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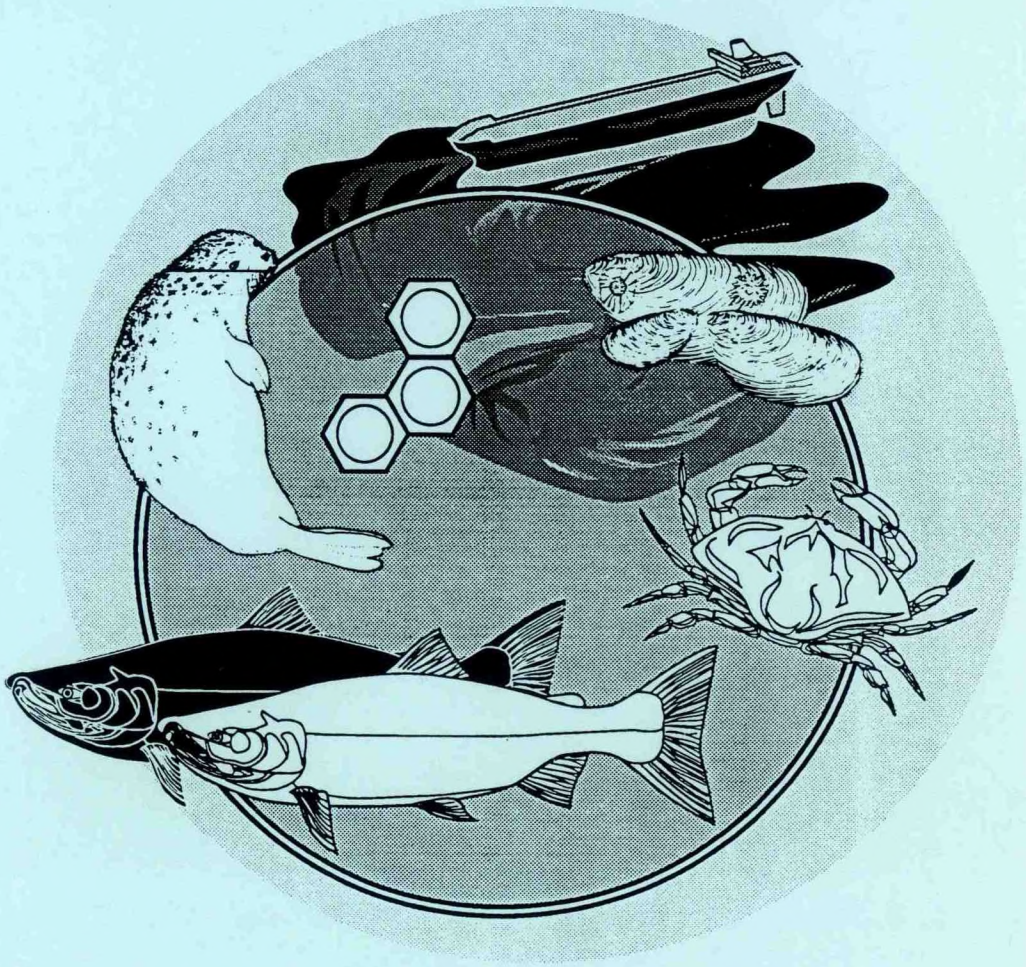
NOAA Technical Memorandum NMFS-NWFSC-13

Volume II:
Supplemental Information Concerning a Survey of Alaskan Subsistence Fish, Marine Mammal, and Invertebrate Samples Collected 1989-91 for Exposure to Oil Spilled from the *Exxon Valdez*

October 1993



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This document should be cited as follows:

Varanasi, U., D. W. Brown, T. Hom, D. G. Burrows, C. A. Sloan, L. J. Field, J. E. Stein, K. L. Tilbury, B. B. McCain, and S-L. Chan. 1993. Volume II: Supplemental information concerning a survey of Alaskan subsistence fish, marine mammal, and invertebrate samples collected 1989-91 for exposure to oil spilled from the *Exxon Valdez*. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-NWFSC-13, 173 p.

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October 1993

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EXECUTIVE SUMMARY

The *Exxon Valdez* ran aground on Bligh Reef, Prince William Sound, Alaska on March 24, 1989, spilling millions of gallons of Prudhoe Bay crude oil (PBCO). During the weeks following the spill, large amounts of oil flowed towards southwestern Prince William Sound, and as a result, many shorelines were oiled. The spreading of spilled oil raised concerns of native Alaskans that their subsistence seafoods (fish, marine mammals, and invertebrate organisms) were contaminated by the spilled petroleum. At the request of native Alaskans, a study was conducted as a cooperative effort among NOAA, Exxon, and the Alaska Department of Fish and Game to assess the degree of contamination of subsistence organisms by PBCO. In this study, edible flesh of fish, marine mammals, and shellfish from 22 native subsistence food collection areas and from two reference areas (Angoon and Yakutat) were analyzed for aromatic compounds (ACs). Vertebrates can readily biotransform ACs to metabolites that are concentrated in bile for excretion. This process greatly limits the accumulation of ACs in tissues such as edible flesh. Thus, for fish and marine mammals, bile was first analyzed for the presence of fluorescent aromatic compounds (FACs) as an indication of exposure to petroleum.

Based on the concentrations of FACs in bile, it was evident that pink salmon, halibut, and Pacific cod from the Chenega area had been exposed to ACs during 1989, as were pink salmon from Tatitlek, Kodiak, and Old Harbor. The bile method was useful because it quickly identified those fish that were relatively unexposed to ACs and, therefore, of less immediate interest for analysis by the more detailed method for ACs in tissue.

As expected, most fish muscle samples were not contaminated with ACs (<10 ng/g). In fact, the highest concentration of ACs found in muscle samples of fish caught during this study was 100 ng/g in a pink salmon caught near Kodiak (city) in 1989. In contrast, two samples of smoked salmon obtained from Tatitlek and Old Harbor contained 23,000 and 8,100 ng/g ACs, respectively.

Bile and tissue samples were collected from 33 harbor seals and 10 sea lions in 1989 and 1990. As with fish, the concentrations of FACs in bile of harbor seals varied considerably. Nine of the 12 bile samples with the highest concentrations of

FACs were from animals collected in 1989 that were visibly oiled. With two minor exceptions, samples of muscle, liver, and kidney from harbor seals and sea lions, as well as blubber from sea lions, were not contaminated (<10 ng/g) with ACs. Samples of blubber from 12 of the harbor seals were minimally contaminated (10 to 99 ng/g), and samples of blubber from 4 harbor seals were moderately contaminated with ACs (100 to 1,000 ng/g).

Invertebrates from most of the sampling areas were not contaminated or were minimally contaminated by ACs (<100 ng/g). Therefore, results are presented for only those few stations where higher concentrations of ACs were found. Molluscs from some stations at the Chenega, Windy Bay, Kodiak, and Old Harbor sampling areas were moderately or highly contaminated (>100 ng/g) with ACs. For example, some of the mollusc samples from 4 of the 12 stations in the Chenega area (CHE1, CHE7, CHE10, CHE24) were moderately or highly contaminated with ACs. Mollusc samples from Windy Bay stations WNB1 and WNB3 contained concentrations of ACs as high as 18,000 ng/g; 34 of 106 invertebrate samples contained concentrations of ACs greater than 100 ng/g. The only two stations on Kodiak Island where mollusc samples had mean concentrations of ACs (by year for individual species) greater than 100 ng/g (moderately or highly contaminated) were KOD3 and OHA4. Most of the mollusc samples (26 of 30) from station KOD3 (located on Near Island about 1/4 mile from Kodiak's boat harbor) were moderately or heavily contaminated with ACs (>100 ng/g). Station OHA4 was adjacent to the village of Old Harbor near the boat harbor, and the concentrations of ACs in molluscs collected at this site in 1989 and 1990 were just within the moderately contaminated category or lower.

Aromatic compounds were present in molluscs at concentrations high enough to evaluate in terms of temporal trends only at some stations. For example, the concentrations of ACs declined significantly with time in mussels at: 1) Chenega stations CHE9 and CHE10 (1990 to 1991), and 2) at the combined Windy Bay stations WNB1/WNB3 (1989 to 1991). The degree of contamination of invertebrates from WNB1 and WNB3 stations varied with sampling year and by species. Specifically, some of the mussel samples from Windy Bay station WNB1 (1989) and from WNB3 (1990) were highly contaminated (>1,000 ng/g), whereas the concentrations of ACs in mussels from these stations in 1991 were minimally to moderately contaminated (10 ng/g to 1,000 ng/g). The decline in concentrations

of ACs in these molluscs probably related to decreased exposure which resulted from weathering of the spilled oil at the particular stations. The concentrations of ACs in molluscs at some other stations did not decline significantly with time. For example, the concentrations of ACs in butter clams from Kodiak station KOD3 did not consistently decline over four sampling periods during 1990.

