000 T	12,900 T	NC	150,000 T
Hexachlorobiphenyl homologs	20,800 T	NC	266,000 T	32,700 JT	NC	120,000 T	17,700 T	NC	184,000 T
Heptachlorobiphenyl homologs	9,620 T	NC	166,000 T	13,700 T	NC	46,800 T	10,700 T	NC	71,300 T
Octachlorobiphenyl homologs	1,810 T	NC	32,900 T	2,430 T	NC	9,040 T	4,590 T	NC	14,500 T
Nonachlorobiphenyl homologs	415 T	NC	3,030 T	544 T	NC	1,940 T	1,900 T	NC	2,010 T
Total PCB Congeners	53,300 JT	245,000 JT	631,000 JT	106,000 JT	400,000 JT	356,000 JT	55,000 JT	218,000 JT	512,000 JT
Total PCB Congeners (calc'd)	54,400 JT	246,000 JT	631,000 JT	106,000 JT	400,000 JT	356,000 JT	57,300 JT	220,000 JT	512,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.162 JT	0.697 JT	15.7 T	0.263 JT	8.92 JT	0.951 JT	0.132 JT	0.576 JT	12.5 T
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	1.75 JT	3.5 JT	15.7 T	2.25 JT	9.79 JT	4.77 JT	3.85 JT	4.35 JT	12.5 T
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	4.59 JT	11.2 JT	21.8 T	11.1 JT	17.1 JT	36.2 JT	7.87 JT	23.2 JT	37.3 T
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.103 JT	0.228 JT	0.498 T	0.162 JT	0.35 JT	0.377 JT	0.195 JT	0.294 JT	0.706 T

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB05W-02 LocationID	EPA1-SB05W-03			EPA1-SB05W-04			EPA1-SB06E-02		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7620011.50418	7620011.50418	7620605.96737	7620605.96737	7620605.96737	7622425.67887	7622425.67887	7622425.67887	7625302.7482
Y-coordinate	709612.51266	709612.51266	708796.51539	708796.51539	708796.51539	708300.12878	708300.12878	708300.12878	706147.43780
RiverMile	5.2	5.2	5.4	5.4	5.4	5.7	5.7	5.7	6.4
Sample Date	2-Oct-11	2-Oct-11	28-Sep-11	28-Sep-11	28-Sep-11	22-Sep-11	22-Sep-11	22-Sep-11	3-Oct-11
Sample Time	12:50	12:50	15:11	15:11	15:11	12:01	12:01	12:01	17:30
Sample Mass (g)	346.59	763.5	137.44	108.01	245.45	460.92	348.52	809.44	431.95
PCB001	21.8 U	NC	14.2 U	14.9 U	NC	36.8 U	36.4 U	NC	35.4 U
PCB002	27.1 U	NC	17.5 U	18.4 U	NC	45.6 U	45.1 U	NC	43.9 U
PCB003	14.3 U	NC	9.25 U	9.7 U	NC	24 U	23.8 U	NC	23.1 U
PCB004	183	NC	299	63.6	NC	300	73.8 U	NC	1,080
PCB005	27.1 U	NC	17.5 U	18.4 U	NC	45.6 U	45.1 U	NC	43.9 U
PCB006	27.9	NC	45.9	17.2 U	NC	46.8	42.2 U	NC	41 U
PCB007	34.4 U	NC	22.3 U	23.4 U	NC	57.8 U	57.3 U	NC	55.7 U
PCB008	138	NC	192 U	55.4 U	NC	169	58.8	NC	148
PCB009	16.6 U	NC	11.9	11.3 U	NC	27.9 U	27.7 U	NC	26.9 U
PCB010	18.1 U	NC	11.7 U	12.3 U	NC	30.4 U	30.1 U	NC	74.8
PCB011	177	NC	212	125	NC	285	237 U	NC	347
PCB012 & 013	24.2 U	NC	15.7 U	16.4 U	NC	40.7 U	40.3 U	NC	39.2 U
PCB014	26.5 U	NC	17.2 U	18 U	NC	44.6 U	44.2 U	NC	42.9 U
PCB015	48.3	NC	77.2	28.3	NC	70.2	66.5 U	NC	70
PCB016	91.6	NC	163	40.4	NC	137	53.4 U	NC	111
PCB017	242	NC	410	91.1	NC	408	99.2	NC	513
PCB018 & 030	294	NC	517	118	NC	504	127 U	NC	404
PCB019	173	NC	454	83.8	NC	431	94.3	NC	2,210
PCB020 & 028	1,290	NC	2,070	437 U	NC	1,940	449	NC	1,580
PCB021 & 033	268	NC	283	89.3 U	NC	376	219 U	NC	249
PCB022	220	NC	423	98.7	NC	341	89.8	NC	211
PCB023	32 U	NC	20.8 U	21.8 U	NC	53.9 U	53.4 U	NC	51.9 U
PCB024	19.5 U	NC	12.6 U	13.3 U	NC	32.8 U	32.5 U	NC	31.6 U
PCB025	70.3	NC	131	28.2	NC	102	47.6 U	NC	86
PCB026 & 029	181	NC	303	63.2	NC	283	102 U	NC	206
PCB027	41.9	NC	85.9	18.8 U	NC	79.1	46.1 U	NC	189
PCB031	620	NC	1,130	244 U	NC	914	232	NC	613
PCB032	158 U	NC	212	48.6 U	NC	238	59.2	NC	233
PCB034	23 U	NC	14.9 U	15.6 U	NC	38.7 U	38.3 U	NC	37.3 U
PCB035	23.9 U	NC	15.5 U	16.2 U	NC	40.2 U	39.8 U	NC	38.7 U
PCB036	25.3 U	NC	16.4 U	17.2 U	NC	42.6 U	42.2 U	NC	41 U
PCB037	75.3	NC	281	65.4	NC	151	48.7	NC	150
PCB038	18.3 U	NC	11.9 U	12.5 U	NC	30.9 U	30.6 U	NC	29.7 U
PCB039	23 U	NC	14.9 U	15.6 U	NC	38.7 U	38.3 U	NC	37.3 U
PCB040 & 041 & 071	761	NC	1,010	191	NC	1,110	248	NC	1,030
PCB042	532	NC	924	181	NC	771	152	NC	606
PCB043 & 073	63.1	NC	176	23.3 U	NC	96.1	53.4 U	NC	96.8
PCB044 & 047 & 065	3,260	NC	4,820	934	NC	5,130	1,070	NC	7,860
PCB045 & 051	301	NC	557	117	NC	511	112	NC	891
PCB046	72.8 U	NC	97.4	49.5 U	NC	123 U	121 U	NC	118 U
PCB048	376	NC	399	83.9	NC	438	95.7	NC	376
PCB049 & 069	2,530	NC	3,220	612	NC	3,820	780	NC	5,190

PCB050 & 053	259	NC	390	78.7	NC	447	96.4	NC	665
PCB052	3,730	NC	5,170	1,020	NC	5,890	1,300	NC	11,100
PCB054	31	NC	76.5	14.7	NC	78.2	34.5 U	NC	361
PCB055	21.8 U	NC	14.2 U	14.9 U	NC	36.8 U	36.4 U	NC	35.4 U
PCB056	432	NC	1,010	204	NC	760	158	NC	398
PCB057	18.3 U	NC	12.6	12.5 U	NC	30.9 U	30.6 U	NC	29.7 U
PCB058	19.5 U	NC	17.3	13.3 U	NC	32.8 U	32.5 U	NC	31.6 U
PCB059 & 062 & 075	235	NC	339	149 U	NC	368 U	364 U	NC	356
PCB060	687	NC	835	164	NC	1,220	238	NC	1,540
PCB061 & 070 & 074 & 076	4,160	NC	5,950	1,120	NC	7,150	1,480	NC	8,460
PCB063	189	NC	234	42.5	NC	333	65.6	NC	411
PCB064	1,150	NC	1,750	341	NC	1,810	373	NC	2,180
PCB066	3,630	NC	4,450	854	NC	6,050	1,230	NC	7,890
PCB067	56.8	NC	101	19.7	NC	76.8	29.1 U	NC	81.6
PCB068	58.3 U	NC	61	39.6 U	NC	98 U	97.1 U	NC	99.3
PCB072	53.6	NC	67.9	12.7	NC	96.9	21.8 U	NC	91.8
PCB073	21.8 U	NC	20.8 U	21.8 U	NC	53.9 U	53.4 U	NC	96.8
PCB077	148	NC	304	54.9	NC	260	52.4	NC	225
PCB078	13.4 U	NC	8.68 U	9.11 U	NC	22.5 U	22.3 U	NC	21.7 U
PCB079	34.8	NC	35.7	15.4 U	NC	61	37.9 U	NC	199
PCB080	21.6 U	NC	14 U	14.7 U	NC	36.3 U	35.9 U	NC	34.9 U
PCB081	26.2 U	NC	17.7	17.8 U	NC	44.1 U	43.7 U	NC	62.4
PCB082	260	NC	544	97.8	NC	524	108	NC	1,390
PCB083	225	NC	422	65.1	NC	421	82.4	NC	1,250
PCB084	579	NC	1,390	257	NC	1,040	141 U	NC	2,210
PCB085 & 117 & 116	1,780	NC	1,740	299	NC	3,230	627	NC	9,390
PCB086 & 087 & 097 & 108 & 119 & 125	3,130	NC	4,600	822	NC	5,740	1,140	NC	22,400
PCB088 & 091	675	NC	1,290	221	NC	1,140	57.3 U	NC	2,880
PCB089	25.5	NC	38.8	11.5 U	NC	33	28.2 U	NC	117
PCB090 & 101 & 113	6,390	NC	9,070	1,600	NC	11,900	2,340	NC	42,800
PCB092	1,410	NC	1,750	308	NC	2,520	496	NC	8,160
PCB093 & 098 & 100 & 102	335 U	NC	456	228 U	NC	601	558 U	NC	1,540
PCB094	72.8 U	NC	47.2 U	49.5 U	NC	123 U	121 U	NC	118 U
PCB095	2,860	NC	4,880	878	NC	4,980	1,060	NC	12,200
PCB096	33.3	NC	48.8	22.2 U	NC	55.3	54.4 U	NC	123
PCB099	4,740	NC	5,270	917	NC	10,800	1,920	NC	30,800
PCB103	92.9	NC	145	29.9	NC	165	44.7 U	NC	311
PCB104	43.4 U	NC	28.1 U	29.5 U	NC	73 U	72.3 U	NC	70.3 U
PCB105	3,560	NC	2,960	534	NC	7,390	1,450	NC	24,300
PCB106	43.1 U	NC	27.9 U	29.3 U	NC	72.5 U	71.8 U	NC	69.8 U
PCB107 & 124	195	NC	238	42.9	NC	354	68.8	NC	349
PCB109	631	NC	757	120	NC	1,340	269	NC	3,540
PCB110 & 115	4,840	NC	7,230	1,330	NC	9,600	1,920	NC	38,700
PCB111	21.6 U	NC	15.5	14.7 U	NC	36.3 U	35.9 U	NC	43.5
PCB112	32 U	NC	20.8 U	21.8 U	NC	53.9 U	53.4 U	NC	51.9 U
PCB114	275	NC	231	39.7	NC	606	117	NC	1,680
PCB118	10,500	NC	9,030	1,620	NC	22,800	4,360	NC	69,700
PCB120	72.8 U	NC	54	49.5 U	NC	123 U	121 U	NC	158
PCB121	20.1 U	NC	13 U	13.7 U	NC	33.8 U	33.5 U	NC	44
PCB122	32.4	NC	50.3	18 U	NC	67.3	44.2 U	NC	42.9 U
PCB123	164	NC	172	35.2	NC	482	91.5	NC	679
PCB126	39.3 U	NC	25.5 U	26.7 U	NC	66.2 U	65.5 U	NC	63.7 U
PCB127	33.9	NC	16.2 U	17 U	NC	49.8	41.7 U	NC	165
PCB128 & 166	1,670	NC	1,230	231	NC	3,500	692	NC	12,500

PCB129 & 138 & 163	13,900	NC	13,100	2,480	NC	30,700	6,120	NC	94,400
PCB130	502	NC	691	130	NC	1,110	220	NC	3,310
PCB131	41.7	NC	91.8	17	NC	107	41.3 U	NC	285
PCB132	1,000	NC	2,150	427	NC	2,350	463	NC	6,590
PCB133	238	NC	310	53.9	NC	661	127	NC	1,480
PCB134 & 143	199	NC	381	99 U	NC	463	243 U	NC	1,340
PCB135 & 151	2,390	NC	3,940	720	NC	5,490	1,060	NC	13,500
PCB136	513	NC	955	174	NC	1,090	215	NC	3,510
PCB137	767	NC	600	92.7	NC	1,540	278	NC	5,180
PCB139 & 140	214	NC	205	35.4	NC	487	94.8	NC	1,670
PCB141	1,510	NC	1,680	331	NC	2,970	571	NC	12,800
PCB142	24.8 U	NC	16 U	16.8 U	NC	41.7 U	41.3 U	NC	40.1 U
PCB144	249	NC	373	77.2	NC	512	96.1	NC	1,590
PCB145	27.4 U	NC	17.7 U	18.6 U	NC	46.1 U	45.6 U	NC	44.3 U
PCB146	2,140	NC	3,120	528	NC	6,220	1,200	NC	14,300
PCB147 & 149	3,320	NC	6,450	1,520	NC	7,680	1,550	NC	11,200
PCB148	43.7 U	NC	42.9	29.7 U	NC	73.5 U	72.8 U	NC	105
PCB150	31.5 U	NC	31.7	21.4 U	NC	52.9 U	52.4 U	NC	50.9 U
PCB152	34.1 U	NC	22.1 U	23.2 U	NC	57.4 U	56.8 U	NC	77.2
PCB153 & 168	14,000	NC	14,100	2,600	NC	33,900	6,720	NC	95,500
PCB154	220	NC	261	46.4	NC	588	111	NC	1,190
PCB155	35.8 U	NC	23.2 U	24.4 U	NC	60.3 U	59.7 U	NC	58 U
PCB156 & 157	1,700	NC	1,400	228	NC	3,820	744	NC	13,900
PCB158	1,180	NC	877	163	NC	2,630	523	NC	9,830
PCB159	72.8 U	NC	47.2 U	49.5 U	NC	123 U	121 U	NC	118 U
PCB160	2.62 U	NC	1.7 U	1.78 U	NC	4.41 U	4.37 U	NC	4.25 U
PCB161	34.7 U	NC	22.5 U	23.6 U	NC	58.3 U	57.8 U	NC	56.1 U
PCB162	40.3	NC	17.5	16.7 U	NC	129	41 U	NC	310
PCB164	394	NC	568	102	NC	945	198	NC	3,360
PCB165	34.4 U	NC	22.3 U	23.4 U	NC	57.8 U	57.3 U	NC	69.2
PCB167	567	NC	577	91.5	NC	1,350	252	NC	3,230
PCB169	37.8 J	NC	18.7	15.7 U	NC	68.3 J	38.4 U	NC	182 U
PCB170	2,420	NC	1,900	326	NC	5,540	1,080	NC	20,200
PCB171 & 173	766	NC	697	113	NC	1,730	345	NC	6,000
PCB172	426	NC	492	73.5	NC	1,060	203	NC	3,430
PCB174	711	NC	1,850	326	NC	1,800	333	NC	2,560
PCB175	74.4	NC	116	29.1 U	NC	189	71.4 U	NC	503
PCB176	77	NC	229	40.9	NC	220	88.8 U	NC	246
PCB177	753	NC	1,580	263	NC	2,020	389	NC	3,200
PCB178	610	NC	795	132	NC	1,670	315	NC	3,990
PCB179	459	NC	978	163	NC	1,150	222	NC	1,970
PCB180 & 193	7,560	NC	6,800	1,070	NC	18,200	3,630	NC	59,700
PCB181	39 U	NC	31.3	26.5 U	NC	89.6	65 U	NC	254
PCB182	26.5 U	NC	17.2 U	18 U	NC	49.3	44.2 U	NC	102
PCB183 & 185	1,970	NC	2,350	380	NC	4,540	925	NC	14,200
PCB184	31.7 U	NC	20.6 U	21.6 U	NC	53.4 U	52.9 U	NC	51.4 U
PCB186	46 U	NC	29.8 U	31.3 U	NC	77.5 U	76.7 U	NC	74.5 U
PCB187	3,900	NC	5,750	935	NC	11,400	2,220	NC	21,300
PCB188	37 U	NC	24 U	25.1 U	NC	62.3 U	61.7 U	NC	59.9 U
PCB189	104	NC	120	18.6	NC	310	56.4	NC	1,100
PCB190	348	NC	291	21.3 U	NC	964	207	NC	2,670
PCB191	120	NC	91.4	25.1 U	NC	293	61.7 U	NC	1,040
PCB192	25.6 U	NC	16.6 U	17.4 U	NC	43.1 U	42.7 U	NC	41.5 U
PCB194	1,020	NC	962	156	NC	2,500	518	NC	9,710

PCB195	447	NC	28.2 U	68.7	NC	1,130	233	NC	4,050
PCB196	572	NC	406	85.1	NC	1,400	286	NC	5,190
PCB197 & 200	95	NC	155	41.1 U	NC	228	101 U	NC	583
PCB198 & 199	1,000	NC	31.7 U	252	NC	2,630	555	NC	6,290
PCB201	124	NC	194	33	NC	329	67.7	NC	776
PCB202	333	NC	354	56.8	NC	871	178	NC	1,880
PCB203	964	NC	629	125	NC	2,230	441	NC	6,680
PCB204	35.5 U	NC	23 U	24.1 U	NC	59.8 U	59.2 U	NC	57.5 U
PCB205	57.7	NC	57.4	24 U	NC	145	58.9 U	NC	579
PCB206	450	NC	394	26.9 U	NC	1,190	281	NC	2,480
PCB207	70.1	NC	45.3 U	47.5 U	NC	172	117 U	NC	369
PCB208	128	NC	156	48.4 U	NC	392	119 U	NC	497
PCB209	173	NC	205	46	NC	636	144	NC	605

Monochlorobiphenyl homologs	27.1 UT	NC	17.5 UT	18.4 UT	NC	45.6 UT	45.1 UT	NC	43.9 UT
Dichlorobiphenyl homologs	592 T	NC	748 T	265 T	NC	900 T	297 T	NC	1,750 T
Trichlorobiphenyl homologs	3,690 T	NC	6,490 T	1,040 T	NC	5,970 T	1,440 T	NC	6,820 T
Tetrachlorobiphenyl homologs	22,700 T	NC	32,000 T	6,220 T	NC	36,500 T	7,910 T	NC	50,400 T
Pentachlorobiphenyl homologs	42,700 T	NC	52,400 T	9,460 T	NC	86,100 T	16,800 T	NC	275,000 T
Hexachlorobiphenyl homologs	46,900 JT	NC	53,200 T	10,200 T	NC	109,000 JT	21,600 T	NC	311,000 T
Heptachlorobiphenyl homologs	20,400 T	NC	24,100 T	3,920 T	NC	51,300 T	10,100 T	NC	143,000 T
Octachlorobiphenyl homologs	4,610 T	NC	2,790 T	809 T	NC	11,500 T	2,360 T	NC	35,700 T
Nonachlorobiphenyl homologs	648 T	NC	573 T	48.4 UT	NC	1,750 T	399 T	NC	3,350 T
Total PCB Congeners	142,000 JT	344,000 JT	172,000 JT	30,800 JT	110,000 JT	302,000 JT	58,500 JT	197,000 JT	827,000 JT
Total PCB Congeners (calc'd)	142,000 JT	344,000 JT	173,000 JT	32,000 JT	111,000 JT	303,000 JT	61,100 JT	199,000 JT	828,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	4.65 UT	7.56 JT	1.03 JT	0.0825 JT	0.614 JT	3.18 JT	0.217 JT	1.9 JT	3.48 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	3.02 JT	8.45 JT	2.31 JT	1.66 JT	2.02 JT	6.49 JT	4.07 JT	5.45 JT	9.39 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	11.4 JT	25.2 JT	18.8 JT	5.08 JT	12.8 JT	20 JT	8.38 JT	15 JT	25.5 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.208 JT	0.479 JT	0.176 JT	0.0899 JT	0.138 JT	0.39 JT	0.216 JT	0.315 JT	0.79 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB06E-02 LocationID	EPA1-SB06E-08			EPA1-SB06E-09			EPA1-SB06E-10		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7625302.7482	7625302.7482	7627751.00475	7627751.00475	7627751.00475	7627261.88007	7627261.88007	7627261.88007	7627239.77732
Y-coordinate	706147.43780	706147.43780	704513.70041	704513.70041	704513.70041	704853.84237	704853.84237	704853.84237	704870.11915
RiverMile	6.4	6.4	6.9	6.9	6.9	6.8	6.8	6.8	6.8
Sample Date	3-Oct-11	3-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11
Sample Time	17:30	17:30	14:40	14:40	14:40	15:49	15:49	15:49	16:10
Sample Mass (g)	295.78	727.73	217.45	165.25	382.7	212.8	154.51	367.31	450.65
PCB001	22.1 U	NC	35.4 U	35.4 U	NC	32.1 U	35.7 U	NC	36.4 U
PCB002	27.4 U	NC	43.9 U	43.9 U	NC	39.7 U	44.3 U	NC	45.1 U
PCB003	14.4 U	NC	23.1 U	23.1 U	NC	20.9 U	23.3 U	NC	23.8 U
PCB004	346	NC	362	75.1	NC	227	72.4 U	NC	237
PCB005	27.4 U	NC	43.9 U	43.9 U	NC	39.7 U	44.3 U	NC	45.1 U
PCB006	25.6 U	NC	41 U	41 U	NC	37.2 U	41.4 U	NC	63.6
PCB007	34.7 U	NC	55.7 U	55.7 U	NC	50.4 U	56.2 U	NC	57.3 U
PCB008	54.9	NC	132	59.8	NC	85.5	57.9	NC	204
PCB009	16.8 U	NC	26.9 U	26.9 U	NC	24.4 U	27.1 U	NC	27.7 U
PCB010	22.2	NC	29.2 U	29.2 U	NC	26.5 U	29.5 U	NC	30.1 U
PCB011	180	NC	260	230 U	NC	209 U	232 U	NC	334
PCB012 & 013	24.4 U	NC	39.2 U	39.2 U	NC	35.5 U	39.5 U	NC	40.3 U
PCB014	26.8 U	NC	42.9 U	42.9 U	NC	38.9 U	43.3 U	NC	44.2 U
PCB015	41	NC	64.6 U	64.6 U	NC	58.5 U	65.2 U	NC	76
PCB016	46.7	NC	116	51.9 U	NC	77.8	52.4 U	NC	83.2
PCB017	164	NC	320	81.3	NC	273	73.3	NC	499
PCB018 & 030	126 U	NC	352	107	NC	257	89.3	NC	545
PCB019	625	NC	641	126	NC	560	110	NC	184
PCB020 & 028	515	NC	1,310	290	NC	871	205	NC	1,490
PCB021 & 033	133 U	NC	231	213 U	NC	193 U	215 U	NC	219 U
PCB022	93.5	NC	261	66.5	NC	149	47.6 U	NC	224
PCB023	32.4 U	NC	51.9 U	51.9 U	NC	47 U	52.4 U	NC	53.4 U
PCB024	19.7 U	NC	31.6 U	31.6 U	NC	28.6 U	31.9 U	NC	32.5 U
PCB025	29.3	NC	85.7	46.2 U	NC	65.8	46.7 U	NC	181
PCB026 & 029	70.3	NC	189	99.1 U	NC	143	100 U	NC	439
PCB027	53	NC	74.8	44.8 U	NC	68.8	45.2 U	NC	138
PCB031	229	NC	687	168	NC	426	118	NC	932
PCB032	77.9 U	NC	158	43.5	NC	137	39.7	NC	377
PCB034	23.2 U	NC	37.3 U	37.3 U	NC	33.8 U	37.6 U	NC	38.3 U
PCB035	24.1 U	NC	38.7 U	38.7 U	NC	35 U	39 U	NC	39.8 U
PCB036	25.6 U	NC	41 U	41 U	NC	37.2 U	41.4 U	NC	42.2 U
PCB037	66.8	NC	170	43.9	NC	134	31.9 U	NC	114
PCB038	18.5 U	NC	29.7 U	29.7 U	NC	26.9 U	30 U	NC	30.6 U
PCB039	23.2 U	NC	37.3 U	37.3 U	NC	33.8 U	37.6 U	NC	38.3 U
PCB040 & 041 & 071	340	NC	680	128	NC	533	112	NC	1,110
PCB042	181	NC	515	93.8	NC	310	61.6	NC	541
PCB043 & 073	35.1	NC	57.2	51.9 U	NC	55.5	52.4 U	NC	82.4
PCB044 & 047 & 065	2,340	NC	4,140	717	NC	4,190	756	NC	3,260
PCB045 & 051	291	NC	530	99.9	NC	490	94.6	NC	330
PCB046	73.5 U	NC	118 U	118 U	NC	107 U	119 U	NC	121 U
PCB048	130	NC	252	49	NC	174	36.4	NC	327
PCB049 & 069	1,550	NC	2,320	396	NC	1,940	343	NC	2,820

PCB050 & 053	206	NC	449	82.5	NC	430	78.5	NC	326
PCB052	3,300	NC	3,730	658	NC	2,850	534	NC	4,350
PCB054	105	NC	111	33.5 U	NC	112	33.8 U	NC	34.5 U
PCB055	22.1 U	NC	35.4 U	35.4 U	NC	32.1 U	35.7 U	NC	36.4 U
PCB056	129	NC	579	109	NC	260	56.4	NC	512
PCB057	18.5 U	NC	29.7 U	29.7 U	NC	26.9 U	30 U	NC	30.6 U
PCB058	19.7 U	NC	31.6 U	31.6 U	NC	28.6 U	31.9 U	NC	32.5 U
PCB059 & 062 & 075	221 U	NC	354 U	354 U	NC	321 U	357 U	NC	364 U
PCB060	405	NC	552	98.8	NC	387	72.4	NC	711
PCB061 & 070 & 074 & 076	2,420	NC	4,420	758	NC	3,450	640	NC	4,790
PCB063	109	NC	181	30.2	NC	229	39.9	NC	197
PCB064	637	NC	1,020	183	NC	598	119 U	NC	1,270
PCB066	2,210	NC	3,360	572	NC	3,430	606	NC	3,350
PCB067	24.3	NC	73.1	28.3 U	NC	74.3	28.6 U	NC	47.4
PCB068	58.8 U	NC	94.3 U	94.3 U	NC	87.6	95.2 U	NC	97.1 U
PCB072	27.3	NC	66.7	21.2 U	NC	64	21.4 U	NC	71.4
PCB073	35.1 U	NC	51.9 U	51.9 U	NC	55.5 U	52.4 U	NC	53.4 U
PCB077	55.1	NC	198	43.4 U	NC	289	50.3	NC	149
PCB078	13.5 U	NC	21.7 U	21.7 U	NC	19.7 U	21.9 U	NC	22.3 U
PCB079	49.3	NC	40.1	36.8 U	NC	33.3 U	37.1 U	NC	37.9 U
PCB080	21.8 U	NC	34.9 U	34.9 U	NC	31.6 U	35.2 U	NC	35.9 U
PCB081	26.5 U	NC	42.5 U	42.5 U	NC	38.5 U	42.9 U	NC	43.7 U
PCB082	368	NC	420	71.9	NC	222	41.7	NC	355
PCB083	423	NC	308	62.7 U	NC	271	63.3 U	NC	241
PCB084	743	NC	957	164	NC	620	138 U	NC	806
PCB085 & 117 & 116	2,550	NC	1,750	288	NC	1,630	284	NC	1,850
PCB086 & 087 & 097 & 108 & 119 & 125	6,000	NC	4,150	708 U	NC	3,320	714 U	NC	3,800
PCB088 & 091	918	NC	1,060	177	NC	780	136	NC	750
PCB089	33.8	NC	27.4 U	27.4 U	NC	24.8 U	27.6 U	NC	40.3
PCB090 & 101 & 113	11,400	NC	9,060	1,470	NC	8,230	1,410	NC	6,840
PCB092	2,400	NC	1,820	298	NC	1,730	290	NC	1,340
PCB093 & 098 & 100 & 102	468	NC	782	542 U	NC	2,040	548 U	NC	558 U
PCB094	73.5 U	NC	118 U	118 U	NC	107 U	119 U	NC	121 U
PCB095	4,100	NC	4,110	707	NC	3,350	590	NC	2,810
PCB096	39.7	NC	52.8 U	52.8 U	NC	49	53.3 U	NC	54.4 U
PCB099	8,020	NC	6,590	1,040	NC	7,860	1,290	NC	5,350
PCB103	100	NC	227	43.4 U	NC	215	43.8 U	NC	63.7
PCB104	43.8 U	NC	70.3 U	70.3 U	NC	63.7 U	71 U	NC	72.3 U
PCB105	6,130	NC	3,420	573	NC	3,390	586	NC	3,940
PCB106	43.5 U	NC	69.8 U	69.8 U	NC	63.2 U	70.5 U	NC	71.8 U
PCB107 & 124	88.7	NC	228	51.4 U	NC	180	51.9 U	NC	232
PCB109	891	NC	933	153	NC	1,080	187	NC	660
PCB110 & 115	9,930	NC	6,440	1,120	NC	4,850	859	NC	6,420
PCB111	21.8 U	NC	34.9 U	34.9 U	NC	35.2	35.2 U	NC	35.9 U
PCB112	32.4 U	NC	51.9 U	51.9 U	NC	47 U	52.4 U	NC	53.4 U
PCB114	422	NC	293	58 U	NC	396	62.6	NC	294
PCB118	17,200	NC	13,000	2,110	NC	15,800	2,650	NC	10,900
PCB120	73.5 U	NC	118 U	118 U	NC	114	119 U	NC	121 U
PCB121	20.3 U	NC	32.5 U	32.5 U	NC	59.3	32.9 U	NC	33.5 U
PCB122	26.8 U	NC	57.5	42.9 U	NC	38.9 U	43.3 U	NC	46.4
PCB123	130	NC	242	54.7 U	NC	291	55.2 U	NC	195
PCB126	39.7 U	NC	63.7 U	63.7 U	NC	57.7 U	64.3 U	NC	65.5 U
PCB127	39.6	NC	40.6 U	40.6 U	NC	36.8 U	41 U	NC	41.7 U
PCB128 & 166	3,030	NC	1,990	299	NC	2,250	359	NC	1,740

PCB129 & 138 & 163	23,600	NC	24,100	3,590	NC	36,000	5,510	NC	11,800
PCB130	818	NC	1,040	157	NC	1,030	158	NC	519
PCB131	75.7	NC	89.1	40.1 U	NC	64.5	40.5 U	NC	73.2
PCB132	1,910	NC	2,490	380	NC	1,830	295	NC	1,450
PCB133	400	NC	606	87.3	NC	922	137	NC	213
PCB134 & 143	385	NC	458	236 U	NC	384	238 U	NC	266
PCB135 & 151	3,630	NC	5,620	830	NC	6,870	1,080	NC	1,970
PCB136	1,010	NC	1,160	174	NC	1,230	202	NC	556
PCB137	1,440	NC	1,100	146	NC	1,500	233	NC	736
PCB139 & 140	469	NC	305	56.6 U	NC	387	59.8	NC	229
PCB141	2,960	NC	2,570	405	NC	4,390	656	NC	1,170
PCB142	25 U	NC	40.1 U	40.1 U	NC	36.3 U	40.5 U	NC	41.3 U
PCB144	420	NC	611	89.7	NC	669	101	NC	225
PCB145	27.6 U	NC	44.3 U	44.3 U	NC	40.2 U	44.8 U	NC	45.6 U
PCB146	3,630	NC	5,910	869	NC	8,690	1,320	NC	1,980
PCB147 & 149	3,260	NC	10,100	1,500	NC	7,100	1,130	NC	3,670
PCB148	44.1 U	NC	87	70.8 U	NC	91.5	71.4 U	NC	72.8 U
PCB150	31.8 U	NC	50.9 U	50.9 U	NC	46.2 U	51.4 U	NC	52.4 U
PCB152	34.4 U	NC	55.2 U	55.2 U	NC	50 U	55.7 U	NC	56.8 U
PCB153 & 168	24,800	NC	29,800	4,350	NC	52,800	8,030	NC	11,600
PCB154	306	NC	554	76.2	NC	902	132	NC	191
PCB155	36.2 U	NC	58 U	58 U	NC	75.1	58.6 U	NC	59.7 U
PCB156 & 157	3,350	NC	2,240	370	NC	3,880	629	NC	1,670
PCB158	2,330	NC	1,700	261	NC	2,910	444	NC	1,090
PCB159	73.5 U	NC	118 U	118 U	NC	107 U	119 U	NC	121 U
PCB160	2.65 U	NC	4.25 U	4.25 U	NC	3.85 U	4.29 U	NC	4.37 U
PCB161	35 U	NC	56.1 U	56.1 U	NC	50.9 U	56.7 U	NC	57.8 U
PCB162	75.7	NC	77.3	39.9 U	NC	90.5	40.2 U	NC	45.4
PCB164	744	NC	831	128	NC	1,040	161	NC	448
PCB165	34.7 U	NC	55.7 U	55.7 U	NC	64.8	56.2 U	NC	57.3 U
PCB167	736	NC	987	154	NC	1,380	226	NC	528
PCB169	41.7 J	NC	37.4 U	37.4 U	NC	56.4 U	37.7 U	NC	38.4 U
PCB170	4,690	NC	3,800	670	NC	11,400	1,910	NC	1,460
PCB171 & 173	1,510	NC	1,290	205	NC	3,560	539	NC	481
PCB172	781	NC	800	126	NC	2,150	319	NC	280
PCB174	570	NC	2,370	382	NC	2,330	390	NC	561
PCB175	113	NC	200	69.3 U	NC	370	70 U	NC	71.4 U
PCB176	64.9	NC	278	86.3 U	NC	226	87.1 U	NC	88.8 U
PCB177	779	NC	2,400	388	NC	3,000	480	NC	622
PCB178	956	NC	1,420	222	NC	2,870	448	NC	461
PCB179	513	NC	1,120	176	NC	1,500	235	NC	410
PCB180 & 193	14,000	NC	13,300	2,330	NC	36,900	6,210	NC	4,390
PCB181	61.3	NC	63.2 U	63.2 U	NC	117	63.8 U	NC	65 U
PCB182	26.8 U	NC	42.9 U	42.9 U	NC	50.6	43.3 U	NC	44.2 U
PCB183 & 185	3,500	NC	3,950	604	NC	9,810	1,470	NC	1,180
PCB184	32.1 U	NC	51.4 U	51.4 U	NC	46.6 U	51.9 U	NC	52.9 U
PCB186	46.5 U	NC	74.5 U	74.5 U	NC	67.5 U	75.2 U	NC	76.7 U
PCB187	4,900	NC	10,600	1,680	NC	17,000	2,750	NC	3,010
PCB188	37.4 U	NC	59.9 U	59.9 U	NC	54.3 U	60.5 U	NC	61.7 U
PCB189	246	NC	213	34.1 U	NC	640	100	NC	82.5
PCB190	612	NC	482	123	NC	1,390	307	NC	146
PCB191	226	NC	220	59.9 U	NC	673	100	NC	65.9
PCB192	25.9 U	NC	41.5 U	41.5 U	NC	37.6 U	41.9 U	NC	42.7 U
PCB194	2,510	NC	1,690	270	NC	6,360	1,050	NC	582

PCB195	1,090	NC	819	127	NC	3,090	455	NC	257
PCB196	1,330	NC	920	164	NC	3,000	539	NC	278
PCB197 & 200	144	NC	208	97.9 U	NC	411	98.9 U	NC	101 U
PCB198 & 199	1,510	NC	1,790	344	NC	3,710	707	NC	631
PCB201	189	NC	338	48.1	NC	678	98.3	NC	83.7
PCB202	477	NC	563	84.9	NC	1,230	182	NC	251
PCB203	1,660	NC	1,260	215	NC	3,890	618	NC	470
PCB204	35.9 U	NC	57.5 U	57.5 U	NC	52.1 U	58 U	NC	59.2 U
PCB205	140	NC	98.7	57.2 U	NC	362	57.8 U	NC	58.9 U
PCB206	627	NC	532	91	NC	1,360	217	NC	260
PCB207	95.9	NC	113 U	113 U	NC	235	114 U	NC	117 U
PCB208	115	NC	193	115 U	NC	296	116 U	NC	119 U
PCB209	163	NC	286	53	NC	397	81.2	NC	164

Monochlorobiphenyl homologs	27.4 UT	NC	43.9 UT	43.9 UT	NC	39.7 UT	44.3 UT	NC	45.1 UT
Dichlorobiphenyl homologs	665 T	NC	835 T	331 T	NC	490 T	292 T	NC	944 T
Trichlorobiphenyl homologs	2,100 T	NC	4,660 T	1,220 T	NC	3,320 T	973 T	NC	5,390 T
Tetrachlorobiphenyl homologs	14,800 T	NC	23,600 T	4,440 T	NC	20,300 T	3,990 T	NC	24,700 T
Pentachlorobiphenyl homologs	72,500 T	NC	56,100 T	9,230 T	NC	56,700 T	9,500 T	NC	47,500 T
Hexachlorobiphenyl homologs	79,500 JT	NC	94,600 T	14,300 T	NC	137,000 T	21,200 T	NC	42,400 T
Heptachlorobiphenyl homologs	33,600 T	NC	42,600 T	7,140 T	NC	94,000 T	15,400 T	NC	13,300 T
Octachlorobiphenyl homologs	9,050 T	NC	7,690 T	1,330 T	NC	22,700 T	3,730 T	NC	2,630 T
Nonachlorobiphenyl homologs	838 T	NC	782 T	205 T	NC	1,890 T	332 T	NC	378 T
Total PCB Congeners	212,000 JT	577,000 JT	230,000 JT	35,400 JT	146,000 JT	335,000 JT	52,600 JT	217,000 JT	136,000 JT
Total PCB Congeners (calc'd)	213,000 JT	578,000 JT	231,000 JT	38,300 JT	148,000 JT	337,000 JT	55,600 JT	218,000 JT	137,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	2.1 JT	2.92 JT	0.632 JT	0.0962 JT	0.4 JT	0.802 JT	0.133 JT	0.521 JT	0.543 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	4.09 JT	7.24 JT	4.38 JT	3.85 JT	4.15 JT	4.54 JT	3.92 JT	4.28 JT	4.4 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	7.28 JT	8.12 JT	16 JT	6.53 JT	11.9 JT	20.2 JT	8.05 JT	15.1 JT	13.6 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.255 JT	0.573 JT	0.293 JT	0.189 JT	0.248 JT	0.313 JT	0.199 JT	0.265 JT	0.279 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB06E-10 LocationID	EPA1-SB06E-11			EPA1-SB06W-01			EPA1-SB06W-04		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7627239.77732	7627239.77732	7627178.52305	7627178.52305	7627178.52305	7623259.73897	7623259.73897	7623259.73897	7625793.9513
Y-coordinate	704870.11915	704870.11915	704970.96090	704970.96090	704970.96090	706089.13850	706089.13850	706089.13850	704637.76539
RiverMile	6.8	6.8	6.8	6.8	6.8	6.1	6.1	6.1	6.6
Sample Date	8-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11	8-Oct-11	7-Oct-11	7-Oct-11	7-Oct-11	6-Oct-11
Sample Time	16:10	16:10	16:15	16:15	16:15	8:20	8:20	8:20	16:45
Sample Mass (g)	349.44	800.09	110.7	93.53	204.23	332.83	284.8	617.63	116.8
PCB001	35 U	NC	34.1 U	36.4 U	NC	35.7 U	34.1 U	NC	36.8 U
PCB002	43.5 U	NC	42.3 U	45.1 U	NC	44.3 U	42.3 U	NC	45.6 U
PCB003	22.9 U	NC	22.3 U	23.8 U	NC	23.3 U	22.3 U	NC	24 U
PCB004	71.5	NC	863	151	NC	233 J	69.1 U	NC	598
PCB005	43.5 U	NC	42.3 U	45.1 U	NC	44.3 U	42.3 U	NC	45.6 U
PCB006	40.7 U	NC	39.5 U	42.2 U	NC	46.9	39.5 U	NC	184
PCB007	55.1 U	NC	53.6 U	57.3 U	NC	56.2 U	53.6 U	NC	57.8 U
PCB008	74.4	NC	151	70.4	NC	180	59.4	NC	502
PCB009	26.6 U	NC	25.9 U	27.7 U	NC	27.1 U	25.9 U	NC	37.1
PCB010	29 U	NC	89.5	30.1 U	NC	29.5 U	28.2 U	NC	30.4 U
PCB011	228 U	NC	222 U	237 U	NC	232 U	222 U	NC	333
PCB012 & 013	38.8 U	NC	37.7 U	40.3 U	NC	39.5 U	37.7 U	NC	40.7 U
PCB014	42.5 U	NC	41.4 U	44.2 U	NC	43.3 U	41.4 U	NC	44.6 U
PCB015	64 U	NC	62.3 U	66.5 U	NC	65.2 U	62.3 U	NC	178
PCB016	51.4 U	NC	163	56.7	NC	52.4	50 U	NC	420
PCB017	144	NC	588	131	NC	58.6	121	NC	1,400
PCB018 & 030	167	NC	495	139	NC	2.86	153 U	NC	1,950
PCB019	55.7	NC	2,100	365	NC	45.7	93.3	NC	679
PCB020 & 028	465	NC	1,600	353	NC	2,210	597	NC	14,200
PCB021 & 033	211 U	NC	269	219 U	NC	429	205 U	NC	809
PCB022	78.6	NC	338	84.3	NC	456	127	NC	1,490
PCB023	51.4 U	NC	50 U	53.4 U	NC	52.4 U	50 U	NC	53.9 U
PCB024	31.3 U	NC	30.5 U	32.5 U	NC	31.9 U	30.5 U	NC	32.8 U
PCB025	52.5	NC	131	47.6 U	NC	151	44.5 U	NC	340
PCB026 & 029	133	NC	262	102 U	NC	325	95.5 U	NC	943
PCB027	44.4 U	NC	166	46.1 U	NC	45.2	43.2 U	NC	374
PCB031	291	NC	941	223	NC	1,130	309	NC	3,400
PCB032	112	NC	248	64.1	NC	20.5	75.2	NC	1,740
PCB034	36.9 U	NC	35.9 U	38.3 U	NC	37.6 U	35.9 U	NC	38.7 U
PCB035	38.3 U	NC	37.3 U	39.8 U	NC	39 U	37.3 U	NC	40.2 U
PCB036	40.7 U	NC	39.5 U	42.2 U	NC	41.4 U	39.5 U	NC	42.6 U
PCB037	44.6	NC	182	41.6	NC	147	53	NC	660
PCB038	29.4 U	NC	28.6 U	30.6 U	NC	30 U	28.6 U	NC	44
PCB039	36.9 U	NC	35.9 U	38.3 U	NC	37.6 U	35.9 U	NC	55.2
PCB040 & 041 & 071	340	NC	807	155	NC	1,580	418	NC	21,000
PCB042	160	NC	616	116	NC	1,150	306	NC	16,000
PCB043 & 073	51.4 U	NC	99.7	53.4 U	NC	125	50 U	NC	1,610
PCB044 & 047 & 065	975	NC	5,520	983	NC	6,840	1,690	NC	79,700
PCB045 & 051	93.6	NC	842	150	NC	712	181	NC	4,380
PCB046	117 U	NC	114 U	121 U	NC	119 U	114 U	NC	978
PCB048	99.5	NC	317	61.9	NC	591	156	NC	7,420
PCB049 & 069	819	NC	2,970	524	NC	4,580	1,110	NC	58,600