The relative concentrations of the hundreds of different ACs in various petroleums and petroleum products can vary considerably. The patterns of these concentrations can be useful for purposes of comparison. The patterns of some ACs (phenanthrenes and dibenzothiophenes) in selected mollusc samples from Chenega area stations CHE1 and CHE10 and Windy Bay stations WNB1 and WNB3 were similar to that of weathered PBCO. Because the overall patterns of ACs in molluscs did not exactly match that of PBCO, other observations were also important in considering sources. For example, following the spill, oil was observed in the area of station CHE1 and at CHE10, a tar mat about 1 m wide extended the length of the beach at the high tide line. Also, stations WNB1 and WNB3 were observed to be moderately to heavily oiled. Thus, based on the patterns of ACs in molluscs and the known proximity of the spilled oil to these areas, oil from the *Exxon Valdez* may have been the source of ACs in mollusc samples from CHE1, and most likely was the source of ACs in mollusc samples from CHE10, WNB1, and WNB3. The patterns of ACs in selected samples from Kodiak Island stations KOD3 and OHA4 were also similar to those for mollusc samples from CHE1, CHE10, WNB1, and WNB3. However, the presence of naphthalenes in the patterns was more prominent in the samples from KOD3 and OHA4 than in the Chenega and Windy Bay samples. This finding implies exposure of the KOD3 and OHA4 molluscs to a less weathered source of ACs. Therefore, the ACs in molluscs from KOD3 and OHA4 are suspected to be from a local continuing source of petroleum. Additional support for this conclusion includes: 1) KOD3 and OHA4 were near active boat harbors which could be a source of ACs, 2) the spilled oil was not observed to impact these areas, and 3) the concentrations in molluscs at KOD3 did not continually decline over four samplings during 1990. Based on patterns, PBCO was probably a minor source of the ACs in mollusc samples from station CHE7. The pattern of ACs implied that the source of these compounds in selected molluscs from CHE7 was due to exposure to creosote (perhaps from the creosoted pilings located near the sampling station) and/or products of combustion. Based on the patterns of ACs in selected

samples, PBCO was probably not a source, or only a minor source of the ACs in molluscs from Tatitlek station T1. More likely, the source of the ACs in mollusc samples from T1 was products of combustion processes.

Interestingly, of the ACs found in fish muscle, unsubstituted ACs predominated, which was probably due to the more rapid metabolism of alkylated ACs than of unsubstituted ACs by fish liver. Conversely, molluscs, which have little ability to metabolize ACs, had both alkylated and unsubstituted ACs, and the patterns of ACs in molluscs more closely resembled that for petroleum components. Furthermore, in the blubber samples from harbor seals with elevated concentrations of ACs, the concentrations of alkyl-substituted ACs were similar to or greater than the concentrations of the corresponding nonsubstituted ACs. This pattern is similar to what was found in PBCO and molluscs, and generally the opposite of what was observed in fish.

In conclusion, the finding of elevated concentrations of FACs in some bile samples from fish and marine mammals was clear evidence of their exposure to petroleum. Generally, ACs were not found in muscle tissue of fish, harbor seals, and sea lions. Some harbor seal blubber samples did contain ACs; however, the concentration of ACs in most blubber samples was less than 100 ng/g. Smoked salmon contained higher concentrations of ACs (8,000 to 20,000 ng/g) than any of the untreated subsistence samples. The concentrations of ACs were less than 100 ng/g in approximately 90% of the more than 1,000 mollusc samples from 80 sampling beaches. The concentrations of ACs were elevated in some mollusc samples (as high as 18,000 ng/g), and the concentrations of ACs exceeded 1,000 ng/g in 24 samples.

The results to date provide important information on the level of contamination of subsistence fish, shellfish, and marine mammals from fishing areas of native Alaskan villages in and near Prince William Sound. In an advisory opinion, the Food and Drug Administration has indicated that little risk is involved in the consumption of the nonsmoked subsistence foods studied. Subsistence food gatherers were advised not to collect or consume food if oil was observed to be present. The results also show that in future oil spills, shellfish tissues should be given the highest priority for analysis, whereas rapid screening of bile from fish and marine mammals should be sufficient to provide information on level of exposure.

CONTENTS

INTRODUCTION

The material contained in this volume supplements NOAA Technical Memorandum NMFS-NWFSC-12, Volume I : Survey of Alaskan Subsistence Fish, Marine Mammal, and Invertebrate Samples Collected 1989-91 for Exposure to Oil Spilled from the *Exxon Valdez*. We have repeated the Executive Summary from Volume I in the preliminary pages for an overview of the study covered.

Six sections cover the following subjects:

A. Concentrations of Metabolites of Fluorescent Aromatic Compounds in Fish Bile;

B. Concentrations of Aromatic Compounds in Edible Tissue of Fish;

C. Concentrations of Metabolites of Fluorescent Aromatic Compounds in Bile from Marine Mammals;

D. Concentrations of Aromatic Compounds in Edible Tissues of Marine Mammal Samples;

E. Concentrations of Aromatic Compounds in Invertebrate Samples; and

F. Quality Assurance.

* * * * *

SECTION A

CONCENTRATIONS OF METABOLITES OF FLUORESCENT AROMATIC COMPOUNDS (FACs) IN FISH BILE

Explanatory notes for Tables A-1 through A-20

* The Lab no. for aromatic compounds (ACs) column is provided for cross referencing the field sample and bile sample with the results for analysis for ACs by gas chromatography/mass spectrometry.

Samples collected by the Alaska Department of Fish and Game are noted by ** in front of sample number; other samples were collected by Dames and Moore.

$FACs_{NPH}$ and $FACs_{PHN}$ represent the compounds that fluoresce at naphthalene and phenanthrene wavelengths respectively. Units are ng FACs equivalents per g bile.

IBR = Insufficient amount of bile received to perform analysis.

‡ indicates that the sample was not selected for analysis for ACs.

Table A-1. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Angoon (reference area).

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-043	AGN3	Chinook salmon	9,900	1,700	5.0	60-321	Aug-89
13PAH-050	AGN3	Chinook salmon	11,000	1,600	2.0	60-321	Aug-89
13PAH-052	AGN3	Chinook salmon	3,400	920	3.0	60-321	Aug-89
13PAH-011	AGN3	Coho salmon	14,000	2,700	4.0	60-319	Aug-89
13PAH-041	AGN3	Coho salmon	4,700	640	2.0	60-230	Aug-89
13PAH-042	AGN3	Coho salmon	12,000	1,500	8.0	60-230	Aug-89
13PAH-044	AGN3	Coho salmon	9,600	2,000	2.0	60-230	Aug-89
13PAH-045	AGN3	Coho salmon	6,300	2,000	3.6	60-319	Aug-89
13PAH-051	AGN3	Coho salmon	7,200	1,600	3.2	60-323	Aug-89
13PAH-046	AGN3	Pink salmon	10,000	1,600	3.0	60-229	Aug-89
13PAH-047	AGN3	Pink salmon	15,000	2,400	0.8	60-229	Aug-89
13PAH-048	AGN3	Pink salmon	63,000	12,000	1.0	60-229	Aug-89
13PAH-049	AGN3	Pink salmon	9,100	1,700	1.0	60-320	Aug-89
13PAH-055	AGN3	Pacific cod	12,000	1,900	4.0	60-322	Aug-89
13PAH-040	AGN3	Halibut	2,600	430	1.8	60-228	Aug-89
13PAH-053	AGN3	Halibut	6,100	880	3.0	60-228	Aug-89
13PAH-054	AGN3	Halibut	6,700	920	4.0	60-228	Aug-89

Table A-2. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Yakutat (reference area).

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-808	YAK6	Sockeye salmon	24,000	2,500	3.5	60-3081	Jun-90
13PAH-809	YAK6	Sockeye salmon	25,000	3,000	3.5	60-3082	Jun-90
13PAH-810	YAK6	Sockeye salmon	31,000	3,400	5.0	60-3083	Jun-90
13PAH-811	YAK6	Sockeye salmon	29,000	2,700	4.2	60-3084	Jun-90
13PAH-812	YAK6	Sockeye salmon	IBR	IBR	IBR	60-3085	Jun-90
13PAH-813	YAK6	Sockeye salmon	73,000	8,900	11.8	60-3063, 3070	Jun-90
13PAH-814	YAK6	Sockeye salmon	39,000	4,500	7.9	‡	Jun-90
13PAH-815	YAK6	Sockeye salmon	140,000	8,400	19.0	‡	Jun-90
13PAH-816	YAK6	Sockeye salmon	51,000	5,000	12.1	‡	Jun-90
13PAH-817	YAK6	Sockeye salmon	49,000	6,700	14.7	‡	Jun-90
13PAH-818	YAK6	Sockeye salmon	31,000	3,000	7.9	‡	Jun-90
13PAH-805	YAK6	Halibut	21,000	1,800	0.8	‡	Jun-90
13PAH-806	YAK6	Halibut	30,000	2,200	0.7	‡	Jun-90
13PAH-807	YAK6	Yellowfin sole	21,000	1,800	0.9	‡	Jun-90
13PAH-786	YAK7	Chinook salmon	11,000	1,000	1.4	‡	Jun-90
13PAH-787	YAK7	Chinook salmon	30,000	2,300	5.1	‡	Jun-90
13PAH-798	YAK7	Pacific cod	140,000	10,000	30.7	‡	Jun-90
13PAH-797	YAK7	Halibut	21,000	2,000	0.7	60-3069	Jun-90
13PAH-799	YAK7	Halibut	35,000	2,900	6.1	‡	Jun-90
13PAH-800	YAK7	Halibut	22,000	1,900	1.1	‡	Jun-90
13PAH-826	YAK8	Chinook salmon	34,000	3,200	11.3	‡	Jun-90
13PAH-827	YAK8	Chinook salmon	21,000	1,600	2.2	‡	Jun-90
13PAH-824	YAK8	Sockeye salmon	15,000	1,100	3.9	‡	Jun-90
13PAH-819	YAK8	Halibut	57,000	3,500	19.0	60-3064	Jun-90
13PAH-820	YAK8	Halibut	26,000	2,000	12.1	60-3065	Jun-90
13PAH-821	YAK8	Halibut	32,000	1,400	1.5	60-3066	Jun-90
13PAH-822	YAK8	Halibut	23,000	1,800	1.6	60-3067	Jun-90
13PAH-823	YAK8	Halibut	26,000	2,000	0.7	60-3068	Jun-90

Table A-3. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Tatitlek.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-001	TAT2	Pink salmon	15,000	1,100	12.0	60-1	Jul-89
13PAH-037	TAT3	Pink salmon	270,000	70,000	111.0	60-134, 139	Aug-89
13PAH-038	TAT3	Pink salmon	320,000	95,000	104.0	60-135	Aug-89
13PAH-039	TAT3	Pink salmon	130,000	46,000	81.0	60-136	Aug-89
13PAH-002	TAT3	Rockfish	15,000	3,700	6.0	60-701	Jul-89
**TAT4-1BS	TAT4	Pacific cod	14,000	2,400	2.0	60-2412	Jun-90
**TAT4-1B	TAT4	Pacific cod	320,000	52,000	19.5	60-2396	Mar-90
**TAT4-2B	TAT4	Pacific cod	230,000	34,000	18.3	60-2397	Mar-90
**TAT4-3B	TAT4	Pacific cod	35,000	4,800	5.9	‡	Mar-90
**TAT4-4B	TAT4	Pacific cod	140,000	15,000	9.7	60-2398	Mar-90
**TAT4-2BS	TAT4	Rockfish	36,000	5,200	2.1	60-2413	Jun-90
**TAT4-4BS	TAT4	Rockfish	2,300	5,100	1.2	60-2414	Jun-90
13PAH-003	TAT4	Halibut	18,000	3,800	7.0	60-27	Jul-89
13PAH-009	TAT6	Halibut	26,000	3,800	1.6	60-132	Aug-89
13PAH-010	TAT6	Halibut	58,000	6,100	6.4	60-132	Aug-89
13PAH-161	TAT7	Coho salmon	48,000	8,400	9.0	60-451	Aug-89
13PAH-162	TAT7	Coho salmon	87,000	20,000	29.0	60-363	Aug-89
13PAH-163	TAT7	Coho salmon	91,000	20,000	11.4	60-363	Aug-89
13PAH-164	TAT7	Coho salmon	110,000	31,000	12.8	60-363	Aug-89
13PAH-165	TAT7	Coho salmon	48,000	9,300	10.0	60-451	Aug-89
13PAH-166	TAT7	Coho salmon	88,000	23,000	14.0	60-364	Aug-89
13PAH-167	TAT7	Coho salmon	150,000	45,000	10.8	60-364	Aug-89
13PAH-168	TAT7	Coho salmon	73,000	15,000	16.8	60-362	Aug-89
13PAH-169	TAT7	Coho salmon	49,000	10,000	10.2	60-362	Aug-89
13PAH-170	TAT7	Coho salmon	41,000	9,500	6.0	60-362	Aug-89
13PAH-171	TAT7	Coho salmon	74,000	19,000	18.6	60-448	Aug-89
13PAH-172	TAT7	Coho salmon	46,000	6,500	10.8	60-448	Aug-89

Table A-4. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Chenega Bay.

Field / Bile Sample no.	Station	Species	FACS NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-004	CHE2	Pacific cod	120,000	62,000	8.0	60-23	Jul-89
13PAH-029	CHE2	Pacific cod	IBR	IBR	IBR	60-151	Aug-89
13PAH-030	CHE2	Pacific cod	150,000	33,000	9.8	60-149	Aug-89
13PAH-230	CHE2	Pacific cod	160,000	55,000	12.6	60-487	Aug-89
**CHE2-1BS	CHE2	Pacific cod	97,000	24,000	4.3	60-2405	Jun-90
**CHE2-2BS	CHE2	Pacific cod	67,000	13,000	5.9	60-2406	Jun-90
**CHE2-3BS	CHE2	Pacific cod	66,000	12,000	3.7	60-2407	Jun-90
**CHE2-4BS	CHE2	Pacific cod	56,000	9,700	4.0	60-2408	Jun-90
**CHE2-5BS	CHE2	Pacific cod	45,000	7,200	6.0	60-2409	Jun-90
**CHE2-1B	CHE2	Pacific cod	47,000	4,800	6.5	‡	Feb-90
13PAH-032	CHE2	Rockfish	97,000	24,000	1.8	60-150	Aug-89
13PAH-005	CHE2	Halibut	12,000	4,100	3.0	60-28	Jul-89
13PAH-033	CHE2	Halibut	77,000	18,000	3.2	60-130	Aug-89
13PAH-034	CHE2	Halibut	31,000	5,800	1.2	60-130	Aug-89
13PAH-035	CHE2	Halibut	48,000	13,000	1.2	60-131	Aug-89
13PAH-036	CHE2	Halibut	34,000	6,100	1.0	60-131	Aug-89
13PAH-231	CHE2	Halibut	8,400	2,500	6.8	60-485	Aug-89
13PAH-232	CHE2	Halibut	10,000	2,500	1.0	60-485	Aug-89
13PAH-233	CHE2	Halibut	6,300	1,400	1.4	60-485	Aug-89
13PAH-024	CHE3	Pink salmon	45,000	7,500	2.6	60-137	Aug-89
13PAH-025	CHE3	Pink salmon	26,000	3,200	0.6	60-137	Aug-89
13PAH-026	CHE3	Pink salmon	79,000	14,000	IBR	60-138	Aug-89
13PAH-027	CHE3	Pink salmon	45,000	9,800	1.4	60-138	Aug-89
13PAH-028	CHE3	Pink salmon	29,000	4,100	1.2	60-138	Aug-89
13PAH-791	CHE3	Pink salmon	44,000	6,100	27.7	60-1763	Jul-90
13PAH-795	CHE3	Pink salmon	130,000	19,000	28.8	60-1764, 1769	Jul-90
13PAH-802	CHE3	Pink salmon	180,000	26,000	35.6	60-1765, 1770	Jul-90
13PAH-804	CHE3	Pink salmon	80,000	14,000	25.5	‡	Jul-90
13PAH-829	CHE3	Starry flounder	27,000	5,900	7.2	‡	Jul-90
13PAH-173	CHE4	Pink salmon	490,000	180,000	29.0	60-454	Aug-89
13PAH-174	CHE4	Pink salmon	620,000	270,000	40.0	60-455	Aug-89
13PAH-215	CHE4	Pink salmon	150,000	77,000	40.0	60-465	Aug-89
13PAH-216	CHE4	Pink salmon	1,300,000	330,000	38.0	60-466	Aug-89
13PAH-217	CHE4	Pink salmon	300,000	99,000	18.0	60-467	Aug-89
13PAH-218	CHE4	Pink salmon	190,000	87,000	35.0	60-468	Aug-89
13PAH-219	CHE4	Pink salmon	530,000	240,000	47.0	60-469	Aug-89
13PAH-220	CHE4	Pink salmon	630,000	240,000	38.0	60-470	Aug-89
13PAH-221	CHE4	Pink salmon	730,000	360,000	38.0	60-471	Aug-89
13PAH-222	CHE4	Pink salmon	340,000	140,000	25.0	60-472	Aug-89
13PAH-223	CHE4	Pink salmon	690,000	270,000	39.0	60-473	Aug-89
13PAH-224	CHE4	Pink salmon	240,000	86,000	IBR	60-452	Aug-89