PCB050 & 053	94.5	NC	561	97.4	NC	638	164	NC	3,730
PCB052	1,220	NC	4,380	789	NC	7,110	1,750	NC	95,300
PCB054	33.2 U	NC	274	45.2	NC	75.7	32.3 U	NC	97.6
PCB055	35 U	NC	34.1 U	36.4 U	NC	35.7 U	34.1 U	NC	36.8 U
PCB056	163	NC	704	132	NC	1,150	277	NC	8,500
PCB057	29.4 U	NC	28.6 U	30.6 U	NC	30 U	28.6 U	NC	154
PCB058	31.3 U	NC	30.5 U	32.5 U	NC	31.9 U	30.5 U	NC	130
PCB059 & 062 & 075	350 U	NC	341 U	364 U	NC	411	341 U	NC	5,540
PCB060	211	NC	589	104	NC	1,260	303	NC	26,300
PCB061 & 070 & 074 & 076	1,410	NC	4,710	847	NC	7,320	1,780	NC	76,600
PCB063	58.2	NC	164	28.6 U	NC	351	81	NC	4,040
PCB064	382	NC	1,250	225	NC	2,260	561	NC	37,900
PCB066	983	NC	3,260	565	NC	6,640	1,630	NC	93,500
PCB067	28 U	NC	83.4	29.1 U	NC	119	28.9	NC	490
PCB068	93.5 U	NC	90.9 U	97.1 U	NC	104	90.9 U	NC	163
PCB072	21 U	NC	67.8	21.8 U	NC	127	29.7	NC	504
PCB073	51.4 U	NC	99.7 U	53.4 U	NC	52.4 U	50 U	NC	1,610
PCB077	44	NC	215	44.7 U	NC	263	62.4	NC	1,810
PCB078	21.5 U	NC	20.9 U	22.3 U	NC	21.9 U	20.9 U	NC	22.5 U
PCB079	36.4 U	NC	35.6	37.9 U	NC	67.6	35.5 U	NC	491
PCB080	34.6 U	NC	34.1 U	35.9 U	NC	35.2 U	33.6 U	NC	36.3 U
PCB081	42.1 U	NC	40.9 U	43.7 U	NC	43.1	40.9 U	NC	210
PCB082	106	NC	395	70.5	NC	898	212	NC	6,630
PCB083	71.3	NC	273	64.6 U	NC	595	118	NC	3,730
PCB084	234	NC	1,090	192	NC	1,640	395	NC	10,700
PCB085 & 117 & 116	573	NC	1,670	280	NC	3,470	801	NC	28,800
PCB086 & 087 & 097 & 108 & 119 & 125	1,110	NC	4,150	728 U	NC	7,870	1,850	NC	60,300
PCB088 & 091	218	NC	1,170	206	NC	2,070	487	NC	11,900
PCB089	27.1 U	NC	26.8	28.2 U	NC	57.8	26.4 U	NC	828
PCB090 & 101 & 113	2,010	NC	8,700	1,500	NC	17,100	3,990	NC	92,200
PCB092	377	NC	1,840	318	NC	3,490	812	NC	18,300
PCB093 & 098 & 100 & 102	537 U	NC	1,070	558 U	NC	1,100	523 U	NC	2,660
PCB094	117 U	NC	114 U	121 U	NC	119 U	114 U	NC	245
PCB095	830	NC	4,440	786	NC	7,590	1,820	NC	37,100
PCB096	52.3 U	NC	56.7	54.4 U	NC	79.8	50.9 U	NC	532
PCB099	1,400	NC	6,110	1,020	NC	10,900	2,650	NC	62,800
PCB103	43 U	NC	254	44.7 U	NC	324	75.8	NC	680
PCB104	69.6 U	NC	67.7 U	72.3 U	NC	71 U	67.7 U	NC	73 U
PCB105	1,120	NC	2,990	518	NC	6,770	1,550	NC	50,200
PCB106	69.2 U	NC	67.3 U	71.8 U	NC	70.5 U	67.3 U	NC	72.5 U
PCB107 & 124	67.8	NC	233	52.9 U	NC	435	97.5	NC	1,550
PCB109	207	NC	703	120	NC	1,400	340	NC	6,710
PCB110 & 115	1,900	NC	6,900	1,220	NC	12,700	2,980	NC	80,300
PCB111	34.6 U	NC	33.6 U	35.9 U	NC	38.7	33.6 U	NC	38.1
PCB112	51.4 U	NC	50 U	53.4 U	NC	52.4 U	50 U	NC	53.9 U
PCB114	82.5	NC	225	59.7 U	NC	525	118	NC	3,740
PCB118	3,130	NC	10,700	1,850	NC	21,400	5,100	NC	106,000
PCB120	117 U	NC	114 U	121 U	NC	143	114 U	NC	190
PCB121	32.2 U	NC	31.4 U	33.5 U	NC	34.5	31.4 U	NC	33.8 U
PCB122	42.5 U	NC	53.2	44.2 U	NC	102	41.4 U	NC	273
PCB123	55.5	NC	237	56.3 U	NC	526	108	NC	2,460
PCB126	63.1 U	NC	61.4 U	65.5 U	NC	64.3 U	61.4 U	NC	142
PCB127	40.2 U	NC	39.1 U	41.7 U	NC	41 U	39.1 U	NC	94.7
PCB128 & 166	476	NC	1,910	293	NC	3,820	807	NC	8,590

PCB129 & 138 & 163	3,520	NC	20,400	3,030	NC	39,900	8,130	NC	65,400
PCB130	156	NC	781	113	NC	1,660	337	NC	3,440
PCB131	39.7 U	NC	81.8	41.3 U	NC	155	38.6 U	NC	412
PCB132	431	NC	2,330	359	NC	4,270	942	NC	9,070
PCB133	60.2	NC	477	69.8	NC	883	172	NC	936
PCB134 & 143	234 U	NC	404	243 U	NC	771	227 U	NC	1,950
PCB135 & 151	604	NC	5,340	793	NC	9,140	1,940	NC	14,900
PCB136	163	NC	1,160	180	NC	1,820	413	NC	3,830
PCB137	217	NC	783	141 U	NC	1,160	272	NC	3,300
PCB139 & 140	65.7	NC	297	58.3 U	NC	547	111	NC	1,270
PCB141	359	NC	2,720	407	NC	4,920	987	NC	10,800
PCB142	39.7 U	NC	38.6 U	41.3 U	NC	40.5 U	38.6 U	NC	41.7 U
PCB144	70.1 U	NC	532	79.6	NC	972	206	NC	1,960
PCB145	43.9 U	NC	42.7 U	45.6 U	NC	44.8 U	42.7 U	NC	46.1 U
PCB146	542	NC	4,330	631	NC	8,050	1,680	NC	9,850
PCB147 & 149	1,100	NC	9,040	1,370	NC	17,400	3,650	NC	24,200
PCB148	70.1 U	NC	78.8	72.8 U	NC	144	68.2 U	NC	79.1
PCB150	50.5 U	NC	49.1 U	52.4 U	NC	74.9	49.1 U	NC	52.9 U
PCB152	54.7 U	NC	53.2 U	56.8 U	NC	55.7 U	53.2 U	NC	61.4
PCB153 & 168	3,260	NC	25,000	3,630	NC	45,200	9,020	NC	53,000
PCB154	55.2	NC	534	78.2	NC	863	179	NC	705
PCB155	57.5 U	NC	55.9 U	59.7 U	NC	58.6 U	55.9 U	NC	60.3 U
PCB156 & 157	465	NC	1,940	315	NC	3,710	805	NC	7,580
PCB158	303	NC	1,640	242	NC	3,180	645	NC	5,930
PCB159	117 U	NC	114 U	121 U	NC	119 U	114 U	NC	123 U
PCB160	4.21 U	NC	4.09 U	4.37 U	NC	4.29 U	4.09 U	NC	4.41 U
PCB161	55.6 U	NC	54.1 U	57.8 U	NC	56.7 U	54.1 U	NC	58.3 U
PCB162	39.5 U	NC	62.9	41 U	NC	298	58	NC	207
PCB164	125	NC	838	130	NC	1,630	294	NC	3,320
PCB165	55.1 U	NC	53.6 U	57.3 U	NC	56.2 U	53.6 U	NC	57.8 U
PCB167	143	NC	774	126	NC	1,510	316	NC	2,100
PCB169	37 U	NC	36 U	38.4 U	NC	95.8 U	36 U	NC	66.1 U
PCB170	368	NC	4,010	715	NC	8,710	1,890	NC	6,410
PCB171 & 173	127	NC	1,340	206	NC	2,760	597	NC	2,380
PCB172	71	NC	755	119	NC	1,730	362	NC	1,410
PCB174	149	NC	2,150	354	NC	4,850	1,010	NC	4,740
PCB175	68.7 U	NC	163	71.4 U	NC	361	71.3	NC	318
PCB176	85.5 U	NC	234	88.8 U	NC	600	114	NC	528
PCB177	168	NC	1,870	303	NC	4,570	939	NC	3,840
PCB178	126	NC	1,230	185	NC	2,590	500	NC	2,060
PCB179	117	NC	1,100	181	NC	2,330	469	NC	2,770
PCB180 & 193	1,120	NC	12,700	2,270	NC	25,500	5,550	NC	17,000
PCB181	62.6 U	NC	60.9 U	65 U	NC	115	60.9 U	NC	108 U
PCB182	42.5 U	NC	41.4 U	44.2 U	NC	65.4	41.4 U	NC	44.6 U
PCB183 & 185	315	NC	3,740	578	NC	7,960	1,620	NC	6,520
PCB184	50.9 U	NC	49.5 U	52.9 U	NC	51.9 U	49.5 U	NC	53.4 U
PCB186	73.8 U	NC	71.8 U	76.7 U	NC	75.2 U	71.8 U	NC	77.5 U
PCB187	806	NC	7,920	1,250	NC	15,700	3,130	NC	12,700
PCB188	59.3 U	NC	57.7 U	61.7 U	NC	60.5 U	57.7 U	NC	62.3 U
PCB189	33.8 U	NC	193	35.1 U	NC	412	78.9	NC	291
PCB190	57.6	NC	554	122	NC	1,390	349	NC	1,080
PCB191	59.3 U	NC	223	61.7 U	NC	440	88	NC	309
PCB192	41.1 U	NC	40 U	42.7 U	NC	41.9 U	40 U	NC	43.1 U
PCB194	175 U	NC	1,640	287	NC	3,980	920	NC	1,900

PCB195	69.9 U	NC	806	137	NC	1,830	394	NC	941
PCB196	74	NC	951	173	NC	2,130	469	NC	1,140
PCB197 & 200	97 U	NC	181	101 U	NC	453	94.6	NC	304
PCB198 & 199	174	NC	1,610	327	NC	4,230	973	NC	2,730
PCB201	39 U	NC	238	40.5 U	NC	555	113	NC	346
PCB202	74.4 U	NC	526	88.2	NC	1,270	259	NC	811
PCB203	134	NC	1,430	256	NC	3,200	714	NC	1,990
PCB204	57 U	NC	55.4 U	59.2 U	NC	58 U	55.4 U	NC	59.8 U
PCB205	56.7 U	NC	97.1	58.9 U	NC	233	55.1 U	NC	128
PCB206	71.9	NC	547	104	NC	1,430	341	NC	687
PCB207	112 U	NC	109 U	117 U	NC	202	109 U	NC	118 U
PCB208	114 U	NC	201	119 U	NC	510	112	NC	248
PCB209	51.6 U	NC	271	62	NC	661	169	NC	230

Monochlorobiphenyl homologs	43.5 UT	NC	42.3 UT	45.1 UT	NC	44.3 UT	42.3 UT	NC	45.6 UT
Dichlorobiphenyl homologs	340 T	NC	1,280 T	423 T	NC	637 JT	283 T	NC	1,850 T
Trichlorobiphenyl homologs	1,760 T	NC	7,550 T	1,730 T	NC	5,140 T	1,740 T	NC	28,500 T
Tetrachlorobiphenyl homologs	7,500 T	NC	27,800 T	5,270 T	NC	43,600 T	10,900 T	NC	547,000 T
Pentachlorobiphenyl homologs	14,100 T	NC	53,500 T	9,170 T	NC	101,000 T	24,100 T	NC	589,000 T
Hexachlorobiphenyl homologs	12,500 T	NC	81,600 T	12,300 T	NC	152,000 T	31,300 T	NC	233,000 T
Heptachlorobiphenyl homologs	3,660 T	NC	38,300 T	6,520 T	NC	80,100 T	16,900 T	NC	62,500 T
Octachlorobiphenyl homologs	638 T	NC	7,480 T	1,370 T	NC	17,900 T	3,960 T	NC	10,300 T
Nonachlorobiphenyl homologs	185 T	NC	803 T	222 T	NC	2,140 T	508 T	NC	994 T
Total PCB Congeners	38,200 JT	93,000 JT	217,000 JT	34,100 JT	134,000 JT	403,000 JT	87,800 JT	258,000 JT	1,470,000 JT
Total PCB Congeners (calc'd)	40,700 JT	95,200 JT	219,000 JT	37,100 JT	136,000 JT	404,000 JT	89,900 JT	259,000 JT	1,470,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.154 JT	0.373 JT	0.533 JT	0.0843 JT	0.328 JT	1.08 JT	0.249 JT	0.699 JT	19.6 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1/2)	3.37 JT	4.17 JT	4.15 JT	3.95 JT	4.06 JT	5.74 JT	3.86 JT	4.87 JT	20.6 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	7.68 JT	11 JT	16.5 JT	6.7 JT	12 JT	22.1 JT	8.56 JT	15.8 JT	133 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.199 JT	0.224 JT	0.271 JT	0.192 JT	0.235 JT	0.385 JT	0.211 JT	0.305 JT	1.86 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB06W-04 LocationID	EPA1-SB07E-04			EPA1-SB07E-05			EPA1-SB07E-06		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7625793.9513	7625793.9513	7630501.76039	7630501.76039	7630501.76039	7631760.29319	7631760.29319	7631760.29319	7631349.49959
Y-coordinate	704637.76539	704637.76539	702199.77674	702199.77674	702199.77674	701577.03264	701577.03264	701577.03264	701694.06802
RiverMile	6.6	6.6	7.6	7.6	7.6	7.9	7.9	7.9	7.9
Sample Date	6-Oct-11	6-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11	3-Oct-11
Sample Time	16:45	16:45	16:15	16:15	16:15	15:30	15:30	15:30	15:42
Sample Mass (g)	96.49	213.29	154.94	133.25	288.19	115.92	84.2	200.12	259.45
PCB001	37.1 U	NC	36.4 U	36.4 U	NC	35.4 U	21.4 U	NC	37.1 U
PCB002	46 U	NC	45.1 U	45.1 U	NC	43.9 U	26.6 U	NC	46 U
PCB003	24.3 U	NC	23.8 U	23.8 U	NC	23.1 U	14.4	NC	24.3 U
PCB004	105	NC	340	73.8 U	NC	236	45.6	NC	379
PCB005	46 U	NC	45.1 U	45.1 U	NC	43.9 U	26.6 U	NC	46 U
PCB006	43.1 U	NC	44	42.2 U	NC	41 U	24.9 U	NC	52.4
PCB007	58.4 U	NC	57.3 U	57.3 U	NC	55.7 U	33.7 U	NC	58.4 U
PCB008	95	NC	171	47.6 U	NC	147	50.3	NC	208
PCB009	28.2 U	NC	27.7 U	27.7 U	NC	26.9 U	16.3 U	NC	28.2 U
PCB010	30.7 U	NC	30.1 U	30.1 U	NC	29.2 U	17.7 U	NC	30.7 U
PCB011	242 U	NC	408	237 U	NC	230 U	139 U	NC	242 U
PCB012 & 013	41.1 U	NC	40.3 U	40.3 U	NC	39.2 U	23.7 U	NC	41.1 U
PCB014	45 U	NC	44.2 U	44.2 U	NC	42.9 U	26 U	NC	45 U
PCB015	67.8 U	NC	84.8	66.5 U	NC	68.2	39.1 U	NC	87.6
PCB016	83.7	NC	145	53.4 U	NC	158	49.6	NC	185
PCB017	233	NC	412	86.9	NC	452	92.7	NC	559
PCB018 & 030	316 U	NC	442	99.2 U	NC	472	106 U	NC	679
PCB019	110	NC	598	110	NC	466	78.6	NC	736
PCB020 & 028	2,480	NC	1,660	357	NC	1,850	323	NC	2,210
PCB021 & 033	223 U	NC	261	219 U	NC	250	129 U	NC	377
PCB022	261	NC	329	71.1	NC	396	75.8	NC	413
PCB023	54.5 U	NC	53.4 U	53.4 U	NC	51.9 U	31.4 U	NC	54.5 U
PCB024	33.2 U	NC	32.5 U	32.5 U	NC	31.6 U	19.1 U	NC	33.2 U
PCB025	59.9	NC	111	47.6 U	NC	140	28 U	NC	174
PCB026 & 029	163	NC	258	102 U	NC	309	60 U	NC	444
PCB027	58.4	NC	77.3	46.1 U	NC	81.2	27.1 U	NC	122
PCB031	587	NC	936	204	NC	1,080	203	NC	1,320
PCB032	290	NC	192	45.1	NC	208	46.8 U	NC	321
PCB034	39.1 U	NC	38.3 U	38.3 U	NC	37.3 U	22.6 U	NC	39.1 U
PCB035	40.6 U	NC	39.8 U	39.8 U	NC	38.7 U	23.4 U	NC	40.6 U
PCB036	43.1 U	NC	42.2 U	42.2 U	NC	41 U	24.9 U	NC	43.1 U
PCB037	107	NC	271	61.8	NC	189	34.9	NC	191
PCB038	31.2 U	NC	30.6 U	30.6 U	NC	29.7 U	18 U	NC	31.2 U
PCB039	39.1 U	NC	38.3 U	38.3 U	NC	37.3 U	22.6 U	NC	39.1 U
PCB040 & 041 & 071	3,780	NC	783	165	NC	913	138	NC	1,260
PCB042	2,800	NC	704	132	NC	892	122	NC	776
PCB043 & 073	270	NC	89.7	53.4 U	NC	3,610	31.4 U	NC	3,610
PCB044 & 047 & 065	13,200	NC	4,640	882	NC	6,250	858	NC	5,490
PCB045 & 051	741	NC	672	130	NC	957	148	NC	682
PCB046	171	NC	121 U	121 U	NC	118 U	71.4 U	NC	124 U
PCB048	1,280	NC	314	64.7	NC	357	57.4	NC	428
PCB049 & 069	9,550	NC	2,920	554	NC	3,940	560	NC	3,930

PCB050 & 053	623	NC	414	81.1	NC	547	81.9	NC	515
PCB052	15,500	NC	4,760	930	NC	5,840	892	NC	5,790
PCB054	35.1 U	NC	95.1	34.5 U	NC	113	20.3 U	NC	116
PCB055	37.1 U	NC	36.4 U	36.4 U	NC	35.4 U	21.4 U	NC	37.1 U
PCB056	1,370	NC	668	134	NC	937	124	NC	799
PCB057	31.2 U	NC	30.6 U	30.6 U	NC	29.7 U	18 U	NC	31.2 U
PCB058	33.2 U	NC	32.5 U	32.5 U	NC	31.6 U	19.1 U	NC	33.2 U
PCB059 & 062 & 075	919	NC	364 U	364 U	NC	355	214 U	NC	371 U
PCB060	4,260	NC	669	130	NC	782	96.6	NC	894
PCB061 & 070 & 074 & 076	12,300	NC	5,370	1,050	NC	6,160	759	NC	6,290
PCB063	642	NC	210	40.6	NC	212	24.6	NC	272
PCB064	6,380	NC	1,310	262	NC	1,700	238	NC	1,760
PCB066	15,300	NC	3,920	777	NC	4,190	524	NC	5,010
PCB067	77.5	NC	78	29.1 U	NC	99.7	17.1 U	NC	85.2
PCB068	99 U	NC	97.1 U	97.1 U	NC	111	57.1 U	NC	123
PCB072	81.7	NC	71	21.8 U	NC	94.3	12.9 U	NC	112
PCB073	270	NC	89.7	53.4 U	NC	51.9 U	31.4 U	NC	54.5 U
PCB077	278	NC	294	59.3	NC	275	38.3	NC	246
PCB078	22.8 U	NC	22.3 U	22.3 U	NC	21.7 U	13.1 U	NC	22.8 U
PCB079	78.5	NC	60.6	37.9 U	NC	46.7	22.3 U	NC	127
PCB080	36.6 U	NC	35.9 U	35.9 U	NC	34.9 U	21.1 U	NC	36.6 U
PCB081	44.6 U	NC	43.7 U	43.7 U	NC	42.5 U	25.7 U	NC	44.6 U
PCB082	1,100	NC	428	86	NC	653	77.9	NC	424
PCB083	743	NC	313	64.6 U	NC	581	71.3	NC	317
PCB084	1,780	NC	1,200	241	NC	1,820	233	NC	1,040
PCB085 & 117 & 116	4,610	NC	1,780	350	NC	2,280	297	NC	2,300
PCB086 & 087 & 097 & 108 & 119 & 125	9,710	NC	4,340	866	NC	6,410	819	NC	4,520
PCB088 & 091	1,910	NC	1,200	228	NC	1,970	255	NC	1,180
PCB089	141	NC	29	28.2 U	NC	36.4	16.6 U	NC	38.2
PCB090 & 101 & 113	14,900	NC	9,220	1,820	NC	13,900	1,880	NC	9,790
PCB092	2,930	NC	1,870	358	NC	2,920	372	NC	2,170
PCB093 & 098 & 100 & 102	569 U	NC	586	558 U	NC	892	329 U	NC	721
PCB094	124 U	NC	121 U	121 U	NC	118 U	71.4 U	NC	124 U
PCB095	6,110	NC	4,730	947	NC	7,560	995	NC	4,820
PCB096	87.2	NC	54.4 U	54.4 U	NC	65.8	32 U	NC	58.7
PCB099	10,600	NC	6,530	1,280	NC	7,670	978	NC	7,880
PCB103	107	NC	204	44.7 U	NC	373	48.9	NC	207
PCB104	73.8 U	NC	72.3 U	72.3 U	NC	70.3 U	42.6 U	NC	73.8 U
PCB105	7,130	NC	3,520	690	NC	4,150	508	NC	4,050
PCB106	73.3 U	NC	71.8 U	71.8 U	NC	69.8 U	42.3 U	NC	73.3 U
PCB107 & 124	239	NC	266	52.9 U	NC	380	43.2	NC	275
PCB109	1,060	NC	859	150	NC	1,080	125	NC	1,090
PCB110 & 115	13,200	NC	7,190	1,470	NC	11,100	1,430	NC	8,060
PCB111	36.6 U	NC	35.9 U	35.9 U	NC	34.9 U	21.1 U	NC	36.6 U
PCB112	54.5 U	NC	53.4 U	53.4 U	NC	51.9 U	31.4 U	NC	54.5 U
PCB114	552	NC	274	59.7 U	NC	287	43.1	NC	330
PCB118	15,800	NC	11,600	2,320	NC	14,000	1,720	NC	14,000
PCB120	124 U	NC	121 U	121 U	NC	125	71.4 U	NC	141
PCB121	34.2 U	NC	33.5 U	33.5 U	NC	32.5 U	19.7 U	NC	34.2 U
PCB122	68.9	NC	56.7	44.2 U	NC	82.2	42.3 U	NC	55.7
PCB123	424	NC	261	60	NC	326	33.3	NC	322
PCB126	66.8 U	NC	65.5 U	65.5 U	NC	63.7 U	38.6 U	NC	66.8 U
PCB127	42.6 U	NC	41.7 U	41.7 U	NC	40.6 U	24.6 U	NC	42.6 U
PCB128 & 166	1,140	NC	2,050	410	NC	2,940	313	NC	2,770