Table A-5. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Chenega Bay.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-225	CHE4	Pink salmon	600,000	280,000	36.0	60-474	Aug-89
13PAH-226	CHE4	Pink salmon	1,800,000	700,000	41.0	60-453, 456	Aug-89
13PAH-227	CHE4	Pink salmon	290,000	120,000	33.0	60-483	Aug-89
13PAH-228	CHE4	Pink salmon	760,000	290,000	46.0	60-484	Aug-89
13PAH-229	CHE4	Pink salmon	300,000	59,000	34.0	60-484	Aug-89
**CHE5-1B	CHE5	Greenling	12,000	2,000	3.1	‡	Feb-90
**CHE5-2B	CHE5	Rockfish	10,000	7,400	3.3	‡	Feb-90
13PAH-330	CHE5	Rockfish	65,000	12,000	4.3	60-1106	Mar-90
13PAH-331	CHE6	Greenling	43,000	6,900	4.0	60-1107	Mar-90
13PAH-343	CHE8	Pacific cod	96,000	13,000	7.7	60-1479	Apr-90
13PAH-788	CHE12	Halibut	IBR	IBR	6.3	‡	Jul-90
13PAH-790	CHE13	Pacific cod	35,000	6,400	8.5	‡	Jul-90
13PAH-828	CHE13	Pacific cod	13,000	2,300	4.0	‡	Jul-90
13PAH-789	CHE13	Ling cod	16,000	2,600	2.3	60-2451	Jul-90
13PAH-830	CHE14	Rockfish	9,100	3,600	1.6	60-2452	Jul-90
13PAH-832	CHE14	Rockfish	7,400	320	2.5	‡	Jul-90
13PAH-833	CHE15	Ling cod	30,000	2,800	1.7	60-2438	Jul-90
13PAH-834	CHE16	Yellowfin sole	34,000	3,800	2.3	60-2425	Jul-90
13PAH-835	CHE16	Yellowfin sole	860	140	10.5	‡	Jul-90
13PAH-837	CHE17	Coho salmon	71,000	6,400	27.9	‡	Jul-90
13PAH-838	CHE17	Coho salmon	76,000	7,700	9.1	‡	Jul-90
13PAH-839	CHE17	Coho salmon	57,000	5,300	8.3	‡	Jul-90
13PAH-840	CHE17	Coho salmon	41,000	4,500	5.7	‡	Jul-90
13PAH-842	CHE17	Pink salmon	31,000	3,100	10.5	‡	Jul-90

Table A-6. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Port Graham.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-006	PTG2	Halibut	29,000	4,400	8.0	‡	Jul-89
13PAH-853	PTG2	Rock sole	790	120	77.9	‡	Jul-90
13PAH-858	PTG3	Chum salmon	140,000	13,000	11.4	60-2423	Jul-90
13PAH-859	PTG3	Chum salmon	95,000	11,000	14.2	‡	Jul-90
13PAH-860	PTG3	Chum salmon	41,000	3,800	11.8	‡	Jul-90
13PAH-236	PTG3	Coho salmon	25,000	6,300	4.8	60-538	Sep-89
13PAH-237	PTG3	Coho salmon	9,500	1,600	4.0	60-538	Sep-89
13PAH-007	PTG3	Pink salmon	28,000	6,500	8.0	60-2	Jul-89
13PAH-020	PTG3	Pink salmon	89,000	17,000	5.6	60-148	Aug-89
13PAH-021	PTG3	Pink salmon	IBR	IBR	IBR	60-156	Aug-89
13PAH-022	PTG3	Pink salmon	IBR	IBR	IBR	60-156	Aug-89
13PAH-023	PTG3	Pink salmon	200,000	58,000	46.0	60-133	Aug-89
13PAH-234	PTG3	Pink salmon	79,000	28,000	17.2	60-537	Sep-89
13PAH-235	PTG3	Pink salmon	120,000	24,000	29.0	60-537	Sep-89
13PAH-239	PTG3	Pink salmon	IBR	IBR	IBR	60-537	Sep-89
13PAH-862	PTG3	Pink salmon	64,000	8,100	20.3	60-1767	Jul-90
13PAH-863	PTG3	Pink salmon	42,000	4,200	24.1	‡	Jul-90
13PAH-864	PTG3	Pink salmon	46,000	6,400	18.7	‡	Jul-90
13PAH-865	PTG3	Pink salmon	46,000	4,000	11.5	‡	Jul-90
13PAH-866	PTG3	Pink salmon	59,000	8,800	20.5	‡	Jul-90
**PGEB-1	PTG3	Pacific cod	54,000	8,300	6.1	60-2393	Mar-90
**PGEB-3	PTG3	Rock flounder	50,000	9,300	2.6	60-2394, 2399	Mar-90
**PGEB-4	PTG3	Rock flounder	71,000	6,900	11.4	‡	Mar-90
13PAH-238	PTG5	Halibut	15,000	1,100	0.7	60-486	Sep-89
13PAH-334	PTG6	Greenling	37,000	4,800	1.9	60-1099	Mar-90
13PAH-335	PTG6	Greenling	35,000	3,800	1.9	60-1100	Mar-90
13PAH-336	PTG6	Greenling	49,000	5,800	2.5	60-1101	Mar-90
13PAH-337	PTG7	Rock sole	29,000	1,700	IBR	60-1102	Mar-90
13PAH-338	PTG7	Rock sole	72,000	7,800	3.1	60-1103	Mar-90
13PAH-339	PTG7	Rock sole	77,000	16,000	8.7	60-1104	Mar-90
13PAH-340	PTG7	Rock sole	20,000	5,000	4.8	60-1105	Mar-90
13PAH-854	PTG11	Greenling	44,000	5,600	2.7	60-2444	Jul-90
13PAH-855	PTG11	Greenling	48,000	5,700	14.2	‡	Jul-90

Table A-7. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Windy Bay.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-845	WNB5	Pink salmon	43,000	7,300	12.2	‡	Jul-90
13PAH-847	WNB5	Pink salmon	460,000	22,000	16.9	60-2453, 2459	Jul-90
13PAH-850	WNB5	Pink salmon	110,000	22,000	24.3	‡	Jul-90
13PAH-852	WNB5	Pink salmon	220,000	41,000	19.5	60-1766, 1771	Jul-90

Table A-8. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Kodiak.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-071	KOD5	Pink salmon	47,000	4,100	IBR	60-189	Aug-89
13PAH-072	KOD5	Pink salmon	93,000	13,000	6.6	60-188	Aug-89
13PAH-073	KOD5	Pink salmon	IBR	IBR	IBR	60-629	Aug-89
13PAH-075	KOD5	Pink salmon	250,000	35,000	9.6	60-166, 195	Aug-89
13PAH-076	KOD5	Pink salmon	69,000	10,000	17.8	60-188	Aug-89
13PAH-077	KOD5	Pink salmon	60,000	9,400	11.2	60-188	Aug-89
13PAH-078	KOD5	Pink salmon	47,000	6,700	6.2	60-189	Aug-89
13PAH-079	KOD5	Pink salmon	110,000	18,000	IBR	60-187	Aug-89
13PAH-240	KOD5	Pink salmon	290,000	250,000	64.0	60-488, 489	Sep-89
13PAH-241	KOD5	Pink salmon	490,000	430,000	77.0	60-490, 492	Sep-89
13PAH-242	KOD5	Pink salmon	330,000	230,000	49.0	60-539, 540	Sep-89
13PAH-992	KOD5	Pink salmon	220,000	39,000	19.1	60-1812	Aug-90
13PAH-993	KOD5	Pink salmon	150,000	23,000	5.8	60-1813	Aug-90
13PAH-994	KOD5	Pink salmon	90,000	8,900	12.1	‡	Aug-90
13PAH-995	KOD5	Pink salmon	400,000	58,000	12.0	60-1814	Aug-90
13PAH-996	KOD5	Pink salmon	88,000	8,200	36.7	‡	Aug-90
13PAH-074	KOD5	Sockeye salmon	IBR	IBR	IBR	60-194	Aug-89
13PAH-080	KOD6	Halibut	IBR	IBR	IBR	60-193	Aug-89
13PAH-243	KOD6	Halibut	19,000	6,000	0.8	‡	Sep-89
**KOD6-2SB	KOD6	Rock sole	11,000	900	9.8	‡	May-90

Table A-9. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Chiniak.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-157	CHI5	Chum salmon	13,000	2,200	10.0	60-280	Aug-89
13PAH-159	CHI5	Chum salmon	67,000	7,900	19.0	60-280	Aug-89
13PAH-160	CHI5	Chum salmon	11,000	2,100	5.4	60-280	Aug-89
13PAH-149	CHI5	Pink salmon	210,000	120,000	65.0	60-261, 288	Aug-89
13PAH-150	CHI5	Pink salmon	30,000	3,700	5.2	60-265	Aug-89
13PAH-151	CHI5	Pink salmon	15,000	820	5.2	60-287	Aug-89
13PAH-152	CHI5	Pink salmon	24,000	1,700	22.0	60-287	Aug-89
13PAH-153	CHI5	Pink salmon	44,000	7,300	15.0	60-265	Aug-89
13PAH-154	CHI5	Pink salmon	99,000	13,000	17.0	60-265	Aug-89
13PAH-155	CHI5	Pink salmon	93,000	20,000	14.0	60-266	Aug-89
13PAH-156	CHI5	Pink salmon	6,700	2,200	10.0	60-287	Aug-89
13PAH-158	CHI5	Pink salmon	57,000	7,200	12.0	60-649	Aug-89
13PAH-148	CHI6	Halibut	11,000	2,400	2.8	60-706	Aug-89
13PAH-257	CHI6	Halibut	25,000	6,200	1.2	60-509	Sep-89
13PAH-246	CHI7	Chum salmon	29,000	13,000	59.0	60-525	Sep-89
13PAH-244	CHI7	Pink salmon	87,000	45,000	56.0	60-580	Sep-89
13PAH-245	CHI7	Pink salmon	120,000	54,000	50.0	60-501	Sep-89
13PAH-247	CHI7	Pink salmon	100,000	52,000	50.0	60-579	Sep-89
13PAH-248	CHI7	Pink salmon	110,000	44,000	80.0	60-579	Sep-89
13PAH-249	CHI7	Pink salmon	130,000	56,000	67.0	60-502	Sep-89
13PAH-251	CHI7	Pink salmon	96,000	55,000	57.0	60-580	Sep-89
13PAH-252	CHI7	Pink salmon	150,000	71,000	59.0	60-503	Sep-89
13PAH-253	CHI7	Pink salmon	77,000	31,000	36.0	60-600	Sep-89
13PAH-254	CHI7	Pink salmon	100,000	45,000	89.0	60-579	Sep-89
13PAH-255	CHI7	Pink salmon	98,000	41,000	66.0	60-580	Sep-89
13PAH-256	CHI7	Pink salmon	84,000	35,000	61.0	60-600	Sep-89
13PAH-262	CHI7	Pink salmon	75,000	40,000	42.0	60-600	Sep-89
13PAH-977	CHI8	Pink salmon	82,000	16,000	23.9	‡	Aug-90
13PAH-978	CHI8	Pink salmon	63,000	4,900	22.1	‡	Aug-90
13PAH-979	CHI9	Pink salmon	67,000	6,300	15.5	‡	Aug-90
13PAH-980	CHI9	Pink salmon	48,000	5,500	9.3	‡	Aug-90
13PAH-981	CHI9	Pink salmon	52,000	6,200	20.7	‡	Aug-90
13PAH-982	CHI9	Pink salmon	43,000	6,900	9.1	‡	Aug-90
13PAH-983	CHI9	Pink salmon	50,000	7,600	16.9	‡	Aug-90
13PAH-984	CHI9	Pink salmon	44,000	5,200	15.8	‡	Aug-90
13PAH-985	CHI9	Pink salmon	50,000	6,100	11.3	‡	Aug-90
13PAH-987	CHI9	Pink salmon	47,000	6,100	12.2	‡	Aug-90
13PAH-988	CHI9	Pink salmon	55,000	7,500	14.2	‡	Aug-90
13PAH-990	CHI10	Pacific cod	41,000	5,100	32.8	‡	Aug-90
13PAH-989	CHI10	Yellowfin sole	21,000	2,300	3.6	‡	Aug-90

Table A-10. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Old Harbor.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-017	OHA1	Pacific cod	64,000	17,000	9.0	60-26	Jul-89
13PAH-018	OHA1	Pacific cod	31,000	9,300	5.0	60-26	Jul-89
**OHA1-2BS	OHA1	Pacific cod	36,000	6,000	6.9	‡	Jun-90
**OHA1-3BS	OHA1	Pacific cod	37,000	9,200	10.1	‡	Jun-90
**OHA1-4BS	OHA1	Pacific cod	24,000	3,400	8.8	‡	Jun-90
**OHA1-5BS	OHA1	Pacific cod	61,000	750	18.6	60-2450	Jun-90
13PAH-142	OHA1	Halibut	7,300	1,700	2.6	60-707	Aug-89
13PAH-143	OHA1	Halibut	2,800	480	0.6	60-283	Aug-89
13PAH-144	OHA1	Halibut	2,900	820	1.8	60-283	Aug-89
13PAH-145	OHA1	Halibut	6,400	1,300	1.2	60-283	Aug-89
13PAH-923	OHA2	Chum salmon	51,000	20,000	17.3	60-2424	Aug-90
13PAH-925	OHA2	Chum salmon	93,000	11,000	27.7	‡	Aug-90
13PAH-926	OHA2	Chum salmon	56,000	14,000	24.4	‡	Aug-90
13PAH-929	OHA2	Chum salmon	59,000	19,000	29.2	‡	Aug-90
13PAH-930	OHA2	Chum salmon	62,000	14,000	20.7	‡	Aug-90
13PAH-932	OHA2	Chum salmon	80,000	18,000	24.4	‡	Aug-90
13PAH-933	OHA2	Chum salmon	140,000	29,000	29.8	‡	Aug-90
13PAH-934	OHA2	Chum salmon	89,000	25,000	26.2	‡	Aug-90
13PAH-019	OHA2	Pink salmon	100,000	31,000	13.0	60-11	Jul-89
13PAH-146	OHA2	Pink salmon	170,000	28,000	18.0	60-262	Aug-89
13PAH-147	OHA2	Pink salmon	74,000	14,000	IBR	60-269	Aug-89
13PAH-293	OHA2	Pink salmon	120,000	92,000	77.0	60-541	Sep-89
13PAH-317	OHA2	Pink salmon	130,000	66,000	54.0	60-544	Sep-89
13PAH-318	OHA2	Pink salmon	120,000	66,000	47.0	60-573	Sep-89
13PAH-319	OHA2	Pink salmon	160,000	48,000	41.0	60-573	Sep-89
13PAH-320	OHA2	Pink salmon	110,000	48,000	28.0	60-599	Sep-89
13PAH-321	OHA2	Pink salmon	100,000	59,000	47.0	60-599	Sep-89
13PAH-322	OHA2	Pink salmon	170,000	89,000	36.0	60-545	Sep-89
13PAH-323	OHA2	Pink salmon	190,000	95,000	28.0	60-546	Sep-89
13PAH-324	OHA2	Pink salmon	150,000	71,000	47.0	60-555	Sep-89
13PAH-325	OHA2	Pink salmon	150,000	92,000	51.0	60-556	Sep-89
13PAH-326	OHA2	Pink salmon	170,000	87,000	38.0	60-557	Sep-89
13PAH-327	OHA2	Pink salmon	150,000	74,000	36.0	60-558	Sep-89
13PAH-328	OHA2	Pink salmon	160,000	59,000	33.0	60-559	Sep-89
13PAH-921	OHA2	Pink salmon	51,000	9,200	5.5	60-2421	Aug-90
13PAH-935	OHA2	Pink salmon	110,000	10,000	15.8	60-1762	Aug-90
13PAH-936	OHA2	Pink salmon	65,000	5,300	12.3	‡	Aug-90
13PAH-937	OHA2	Pink salmon	180,000	62,000	36.0	60-1815	Aug-90
13PAH-939	OHA2	Pink salmon	120,000	26,000	13.5	60-2422, 2429	Aug-90
13PAH-940	OHA2	Pink salmon	88,000	11,000	16.5	‡	Aug-90
13PAH-941	OHA2	Pink salmon	120,000	36,000	16.7	60-2422, 2429	Aug-90