PCB129 & 138 & 163	8,830	NC	21,700	4,240	NC	33,300	3,640	NC	30,300
PCB130	504	NC	815	159	NC	1,650	166	NC	1,140
PCB131	63.1	NC	88.1	41.3 U	NC	175	24.3 U	NC	101
PCB132	1,420	NC	2,290	475	NC	4,840	512	NC	2,440
PCB133	140	NC	460	91.8	NC	750	72.6	NC	1,100
PCB134 & 143	289	NC	381	243 U	NC	879	143 U	NC	475
PCB135 & 151	2,410	NC	4,790	1,020	NC	9,790	1,080	NC	6,590
PCB136	622	NC	1,010	221	NC	2,200	259	NC	1,230
PCB137	535	NC	887	174	NC	1,220	119	NC	1,240
PCB139 & 140	193	NC	286	58.3 U	NC	460	44.9	NC	415
PCB141	1,550	NC	2,200	498	NC	4,440	438	NC	3,320
PCB142	42.1 U	NC	41.3 U	41.3 U	NC	40.1 U	24.3 U	NC	42.1 U
PCB144	313	NC	447	93	NC	1,060	102	NC	595
PCB145	46.5 U	NC	45.6 U	45.6 U	NC	44.3 U	26.9 U	NC	46.5 U
PCB146	1,490	NC	4,540	899	NC	7,830	783	NC	9,090
PCB147 & 149	3,750	NC	8,140	1,680	NC	20,000	2,130	NC	9,800
PCB148	74.3 U	NC	72.8 U	72.8 U	NC	123	42.9 U	NC	112
PCB150	53.5 U	NC	52.4 U	52.4 U	NC	81.8	30.9 U	NC	46.5 U
PCB152	57.9 U	NC	56.8 U	56.8 U	NC	55.2 U	33.4 U	NC	57.9 U
PCB153 & 168	7,870	NC	25,300	5,050	NC	39,100	3,910	NC	38,500
PCB154	111	NC	375	79.3	NC	726	75.7	NC	674
PCB155	60.9 U	NC	59.7 U	59.7 U	NC	58 U	35.1 U	NC	60.9 U
PCB156 & 157	1,130	NC	1,990	376	NC	2,490	292	NC	2,570
PCB158	785	NC	1,500	306	NC	2,380	255	NC	2,310
PCB159	124 U	NC	121 U	121 U	NC	118 U	71.4 U	NC	124 U
PCB160	4.46 U	NC	4.37 U	4.37 U	NC	4.25 U	2.57 U	NC	4.46 U
PCB161	58.9 U	NC	57.8 U	57.8 U	NC	56.1 U	34 U	NC	58.9 U
PCB162	41.8 U	NC	57.7	41 U	NC	70.7	24.1 U	NC	83.5
PCB164	467	NC	787	148	NC	1,470	155	NC	1,070
PCB165	58.4 U	NC	57.3 U	57.3 U	NC	55.7 U	33.7 U	NC	69.8
PCB167	317	NC	860	159	NC	1,170	138	NC	1,030
PCB169	39.2 U	NC	98.8 J	38.4 U	NC	80.9	24.4	NC	98 J
PCB170	935	NC	4,780	768	NC	5,320	645	NC	5,120
PCB171 & 173	330	NC	1,430	248	NC	1,940	212	NC	1,780
PCB172	195	NC	928	158	NC	1,270	130	NC	1,190
PCB174	628	NC	2,180	402	NC	4,630	530	NC	2,370
PCB175	72.8 U	NC	161	71.4 U	NC	313	42 U	NC	239
PCB176	90.6 U	NC	215	88.8 U	NC	617	66.4	NC	285
PCB177	527	NC	2,140	391	NC	4,110	482	NC	2,840
PCB178	297	NC	1,340	253	NC	2,200	229	NC	2,700
PCB179	412	NC	1,090	211	NC	2,490	272	NC	1,270
PCB180 & 193	2,470	NC	16,200	2,670	NC	18,100	2,130	NC	25,400
PCB181	66.3 U	NC	65 U	65 U	NC	63.2 U	38.3 U	NC	78.7
PCB182	45 U	NC	44.2 U	44.2 U	NC	66.2	26 U	NC	81.2
PCB183 & 185	876	NC	4,410	778	NC	6,200	661	NC	5,820
PCB184	54 U	NC	52.9 U	52.9 U	NC	51.4 U	31.1 U	NC	54 U
PCB186	78.2 U	NC	76.7 U	76.7 U	NC	74.5 U	45.1 U	NC	78.2 U
PCB187	1,740	NC	11,300	2,140	NC	17,900	1,880	NC	22,200
PCB188	62.9 U	NC	61.7 U	61.7 U	NC	59.9 U	36.3 U	NC	124
PCB189	43.4	NC	207	36	NC	260	36.4	NC	287
PCB190	187	NC	735	154	NC	667	106	NC	669
PCB191	62.9 U	NC	241	61.7 U	NC	306	36.3 U	NC	324
PCB192	43.6 U	NC	42.7 U	42.7 U	NC	41.5 U	25.1 U	NC	43.6 U
PCB194	325	NC	2,410	395	NC	2,210	245	NC	6,080

PCB195	156	NC	1,060	171	NC	992	113	NC	1,820
PCB196	186	NC	1,250	213	NC	1,290	154	NC	3,460
PCB197 & 200	103 U	NC	222	101 U	NC	355	59.3 U	NC	391
PCB198 & 199	451	NC	2,540	483	NC	2,790	369	NC	7,460
PCB201	55	NC	289	56.8	NC	445	47.1	NC	1,040
PCB202	127	NC	781	143	NC	836	103	NC	1,630
PCB203	329	NC	2,260	362	NC	1,950	223	NC	3,200
PCB204	60.3 U	NC	59.2 U	59.2 U	NC	57.5 U	34.8 U	NC	60.3 U
PCB205	60 U	NC	129	58.9 U	NC	133	34.7 U	NC	204
PCB206	128	NC	1,060	194	NC	747	92.7	NC	6,770
PCB207	119 U	NC	171	117 U	NC	115	68.6 U	NC	1,170
PCB208	121 U	NC	335	119 U	NC	283	69.8 U	NC	2,740
PCB209	54.7 U	NC	533	120	NC	296	53.4	NC	3,000

Monochlorobiphenyl homologs	46 UT	NC	45.1 UT	45.1 UT	NC	43.9 UT	25.1 T	NC	46 UT
Dichlorobiphenyl homologs	406 T	NC	1,080 T	237 UT	NC	615 T	214 T	NC	877 T
Trichlorobiphenyl homologs	4,770 T	NC	5,760 T	1,290 T	NC	6,120 T	1,100 T	NC	7,800 T
Tetrachlorobiphenyl homologs	90,000 T	NC	28,500 T	5,850 T	NC	38,500 T	4,930 T	NC	38,600 T
Pentachlorobiphenyl homologs	93,700 T	NC	56,700 T	11,600 T	NC	78,800 T	10,300 T	NC	64,000 T
Hexachlorobiphenyl homologs	34,200 T	NC	81,300 JT	16,500 T	NC	139,000 T	14,700 T	NC	117,000 JT
Heptachlorobiphenyl homologs	8,870 T	NC	47,500 T	8,430 T	NC	66,500 T	7,480 T	NC	72,800 T
Octachlorobiphenyl homologs	1,710 T	NC	10,900 T	1,900 T	NC	11,000 T	1,300 T	NC	25,300 T
Nonachlorobiphenyl homologs	248 T	NC	1,570 T	312 T	NC	1,150 T	162 T	NC	10,700 T
Total PCB Congeners	232,000 JT	912,000 JT	233,000 JT	43,600 JT	145,000 JT	342,000 JT	38,800 JT	214,000 JT	339,000 JT
Total PCB Congeners (calc'd)	234,000 JT	913,000 JT	234,000 JT	46,300 JT	147,000 JT	342,000 JT	40,300 JT	215,000 JT	340,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.79 UT	11.1 JT	3.55 JT	0.115 JT	1.96 JT	3.13 JT	0.819 JT	2.16 JT	3.64 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	4.72 JT	13.4 JT	6.84 JT	3.97 JT	5.51 JT	6.33 JT	2.75 JT	4.82 JT	6.99 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	20.5 JT	82.2 JT	21 JT	8.58 JT	15.2 JT	20 JT	5.26 JT	13.8 JT	18.8 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.334 JT	1.17 JT	0.303 JT	0.2 JT	0.255 JT	0.315 JT	0.122 JT	0.234 JT	0.321 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB07E-06 LocationID	EPA1-SB08W-01			EPA1-SB08W-05			EPA1-SB08W-06		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7631349.49959	7631349.49959	7630437.20807	7630437.20807	7630437.20807	7633514.59281	7633514.59281	7633514.59281	7630400.53156
Y-coordinate	701694.06802	701694.06802	699436.53571	699436.53571	699436.53571	696771.28347	696771.28347	696771.28347	699535.96925
RiverMile	7.9	7.9	8	8	8	8.8	8.8	8.8	8
Sample Date	3-Oct-11	3-Oct-11	27-Sep-11	27-Sep-11	27-Sep-11	27-Sep-11	27-Sep-11	27-Sep-11	7-Oct-11
Sample Time	15:42	15:42	11:33	11:33	11:33	10:00	10:00	10:00	16:50
Sample Mass (g)	215.09	474.54	381.98	293.4	675.38	106.82	88.4	195.22	205.65
PCB001	35 U	NC	63.9	22.5 U	NC	20.8 U	22.5 U	NC	80
PCB002	43.5 U	NC	26.8 U	27.9 U	NC	25.8 U	27.9 U	NC	43.9 U
PCB003	22.9 U	NC	19.7	15.6	NC	18.4	14.7 U	NC	23.1 U
PCB004	75.7	NC	1,100	183	NC	359	47.1	NC	1,150
PCB005	43.5 U	NC	26.8 U	27.9 U	NC	25.8 U	27.9 U	NC	43.9 U
PCB006	40.7 U	NC	175	28.3	NC	117	26.1 U	NC	142
PCB007	55.1 U	NC	34 U	35.4 U	NC	32.8 U	35.4 U	NC	55.7 U
PCB008	45.8 U	NC	530	90.9	NC	496	84.4	NC	478
PCB009	26.6 U	NC	60.3	17.1 U	NC	28.9	17.1 U	NC	50.3
PCB010	29 U	NC	77.7	18.6 U	NC	20.2	18.6 U	NC	72.2
PCB011	228 U	NC	447	159	NC	234	149	NC	230
PCB012 & 013	38.8 U	NC	23.9 U	24.9 U	NC	23.1 U	24.9 U	NC	39.2 U
PCB014	42.5 U	NC	26.3 U	27.3 U	NC	25.3 U	27.3 U	NC	42.9 U
PCB015	64 U	NC	410	67.6	NC	139	41.1 U	NC	221
PCB016	51.4 U	NC	1,000	158	NC	653	96.1	NC	557
PCB017	91.5	NC	1,580	249	NC	1,530	206	NC	795
PCB018 & 030	90.8	NC	4,160	656	NC	2,010	261	NC	1,550
PCB019	118	NC	1,410	232	NC	494	66.2	NC	743
PCB020 & 028	277	NC	13,600	2,210	NC	6,590	893	NC	2,900
PCB021 & 033	211 U	NC	829	162	NC	1,870	289	NC	435
PCB022	53	NC	2,650	452	NC	1,570	221	NC	740
PCB023	51.4 U	NC	31.7 U	33 U	NC	30.6 U	33 U	NC	51.9 U
PCB024	31.3 U	NC	155	24.4	NC	34.4	20.1 U	NC	32.1
PCB025	45.8 U	NC	325	53.3	NC	420	53.9	NC	197
PCB026 & 029	98.1 U	NC	1,560	255	NC	1,000	135	NC	497
PCB027	44.4 U	NC	608	92.9	NC	225	31.6	NC	149
PCB031	143	NC	5,050	840	NC	4,260	579	NC	1,790
PCB032	53.4	NC	3,100	494	NC	918	122 U	NC	515
PCB034	36.9 U	NC	34.1	23.7 U	NC	40.4	23.7 U	NC	37.3 U
PCB035	38.3 U	NC	23.7 U	24.6 U	NC	22.8 U	24.6 U	NC	38.7 U
PCB036	40.7 U	NC	25.1 U	26.1 U	NC	24.2 U	26.1 U	NC	41 U
PCB037	37.3	NC	728	122	NC	537	92.8	NC	296
PCB038	29.4 U	NC	18.2 U	18.9 U	NC	17.5 U	18.9 U	NC	29.7 U
PCB039	36.9 U	NC	22.8 U	23.7 U	NC	21.9 U	23.7 U	NC	37.3 U
PCB040 & 041 & 071	191	NC	2,790	468	NC	3,670	496	NC	1,160
PCB042	94.9	NC	2,080	342	NC	2,630	332	NC	1,100
PCB043 & 073	771	NC	223	38.4	NC	244	33 U	NC	137
PCB044 & 047 & 065	1,260	NC	12,300	1,960	NC	11,500	1,460	NC	7,070
PCB045 & 051	208	NC	1,760	268	NC	1,660	208	NC	977
PCB046	117 U	NC	299	75 U	NC	356	75 U	NC	147
PCB048	53.9	NC	1,110	187	NC	1,480	190	NC	466
PCB049 & 069	629	NC	8,970	1,370	NC	8,190	1,010	NC	4,740

PCB050 & 053	126	NC	963	145	NC	1,110	136	NC	451
PCB052	866	NC	17,900	2,710	NC	12,900	1,640	NC	7,360
PCB054	33.2 U	NC	116	21.3 U	NC	85.8	21.3 U	NC	86.1
PCB055	35 U	NC	21.6 U	22.5 U	NC	20.8 U	22.5 U	NC	35.4 U
PCB056	86.3	NC	1,900	327	NC	2,980	395	NC	1,210
PCB057	29.4 U	NC	34.4	18.9 U	NC	48.5	18.9 U	NC	29.7 U
PCB058	31.3 U	NC	24.6	20.1 U	NC	43.9	20.1 U	NC	31.6 U
PCB059 & 062 & 075	350 U	NC	800	225 U	NC	795	225 U	NC	418
PCB060	93.8	NC	2,110	337	NC	1,770	230	NC	931
PCB061 & 070 & 074 & 076	803	NC	15,500	2,460	NC	16,200	2,020	NC	8,160
PCB063	35.1	NC	477	77.1	NC	486	57.6	NC	271
PCB064	188	NC	4,660	729	NC	4,560	579	NC	2,130
PCB066	641	NC	10,900	1,700	NC	10,400	1,300	NC	5,170
PCB067	28 U	NC	194	32.9	NC	257	32.3	NC	132
PCB068	93.5 U	NC	107	60 U	NC	130	60 U	NC	100
PCB072	21 U	NC	138	22.8	NC	159	19.8	NC	114
PCB073	51.4 U	NC	31.7 U	33 U	NC	30.6 U	33 U	NC	51.9 U
PCB077	43 U	NC	507	77.8	NC	539	67.6	NC	327
PCB078	21.5 U	NC	13.3 U	13.8 U	NC	12.8 U	13.8 U	NC	21.7 U
PCB079	36.4 U	NC	112	26.8	NC	136	23.4 U	NC	93.5
PCB080	34.6 U	NC	21.3 U	22.2 U	NC	20.6 U	22.2 U	NC	34.9 U
PCB081	42.1 U	NC	54.9	27 U	NC	49.1	27 U	NC	42.5 U
PCB082	82.7	NC	1,230	200	NC	1,590	203	NC	761
PCB083	62.1 U	NC	948	225	NC	1,220	159	NC	561
PCB084	216	NC	3,210	547	NC	3,710	475	NC	2,140
PCB085 & 117 & 116	399	NC	6,710	976	NC	4,260	487	NC	2,970
PCB086 & 087 & 097 & 108 & 119 & 125	940	NC	14,200	2,260	NC	11,900	1,450	NC	7,940
PCB088 & 091	245	NC	3,170	517	NC	3,420	408	NC	2,130
PCB089	27.1 U	NC	89.5	17.4 U	NC	118	17.4 U	NC	42.2
PCB090 & 101 & 113	2,480	NC	30,000	4,630	NC	23,100	2,830	NC	16,100
PCB092	518	NC	6,370	994	NC	4,700	561	NC	3,330
PCB093 & 098 & 100 & 102	537 U	NC	1,190	345 U	NC	1,030	345 U	NC	914
PCB094	117 U	NC	91.2	75 U	NC	106	75 U	NC	118 U
PCB095	1,110	NC	14,300	2,340	NC	13,100	1,660	NC	7,900
PCB096	52.3 U	NC	114	33.6 U	NC	111	33.6 U	NC	71.9
PCB099	1,690	NC	19,300	3,150	NC	12,700	1,490	NC	9,890
PCB103	67.8	NC	414	66.2	NC	410	48.1	NC	372
PCB104	69.6 U	NC	43 U	44.7 U	NC	41.4 U	44.7 U	NC	70.3 U
PCB105	723	NC	12,800	1,830	NC	7,200	863	NC	5,640
PCB106	69.2 U	NC	42.7 U	44.4 U	NC	41.1 U	44.4 U	NC	69.8 U
PCB107 & 124	50.9 U	NC	815	120	NC	623	71.5	NC	464
PCB109	221	NC	2,460	323	NC	1,440	164	NC	1,380
PCB110 & 115	1,610	NC	23,700	3,760	NC	18,800	2,410	NC	13,100
PCB111	34.6 U	NC	33	22.2 U	NC	33.3	22.2 U	NC	34.9 U
PCB112	51.4 U	NC	31.7 U	33 U	NC	30.6 U	33 U	NC	51.9 U
PCB114	57.5 U	NC	821	123	NC	474	59.2	NC	477
PCB118	3,050	NC	39,200	5,910	NC	21,900	2,730	NC	20,000
PCB120	117 U	NC	134	75 U	NC	122	75 U	NC	118 U
PCB121	32.2 U	NC	31.6	20.7 U	NC	23.9	20.7 U	NC	32.5 U
PCB122	42.5 U	NC	179	27.3 U	NC	151	27.3 U	NC	119
PCB123	54.2 U	NC	533	96.7	NC	432	56.2	NC	410
PCB126	63.1 U	NC	73.1	40.5 U	NC	47.4	40.5 U	NC	63.7 U
PCB127	40.2 U	NC	66.9	25.8 U	NC	23.9 U	25.8 U	NC	40.6 U
PCB128 & 166	704	NC	6,620	870	NC	3,840	397	NC	2,940

PCB129 & 138 & 163	9,040	NC	55,400	7,810	NC	38,000	4,030	NC	31,800
PCB130	249	NC	2,250	323	NC	1,990	204	NC	1,560
PCB131	39.7 U	NC	215	36.5	NC	265	27.3	NC	171
PCB132	557	NC	5,450	940	NC	7,210	809	NC	4,520
PCB133	185	NC	930	144	NC	804	82.7	NC	713
PCB134 & 143	234 U	NC	1,010	167	NC	1,090	150 U	NC	815
PCB135 & 151	1,860	NC	11,200	1,800	NC	10,900	1,240	NC	8,720
PCB136	342	NC	2,530	421	NC	2,600	293	NC	2,090
PCB137	236	NC	2,830	398	NC	1,590	174	NC	1,550
PCB139 & 140	86.5	NC	890	140	NC	627	65.6	NC	482
PCB141	1,250	NC	6,470	844	NC	5,460	560	NC	4,120
PCB142	39.7 U	NC	24.5 U	25.5 U	NC	23.6 U	25.5 U	NC	40.1 U
PCB144	151	NC	1,140	187	NC	1,350	148	NC	942
PCB145	43.9 U	NC	27.1 U	28.2 U	NC	26.1 U	28.2 U	NC	44.3 U
PCB146	1,840	NC	9,350	1,460	NC	7,880	810	NC	7,210
PCB147 & 149	1,970	NC	17,900	3,100	NC	24,000	2,700	NC	15,900
PCB148	70.1 U	NC	109	45 U	NC	129	45 U	NC	116
PCB150	50.5 U	NC	67.9	32.4 U	NC	84.1	32.4 U	NC	72
PCB152	54.7 U	NC	38.6	35.1 U	NC	32.5 U	35.1 U	NC	55.2 U
PCB153 & 168	11,900	NC	51,000	7,730	NC	40,000	4,200	NC	36,300
PCB154	175	NC	866	134	NC	772	80.9	NC	716
PCB155	57.5 U	NC	35.5 U	36.9 U	NC	34.2 U	36.9 U	NC	58 U
PCB156 & 157	857	NC	5,510	816	NC	3,060	355	NC	3,560
PCB158	777	NC	4,730	643	NC	3,010	316	NC	2,350
PCB159	117 U	NC	72.1 U	75 U	NC	69.4 U	75 U	NC	118 U
PCB160	4.21 U	NC	2.6 U	2.7 U	NC	2.5 U	2.7 U	NC	4.25 U
PCB161	55.6 U	NC	34.3 U	35.7 U	NC	33.1 U	35.7 U	NC	56.1 U
PCB162	39.5 U	NC	130	26.3	NC	93	25.4 U	NC	91.2
PCB164	301	NC	2,040	280	NC	1,700	166	NC	1,490
PCB165	55.1 U	NC	35.3	35.4 U	NC	32.8 U	35.4 U	NC	55.7 U
PCB167	307	NC	2,050	290	NC	1,310	148	NC	1,470
PCB169	37 U	NC	97.1 J	23.8 U	NC	86.4 J	23.8 U	NC	43.4 J
PCB170	2,990	NC	7,230	896	NC	4,430	571	NC	5,240
PCB171 & 173	919	NC	2,360	334	NC	1,990	214	NC	1,580
PCB172	489	NC	1,460	200	NC	1,190	126	NC	1,140
PCB174	608	NC	3,590	508	NC	4,350	479	NC	3,830
PCB175	80.1	NC	285	44.1 U	NC	299	44.1 U	NC	278
PCB176	85.5 U	NC	432	70.4	NC	610	68.2	NC	440
PCB177	672	NC	3,480	488	NC	3,990	430	NC	3,320
PCB178	607	NC	2,130	311	NC	1,930	208	NC	1,860
PCB179	379	NC	1,920	333	NC	2,230	255	NC	1,860
PCB180 & 193	8,890	NC	21,700	2,860	NC	14,800	1,830	NC	17,400
PCB181	62.6 U	NC	127	40.2 U	NC	60.9	40.2 U	NC	71.1
PCB182	62.6 U	NC	63.7	27.3 U	NC	50.2	27.3 U	NC	45.8
PCB183 & 185	42.5	NC	6,390	922	NC	5,680	611	NC	5,060
PCB184	50.9 U	NC	31.4 U	32.7 U	NC	30.3 U	32.7 U	NC	51.4 U
PCB186	73.8 U	NC	45.6 U	47.4 U	NC	43.9 U	47.4 U	NC	74.5 U
PCB187	3,920	NC	15,600	2,230	NC	13,000	1,400	NC	13,500
PCB188	59.3 U	NC	36.6 U	38.1 U	NC	35.3 U	38.1 U	NC	59.9 U
PCB189	133	NC	322	47.4	NC	238	26.2	NC	297
PCB190	354	NC	719	115	NC	403	77.4	NC	693
PCB191	145	NC	365	43.2	NC	266	38.1 U	NC	289
PCB192	41.1 U	NC	25.4 U	26.4 U	NC	24.4 U	26.4 U	NC	41.5 U
PCB194	1,410	NC	2,860	388	NC	2,090	251	NC	2,510