Table A-11. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Old Harbor.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-943	OHA2	Pink salmon	180,000	62,000	40.3	60-2422, 2429	Aug-90
13PAH-944	OHA2	Pink salmon	100,000	19,000	17.8	60-2421	Aug-90
13PAH-945	OHA2	Pink salmon	100,000	21,000	22.0	‡	Aug-90
13PAH-946	OHA2	Pink salmon	83,000	11,000	26.7	‡	Aug-90
13PAH-947	OHA2	Pink salmon	210,000	74,000	42.2	60-1809	Aug-90
13PAH-329	OHA2	Pacific cod	29,000	3,200	9.4	60-524	Sep-89
**OHA2-3BS	OHA2	Pacific cod	36,000	5,200	8.9	‡	Jun-90
**OHA2-4BS	OHA2	Pacific cod	48,000	7,300	9.8	‡	Jun-90
**OHA2-5BS	OHA2	Pacific cod	18,000	2,300	4.4	‡	Jun-90
**OHA2-6BS	OHA2	Pacific cod	15,000	1,900	4.8	‡	Jun-90
13PAH-916	OHA2	Sablefish	34,000	2,700	3.1	‡	Aug-90
13PAH-917	OHA2	Sablefish	21,000	1,800	3.1	‡	Aug-90
13PAH-919	OHA2	Halibut	20,000	1,900	2.2	‡	Aug-90
13PAH-918	OHA2	Yellowfin sole	8,500	730	1.1	‡	Aug-90

Table A-12. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Akhiok.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-115	AKH	Pink salmon	IBR	IBR	IBR	60-267	Aug-89
13PAH-116	AKH	Pink salmon	IBR	IBR	IBR	60-267	Aug-89
13PAH-117	AKH	Pink salmon	26,000	8,600	IBR	60-263	Aug-89
13PAH-063	AKH4	Coho salmon	27,000	9,000	6.6	60-560	Sep-89
13PAH-064	AKH4	Coho salmon	52,000	20,000	11.0	60-560	Sep-89
13PAH-065	AKH4	Coho salmon	17,000	3,900	2.2	60-560	Sep-89
13PAH-909	AKH4	Starry flounder	25,000	2,600	11.1	‡	Jul-90
13PAH-910	AKH4	Starry flounder	17,000	2,900	1.3	60-2440	Jul-90
13PAH-911	AKH4	Starry flounder	18,000	3,500	0.8	60-2440	Jul-90
13PAH-912	AKH4	Starry flounder	14,000	2,100	0.2	60-2439	Jul-90
13PAH-913	AKH4	Starry flounder	12,000	2,000	0.9	60-2440	Jul-90
13PAH-914	AKH4	Starry flounder	19,000	1,900	3.5	‡	Jul-90
13PAH-915	AKH6	Rock sole	16,000	1,900	0.2	60-2441	Aug-90
**AKH9-2BS	AKH9	Pacific cod	46,000	6,200	12.4	‡	Jun-90
**AKH9-3BS	AKH9	Pacific cod	34,000	3,700	26.3	‡	Jun-90
**AKH9-4BS	AKH9	Pacific cod	40,000	5,900	11.6	‡	Jun-90
**AKH9-6BS	AKH9	Pacific cod	88,000	7,500	17.3	‡	Jun-90

Table A-13. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Karluk.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-281	KAR1	Coho salmon	13,000	1,600	2.4	60-562	Sep-89
13PAH-282	KAR1	Coho salmon	32,000	6,600	4.2	60-562	Sep-89
13PAH-283	KAR1	Coho salmon	14,000	1,700	1.1	60-561	Sep-89
13PAH-284	KAR1	Coho salmon	11,000	2,700	7.6	60-561	Sep-89
13PAH-896	KAR1	Pink salmon	25,000	2,400	3.2	‡	Jul-90
13PAH-899	KAR1	Pink salmon	27,000	3,100	14.2	‡	Jul-90
13PAH-900	KAR1	Pink salmon	36,000	7,000	14.8	‡	Jul-90
13PAH-901	KAR1	Pink salmon	32,000	2,400	16.3	‡	Jul-90
13PAH-902	KAR1	Pink salmon	30,000	1,900	27.4	‡	Jul-90
13PAH-903	KAR1	Pink salmon	37,000	7,100	36.1	‡	Jul-90
13PAH-904	KAR1	Pink salmon	42,000	3,400	18.4	‡	Jul-90
13PAH-905	KAR1	Pink salmon	39,000	3,100	20.3	‡	Jul-90
13PAH-906	KAR1	Pink salmon	5,200	1,700	12.2	‡	Jul-90
13PAH-907	KAR1	Pink salmon	67,000	3,600	18.9	‡	Jul-90
13PAH-908	KAR1	Pink salmon	42,000	4,000	11.0	‡	Jul-90
13PAH-881	KAR1	Sockeye salmon	160,000	8,200	14.5	‡	Jul-90
13PAH-882	KAR1	Sockeye salmon	180,000	17,000	22.0	60-1807	Jul-90
13PAH-884	KAR1	Sockeye salmon	95,000	6,500	20.1	‡	Jul-90
13PAH-885	KAR1	Sockeye salmon	180,000	26,000	36.2	60-1808	Jul-90
13PAH-886	KAR1	Sockeye salmon	87,000	9,900	20.1	‡	Jul-90
13PAH-887	KAR1	Sockeye salmon	200,000	12,000	23.2	‡	Jul-90
13PAH-888	KAR1	Sockeye salmon	110,000	5,900	14.7	‡	Jul-90
13PAH-889	KAR1	Sockeye salmon	110,000	8,800	23.5	‡	Jul-90
13PAH-890	KAR1	Sockeye salmon	32,000	2,400	18.5	‡	Jul-90
13PAH-891	KAR1	Sockeye salmon	40,000	2,800	13.7	‡	Jul-90
13PAH-892	KAR1	Sockeye salmon	160,000	8,000	36.7	‡	Jul-90
13PAH-893	KAR1	Sockeye salmon	75,000	4,800	24.4	‡	Jul-90
13PAH-894	KAR1	Sockeye salmon	120,000	7,100	13.9	‡	Jul-90
13PAH-895	KAR1	Sockeye salmon	82,000	5,100	15.0	‡	Jul-90
13PAH-781	KAR1	Dolly Varden	20,000	1,300	1.8	60-1703	May-90
13PAH-782	KAR1	Dolly Varden	23,000	2,900	1.5	60-1704	May-90
13PAH-783	KAR1	Dolly Varden	27,000	2,700	4.3	60-1705	May-90
13PAH-784	KAR1	Dolly Varden	25,000	3,200	2.8	60-1706	May-90
13PAH-785	KAR1	Dolly Varden	38,000	5,900	4.8	60-1707	May-90