PCB195	584	NC	1,250	178	NC	973	115	NC	1,080
PCB196	740	NC	1,560	229	NC	1,120	152	NC	1,430
PCB197 & 200	97 U	NC	297	62.3 U	NC	339	62.3 U	NC	318
PCB198 & 199	1,000	NC	2,990	480	NC	2,210	342	NC	2,830
PCB201	120	NC	384	64.5	NC	430	46.7	NC	429
PCB202	246	NC	1,030	151	NC	891	98.4	NC	815
PCB203	855	NC	2,520	342	NC	1,780	226	NC	1,950
PCB204	57 U	NC	35.2 U	36.6 U	NC	33.9 U	36.6 U	NC	57.5 U
PCB205	72.9	NC	159	36.4 U	NC	137	36.4 U	NC	130
PCB206	344	NC	996	183	NC	891	124	NC	827
PCB207	112 U	NC	151	72 U	NC	145	72 U	NC	134
PCB208	114 U	NC	329	73.3 U	NC	379	73.3 U	NC	276
PCB209	93.6	NC	442	89.1	NC	481	82	NC	374

Monochlorobiphenyl homologs	43.5 UT	NC	83.6 T	26.9 T	NC	28.8 T	27.9 UT	NC	91.6 T
Dichlorobiphenyl homologs	293 T	NC	2,800 T	547 T	NC	1,390 T	332 T	NC	2,340 T
Trichlorobiphenyl homologs	1,160 T	NC	36,800 T	6,030 T	NC	22,200 T	3,030 T	NC	11,200 T
Tetrachlorobiphenyl homologs	6,490 T	NC	86,000 T	13,500 T	NC	82,400 T	10,400 T	NC	42,800 T
Pentachlorobiphenyl homologs	14,000 T	NC	182,000 T	28,400 T	NC	133,000 T	16,500 T	NC	97,000 T
Hexachlorobiphenyl homologs	33,200 T	NC	191,000 JT	28,700 T	NC	158,000 JT	17,000 T	NC	130,000 JT
Heptachlorobiphenyl homologs	20,400 T	NC	68,200 T	9,450 T	NC	55,500 T	6,410 T	NC	57,000 T
Octachlorobiphenyl homologs	5,080 T	NC	13,100 T	1,880 T	NC	9,970 T	1,280 T	NC	11,500 T
Nonachlorobiphenyl homologs	457 T	NC	1,480 T	256 T	NC	1,420 T	197 T	NC	1,240 T
Total PCB Congeners	78,800 JT	221,000 JT	582,000 JT	87,900 JT	367,000 JT	464,000 JT	54,000 JT	278,000 JT	353,000 JT
Total PCB Congeners (calc'd)	81,200 JT	223,000 JT	582,000 JT	88,900 JT	368,000 JT	464,000 JT	55,300 JT	279,000 JT	353,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.152 JT	2.06 JT	12.1 JT	0.281 JT	6.98 JT	8.44 JT	0.134 JT	4.68 JT	2.29 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	0.371 JT	5.53 JT	12.1 JT	2.67 JT	8.02 JT	8.44 JT	2.52 JT	5.76 JT	5.48 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	0.55 JT	13.2 JT	40.6 JT	7.62 JT	26.3 JT	38 JT	6.92 JT	23.9 JT	22.9 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 0)	0.107 JT	0.225 JT	0.755 JT	0.162 JT	0.497 JT	0.493 JT	0.137 JT	0.332 JT	0.364 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB08W-06 LocationID	EPA1-SB09E-05			EPA1-SB10E-04			EPA1-SB10E-06		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7630400.53156	7630400.53156	7639620.34313	7639620.34313	7639620.34313	7641543.94531	7641543.94531	7641543.94531	7640465.85256
Y-coordinate	699535.96925	699535.96925	694926.99167	694926.99167	694926.99167	692043.63381	692043.63381	692043.63381	693421.94952
RiverMile	8	8	9.9	9.9	9.9	10.5	10.5	10.5	10.2
Sample Date	7-Oct-11	7-Oct-11	28-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11
Sample Time	16:50	16:50	14:13	14:13	14:13	12:57	12:57	12:57	13:50
Sample Mass (g)	131.12	336.77	197.46	141.64	339.1	142.25	110.29	252.54	48.64
PCB001	33.5 U	NC	20.6 U	21.4 U	NC	21 U	22.5 U	NC	37.5 U
PCB002	41.5 U	NC	25.6 U	26.6 U	NC	26.1 U	27.9 U	NC	46.5 U
PCB003	21.9 U	NC	13.5 U	14 U	NC	15	14.7 U	NC	24.5 U
PCB004	256	NC	232	54.2	NC	281	62	NC	164
PCB005	41.5 U	NC	25.6 U	26.6 U	NC	26.1 U	27.9 U	NC	46.5 U
PCB006	38.8 U	NC	34.4	24.9 U	NC	30.7	26.1 U	NC	43.5 U
PCB007	52.7 U	NC	32.5 U	33.7 U	NC	33.1 U	35.4 U	NC	59 U
PCB008	129	NC	108	57.6	NC	134	48.3	NC	130
PCB009	25.4 U	NC	15.7 U	16.3 U	NC	16 U	17.1 U	NC	28.5 U
PCB010	27.7 U	NC	17.1 U	17.7 U	NC	17.4 U	18.6 U	NC	31 U
PCB011	218 U	NC	199	139 U	NC	286	154	NC	244 U
PCB012 & 013	37.1 U	NC	22.8 U	23.7 U	NC	23.3 U	24.9 U	NC	41.5 U
PCB014	40.6 U	NC	25 U	26 U	NC	25.5 U	27.3 U	NC	45.5 U
PCB015	61.2 U	NC	83.5	39.1 U	NC	66.5	41.1 U	NC	68.5 U
PCB016	143	NC	124	53.1	NC	113	41.6	NC	117
PCB017	195	NC	557	134	NC	494	123	NC	408
PCB018 & 030	377	NC	407	119 U	NC	431	118 U	NC	365
PCB019	161	NC	320	62.2	NC	657	137	NC	342
PCB020 & 028	636	NC	1,230	290	NC	1,220	309	NC	1,450
PCB021 & 033	201 U	NC	277	129 U	NC	214	135 U	NC	225 U
PCB022	162	NC	257	70.6	NC	195	67.9	NC	293
PCB023	49.1 U	NC	30.3 U	31.4 U	NC	30.8 U	33 U	NC	55 U
PCB024	29.9 U	NC	18.4 U	19.1 U	NC	18.8 U	20.1 U	NC	33.5 U
PCB025	44	NC	111	28 U	NC	110	29.4 U	NC	126
PCB026 & 029	109	NC	254	60 U	NC	214	63 U	NC	281
PCB027	42.4 U	NC	106	27.1 U	NC	107	28.5 U	NC	80.9
PCB031	401	NC	742	191	NC	621	182	NC	882
PCB032	124	NC	209	53.9	NC	247	63.1 U	NC	183
PCB034	35.3 U	NC	21.7 U	22.6 U	NC	22.1 U	23.7 U	NC	39.5 U
PCB035	36.6 U	NC	22.6 U	23.4 U	NC	23 U	24.6 U	NC	41 U
PCB036	38.8 U	NC	23.9 U	24.9 U	NC	24.4 U	26.1 U	NC	43.5 U
PCB037	71	NC	171	36	NC	201	60.3	NC	146
PCB038	28.1 U	NC	17.3 U	18 U	NC	17.7 U	18.9 U	NC	31.5 U
PCB039	35.3 U	NC	21.7 U	22.6 U	NC	22.1 U	23.7 U	NC	39.5 U
PCB040 & 041 & 071	250	NC	1,150	261	NC	990	230	NC	696
PCB042	229	NC	649	130	NC	460	105	NC	597
PCB043 & 073	49.1 U	NC	60.5	31.4 U	NC	87	33 U	NC	85.4
PCB044 & 047 & 065	1,460	NC	6,270	1,250	NC	4,880	1,050	NC	4,380
PCB045 & 051	212	NC	543	110	NC	848	180	NC	584
PCB046	112 U	NC	86	71.4 U	NC	98.4	75 U	NC	125 U
PCB048	99	NC	411	94.3	NC	305	74.5	NC	264
PCB049 & 069	970	NC	4,420	849	NC	3,270	700	NC	2,820

PCB050 & 053	100	NC	468	92.5	NC	1,380	285	NC	397
PCB052	1,530	NC	11,100	2,380	NC	6,380	1,400	NC	4,430
PCB054	31.7 U	NC	65.4	20.3 U	NC	189	39.4	NC	76.4
PCB055	33.5 U	NC	20.6 U	21.4 U	NC	21 U	22.5 U	NC	37.5 U
PCB056	248	NC	691	149	NC	352	91.7	NC	707
PCB057	28.1 U	NC	18.5	18 U	NC	19.4	18.9 U	NC	31.5 U
PCB058	29.9 U	NC	18.4 U	19.1 U	NC	18.8 U	20.1 U	NC	33.5 U
PCB059 & 062 & 075	335 U	NC	232	214 U	NC	210 U	225 U	NC	375 U
PCB060	187	NC	1,010	188	NC	476	108	NC	554
PCB061 & 070 & 074 & 076	1,640	NC	11,700	2,340	NC	3,950	868	NC	4,830
PCB063	54.4	NC	332	59.2	NC	189	39	NC	168
PCB064	445	NC	1,790	366	NC	923	206	NC	1,180
PCB066	1,030	NC	7,010	1,280	NC	3,490	755	NC	3,280
PCB067	26.8 U	NC	64.8	17.1 U	NC	76.9	18 U	NC	73.9
PCB068	89.3 U	NC	75.3	57.1 U	NC	118	60 U	NC	100 U
PCB072	22.3	NC	70.8	14.1	NC	85.7	18.3	NC	77.9
PCB073	0 U	NC	30.3 U	31.4 U	NC	30.8 U	33 U	NC	55 U
PCB077	66.3	NC	179	31.8	NC	176	40.6	NC	204
PCB078	20.5 U	NC	12.7 U	13.1 U	NC	12.9 U	13.8 U	NC	23 U
PCB079	34.8 U	NC	180	36.4	NC	51.8	23.4 U	NC	48.1
PCB080	33 U	NC	20.4 U	21.1 U	NC	20.7 U	22.2 U	NC	37 U
PCB081	40.2 U	NC	52.6	25.7 U	NC	25.2 U	27 U	NC	45 U
PCB082	149	NC	1,160	239	NC	302	66.7	NC	452
PCB083	113	NC	1,200	235	NC	555	93.7	NC	388
PCB084	440	NC	2,720	577	NC	1,160	249	NC	1,200
PCB085 & 117 & 116	528	NC	8,580	1,500	NC	1,890	367	NC	1,700
PCB086 & 087 & 097 & 108 & 119 & 125	1,530	NC	15,800	3,140	NC	5,150	1,090	NC	4,690
PCB088 & 091	422	NC	2,510	507	NC	1,460	300	NC	1,280
PCB089	25.9 U	NC	81.9	20.4	NC	44.2	17.4 U	NC	29 U
PCB090 & 101 & 113	3,080	NC	29,600	5,770	NC	20,400	4,150	NC	10,700
PCB092	640	NC	6,030	1,140	NC	3,300	661	NC	2,220
PCB093 & 098 & 100 & 102	513 U	NC	834	329 U	NC	1,120	345 U	NC	619
PCB094	112 U	NC	68.8 U	71.4 U	NC	138	75 U	NC	125 U
PCB095	1,600	NC	12,400	2,400	NC	8,560	1,780	NC	5,340
PCB096	50 U	NC	104	32 U	NC	174	36.3	NC	56 U
PCB099	1,860	NC	25,400	4,470	NC	7,960	1,640	NC	6,480
PCB103	72.1	NC	314	53.9	NC	430	83.9	NC	318
PCB104	66.5 U	NC	41 U	42.6 U	NC	41.8 U	44.7 U	NC	74.5 U
PCB105	1,060	NC	22,100	4,060	NC	3,850	770	NC	3,180
PCB106	66.1 U	NC	40.7 U	42.3 U	NC	41.5 U	44.4 U	NC	74 U
PCB107 & 124	89.7	NC	1,040	193	NC	255	53.8	NC	294
PCB109	251	NC	4,190	685	NC	1,210	235	NC	912
PCB110 & 115	2,620	NC	23,000	4,850	NC	9,640	2,060	NC	7,830
PCB111	33 U	NC	29.9	21.1 U	NC	99.7	22.2 U	NC	37 U
PCB112	49.1 U	NC	30.3 U	31.4 U	NC	30.8 U	33 U	NC	55 U
PCB114	84.9	NC	1,970	336	NC	338	67.6	NC	223
PCB118	3,860	NC	74,900	12,700	NC	18,000	3,650	NC	12,200
PCB120	112 U	NC	109	71.4 U	NC	186	75 U	NC	125 U
PCB121	30.8 U	NC	28.2	19.7 U	NC	57.7	20.7 U	NC	34.5 U
PCB122	40.6 U	NC	213	36.7	NC	35.2	27.3 U	NC	68.5
PCB123	81.2	NC	1,060	190	NC	248	63.3	NC	261
PCB126	60.3 U	NC	55.9	38.6 U	NC	39.3	40.5 U	NC	67.5 U
PCB127	38.4 U	NC	180	31.7	NC	49.6	25.8 U	NC	43 U
PCB128 & 166	522	NC	10,000	1,510	NC	4,070	713	NC	2,160

PCB129 & 138 & 163	5,340	NC	81,500	11,700	NC	93,900	15,800	NC	29,600
PCB130	266	NC	3,510	495	NC	2,900	477	NC	1,460
PCB131	37.9 U	NC	298	51.2	NC	229	41.7	NC	118
PCB132	808	NC	5,310	913	NC	9,220	1,670	NC	3,510
PCB133	116	NC	1,250	169	NC	2,820	454	NC	1,290
PCB134 & 143	223 U	NC	1,290	218	NC	1,760	304	NC	603
PCB135 & 151	1,510	NC	10,900	1,640	NC	23,600	4,210	NC	8,690
PCB136	372	NC	2,710	464	NC	6,690	1,220	NC	1,610
PCB137	268	NC	6,880	906	NC	1,490	273	NC	1,050
PCB139 & 140	79	NC	1,330	195	NC	398	70.3	NC	344
PCB141	717	NC	7,980	1,220	NC	15,500	2,610	NC	4,140
PCB142	37.9 U	NC	23.4 U	24.3 U	NC	23.8 U	25.5 U	NC	42.5 U
PCB144	154	NC	1,400	209	NC	3,340	594	NC	840
PCB145	42 U	NC	32 U	26.9 U	NC	26.4 U	28.2 U	NC	47 U
PCB146	1,200	NC	13,400	1,830	NC	26,400	4,280	NC	11,400
PCB147 & 149	2,850	NC	16,300	2,480	NC	31,000	5,520	NC	16,400
PCB148	67 U	NC	90.8	42.9 U	NC	214	45 U	NC	197
PCB150	48.2 U	NC	58.4	30.9 U	NC	80.1	32.4 U	NC	84.5
PCB152	52.2 U	NC	42.7	33.4 U	NC	49.2	35.1 U	NC	58.5 U
PCB153 & 168	5,930	NC	78,800	10,600	NC	123,000	20,700	NC	36,700
PCB154	114	NC	823	111	NC	1,210	198	NC	994
PCB155	54.9 U	NC	33.9 U	35.1 U	NC	34.5 U	36.9 U	NC	61.5 U
PCB156 & 157	612	NC	13,400	2,030	NC	7,090	1,440	NC	2,270
PCB158	410	NC	7,880	1,140	NC	6,320	1,070	NC	2,030
PCB159	112 U	NC	68.8 U	71.4 U	NC	70.1 U	137	NC	125 U
PCB160	4.02 U	NC	2.48 U	2.57 U	NC	2.52 U	2.7 U	NC	4.5 U
PCB161	53.1 U	NC	32.8 U	34 U	NC	33.4 U	35.7 U	NC	59.5 U
PCB162	37.7 U	NC	330	46.8	NC	129 J	40	NC	54.6
PCB164	244	NC	2,130	354	NC	3,870	649	NC	1,370
PCB165	52.7 U	NC	49.5	33.7 U	NC	138	35.4 U	NC	59 U
PCB167	245	NC	4,070	609	NC	3,030	571	NC	996
PCB169	35.4 U	NC	160	22.6 U	NC	790 J	56.2 U	NC	84.8 J
PCB170	951	NC	10,600	1,790	NC	27,800	6,190	NC	5,540
PCB171 & 173	281	NC	3,690	540	NC	9,270	1,740	NC	1,850
PCB172	184	NC	2,130	300	NC	6,530	1,210	NC	1,700
PCB174	706	NC	3,720	572	NC	17,500	3,270	NC	6,650
PCB175	65.6 U	NC	393	60	NC	1,630	280	NC	405
PCB176	84.3	NC	378	54.4	NC	1,720	309	NC	725
PCB177	590	NC	4,090	617	NC	20,700	3,810	NC	5,380
PCB178	306	NC	2,530	369	NC	7,960	1,420	NC	3,430
PCB179	341	NC	1,610	247	NC	7,740	1,520	NC	2,240
PCB180 & 193	3,010	NC	32,600	5,160	NC	94,500	21,200	NC	24,200
PCB181	59.8 U	NC	199	38.3 U	NC	185	40.2 U	NC	67 U
PCB182	40.6 U	NC	63.5	26 U	NC	200	36.6	NC	222
PCB183 & 185	881	NC	9,130	1,310	NC	29,000	5,230	NC	7,670
PCB184	48.7 U	NC	30 U	31.1 U	NC	30.6 U	32.7 U	NC	54.5 U
PCB186	70.5 U	NC	43.5 U	45.1 U	NC	44.3 U	47.4 U	NC	79 U
PCB187	2,220	NC	17,600	2,610	NC	68,100	11,900	NC	27,900
PCB188	56.7 U	NC	39.8	36.3 U	NC	113	38.1 U	NC	69.1
PCB189	44.9	NC	625	91.1	NC	1,810	320	NC	301
PCB190	161	NC	1,140	244	NC	3,680	834	NC	669
PCB191	56.7 U	NC	644	91.2	NC	2,010	363	NC	356
PCB192	39.3 U	NC	24.2 U	25.1 U	NC	24.7 U	26.4 U	NC	44 U
PCB194	392	NC	4,150	625	NC	18,300	3,670	NC	5,420

PCB195	171	NC	1,830	282	NC	8,140	1,570	NC	1,820
PCB196	235	NC	1,940	340	NC	8,620	2,060	NC	2,770
PCB197 & 200	92.7 U	NC	338	59.3 U	NC	1,650	304	NC	934
PCB198 & 199	548	NC	2,680	555	NC	12,600	3,100	NC	7,340
PCB201	70.3	NC	489	75.4	NC	3,020	522	NC	1,400
PCB202	138	NC	957	142	NC	2,900	554	NC	2,370
PCB203	328	NC	2,580	420	NC	8,880	1,880	NC	4,530
PCB204	54.4 U	NC	33.6 U	34.8 U	NC	34.2 U	36.6 U	NC	60.9 U
PCB205	54.2 U	NC	255	39.9	NC	1,010	188	NC	258
PCB206	152	NC	961	156	NC	3,080	609	NC	2,590
PCB207	107 U	NC	178	68.6 U	NC	622	121	NC	482
PCB208	109 U	NC	242	69.8 U	NC	639	127	NC	848
PCB209	77.8	NC	251	53.1	NC	302	71.8	NC	259

Monochlorobiphenyl homologs	41.5 UT	NC	25.6 UT	26.6 UT	NC	25.5 T	27.9 UT	NC	46.5 UT
Dichlorobiphenyl homologs	571 T	NC	673 T	230 T	NC	815 T	316 T	NC	502 T
Trichlorobiphenyl homologs	2,610 T	NC	4,800 T	1,110 T	NC	4,860 T	1,180 T	NC	4,860 T
Tetrachlorobiphenyl homologs	8,930 T	NC	48,700 T	9,880 T	NC	28,900 T	6,460 T	NC	25,800 T
Pentachlorobiphenyl homologs	19,000 T	NC	236,000 T	43,400 T	NC	86,700 T	17,800 T	NC	60,700 T
Hexachlorobiphenyl homologs	22,100 T	NC	272,000 T	39,000 T	NC	369,000 JT	63,200 T	NC	128,000 JT
Heptachlorobiphenyl homologs	9,920 T	NC	91,200 T	14,100 T	NC	300,000 T	59,700 T	NC	89,400 T
Octachlorobiphenyl homologs	1,960 T	NC	15,200 T	2,510 T	NC	65,100 T	13,800 T	NC	26,800 T
Nonachlorobiphenyl homologs	260 T	NC	1,380 T	225 T	NC	4,340 T	857 T	NC	3,920 T
Total PCB Congeners	63,500 JT	240,000 JT	670,000 JT	109,000 JT	436,000 JT	861,000 JT	162,000 JT	556,000 JT	339,000 JT
Total PCB Congeners (calc'd)	65,500 JT	241,000 JT	670,000 JT	111,000 JT	436,000 JT	861,000 JT	163,000 JT	556,000 JT	340,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.196 JT	1.47 JT	14 T	0.604 JT	8.39 JT	28.7 JT	0.211 JT	16.2 JT	3.15 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	3.74 JT	4.8 JT	14 T	2.88 JT	9.33 JT	28.7 JT	3.08 JT	17.5 JT	6.53 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	3.58 JT	7.12 JT	24.5 T	5.59 JT	16.6 JT	16.1 JT	5.71 JT	11.6 JT	16.6 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 0)	0.193 JT	0.249 JT	0.922 T	0.207 JT	0.623 JT	0.432 JT	0.148 JT	0.308 JT	0.302 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB10E-06 LocationID	EPA1-SB11E-07			EPA1-SB11E-08			EPA1-SB11E-09		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7640465.85256	7640465.85256	7643279.64269	7643279.64269	7643279.64269	7644062.92954	7644062.92954	7644062.92954	7643687.40638
Y-coordinate	693421.94952	693421.94952	690016.34775	690016.34775	690016.34775	689439.28177	689439.28177	689439.28177	689713.21524
RiverMile	10.2	10.2	11	11	11	11.2	11.2	11.2	11.1
Sample Date	28-Sep-11	28-Sep-11	19-Sep-11	19-Sep-11	19-Sep-11	7-Oct-11	7-Oct-11	7-Oct-11	7-Oct-11
Sample Time	13:50	13:50	7:05	7:05	7:05	12:00	12:00	12:00	12:36
Sample Mass (g)	40.99	89.63	574.32	470.73	1045.05	220.34	160.94	381.28	439.93
PCB001	36.1 U	NC	35.7 U	36.4 U	NC	143 U	75 U	NC	35.7 U
PCB002	44.7 U	NC	44.3 U	45.1 U	NC	177 U	93 U	NC	44.3 U
PCB003	23.6 U	NC	23.3 U	23.8 U	NC	93.3 U	49 U	NC	23.3 U
PCB004	73.1 U	NC	563	73.8	NC	394	152 U	NC	210
PCB005	44.7 U	NC	44.3 U	45.1 U	NC	177 U	93 U	NC	44.3 U
PCB006	41.8 U	NC	57	42.2 U	NC	166 U	87 U	NC	41.4 U
PCB007	56.7 U	NC	56.2 U	57.3 U	NC	225 U	118 U	NC	56.2 U
PCB008	75.5	NC	232	153	NC	187 U	98 U	NC	136
PCB009	27.4 U	NC	27.1 U	27.7 U	NC	109 U	57 U	NC	27.1 U
PCB010	29.8 U	NC	29.5 U	30.1 U	NC	118 U	62 U	NC	29.5 U
PCB011	235 U	NC	610	324	NC	930 U	488 U	NC	264
PCB012 & 013	39.9 U	NC	39.5 U	40.3 U	NC	158 U	83 U	NC	39.5 U
PCB014	43.8 U	NC	43.3 U	44.2 U	NC	173 U	91 U	NC	43.3 U
PCB015	65.9 U	NC	179	127	NC	261 U	137 U	NC	112
PCB016	56.3	NC	243	121	NC	210 U	110 U	NC	111
PCB017	91.5	NC	1,910	576	NC	1,070	247	NC	276
PCB018 & 030	117	NC	925	343	NC	413	109	NC	312
PCB019	51.7	NC	3,090	840	NC	1,620	336	NC	331
PCB020 & 028	323	NC	2,650	1,010	NC	1,520	372	NC	1,060
PCB021 & 033	217 U	NC	740	333	NC	859 U	451 U	NC	258
PCB022	85.6	NC	522	232	NC	190 U	100 U	NC	211
PCB023	52.9 U	NC	52.4 U	53.4 U	NC	210 U	110 U	NC	52.4 U
PCB024	32.2 U	NC	31.9 U	32.5 U	NC	128 U	67 U	NC	31.9 U
PCB025	47.1 U	NC	340	104	NC	187 U	98 U	NC	61.6
PCB026 & 029	101 U	NC	489	166	NC	400 U	210 U	NC	154
PCB027	45.7 U	NC	456	124	NC	291	95 U	NC	55.9
PCB031	213	NC	1,460	587	NC	465	194 U	NC	548
PCB032	52.8	NC	960	293	NC	416	99.8 U	NC	148
PCB034	38 U	NC	37.6 U	38.3 U	NC	150 U	79 U	NC	37.6 U
PCB035	39.4 U	NC	39 U	36.4 U	NC	156 U	82 U	NC	39 U
PCB036	41.8 U	NC	41.4 U	42.2 U	NC	166 U	87 U	NC	41.4 U
PCB037	39.4	NC	347	163	NC	209	67 U	NC	173
PCB038	30.3 U	NC	30 U	23.8 U	NC	120 U	63 U	NC	30 U
PCB039	38 U	NC	37.6 U	30.6 U	NC	150 U	79 U	NC	37.6 U
PCB040 & 041 & 071	119	NC	2,570	796	NC	1,950	420	NC	422
PCB042	93.5	NC	988	298	NC	564	124	NC	232
PCB043 & 073	52.9 U	NC	324	110	NC	623	136 U	NC	52.4 U
PCB044 & 047 & 065	608	NC	21,400	6,370	NC	19,900	3,980	NC	2,610
PCB045 & 051	88.6	NC	4,500	1,330	NC	3,070	650	NC	274
PCB046	120 U	NC	321	45.1 U	NC	476 U	250 U	NC	119 U
PCB048	47.2	NC	553	183	NC	432	97.3	NC	156
PCB049 & 069	375	NC	10,900	3,270	NC	8,800	1,760	NC	1,620

PCB050 & 053	63.5 U	NC	5,060	1,460	NC	4,400	927	NC	257
PCB052	600	NC	15,900	4,900	NC	17,100	3,460	NC	2,990
PCB054	34.1 U	NC	1,050	293	NC	665	136	NC	58.9
PCB055	36.1 U	NC	35.7 U	36.4 U	NC	143 U	75 U	NC	35.7 U
PCB056	99.4	NC	703	233	NC	321	93 U	NC	216
PCB057	30.3 U	NC	34.3	30.6 U	NC	120 U	63 U	NC	30 U
PCB058	32.2 U	NC	42.4	32.5 U	NC	128 U	67 U	NC	31.9 U
PCB059 & 062 & 075	361 U	NC	710	364 U	NC	1,430 U	750 U	NC	357 U
PCB060	77.2	NC	777	249	NC	472	103	NC	436
PCB061 & 070 & 074 & 076	637	NC	6,650	2,060	NC	6,740	1,370	NC	3,290
PCB063	28.4 U	NC	276	81.1	NC	401	78.9	NC	138
PCB064	170	NC	1,620	499	NC	781	250 U	NC	565
PCB066	424	NC	4,600	1,440	NC	5,800	1,180	NC	2,590
PCB067	28.8 U	NC	199	54.9	NC	217	60 U	NC	34
PCB068	96.2 U	NC	186	97.1 U	NC	634	200 U	NC	95.2 U
PCB072	21.6 U	NC	163	49.4	NC	250	48.7	NC	46.1
PCB073	52.9 U	NC	52.4 U	53.4 U	NC	210 U	110 U	NC	52.4 U
PCB077	44.2 U	NC	216	67.2	NC	246	92 U	NC	117
PCB078	22.1 U	NC	21.9 U	22.3 U	NC	87.6 U	46 U	NC	21.9 U
PCB079	37.5 U	NC	74.8	37.9 U	NC	156	78 U	NC	37.1 U
PCB080	35.6 U	NC	35.2 U	35.9 U	NC	141 U	74 U	NC	35.2 U
PCB081	43.3 U	NC	42.9 U	43.7 U	NC	171 U	90 U	NC	42.9 U
PCB082	57.7	NC	566	165	NC	813	127	NC	153
PCB083	63.9 U	NC	1,040	221	NC	2,020	422	NC	192
PCB084	159	NC	2,200	654	NC	3,770	776	NC	402
PCB085 & 117 & 116	201	NC	3,620	977	NC	5,400	1,100	NC	2,250
PCB086 & 087 & 097 & 108 & 119 & 125	721 U	NC	12,300	3,420	NC	23,700	4,710	NC	2,960
PCB088 & 091	158	NC	3,960	1,130	NC	6,720	1,360	NC	457
PCB089	27.9 U	NC	65.8	28.2 U	NC	124	58 U	NC	27.6 U
PCB090 & 101 & 113	1,280	NC	56,600	15,400	NC	141,000	27,500	NC	7,400
PCB092	263	NC	9,470	2,600	NC	18,100	3,650	NC	1,750
PCB093 & 098 & 100 & 102	553 U	NC	4,870	1,330	NC	5,010	1,150 U	NC	548 U
PCB094	120 U	NC	437	125	NC	779	250 U	NC	119 U
PCB095	662	NC	25,100	7,210	NC	56,100	11,300	NC	2,990
PCB096	53.8 U	NC	714	187	NC	762	154	NC	53.3 U
PCB099	730	NC	19,100	4,820	NC	32,500	6,320	NC	7,510
PCB103	44.2 U	NC	1,600	434	NC	2,430	466	NC	106
PCB104	71.6 U	NC	129	72.3 U	NC	284 U	149 U	NC	71 U
PCB105	387	NC	6,540	2,060	NC	9,750	2,050	NC	5,100
PCB106	71.2 U	NC	70.5 U	71.8 U	NC	282 U	148 U	NC	70.5 U
PCB107 & 124	52.4 U	NC	444	124	NC	933	190	NC	200
PCB109	104	NC	1,730	473	NC	3,980	764	NC	971
PCB110 & 115	968	NC	24,100	6,700	NC	50,200	10,300	NC	5,060
PCB111	35.6 U	NC	89.8	35.9 U	NC	297	74 U	NC	35.2 U
PCB112	52.9 U	NC	52.4 U	53.4 U	NC	210 U	110 U	NC	52.4 U
PCB114	59.1 U	NC	569	158	NC	1,000	189	NC	450
PCB118	1,370	NC	36,700	10,400	NC	78,900	16,700	NC	18,600
PCB120	120 U	NC	298	121 U	NC	697	250 U	NC	119 U
PCB121	33.2 U	NC	192	52	NC	233	69 U	NC	32.9 U
PCB122	43.8 U	NC	94.2	44.2 U	NC	173 U	91 U	NC	43.3 U
PCB123	55.8 U	NC	391	132	NC	744	146	NC	315
PCB126	64.9 U	NC	86.7 J	65.5 U	NC	257 U	135 U	NC	64.3 U
PCB127	41.3 U	NC	83.4	41.7 U	NC	164 U	86 U	NC	41 U
PCB128 & 166	224	NC	14,600	4,050	NC	25,300	5,250	NC	3,490

PCB129 & 138 & 163	3,130	NC	133,000 J	79,600	NC	740,000	146,000	NC	39,800
PCB130	156	NC	5,720	1,540	NC	18,600	3,760	NC	812
PCB131	40.9 U	NC	515	148	NC	1,750	362	NC	40.5 U
PCB132	386	NC	20,400	5,830	NC	76,100	15,800	NC	1,170
PCB133	124	NC	4,660	1,200	NC	12,100	2,410	NC	752
PCB134 & 143	240 U	NC	4,480	1,180	NC	14,500	3,070	NC	266
PCB135 & 151	934	NC	90,900	21,600	NC	209,000	41,900	NC	6,290
PCB136	177	NC	20,200	4,900	NC	52,300	10,900	NC	854
PCB137	139 U	NC	2,740	553	NC	5,410	1,110	NC	1,400
PCB139 & 140	57.7 U	NC	1,190	298	NC	1,620	326	NC	463
PCB141	438	NC	57,800	16,500	NC	134,000	26,300	NC	3,830
PCB142	40.9 U	NC	40.5 U	41.3 U	NC	162 U	85 U	NC	40.5 U
PCB144	88.7	NC	9,980	2,380	NC	29,500	6,080	NC	425
PCB145	45.2 U	NC	44.8 U	45.6 U	NC	179 U	94 U	NC	44.8 U
PCB146	1,110	NC	52,000	13,300	NC	151,000	29,700	NC	7,460
PCB147 & 149	1,730	NC	69,500	18,400	NC	287,000	56,700	NC	4,910
PCB148	72.1 U	NC	380	90.3	NC	550	150 U	NC	71.4 U
PCB150	51.9 U	NC	268	60.7	NC	479	108 U	NC	51.4 U
PCB152	56.3 U	NC	299	71.7	NC	348	117 U	NC	55.7 U
PCB153 & 168	3,690	NC	184,000 J	105,000	NC	948,000	188,000	NC	48,500
PCB154	98.5	NC	3,180	706	NC	3,900	762	NC	553
PCB155	59.1 U	NC	93.9	59.7 U	NC	234 U	123 U	NC	58.6 U
PCB156 & 157	257	NC	22,700	6,430	NC	65,800	12,700	NC	4,210
PCB158	208	NC	25,700	6,920	NC	52,200	10,300	NC	3,310
PCB159	120 U	NC	521	121 U	NC	476 U	250 U	NC	119 U
PCB160	4.33 U	NC	4.29 U	4.37 U	NC	17.1 U	9 U	NC	4.29 U
PCB161	57.2 U	NC	56.7 U	57.8 U	NC	227 U	119 U	NC	56.7 U
PCB162	40.6 U	NC	375	189	NC	661	146	NC	92.6
PCB164	145	NC	11,400	3,280	NC	34,100	6,980	NC	1,090
PCB165	56.7 U	NC	274	69.2	NC	630	129	NC	56.2 U
PCB167	111	NC	7,520	1,990	NC	24,800	4,700	NC	1,430
PCB169	38.1 U	NC	990 J	322 J	NC	318 J	79.2 U	NC	109 J
PCB170	651	NC	125,000	35,600	NC	372,000	64,500	NC	11,300
PCB171 & 173	201	NC	40,500	10,800	NC	97,900	18,400	NC	3,170
PCB172	174	NC	24,000	6,380	NC	70,500	12,600	NC	2,140
PCB174	711	NC	44,900	11,400	NC	224,000	43,100	NC	1,910
PCB175	70.7 U	NC	4,950	1,190	NC	17,200	3,230	NC	270
PCB176	88 U	NC	4,630	1,180	NC	21,700	4,370	NC	157
PCB177	577	NC	40,100	10,900	NC	203,000	38,600	NC	2,600
PCB178	348	NC	29,800	7,440	NC	81,900	15,500	NC	2,510
PCB179	250	NC	29,700	7,550	NC	93,200	18,300	NC	1,120
PCB180 & 193	2,750	NC	196,000 J	105,000	NC	1,150,000	217,000	NC	36,100
PCB181	64.4 U	NC	505	133	NC	1,480	264	NC	91.1
PCB182	43.8 U	NC	325	74.1	NC	173 U	91 U	NC	43.3 U
PCB183 & 185	790	NC	108,000	29,500	NC	312,000	57,600	NC	8,960
PCB184	52.4 U	NC	55.5	52.9 U	NC	208 U	109 U	NC	51.9 U
PCB186	76 U	NC	75.2 U	76.7 U	NC	301 U	158 U	NC	75.2 U
PCB187	2,830	NC	102,000 J	43,100	NC	602,000	122,000	NC	19,500
PCB188	61.1 U	NC	179	61.7 U	NC	639	127 U	NC	60.5 U
PCB189	34.8 U	NC	6,890	1,720	NC	17,600	3,210	NC	612
PCB190	106	NC	19,100	7,360	NC	60,200	12,700	NC	2,010
PCB191	61.1 U	NC	7,210	1,820	NC	19,600	3,470	NC	599
PCB192	42.3 U	NC	41.9 U	42.7 U	NC	168 U	88 U	NC	41.9 U
PCB194	562	NC	76,800	22,500	NC	168,000	28,900	NC	6,450

PCB195	186	NC	32,000	9,180	NC	76,700	13,400	NC	2,800
PCB196	330	NC	40,800	11,200	NC	87,600	17,000	NC	3,240
PCB197 & 200	99.8 U	NC	5,430	1,450	NC	20,300	3,700	NC	394
PCB198 & 199	932	NC	56,900	16,800	NC	190,000	34,000	NC	5,520
PCB201	143	NC	7,510	1,940	NC	26,700	4,970	NC	537
PCB202	240	NC	12,500	3,370	NC	27,400	5,000	NC	1,370
PCB203	490	NC	49,600	13,300	NC	87,000	15,700	NC	4,860
PCB204	58.6 U	NC	58 U	59.2 U	NC	232 U	122 U	NC	58 U
PCB205	58.3 U	NC	4,980	1,300	NC	9,290	1,610	NC	399
PCB206	299	NC	14,500	4,450	NC	26,600	4,820	NC	1,830
PCB207	115 U	NC	2,170	629	NC	4,830	918	NC	283
PCB208	118 U	NC	2,060	596	NC	4,600	888	NC	368
PCB209	53.1 U	NC	512	174	NC	519	116	NC	422

Monochlorobiphenyl homologs	44.7 UT	NC	44.3 UT	45.1 UT	NC	177 UT	93 UT	NC	44.3 UT
Dichlorobiphenyl homologs	312 T	NC	1,670 T	728 T	NC	1,280 T	488 UT	NC	771 T
Trichlorobiphenyl homologs	1,300 T	NC	14,200 T	4,950 T	NC	7,200 T	1,920 T	NC	3,770 T
Tetrachlorobiphenyl homologs	3,860 T	NC	79,900 T	24,100 T	NC	74,800 T	15,500 T	NC	16,500 T
Pentachlorobiphenyl homologs	7,420 T	NC	213,000 JT	59,000 T	NC	446,000 T	89,400 T	NC	57,400 T
Hexachlorobiphenyl homologs	13,500 T	NC	745,000 JT	297,000 JT	NC	2,890,000 JT	574,000 T	NC	131,000 JT
Heptachlorobiphenyl homologs	9,630 T	NC	784,000 JT	281,000 T	NC	3,350,000 T	635,000 T	NC	93,100 T
Octachlorobiphenyl homologs	2,960 T	NC	287,000 T	81,000 T	NC	693,000 T	124,000 T	NC	25,600 T
Nonachlorobiphenyl homologs	416 T	NC	18,700 T	5,680 T	NC	36,000 T	6,630 T	NC	2,480 T
Total PCB Congeners	36,400 JT	201,000 JT	2,140,000 JT	753,000 JT	1,520,000 JT	7,490,000 JT	1,440,000 JT	4,940,000 JT	330,000 JT
Total PCB Congeners (calc'd)	39,500 JT	203,000 JT	2,140,000 JT	754,000 JT	1,520,000 JT	7,490,000 JT	1,450,000 JT	4,940,000 JT	332,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.0038 JT	1.74 JT	40.8 JT	10.4 JT	27.1 JT	15.5 JT	1.19 JT	9.47 JT	4.2 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	3.39 JT	5.32 JT	40.8 JT	13.6 JT	28.6 JT	28.4 JT	9.15 JT	20.3 JT	7.42 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	6.62 JT	12.2 JT	26.1 JT	10.1 JT	18.9 JT	42.9 JT	15.3 JT	31.3 JT	12.5 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.167 JT	0.229 JT	0.922 JT	0.312 JT	0.647 JT	1.72 JT	0.565 JT	1.23 JT	0.342 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB11E-09 LocationID	EPA1-SB11E-10			EPA1-SB11W-05			EPA1-SB11W-06		
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet
X-coordinate	7643687.40638	7643687.40638	7643305.44481	7643305.44481	7643305.44481	7645552.1395	7645552.1395	7645552.1395	7645637.35414
Y-coordinate	689713.21524	689713.21524	689983.13427	689983.13427	689983.13427	686305.25469	686305.25469	686305.25469	686200.04044
RiverMile	11.1	11.1	11.1	11.1	11.1	11.9	11.9	11.9	11.9
Sample Date	7-Oct-11	7-Oct-11	7-Oct-11	7-Oct-11	7-Oct-11	28-Sep-11	28-Sep-11	28-Sep-11	16-Sep-11
Sample Time	12:36	12:36	13:30	13:30	13:30	8:22	8:22	8:22	7:14
Sample Mass (g)	341.94	781.87	377.44	265.84	643.28	105.36	89.88	195.24	753.89
PCB001	36.4 U	NC	32.9 U	36.8 U	NC	21.8 U	22.3 U	NC	36.4 U
PCB002	45.1 U	NC	40.8 U	45.6 U	NC	27.1 U	27.6 U	NC	45.1 U
PCB003	23.8 U	NC	21.5 U	24 U	NC	17.1	14.6 U	NC	23.8 U
PCB004	73.8 U	NC	118	74.5 U	NC	641	114	NC	125
PCB005	45.1 U	NC	40.8 U	45.6 U	NC	27.1 U	27.6 U	NC	45.1 U
PCB006	42.2 U	NC	38.2 U	42.6 U	NC	225	40.9	NC	42.2 U
PCB007	57.3 U	NC	51.8 U	57.8 U	NC	34.4 U	35 U	NC	57.3 U
PCB008	79.2	NC	49.8	48 U	NC	668	143	NC	142
PCB009	27.7 U	NC	25 U	27.9 U	NC	41.3	16.9 U	NC	27.7 U
PCB010	30.1 U	NC	27.2 U	30.4 U	NC	23.5	18.4 U	NC	30.1 U
PCB011	237 U	NC	214 U	239 U	NC	192	151	NC	394
PCB012 & 013	40.3 U	NC	36.4 U	40.7 U	NC	24.2 U	24.7 U	NC	40.3 U
PCB014	44.2 U	NC	39.9 U	44.6 U	NC	26.5 U	27 U	NC	44.2 U
PCB015	80.4	NC	60.1 U	67.2 U	NC	136	42.2	NC	91.3
PCB016	65.9	NC	48.2 U	53.9 U	NC	519	113	NC	113
PCB017	103	NC	225	60.3 U	NC	1,560	276	NC	274
PCB018 & 030	135 U	NC	160	43.8	NC	1,830	330	NC	374
PCB019	93.4	NC	308	52.4	NC	1,180	189	NC	100
PCB020 & 028	439	NC	589	138	NC	3,830	706	NC	1,320
PCB021 & 033	219 U	NC	198 U	221 U	NC	1,000	209	NC	274
PCB022	116	NC	87.8	49 U	NC	792	151	NC	256
PCB023	53.4 U	NC	48.2 U	53.9 U	NC	32 U	32.7 U	NC	53.4 U
PCB024	32.5 U	NC	29.4 U	32.8 U	NC	29	19.9 U	NC	32.5 U
PCB025	47.6 U	NC	45.4	48 U	NC	415	71.6	NC	79.4
PCB026 & 029	102 U	NC	101	103 U	NC	769	134	NC	216
PCB027	46.1 U	NC	44.7	46.6 U	NC	343	61.1	NC	52.4
PCB031	257	NC	249	95.1 U	NC	2,640	491	NC	679
PCB032	65.1	NC	103	25	NC	932	168 U	NC	153
PCB034	38.3 U	NC	34.6 U	38.7 U	NC	23 U	23.5 U	NC	38.3 U
PCB035	39.8 U	NC	36 U	40.2 U	NC	23.9 U	24.4 U	NC	39.8 U
PCB036	42.2 U	NC	38.2 U	42.6 U	NC	25.3 U	25.8 U	NC	42.2 U
PCB037	96.7	NC	67.6	32.8 U	NC	351	71.7	NC	177
PCB038	30.6 U	NC	27.6 U	30.9 U	NC	18.3 U	18.7 U	NC	30.6 U
PCB039	38.3 U	NC	34.6 U	38.7 U	NC	23 U	23.5 U	NC	38.3 U
PCB040 & 041 & 071	149	NC	444	89.8	NC	2,280	381	NC	678
PCB042	78.1	NC	254	49.3	NC	1,060	182	NC	588
PCB043 & 073	53.4 U	NC	49.8	53.9 U	NC	293	52.4	NC	55.7
PCB044 & 047 & 065	700	NC	4,310	680	NC	15,300	2,430	NC	7,610
PCB045 & 051	84.6	NC	525	88.2	NC	3,670	586	NC	261
PCB046	121 U	NC	110 U	123 U	NC	263	74.3 U	NC	121 U
PCB048	55.5	NC	147	29.6	NC	581	100	NC	305
PCB049 & 069	424	NC	2,310	365	NC	9,800	1,570	NC	2,990