Table A-14. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Larsen Bay.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-014	LAB5	Halibut	26,000	9,400	1.1	60-41	Jul-89
13PAH-134	LAB6	Pink salmon	28,000	2,100	4.2	60-281	Aug-89
13PAH-136	LAB6	Pink salmon	IBR	IBR	IBR	60-281	Aug-89
13PAH-130	LAB6	Sockeye salmon	IBR	IBR	IBR	60-653	Aug-89
13PAH-131	LAB6	Sockeye salmon	8,300	1,200	22.0	60-264	Aug-89
13PAH-132	LAB6	Sockeye salmon	8,200	1,400	14.0	60-264	Aug-89
13PAH-133	LAB6	Sockeye salmon	28,000	4,400	IBR	60-282	Aug-89
13PAH-135	LAB6	Sockeye salmon	IBR	IBR	IBR	60-653	Aug-89
13PAH-137	LAB6	Sockeye salmon	12,000	1,400	IBR	60-264	Aug-89
13PAH-138	LAB6	Sockeye salmon	IBR	IBR	IBR	60-286	Aug-89
13PAH-139	LAB6	Sockeye salmon	23,000	4,100	5.8	60-282	Aug-89
13PAH-140	LAB6	Sockeye salmon	22,000	1,900	IBR	60-652	Aug-89
13PAH-141	LAB6	Sockeye salmon	20,000	2,800	14.0	60-282	Aug-89
13PAH-879	LAB6	Sockeye salmon	88,000	6,200	10.4	‡	Jul-90
13PAH-092	LAB6	Pacific cod	7,300	1,400	4.0	60-285	Aug-89
13PAH-093	LAB6	Pacific cod	9,100	2,000	6.4	60-285	Aug-89
13PAH-094	LAB6	Halibut	12,000	2,400	4.6	60-708	Aug-89
13PAH-127	LAB6	Halibut	10,000	2,500	6.0	60-284	Aug-89
13PAH-128	LAB6	Halibut	11,000	2,700	4.6	60-284	Aug-89
13PAH-129	LAB6	Halibut	9,100	2,000	2.4	60-284	Aug-89
13PAH-015	LAB7	Pink salmon	190,000	93,000	22.0	60-10	Jul-89
13PAH-016	LAB7	Pink salmon	310,000	160,000	18.0	60-29, 3	Jul-89
13PAH-298	LAB8	Pink salmon	150,000	81,000	76.0	60-504	Sep-89
13PAH-299	LAB8	Pink salmon	100,000	39,000	63.0	60-581	Sep-89
13PAH-300	LAB8	Pink salmon	130,000	42,000	35.0	60-505	Sep-89
13PAH-301	LAB8	Pink salmon	110,000	53,000	40.0	60-581	Sep-89
13PAH-302	LAB8	Pink salmon	51,000	28,000	27.0	60-597	Sep-89
13PAH-303	LAB8	Pink salmon	99,000	42,000	40.0	60-582	Sep-89
13PAH-304	LAB8	Pink salmon	120,000	71,000	30.0	60-543	Sep-89
13PAH-305	LAB8	Pink salmon	160,000	55,000	33.0	60-506	Sep-89
13PAH-306	LAB8	Pink salmon	130,000	110,000	49.0	60-507	Sep-89
13PAH-307	LAB8	Pink salmon	76,000	29,000	27.0	60-594	Sep-89
13PAH-308	LAB8	Pink salmon	98,000	24,000	28.0	60-582	Sep-89
13PAH-309	LAB8	Pink salmon	IBR	IBR	IBR	60-596	Sep-89
13PAH-310	LAB8	Pink salmon	110,000	39,000	42.0	60-581	Sep-89
13PAH-311	LAB8	Pink salmon	100,000	22,000	26.0	60-582	Sep-89
13PAH-871	LAB8	Pink salmon	38,000	3,500	2.6	60-2420	Jul-90
13PAH-872	LAB8	Pink salmon	54,000	5,200	6.6	‡	Jul-90
13PAH-873	LAB8	Pink salmon	28,000	2,800	26.0	‡	Jul-90
13PAH-869	LAB8	Sockeye salmon	92,000	5,700	3.5	60-2427	Jul-90
13PAH-870	LAB8	Sockeye salmon	80,000	4,700	3.9	60-2427	Jul-90

Table A-15. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Larsen Bay.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-313	LAB8	Halibut	14,000	2,500	0.9	60-520	Sep-89
13PAH-314	LAB8	Halibut	22,000	4,700	2.0	60-520	Sep-89
13PAH-315	LAB8	Halibut	27,000	6,500	2.8	60-521	Sep-89
13PAH-316	LAB8	Halibut	10,000	2,000	0.6	60-521	Sep-89
13PAH-874	LAB9	Chum salmon	86,000	6,800	8.6	‡	Jul-90
13PAH-875	LAB9	Pink salmon	27,000	2,600	8.0	‡	Jul-90
**LAB12-4BS	LAB12	Pacific cod	34,000	5,900	5.1	60-2410	Jun-90
**LAB12-6BS	LAB12	Pacific cod	42,000	5,400	11.7	‡	Jun-90
**LAB12-8BS	LAB12	Halibut	10,000	1,200	2.1	‡	Jun-90

Table A-16. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Port Lions.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-258	PTL3	Coho salmon	16,000	3,300	2.6	60-591	Sep-89
13PAH-259	PTL3	Coho salmon	47,000	12,000	12.2	60-576	Sep-89
13PAH-260	PTL3	Coho salmon	24,000	5,600	4.8	60-591	Sep-89
13PAH-261	PTL3	Coho salmon	16,000	3,100	3.0	60-592	Sep-89
13PAH-286	PTL3	Coho salmon	21,000	6,000	2.6	60-564	Sep-89
13PAH-287	PTL3	Coho salmon	21,000	4,900	3.6	60-577	Sep-89
13PAH-288	PTL3	Coho salmon	49,000	11,000	14.6	60-576	Sep-89
13PAH-289	PTL3	Coho salmon	33,000	5,700	6.4	60-577	Sep-89
13PAH-290	PTL3	Coho salmon	13,000	3,700	3.6	60-577	Sep-89
13PAH-291	PTL3	Coho salmon	28,000	6,500	5.2	60-564	Sep-89
13PAH-292	PTL3	Coho salmon	18,000	4,100	9.2	60-592	Sep-89
13PAH-012	PTL3	Pink salmon	71,000	16,000	3.0	60-6	Jul-89
13PAH-081	PTL3	Pink salmon	130,000	12,000	IBR	60-169	Aug-89
**PTL3-1BS	PTL3	Sockeye salmon	17,000	2,800	5.0	‡	May-90
13PAH-082	PTL3	Halibut	50,000	7,100	1.8	60-170	Aug-89
13PAH-083	PTL3	Halibut	17,000	2,100	0.4	60-170	Aug-89
13PAH-084	PTL3	Halibut	28,000	2,700	6.0	60-170	Aug-89
13PAH-013	PTL5	Halibut	12,000	2,600	0.6	60-21	Jul-89
13PAH-085	PTL7	Pink salmon	IBR	IBR	IBR	60-646	Aug-89
13PAH-086	PTL7	Pink salmon	110,000	14,000	21.0	60-190	Aug-89
13PAH-087	PTL7	Pink salmon	65,000	24,000	48.0	60-190	Aug-89
13PAH-088	PTL7	Pink salmon	110,000	26,000	66.0	60-190	Aug-89
13PAH-089	PTL7	Pink salmon	150,000	26,000	34.0	60-196	Aug-89
13PAH-090	PTL7	Pink salmon	120,000	25,000	42.0	60-196	Aug-89
13PAH-091	PTL7	Pink salmon	140,000	36,000	49.0	60-196	Aug-89
13PAH-095	PTL7	Pink salmon	190,000	25,000	45.0	60-173	Aug-89
13PAH-096	PTL7	Pink salmon	240,000	28,000	37.0	60-167	Aug-89
13PAH-097	PTL7	Pink salmon	120,000	20,000	34.0	60-174	Aug-89
13PAH-098	PTL7	Pink salmon	110,000	21,000	34.0	60-174	Aug-89
13PAH-099	PTL7	Pink salmon	150,000	24,000	IBR	60-168	Aug-89
13PAH-100	PTL7	Pink salmon	160,000	28,000	44.0	60-168	Aug-89
13PAH-101	PTL7	Pink salmon	170,000	27,000	IBR	60-168	Aug-89
13PAH-102	PTL7	Pink salmon	86,000	10,000	23.0	60-174	Aug-89
13PAH-294	PTL8	Halibut	16,000	3,400	3.4	60-522	Sep-89
13PAH-295	PTL8	Halibut	10,000	1,900	1.1	60-522	Sep-89
13PAH-296	PTL8	Halibut	9,500	2,600	0.8	60-523	Sep-89
13PAH-297	PTL8	Halibut	17,000	3,700	1.9	60-523	Sep-89
13PAH-964	PTL9	Pink salmon	55,000	7,100	1.2	60-2442	Aug-90
13PAH-965	PTL9	Pink salmon	53,000	5,000	17.9	‡	Aug-90
13PAH-966	PTL9	Pink salmon	49,000	4,200	12.4	‡	Aug-90
13PAH-967	PTL9	Pink salmon	41,000	3,500	5.2	‡	Aug-90

Table A-17. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Port Lions.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-968	PTL9	Pink salmon	38,000	4,300	2.9	60-2443	Aug-90
13PAH-970	PTL9	Pink salmon	37,000	3,800	8.5	‡	Aug-90
13PAH-971	PTL9	Pink salmon	33,000	3,000	9.8	‡	Aug-90
13PAH-972	PTL9	Pink salmon	41,000	3,800	8.4	‡	Aug-90
13PAH-973	PTL9	Pink salmon	46,000	3,900	18.6	‡	Aug-90
13PAH-974	PTL9	Pink salmon	67,000	6,300	10.4	‡	Aug-90
13PAH-974	PTL9	Pink salmon	67,000	6,300	10.4	‡	Aug-90
**PTL9-1BS	PTL9	Pacific cod	29,000	6,900	6.4	60-2411	May-90
**PTL9-3BS	PTL9	Pacific cod	23,000	2,800	4.3	‡	May-90
**PTL9-4BS	PTL9	Pacific cod	30,000	3,600	5.8	‡	May-90
**PTL9-A1B	PTL9	Pacific cod	180,000	8,800	9.9	‡	Apr-90
**PTL9-B3B	PTL9	Pacific cod	55,000	7,300	6.8	60-2395	Apr-90
**PTL9-C2B	PTL9	Pacific cod	39,000	5,600	7.2	‡	Apr-90
**PTL9-D1B	PTL9	Pacific cod	18,000	8,400	8.9	‡	Apr-90