PCB050 & 053	73.2	NC	499	80.2	NC	3,220	501	NC	227
PCB052	789	NC	3,660	589	NC	9,680	1,650	NC	4,520
PCB054	34.5 U	NC	92.9	34.8 U	NC	392	63.9	NC	34.5 U
PCB055	36.4 U	NC	32.9 U	36.8 U	NC	21.8 U	22.3 U	NC	36.4 U
PCB056	74.5	NC	167	45.6 U	NC	952	170	NC	554
PCB057	30.6 U	NC	27.6 U	30.9 U	NC	22.4	18.7 U	NC	30.6 U
PCB058	32.5 U	NC	29.4 U	32.8 U	NC	24.2	19.9 U	NC	32.5 U
PCB059 & 062 & 075	364 U	NC	329 U	368 U	NC	441	223 U	NC	364 U
PCB060	121	NC	377	65.8	NC	573	100	NC	728
PCB061 & 070 & 074 & 076	850	NC	2,780	476	NC	6,500	1,080	NC	5,330
PCB063	34.5	NC	177	28.9 U	NC	208	33.6	NC	248
PCB064	172	NC	537	123 U	NC	1,690	291	NC	1,200
PCB066	657	NC	2,910	459	NC	4,130	676	NC	3,900
PCB067	29.1 U	NC	46.3	29.4 U	NC	151	26.3	NC	80.7
PCB068	97.1 U	NC	96.5	98 U	NC	249	59.4 U	NC	97.1 U
PCB072	21.8 U	NC	74.9	22.1 U	NC	154	25.8	NC	87.1
PCB073	53.4 U	NC	48.2 U	53.9 U	NC	32 U	21.1 U	NC	53.4 U
PCB077	44.7 U	NC	118	45.1 U	NC	248	40.7	NC	232
PCB078	22.3 U	NC	20.2 U	22.5 U	NC	13.4 U	13.7 U	NC	22.3 U
PCB079	37.9 U	NC	35.6	38.2 U	NC	84.3	23.2 U	NC	55.3
PCB080	35.9 U	NC	32.5 U	36.3 U	NC	21.6 U	22 U	NC	35.9 U
PCB081	43.7 U	NC	39.5 U	44.1 U	NC	26.2 U	26.7 U	NC	43.7 U
PCB082	41.3 U	NC	246	41.7 U	NC	690	111	NC	430
PCB083	74.5	NC	316	65.2 U	NC	786	86.7	NC	342
PCB084	141 U	NC	673	142 U	NC	1,890	288	NC	940
PCB085 & 117 & 116	547	NC	2,210	337	NC	2,040	338	NC	3,350
PCB086 & 087 & 097 & 108 & 119 & 125	728 U	NC	4,790	770	NC	7,130	1,130	NC	5,480
PCB088 & 091	118	NC	1,140	175	NC	4,910	742	NC	982
PCB089	28.2 U	NC	25.4 U	28.4 U	NC	55.6	17.2 U	NC	28.2 U
PCB090 & 101 & 113	1,790	NC	18,200	2,790	NC	24,600	3,880	NC	11,900
PCB092	412	NC	3,140	455	NC	5,020	768	NC	2,530
PCB093 & 098 & 100 & 102	558 U	NC	973	564 U	NC	2,720	409	NC	1,790
PCB094	121 U	NC	110 U	123 U	NC	250	74.3 U	NC	121 U
PCB095	747	NC	6,710	1,030	NC	13,300	1,990	NC	4,730
PCB096	54.4 U	NC	120	54.9 U	NC	326	49.7	NC	54.4 U
PCB099	1,710	NC	9,780	1,340	NC	12,000	1,880	NC	11,900
PCB103	44.7 U	NC	379	54.9	NC	1,390	199	NC	125
PCB104	72.3 U	NC	65.4 U	73 U	NC	55.6	44.3 U	NC	72.3 U
PCB105	1,210	NC	4,550	732	NC	3,140	503	NC	6,840
PCB106	71.8 U	NC	64.9 U	72.5 U	NC	43.1 U	44 U	NC	71.8 U
PCB107 & 124	52.9 U	NC	257	53.4 U	NC	307	46.8	NC	312
PCB109	227	NC	1,250	213	NC	1,330	203	NC	1,310
PCB110 & 115	1,250	NC	8,280	1,400	NC	11,400	1,840	NC	9,150
PCB111	35.9 U	NC	44.4	36.3 U	NC	108	22 U	NC	35.9 U
PCB112	53.4 U	NC	48.2 U	53.9 U	NC	32 U	32.7 U	NC	53.4 U
PCB114	93.7	NC	425	67.5	NC	199	36.6	NC	696
PCB118	4,270	NC	22,200	3,600	NC	12,100	1,950	NC	26,500
PCB120	121 U	NC	144	123 U	NC	345	74.3 U	NC	121 U
PCB121	33.5 U	NC	51.9	33.8 U	NC	104	20.5 U	NC	54.5
PCB122	71.8 U	NC	48.4	44.6 U	NC	71.1	27 U	NC	71.8 U
PCB123	79.1	NC	345	56.9 U	NC	162	35.4	NC	542
PCB126	65.5 U	NC	59.2 U	66.2 U	NC	39.3 U	40.1 U	NC	65.5 U
PCB127	41.7 U	NC	45	42.2 U	NC	30.3	25.5 U	NC	68.4
PCB128 & 166	824	NC	4,520	690	NC	3,550	478	NC	4,540

PCB129 & 138 & 163	8,810	NC	103,000	14,900	NC	60,000	8,750	NC	44,400
PCB130	181	NC	2,800	402	NC	2,560	376	NC	1,120
PCB131	41.3 U	NC	171	41.7 U	NC	241	34.8	NC	96.2
PCB132	274	NC	5,860	893	NC	9,390	1,360	NC	2,190
PCB133	164	NC	1,830	251	NC	2,290	371	NC	918
PCB134 & 143	243 U	NC	1,490	245 U	NC	1,550	225	NC	427
PCB135 & 151	1,440	NC	22,900	3,310	NC	22,500	3,380	NC	7,650
PCB136	200	NC	5,010	709	NC	5,010	708	NC	1,310
PCB137	263	NC	1,830	255	NC	1,010	138	NC	2,310
PCB139 & 140	106	NC	524	74	NC	637	92.7	NC	636
PCB141	871	NC	15,200	2,150	NC	9,610	1,360	NC	3,920
PCB142	41.3 U	NC	37.3 U	41.7 U	NC	24.8 U	25.2 U	NC	41.3 U
PCB144	93.3	NC	3,050	435	NC	2,450	340	NC	574
PCB145	45.6 U	NC	41.2 U	46.1 U	NC	27.4 U	27.9 U	NC	45.6 U
PCB146	1,660	NC	22,500	3,100	NC	20,000	3,300	NC	8,210
PCB147 & 149	1,130	NC	24,700	3,570	NC	43,700	6,400	NC	7,640
PCB148	72.8 U	NC	122	73.5 U	NC	446	69.2	NC	72.8 U
PCB150	52.4 U	NC	65.9	52.9 U	NC	318	46.7	NC	52.4 U
PCB152	56.8 U	NC	62.3	57.4 U	NC	83.1	34.8 U	NC	56.8 U
PCB153 & 168	11,100	NC	143,000 J	20,600	NC	74,400	11,300	NC	58,300
PCB154	123	NC	900	121	NC	2,440	366	NC	837
PCB155	59.7 U	NC	53.9 U	60.3 U	NC	35.8 U	36.5 U	NC	59.7 U
PCB156 & 157	965	NC	9,930	1,420	NC	2,770	453	NC	5,980
PCB158	735	NC	7,240	1,060	NC	4,060	576	NC	4,140
PCB159	121 U	NC	649	123 U	NC	72.8 U	74.3 U	NC	121 U
PCB160	4.37 U	NC	3.95 U	4.41 U	NC	2.62 U	2.67 U	NC	4.37 U
PCB161	57.8 U	NC	52.2 U	58.3 U	NC	34.7 U	35.3 U	NC	57.8 U
PCB162	41 U	NC	203	41.4 U	NC	221	25.1 U	NC	135
PCB164	266	NC	4,000	625	NC	2,440	371	NC	1,090
PCB165	57.3 U	NC	101	57.8 U	NC	130	35 U	NC	61.8
PCB167	308	NC	3,830	518	NC	1,640	246	NC	1,790
PCB169	38.4 U	NC	314	38.8 U	NC	227 J	49.1 J	NC	93.7 J
PCB170	2,510	NC	39,200	5,500	NC	14,100	2,700	NC	9,550
PCB171 & 173	713	NC	10,400	1,420	NC	5,090	789	NC	3,010
PCB172	465	NC	7,460	971	NC	3,530	607	NC	1,920
PCB174	432	NC	17,300	2,460	NC	13,000	2,140	NC	1,830
PCB175	71.4 U	NC	1,720	227	NC	796	131	NC	294
PCB176	88.8 U	NC	1,420	189	NC	1,630	246	NC	226
PCB177	573	NC	17,600	2,340	NC	14,300	2,560	NC	2,150
PCB178	546	NC	9,050	1,230	NC	5,790	1,010	NC	2,650
PCB179	257	NC	6,990	990	NC	5,340	848	NC	1,410
PCB180 & 193	8,220	NC	132,000	18,000	NC	46,600	9,260	NC	35,900
PCB181	65 U	NC	212	65.7 U	NC	80.6	39.8 U	NC	117
PCB182	44.2 U	NC	99.8	44.6 U	NC	168	33	NC	65.5
PCB183 & 185	1,950	NC	33,900	4,460	NC	14,600	2,420	NC	8,430
PCB184	52.9 U	NC	47.8 U	53.4 U	NC	31.7 U	32.4 U	NC	52.9 U
PCB186	76.7 U	NC	69.3 U	77.5 U	NC	46 U	46.9 U	NC	76.7 U
PCB187	4,270	NC	69,700	9,720	NC	38,900	7,100	NC	16,700
PCB188	61.7 U	NC	75.8	62.3 U	NC	121	37.7 U	NC	61.7 U
PCB189	131	NC	2,170	263	NC	671	119	NC	655
PCB190	568	NC	5,500	903	NC	1,620	393	NC	1,430
PCB191	131	NC	2,420	301	NC	846	140	NC	615
PCB192	42.7 U	NC	38.6 U	43.1 U	NC	25.6 U	26.1 U	NC	42.7 U
PCB194	1,410	NC	20,100	2,670	NC	7,750	1,660	NC	5,770

PCB195	611	NC	9,700	1,200	NC	3,470	715	NC	2,300
PCB196	685	NC	11,800	1,460	NC	3,830	958	NC	3,020
PCB197 & 200	101 U	NC	1,830	225	NC	1,000	209	NC	412
PCB198 & 199	1,210	NC	17,700	2,320	NC	6,640	1,970	NC	4,130
PCB201	111	NC	2,730	345	NC	1,190	256	NC	573
PCB202	297	NC	3,590	435	NC	1,970	405	NC	1,500
PCB203	1,050	NC	12,300	1,560	NC	5,090	1,110	NC	4,360
PCB204	59.2 U	NC	53.5 U	59.8 U	NC	35.5 U	36.2 U	NC	59.2 U
PCB205	82.2	NC	1,160	137	NC	447	89	NC	322
PCB206	390	NC	3,510	482	NC	1,510	327	NC	1,890
PCB207	117 U	NC	637	118 U	NC	232	71.3 U	NC	323
PCB208	119 U	NC	673	120 U	NC	392	79.4	NC	443
PCB209	102	NC	429	69.3	NC	191	46.8	NC	584

Monochlorobiphenyl homologs	45.1 UT	NC	40.8 UT	45.6 UT	NC	28 T	27.6 UT	NC	45.1 UT
Dichlorobiphenyl homologs	365 T	NC	350 T	239 UT	NC	1,930 T	509 T	NC	802 T
Trichlorobiphenyl homologs	1,580 T	NC	2,170 T	685 T	NC	16,200 T	2,930 T	NC	4,140 T
Tetrachlorobiphenyl homologs	4,740 T	NC	19,900 T	3,560 T	NC	62,000 T	10,200 T	NC	30,000 T
Pentachlorobiphenyl homologs	13,600 T	NC	86,400 T	13,700 T	NC	106,000 T	16,700 T	NC	90,300 T
Hexachlorobiphenyl homologs	29,900 T	NC	386,000 JT	55,500 T	NC	274,000 JT	40,900 JT	NC	159,000 JT
Heptachlorobiphenyl homologs	21,000 T	NC	357,000 T	49,100 T	NC	167,000 T	30,600 T	NC	87,000 T
Octachlorobiphenyl homologs	5,510 T	NC	80,900 T	10,400 T	NC	31,400 T	7,370 T	NC	22,400 T
Nonachlorobiphenyl homologs	508 T	NC	4,820 T	601 T	NC	2,130 T	442 T	NC	2,660 T
Total PCB Congeners	74,400 JT	218,000 JT	937,000 JT	131,000 JT	604,000 JT	661,000 JT	109,000 JT	407,000 JT	395,000 JT
Total PCB Congeners (calc'd)	77,300 JT	220,000 JT	938,000 JT	134,000 JT	606,000 JT	661,000 JT	110,000 JT	407,000 JT	396,000 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.212 JT	2.46 JT	10.7 JT	0.198 JT	6.38 JT	7.46 JT	1.58 JT	4.75 JT	4.12 JT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	4.07 JT	5.96 JT	13.7 JT	4.1 JT	9.73 JT	9.42 JT	3.59 JT	6.74 JT	7.41 JT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	6.87 JT	10.2 JT	12.9 JT	6.93 JT	10.4 JT	16.7 JT	5.55 JT	11.5 JT	18.8 JT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 0)	0.206 JT	0.286 JT	0.403 JT	0.213 JT	0.324 JT	0.244 JT	0.13 JT	0.192 JT	0.418 JT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

Table 4. Analytical Results Including Summation Groups
Portland Harbor Sample Receipt, Analysis, and Results Report

EPA1-SB11W-06 LocationID	EPA1-SB11W-07			EPA1-SB11W-08					NA	NA
Tissue	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	body without fillet	fillet	whole body (calculated)	MEL Proof Blank	MEL Rinsate Blank 1
X-coordinate	7645637.35414	7645637.35414	7643703.153	7643703.153	7643703.153	7642440.54514	7642440.54514	7642440.54514	NA	NA
Y-coordinate	686200.04044	686200.04044	688248.84390	688248.84390	688248.84390	689464.81303	689464.81303	689464.81303	NA	NA
RiverMile	11.9	11.9	11.4	11.4	11.4	11	11	11	NA	NA
Sample Date	16-Sep-11	16-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11	28-Sep-11	23-Nov-11	30-Nov-11
Sample Time	7:14	7:14	9:20	9:20	9:20	10:12	10:12	10:12	10:10	15:45
Sample Mass (g)	579.31	1333.2	61.58	44.48	106.06	467.17	210.21	677.38	NA	NA
PCB001	36.1 U	NC	36.4 U	37.1 U	NC	35 U	36.1 U	NC	0.0597 U	0.0579 U
PCB002	44.7 U	NC	45.1 U	46 U	NC	43.5 U	44.7 U	NC	0.12 U	0.117 U
PCB003	23.6 U	NC	23.8 U	24.3 U	NC	22.9 U	23.6 U	NC	0.0638 U	0.062 U
PCB004	73.1 U	NC	127	75.2 U	NC	71 U	73.1 U	NC	0.0797	0.0301 U
PCB005	44.7 U	NC	45.1 U	46 U	NC	43.5 U	44.7 U	NC	0.105 U	0.102 U
PCB006	41.8 U	NC	42.2 U	43.1 U	NC	40.7 U	41.8 U	NC	0.114 U	0.11 U
PCB007	56.7 U	NC	57.3 U	58.4 U	NC	55.1 U	56.7 U	NC	0.125 U	0.121 U
PCB008	79.7	NC	123	48.5 U	NC	45.8 U	47.1 U	NC	0.128 U	0.125 U
PCB009	27.4 U	NC	27.7 U	28.2 U	NC	26.6 U	27.4 U	NC	0.137 U	0.133 U
PCB010	29.8 U	NC	30.1 U	30.7 U	NC	29 U	29.8 U	NC	0.204 U	0.198 U
PCB011	235 U	NC	237 U	242 U	NC	228 U	235 U	NC	0.417 U	0.244 U
PCB012 & 013	39.9 U	NC	40.3 U	41.1 U	NC	38.8 U	39.9 U	NC	0.172 U	0.167 U
PCB014	43.8 U	NC	44.2 U	45 U	NC	42.5 U	43.8 U	NC	0.0482 U	0.0468 U
PCB015	85.9	NC	66.5 U	67.8 U	NC	64 U	65.9 U	NC	0.0566 U	0.0219 J
PCB016	71.8	NC	162	54.5 U	NC	51.4 U	52.9 U	NC	0.22 U	0.214 U
PCB017	102	NC	696	84.9	NC	811	195	NC	0.184 U	0.179 U
PCB018 & 030	147 U	NC	501	65.6	NC	222	68.3 U	NC	0.416 U	0.404 U
PCB019	46.2 U	NC	309	47.5 U	NC	470	104	NC	0.0499 U	0.0484 U
PCB020 & 028	509	NC	1,910	228	NC	1,580	369	NC	0.147	0.0959 U
PCB021 & 033	217 U	NC	274	223 U	NC	250	217 U	NC	0.145 U	0.141 U
PCB022	141	NC	390	55.3	NC	168	50.6	NC	0.0613	0.0341 U
PCB023	52.9 U	NC	53.4 U	54.5 U	NC	51.4 U	52.9 U	NC	0.103 U	0.0999 U
PCB024	32.2 U	NC	32.5 U	33.2 U	NC	31.3 U	32.2 U	NC	0.176 U	0.171 U
PCB025	47.1 U	NC	188	48.5 U	NC	228	48.5	NC	0.058 U	0.0563 U
PCB026 & 029	101 U	NC	373	104 U	NC	257	101 U	NC	0.166 U	0.161 U
PCB027	45.7 U	NC	109	47 U	NC	212	49.9	NC	0.169 U	0.164 U
PCB031	299	NC	1,220	152	NC	613	160	NC	0.13	0.0531 U
PCB032	68.4	NC	274	36.1	NC	692	160	NC	0.166 U	0.161 U
PCB034	38 U	NC	38.3 U	39.1 U	NC	36.9 U	38 U	NC	0.0788 U	0.0765 U
PCB035	39.4 U	NC	39.8 U	40.6 U	NC	38.3 U	39.4 U	NC	0.133 U	0.129 U
PCB036	41.8 U	NC	42.2 U	43.1 U	NC	40.7 U	41.8 U	NC	0.0773 U	0.0751 U
PCB037	113	NC	188	35.1	NC	38.4	32.2 U	NC	0.034	0.0268 U
PCB038	30.3 U	NC	30.6 U	31.2 U	NC	29.4 U	30.3 U	NC	0.0917 U	0.089 U
PCB039	38 U	NC	38.3 U	39.1 U	NC	36.9 U	38 U	NC	0.0811 U	0.0787 U
PCB040 & 041 & 071	198	NC	1,410	172	NC	2,190	522	NC	0.322 U	0.313 U
PCB042	146	NC	827	94.3	NC	1,300	282	NC	0.187 U	0.182 U
PCB043 & 073	52.9 U	NC	137	54.5 U	NC	435	98.1	NC	0.349 U	0.339 U
PCB044 & 047 & 065	1,670	NC	6,580	706	NC	19,200	3,990	NC	0.399 U	0.388 U
PCB045 & 051	74.8	NC	1,210	134	NC	3,590	779	NC	0.618 U	0.599 U
PCB046	120 U	NC	139	124 U	NC	139	120 U	NC	0.329 U	0.319 U
PCB048	78.8	NC	517	57.8	NC	564	125	NC	0.179 U	0.174 U
PCB049 & 069	656	NC	4,370	446	NC	9,600	2,000	NC	0.337 U	0.327 U

PCB050 & 053	63.5 U	NC	1,330	145	NC	4,050	874	NC	0.684 U	0.664 U
PCB052	1,050	NC	7,950	856	NC	9,360	2,000	NC	0.243 U	0.236 U
PCB054	34.1 U	NC	84.1	35.1 U	NC	833	173	NC	0.0503 U	0.0488 U
PCB055	36.1 U	NC	36.4 U	37.1 U	NC	35 U	36.1 U	NC	0.154 U	0.149 U
PCB056	149	NC	845	102	NC	958	214	NC	0.129 U	0.125 U
PCB057	30.3 U	NC	30.6 U	31.2 U	NC	32.8	30.3 U	NC	0.0495 U	0.048 U
PCB058	32.2 U	NC	32.5 U	33.2 U	NC	39.4	32.2 U	NC	0.0618 U	0.0599 U
PCB059 & 062 & 075	361 U	NC	364 U	371 U	NC	713	361 U	NC	0.322 U	0.313 U
PCB060	171	NC	666	75.6	NC	2,380	506	NC	0.155 U	0.151 U
PCB061 & 070 & 074 & 076	1,250	NC	6,240	654	NC	10,300	2,150	NC	0.297 U	0.289 U
PCB063	51.9	NC	180	29.2 U	NC	657	130	NC	0.0773 U	0.0751 U
PCB064	291	NC	1,520	170	NC	2,360	517	NC	0.119 U	0.116 U
PCB066	884	NC	3,730	399	NC	10,800	2,280	NC	0.124 U	0.12 U
PCB067	28.8 U	NC	113	29.7 U	NC	184	38.3	NC	0.0969 U	0.0941 U
PCB068	96.2 U	NC	97.1 U	99 U	NC	226	96.2 U	NC	0.0688 U	0.0668 U
PCB072	21.6 U	NC	89.3	22.3 U	NC	181	37.1	NC	0.0561 U	0.0545 U
PCB073	52.9 U	NC	0 U	54.5 U	NC	51.4 U	52.9 U	NC	0.349 U	0 U
PCB077	53.1	NC	233	45.5 U	NC	225	48.3	NC	0.0713 U	0.0692 U
PCB078	22.1 U	NC	22.3 U	22.8 U	NC	21.5 U	22.1 U	NC	0.174 U	0.169 U
PCB079	37.5 U	NC	67.8	38.6 U	NC	91	37.5 U	NC	0.214 U	0.208 U
PCB080	35.6 U	NC	35.9 U	36.6 U	NC	34.6 U	35.6 U	NC	0.154 U	0.15 U
PCB081	43.3 U	NC	43.7 U	44.6 U	NC	42.1 U	43.3 U	NC	0.0684 U	0.0664 U
PCB082	97.3	NC	710	78.5	NC	966	210	NC	0.0738 U	0.0717 U
PCB083	63.9 U	NC	677	81.1	NC	632	135	NC	0.139 U	0.135 U
PCB084	210	NC	2,220	243	NC	1,500	335	NC	0.0794 U	0.0771 U
PCB085 & 117 & 116	663	NC	2,450	239	NC	5,470	1,110	NC	0.115 U	0.112 U
PCB086 & 087 & 097 & 108 & 119 & 125	1,170	NC	8,860	911	NC	8,890	1,900	NC	0.14 U	0.136 U
PCB088 & 091	207	NC	2,240	233	NC	4,090	845	NC	0.193 U	0.188 U
PCB089	27.9 U	NC	115	28.7 U	NC	53.1	27.9 U	NC	0.095 U	0.0922 U
PCB090 & 101 & 113	2,410	NC	29,500	2,870	NC	24,100	4,980	NC	1.07 U	1.04 U
PCB092	512	NC	4,320	440	NC	4,100	844	NC	0.125 U	0.121 U
PCB093 & 098 & 100 & 102	553 U	NC	1,490	569 U	NC	2,890	572	NC	0.532 U	0.517 U
PCB094	120 U	NC	268	124 U	NC	389	120 U	NC	0.135 U	0.131 U
PCB095	1,030	NC	15,700	1,620	NC	9,830	2,090	NC	0.642 U	0.624 U
PCB096	53.8 U	NC	171	55.4 U	NC	384	78.3	NC	0.245 U	0.238 U
PCB099	2,180	NC	8,810	851	NC	18,700	3,750	NC	0.229 U	0.222 U
PCB103	44.2 U	NC	387	45.5 U	NC	858	167	NC	0.116 U	0.112 U
PCB104	71.6 U	NC	72.3 U	73.8 U	NC	70.3	71.6 U	NC	0.115 U	0.111 U
PCB105	1,520	NC	4,660	479	NC	10,400	2,300	NC	0.0736 U	0.0715 U
PCB106	71.2 U	NC	71.8 U	73.3 U	NC	69.2 U	71.2 U	NC	0.17 U	0.165 U
PCB107 & 124	67.6	NC	397	54 U	NC	522	107	NC	1.13 U	1.1 U
PCB109	303	NC	1,080	103	NC	2,290	504	NC	0.141 U	0.137 U
PCB110 & 115	1,920	NC	17,600	1,860	NC	13,600	2,920	NC	0.401 U	0.39 U
PCB111	35.6 U	NC	35.9 U	36.6 U	NC	72.8	35.6 U	NC	0.115 U	0.111 U
PCB112	52.9 U	NC	53.4 U	54.5 U	NC	51.4 U	52.9 U	NC	0.111 U	0.108 U
PCB114	138	NC	287	60.9 U	NC	1,070	222	NC	0.0563 U	0.0547 U
PCB118	5,440	NC	16,700	1,710	NC	43,200	8,760	NC	0.32 U	0.311 U
PCB120	120 U	NC	121 U	124 U	NC	233	120 U	NC	0.074 U	0.0719 U
PCB121	33.2 U	NC	33.5 U	34.2 U	NC	98.6	33.2 U	NC	0.0424 U	0.0412 U
PCB122	43.8 U	NC	89.2	45 U	NC	118	43.8 U	NC	0.047 U	0.0456 U
PCB123	87.9	NC	221	57.4 U	NC	1,010	173	NC	0.241 U	0.234 U
PCB126	64.9 U	NC	65.5 U	66.8 U	NC	85.9 J	64.9 U	NC	0.0451 U	0.0438 U
PCB127	41.3 U	NC	41.7 U	42.6 U	NC	80	41.3 U	NC	0.0765 U	0.0743 U
PCB128 & 166	909	NC	5,470	499	NC	6,290	1,290	NC	0.216 U	0.21 U

PCB129 & 138 & 163	8,830	NC	83,400	7,030	NC	282,000 J	28,000	NC	1.92 U	1.86 U
PCB130	211	NC	2,820	240	NC	3,850	810	NC	1.32 U	1.28 U
PCB131	40.9 U	NC	445	42.1 U	NC	254	50.7	NC	0.125 U	0.122 U
PCB132	437	NC	18,700	1,650	NC	4,430	951	NC	0.432 U	0.42 U
PCB133	166	NC	1,070	90.2	NC	2,380	495	NC	0.115 U	0.112 U
PCB134 & 143	240 U	NC	2,810	250	NC	1,560	348	NC	0.134 U	0.13 U
PCB135 & 151	1,330	NC	33,700	2,780	NC	16,900	3,390	NC	0.62 U	0.601 U
PCB136	227	NC	10,400	871	NC	3,020	610	NC	0.177 U	0.172 U
PCB137	431	NC	1,430	144 U	NC	3,290	547	NC	0.279 U	0.27 U
PCB139 & 140	112	NC	466	59.4 U	NC	772	164	NC	0.125 U	0.121 U
PCB141	856	NC	19,800	1,750	NC	12,400	2,700	NC	0.426 U	0.414 U
PCB142	40.9 U	NC	41.3 U	42.1 U	NC	39.7 U	40.9 U	NC	0.062 U	0.0601 U
PCB144	99.4	NC	4,870	398	NC	3,270	659	NC	0.171 U	0.166 U
PCB145	45.2 U	NC	45.6 U	46.5 U	NC	43.9 U	45.2 U	NC	0.0509 U	0.0494 U
PCB146	1,490	NC	13,000	1,070	NC	30,000	6,380	NC	0.351 U	0.341 U
PCB147 & 149	1,460	NC	62,300	5,420	NC	33,500	7,210	NC	1.48 U	1.44 U
PCB148	72.1 U	NC	92.2	74.3 U	NC	175	72.1 U	NC	0.103 U	0.1 U
PCB150	51.9 U	NC	82.7	53.5 U	NC	170	51.9 U	NC	0.0524 U	0.0509 U
PCB152	56.3 U	NC	69.6	57.9 U	NC	100	56.3 U	NC	0.0692 U	0.0672 U
PCB153 & 168	11,000	NC	92,300	7,800	NC	383,000 J	37,900	NC	2.49 U	2.42 U
PCB154	136	NC	634	55.3	NC	1,230	245	NC	0.118 U	0.115 U
PCB155	59.1 U	NC	59.7 U	60.9 U	NC	61.6	59.1 U	NC	0.0518 U	0.0503 U
PCB156 & 157	1,220	NC	5,110	505	NC	14,100	3,020	NC	0.233 U	0.226 U
PCB158	810	NC	7,390	640	NC	8,540	1,820	NC	0.235 U	0.228 U
PCB159	120 U	NC	1,000	124 U	NC	62 U	120 U	NC	0.102 U	0.0993 U
PCB160	4.33 U	NC	4.37 U	4.46 U	NC	4.21 U	4.33 U	NC	2.02 U	1.96 U
PCB161	57.2 U	NC	57.8 U	58.9 U	NC	55.6 U	57.2 U	NC	0.106 U	0.103 U
PCB162	49.2	NC	109	41.8 U	NC	1,390	62.4	NC	0.069 U	0.067 U
PCB164	223	NC	4,730	418	NC	4,940	1,210	NC	0.264 U	0.256 U
PCB165	56.7 U	NC	57.3 U	58.4 U	NC	143	56.7 U	NC	0.0919 U	0.0892 U
PCB167	345	NC	1,970	182	NC	5,730	1,230	NC	0.104 U	0.101 U
PCB169	38.1 U	NC	0 J	39.2 U	NC	350 J	94.2 J	NC	0.0414 U	0.0402 U
PCB170	2,220	NC	22,800	2,440	NC	40,400	9,810	NC	0.539 U	0.523 U
PCB171 & 173	639	NC	9,370	884	NC	8,470	1,840	NC	0.207 U	0.201 U
PCB172	394	NC	4,800	444	NC	8,400	1,990	NC	0.0988 U	0.0959 U
PCB174	362	NC	27,000	2,510	NC	21,800	5,340	NC	0.389 U	0.377 U
PCB175	70.7 U	NC	1,300	118	NC	2,050	480	NC	0.0399 U	0.0388 U
PCB176	88 U	NC	3,340	311	NC	1,140	262	NC	0.0821 U	0.0797 U
PCB177	447	NC	16,200	1,530	NC	23,100	5,200	NC	0.25 U	0.242 U
PCB178	496	NC	6,250	588	NC	10,700	2,550	NC	0.0724 U	0.0702 U
PCB179	271	NC	12,000	1,130	NC	2,940	651	NC	0.148 U	0.144 U
PCB180 & 193	8,030	NC	59,900	6,470	NC	447,000 J	40,500	NC	1.16 U	1.12 U
PCB181	64.4 U	NC	103	66.3 U	NC	289	65.5	NC	0.0426 U	0.0414 U
PCB182	43.8 U	NC	44.2 U	45 U	NC	165	43.8 U	NC	0.0306 U	0.0297 U
PCB183 & 185	1,810	NC	22,900	2,160	NC	34,900	8,280	NC	0.455 U	0.442 U
PCB184	52.4 U	NC	52.9 U	54 U	NC	50.9 U	52.4 U	NC	0.0545 U	0.0529 U
PCB186	76 U	NC	76.7 U	78.2 U	NC	73.8 U	76 U	NC	0.0522 U	0.0507 U
PCB187	3,180	NC	37,800	3,550	NC	96,100	22,700	NC	0.491 U	0.476 U
PCB188	61.1 U	NC	61.7 U	62.9 U	NC	107	61.1 U	NC	0.052 U	0.0505 U
PCB189	128	NC	970	85.8	NC	2,740	655	NC	0.0665 U	0.0646 U
PCB190	462	NC	2,580	321	NC	5,590	1,830	NC	0.134 U	0.13 U
PCB191	120	NC	1,230	109	NC	2,860	652	NC	0.0489 U	0.0474 U
PCB192	42.3 U	NC	42.7 U	43.6 U	NC	41.1 U	42.3 U	NC	0.0647 U	0.0628 U
PCB194	1,310	NC	11,000	1,110	NC	23,400	6,770	NC	0.149 U	0.145 U

PCB195	512	NC	5,080	489	NC	9,240	2,560	NC	0.113 U	0.109 U
PCB196	680	NC	5,570	610	NC	13,700	4,040	NC	0.184 U	0.178 U
PCB197 & 200	99.8 U	NC	1,750	176	NC	1,650	467	NC	0.191 U	0.185 U
PCB198 & 199	991	NC	8,850	1,080	NC	20,700	6,690	NC	0.279 U	0.27 U
PCB201	109	NC	1,710	161	NC	3,240	904	NC	0.158 U	0.154 U
PCB202	308	NC	2,430	239	NC	3,970	1,120	NC	0.0973 U	0.0945 U
PCB203	927	NC	7,600	760	NC	9,750	2,810	NC	0.144 U	0.14 U
PCB204	58.6 U	NC	52.9 U	60.3 U	NC	57 U	58.6 U	NC	0.089 U	0.0864 U
PCB205	66.4	NC	702	63.5	NC	988	269	NC	0.0688 U	0.0668 U
PCB206	427	NC	2,100	237	NC	3,430	1,140	NC	0.0551 U	0.0535 U
PCB207	115 U	NC	312	119 U	NC	751	249	NC	0.0509 U	0.0494 U
PCB208	118 U	NC	433	121 U	NC	886	280	NC	0.0913 U	0.0886 U
PCB209	150	NC	192	54.7 U	NC	757	272	NC	0.151 U	0.146 U

Monochlorobiphenyl homologs	44.7 UT	NC	45.1 UT	46 UT	NC	43.5 UT	44.7 UT	NC	0.12 UT	0.117 UT
Dichlorobiphenyl homologs	369 T	NC	452 T	242 UT	NC	228 UT	235 UT	NC	0.608 T	0.442 JT
Trichlorobiphenyl homologs	1,680 T	NC	6,660 T	991 T	NC	5,630 T	1,440 T	NC	1.37 T	0.404 UT
Tetrachlorobiphenyl homologs	7,210 T	NC	38,500 T	4,520 T	NC	80,500 T	17,200 T	NC	0.684 UT	0.664 UT
Pentachlorobiphenyl homologs	18,600 T	NC	119,000 T	12,400 T	NC	156,000 JT	32,300 T	NC	1.13 UT	1.1 UT
Hexachlorobiphenyl homologs	30,700 T	NC	374,000 JT	32,000 T	NC	824,000 JT	99,400 JT	NC	2.49 UT	2.42 UT
Heptachlorobiphenyl homologs	18,700 T	NC	229,000 T	22,800 T	NC	709,000 JT	103,000 T	NC	1.16 UT	1.12 UT
Octachlorobiphenyl homologs	4,950 T	NC	44,700 T	4,690 T	NC	86,600 T	25,600 T	NC	0.279 UT	0.27 UT
Nonachlorobiphenyl homologs	544 T	NC	2,850 T	357 T	NC	5,070 T	1,670 T	NC	0.0913 UT	0.0886 UT
Total PCB Congeners	80,500 JT	259,000 JT	814,000 JT	75,600 JT	505,000 JT	1,870,000 JT	279,000 JT	1,370,000 JT	0.452 JT	0.0219 JT
Total PCB Congeners (calc'd)	83,000 JT	260,000 JT	815,000 JT	78,100 JT	506,000 JT	1,870,000 JT	281,000 JT	1,370,000 JT	17.4 JT	16.3 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.572 JT	2.45 JT	0.921 JT	0.0889 JT	0.572 JT	21.5 JT	3.32 JT	15.8 JT	0.32 UT	0.311 UT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	4.09 JT	5.87 JT	4.2 JT	4.03 JT	4.13 JT	21.5 JT	6.57 JT	16.8 JT	0.32 UT	0.311 UT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	3.43 JT	11.2 JT	18.3 JT	6.85 JT	13.5 JT	25.4 JT	8.58 JT	20.2 JT	0.32 UT	0.311 UT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 0)	0.224 JT	0.323 JT	0.348 JT	0.197 JT	0.284 JT	0.871 JT	0.264 JT	0.683 JT	0.32 UT	0.311 UT

Notes:

J	Concentration or total is estimated.
LWG	Lower Willamette Group
NA	Not applicable
NC	Not calculated
ND	Nondetect
PCB	Polychlorinated biphenyl
RA	Risk assessment
T	Concentration is calculated from laboratory-reported data.
TCDD	Tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
U	Result is not-detected; value reported is the reporting limit.

LocationID	NA	NA
Tissue	MEL Rinsate Blank 2	MEL Rinsate Blank 3
X-coordinate	NA	NA
Y-coordinate	NA	NA
RiverMile	NA	NA
Sample Date	8-Dec-11	8-Dec-11
Sample Time	14:30	14:45
Sample Mass (g)	NA	NA
PCB001	0.0559 U	0.0569 U
PCB002	0.113 U	0.115 U
PCB003	0.0598 U	0.0609 U
PCB004	0.029 U	0.0339 J
PCB005	0.0982 U	0.0999 U
PCB006	0.107 U	0.108 U
PCB007	0.117 U	0.119 U
PCB008	0.12 U	0.122 U
PCB009	0.129 U	0.131 U
PCB010	0.191 U	0.194 U
PCB011	0.255 U	0.322 U
PCB012 & 013	0.161 U	0.164 U
PCB014	0.0452 U	0.046 U
PCB015	0.0198 J	0.0253 U
PCB016	0.207 U	0.21 U
PCB017	0.172 U	0.175 U
PCB018 & 030	0.39 U	0.397 U
PCB019	0.0468 U	0.0476 U
PCB020 & 028	0.0926 U	0.0942 U
PCB021 & 033	0.136 U	0.139 U
PCB022	0.0329 U	0.0335 U
PCB023	0.0965 U	0.0981 U
PCB024	0.165 U	0.168 U
PCB025	0.0544 U	0.0553 U
PCB026 & 029	0.156 U	0.158 U
PCB027	0.159 U	0.162 U
PCB031	0.0513 U	0.0548
PCB032	0.156 U	0.158 U
PCB034	0.0739 U	0.0751 U
PCB035	0.124 U	0.126 U
PCB036	0.0725 U	0.0738 U
PCB037	0.0259 U	0.0264 U
PCB038	0.0859 U	0.0874 U
PCB039	0.076 U	0.0773 U
PCB040 & 041 & 071	0.302 U	0.307 U
PCB042	0.176 U	0.179 U
PCB043 & 073	0.327 U	0.333 U
PCB044 & 047 & 065	0.374 U	0.381 U
PCB045 & 051	0.579 U	0.589 U
PCB046	0.308 U	0.313 U
PCB048	0.168 U	0.171 U
PCB049 & 069	0.316 U	0.321 U

PCB050 & 053	0.641 U	0.652 U
PCB052	0.228 U	0.232 U
PCB054	0.0472 U	0.048 U
PCB055	0.144 U	0.147 U
PCB056	0.121 U	0.123 U
PCB057	0.0464 U	0.0472 U
PCB058	0.0579 U	0.0589 U
PCB059 & 062 & 075	0.302 U	0.307 U
PCB060	0.145 U	0.148 U
PCB061 & 070 & 074 & 076	0.279 U	0.284 U
PCB063	0.0725 U	0.0738 U
PCB064	0.112 U	0.114 U
PCB066	0.116 U	0.118 U
PCB067	0.0908 U	0.0924 U
PCB068	0.0645 U	0.0656 U
PCB072	0.0526 U	0.0535 U
PCB073	0 U	0 U
PCB077	0.0668 U	0.068 U
PCB078	0.164 U	0.166 U
PCB079	0.201 U	0.204 U
PCB080	0.144 U	0.147 U
PCB081	0.0641 U	0.0652 U
PCB082	0.0692 U	0.0704 U
PCB083	0.131 U	0.133 U
PCB084	0.0744 U	0.0757 U
PCB085 & 117 & 116	0.108 U	0.11 U
PCB086 & 087 & 097 & 108 & 119 & 125	0.131 U	0.133 U
PCB088 & 091	0.181 U	0.184 U
PCB089	0.0891 U	0.0906 U
PCB090 & 101 & 113	1.01 U	1.02 U
PCB092	0.117 U	0.119 U
PCB093 & 098 & 100 & 102	0.499 U	0.508 U
PCB094	0.126 U	0.129 U
PCB095	0.602 U	0.613 U
PCB096	0.23 U	0.234 U
PCB099	0.214 U	0.218 U
PCB103	0.108 U	0.11 U
PCB104	0.107 U	0.109 U
PCB105	0.069 U	0.0702 U
PCB106	0.16 U	0.162 U
PCB107 & 124	1.06 U	1.08 U
PCB109	0.132 U	0.134 U
PCB110 & 115	0.376 U	0.383 U
PCB111	0.107 U	0.109 U
PCB112	0.104 U	0.106 U
PCB114	0.0528 U	0.0537 U
PCB118	0.3 U	0.305 U
PCB120	0.0694 U	0.0706 U
PCB121	0.0398 U	0.0404 U
PCB122	0.044 U	0.0448 U
PCB123	0.226 U	0.23 U
PCB126	0.0423 U	0.043 U
PCB127	0.0717 U	0.073 U
PCB128 & 166	0.203 U	0.206 U

PCB129 & 138 & 163	1.8 U	1.83 U
PCB130	1.24 U	1.26 U
PCB131	0.118 U	0.12 U
PCB132	0.405 U	0.412 U
PCB133	0.108 U	0.11 U
PCB134 & 143	0.126 U	0.128 U
PCB135 & 151	0.581 U	0.591 U
PCB136	0.166 U	0.169 U
PCB137	0.261 U	0.266 U
PCB139 & 140	0.117 U	0.119 U
PCB141	0.4 U	0.406 U
PCB142	0.0581 U	0.0591 U
PCB144	0.16 U	0.163 U
PCB145	0.0477 U	0.0486 U
PCB146	0.329 U	0.335 U
PCB147 & 149	1.39 U	1.41 U
PCB148	0.0969 U	0.0985 U
PCB150	0.0491 U	0.05 U
PCB152	0.0649 U	0.066 U
PCB153 & 168	2.33 U	2.37 U
PCB154	0.111 U	0.113 U
PCB155	0.0485 U	0.0494 U
PCB156 & 157	0.218 U	0.222 U
PCB158	0.22 U	0.224 U
PCB159	0.0959 U	0.0976 U
PCB160	1.89 U	1.93 U
PCB161	0.0994 U	0.101 U
PCB162	0.0647 U	0.0658 U
PCB164	0.248 U	0.252 U
PCB165	0.0861 U	0.0876 U
PCB167	0.0978 U	0.0995 U
PCB169	0.0388 U	0.0395 U
PCB170	0.505 U	0.514 U
PCB171 & 173	0.194 U	0.197 U
PCB172	0.0926 U	0.0942 U
PCB174	0.364 U	0.371 U
PCB175	0.0374 U	0.0381 U
PCB176	0.077 U	0.0783 U
PCB177	0.234 U	0.238 U
PCB178	0.0678 U	0.069 U
PCB179	0.139 U	0.141 U
PCB180 & 193	1.09 U	1.1 U
PCB181	0.04 U	0.0406 U
PCB182	0.0286 U	0.0291 U
PCB183 & 185	0.427 U	0.434 U
PCB184	0.0511 U	0.0519 U
PCB186	0.0489 U	0.0498 U
PCB187	0.46 U	0.468 U
PCB188	0.0487 U	0.0496 U
PCB189	0.0624 U	0.0634 U
PCB190	0.125 U	0.127 U
PCB191	0.0458 U	0.0466 U
PCB192	0.0606 U	0.0617 U
PCB194	0.14 U	0.142 U

PCB195	0.106 U	0.107 U
PCB196	0.172 U	0.175 U
PCB197 & 200	0.179 U	0.182 U
PCB198 & 199	0.261 U	0.266 U
PCB201	0.149 U	0.151 U
PCB202	0.0912 U	0.0928 U
PCB203	0.135 U	0.137 U
PCB204	0.0834 U	0.0849 U
PCB205	0.0645 U	0.0656 U
PCB206	0.0516 U	0.0525 U
PCB207	0.0477 U	0.0486 U
PCB208	0.0856 U	0.087 U
PCB209	0.141 U	0.144 U

Monochlorobiphenyl homologs	0.113 UT	0.115 UT
Dichlorobiphenyl homologs	0.435 JT	0.485 JT
Trichlorobiphenyl homologs	0.39 UT	1.09 T
Tetrachlorobiphenyl homologs	0.641 UT	0.652 UT
Pentachlorobiphenyl homologs	1.06 UT	1.08 UT
Hexachlorobiphenyl homologs	2.33 UT	2.37 UT
Heptachlorobiphenyl homologs	1.09 UT	1.1 UT
Octachlorobiphenyl homologs	0.261 UT	0.266 UT
Nonachlorobiphenyl homologs	0.0856 UT	0.087 UT
Total PCB Congeners	0.0198 JT	0.0887 JT
Total PCB Congeners (calc'd)	15.8 JT	16.1 JT
Dioxin-like PCB Congener TCDD toxicity equivalent (ND = 0)	0.3 UT	0.305 UT
LWG RA Total PCB Congener TEQ 2005 (Mammalian) (Calculated U = 1	0.3 UT	0.305 UT
LWG RA Total PCB Congener TEQ 1998 (Avian) (Calculated U = 1/2)	0.3 UT	0.305 UT
LWG RA Total PCB Congener TEQ 1998 (Fish) (Calculated U = 1/2)	0.3 UT	0.305 UT

Notes:

J
LWG
NA
NC
ND
PCB
RA
T
TCDD
TEQ
U