Table A-18. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Ouzinkie.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
13PAH-948	OUZ1	Chum salmon	130,000	23,000	8.2	60-2437	Aug-90
13PAH-949	OUZ1	Chum salmon	97,000	13,000	4.1	60-2437	Aug-90
13PAH-950	OUZ1	Chum salmon	68,000	23,000	8.5	60-2437	Aug-90
13PAH-951	OUZ1	Chum salmon	110,000	32,000	20.6	60-2435	Aug-90
13PAH-952	OUZ1	Chum salmon	100,000	19,000	7.4	60-2436	Aug-90
13PAH-954	OUZ1	Chum salmon	140,000	38,000	23.6	60-2435	Aug-90
13PAH-955	OUZ1	Chum salmon	130,000	48,000	16.5	60-1810	Aug-90
13PAH-956	OUZ1	Chum salmon	81,000	20,000	5.0	60-2428	Aug-90
13PAH-957	OUZ1	Chum salmon	69,000	19,000	9.1	60-2436	Aug-90
13PAH-958	OUZ1	Chum salmon	56,000	13,000	6.9	60-2436	Aug-90
13PAH-959	OUZ1	Chum salmon	91,000	37,000	8.7	60-1811	Aug-90
13PAH-960	OUZ1	Chum salmon	52,000	11,000	9.9	60-2435	Aug-90
13PAH-962	OUZ1	Pink salmon	51,000	8,100	6.0	60-2426	Aug-90
13PAH-008	OUZ1	Halibut	21,000	3,800	1.1	60-8	Jul-89
13PAH-110	OUZ3	Halibut	52,000	5,500	1.0	60-171	Aug-89
13PAH-111	OUZ3	Halibut	46,000	4,300	6.2	60-171	Aug-89
13PAH-112	OUZ3	Halibut	72,000	6,100	1.3	60-172	Aug-89
13PAH-113	OUZ3	Halibut	120,000	10,000	2.0	60-172	Aug-89
13PAH-276	OUZ3	Halibut	24,000	5,000	2.4	60-510	Sep-89
13PAH-277	OUZ3	Halibut	23,000	3,800	1.0	60-510	Sep-89
13PAH-278	OUZ3	Halibut	21,000	3,700	0.9	60-519	Sep-89
13PAH-279	OUZ3	Halibut	8,200	1,700	0.3	60-519	Sep-89
13PAH-103	OUZ5	Pink salmon	72,000	9,200	9.0	60-175	Aug-89
13PAH-104	OUZ5	Pink salmon	160,000	15,000	12.0	60-636	Aug-89
13PAH-105	OUZ5	Pink salmon	55,000	3,800	11.0	60-175	Aug-89
13PAH-106	OUZ5	Pink salmon	IBR	IBR	IBR	60-636	Aug-89
13PAH-107	OUZ5	Pink salmon	51,000	9,100	6.4	60-175	Aug-89
13PAH-108	OUZ5	Pink salmon	63,000	6,900	16.0	60-191	Aug-89
13PAH-109	OUZ5	Pink salmon	32,000	3,300	26.0	60-191	Aug-89
13PAH-271	OUZ6	Coho salmon	120,000	39,000	14.4	60-528	Sep-89
13PAH-272	OUZ6	Coho salmon	35,000	11,000	4.8	60-563	Sep-89
13PAH-274	OUZ6	Coho salmon	57,000	15,000	19.0	60-563	Sep-89
13PAH-275	OUZ6	Coho salmon	82,000	23,000	11.2	60-542	Sep-89
**OUZH-1BS	OUZH	Pacific cod	30,000	4,400	5.8	‡	May-90
**OUZH-2BS	OUZH	Pacific cod	62,000	8,300	11.0	‡	May-90
**OUZH-3	OUZH	Pacific cod	78,000	4,900	15.3	‡	Mar-90
**OUZH-3BS	OUZH	Pacific cod	27,000	4,300	22.4	‡	May-90
**OUZH-2	OUZH	Irish Lord	41,000	300	54.2	‡	Mar-90
**OUZH-5BS	OUZH	Sculpin	19,000	1,700	7.2	‡	May-90

Table A-19. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Chignik villages.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
**CHG4-1BS	CHG4	Pacific cod	26,000	4,400	5.0	‡	Apr-90
**CHG4-2BS	CHG4	Pacific cod	9,200	2,700	62.7	‡	Apr-90
**CHG4-3BS	CHG4	Pacific cod	64,000	7,000	11.0	‡	Apr-90
**CHG4-4BS	CHG4	Pacific cod	50,000	8,700	12.3	‡	Apr-90

Table A-20. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in fish bile from samples from Perryville.

Field / Bile Sample no.	Station	Species	FACs NPH	FACs PHN	Protein mg/ml	Lab no. * for ACs	Date collected
**PER1-9B	PER1	Greenling	41,000	5,500	5.1	60-2390	Feb-90
**PER1-11B	PER1	Greenling	70,000	6,500	4.3	60-2391	Feb-90
**PER1-8BS	PER1	Greenling	12,000	1,200	4.8	‡	Apr-90
**PER1-9BS	PER1	Greenling	17,000	1,600	20.1	‡	Apr-90
**PER1-10BS	PER1	Greenling	29,000	3,500	18.8	‡	Apr-90
**PER1-8B	PER1	Irish Lord	72,000	530	25.2	‡	Feb-90
**PER1-10B	PER1	Irish Lord	15,000	2,500	1.9	60-2392	Feb-90

SECTION B

CONCENTRATIONS OF AROMATIC COMPOUNDS (ACs) IN EDIBLE TISSUE OF FISH

Explanatory notes for Tables B-1 through B-30

Results on sample extracts were determined by gas chromatography/mass spectrometry (GC/MS) using sequenced selected ion monitoring.

A hyphen (-) indicates that the analyte was not detected above the limit of detection which ranged from 0.02 to 1 ng/g (ppb) wet weight.

Low levels of naphthalene found were often indistinguishable from those in method blanks and were not reported. They are designated by "a."

Some samples were analyzed in replicate as part of the quality assurance (QA) plan—all of the data are included in the tables. Adjacent data columns with an "R" after the Lab no. are replicate analyses of a sample.

Table B-1. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in edible tissue of fish from Angoon.

ACs	Species :	Chinook salmon	Coho salmon			Pink salmon		Pacific cod	Halibut
	Site :	AGN3	AGN3	AGN3	AGN3	AGN3	AGN3	AGN3	AGN3
	Date collected :	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	321	230	319	323	229	320	322	228
naphthalene		a	a	a	a	a	a	a	a
C1-naphthalenes		2	1	2	1	1	0.9	0.2	0.2
C2-naphthalenes		0.8	0.2	0.7	0.2	0.09	-	-	-
C3-naphthalenes		0.08	-	0.1	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-
fluorene		0.3	-	0.1	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-
phenanthrene		2	1	1	1	1	1	0.4	0.2
C1-phenanthrenes		-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-
Sum of LACs		**5**	**2**	**4**	**2**	**2**	**2**	**0.6**	**0.4**
fluoranthene		0.1	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-
Sum of HACs		**0.1**	-	-	-	-	-	-	-
sample weight, grams :		5.17	5.09	5.54	4.85	5.58	5.37	5.00	4.97

Table B-2. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Yakutat.

ACs	Species :	Sockeye salmon							Halibut	Halibut				
	Site :	YAK6	YAK6	YAK6	YAK6	YAK6	YAK6	YAK6	YAK7	YAK8	YAK8	YAK8	YAK8	YAK8
	Date collected :	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	3063R	3070R	3081	3082	3083	3084	3085	3069	3064	3065	3066	3067	3068
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		6	1	-	-	-	-	-	-	3	2	2	2	-
C4-naphthalenes		4	0.5	-	-	-	-	-	0.9	2	-	0.6	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.6	-	-	-	0.5	0.5	0.4	-	0.4	-	-	-	-
C1-fluorene		1	0.6	-	-	-	-	-	-	0.7	-	-	-	-
C2-fluorene		1	-	-	-	-	-	-	-	0.8	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		2	0.7	0.7	0.7	0.8	0.8	0.6	0.5	1	0.8	0.7	-	0.4
C1-phenanthrenes		1	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.7	0.6	0.5	-	-
C2-phenanthrenes		0.9	-	-	-	-	-	-	-	0.7	0.6	0.6	-	-
C3-phenanthrenes		0.6	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.4	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		0.7	-	-	-	-	-	-	-	0.4	-	-	-	-
C2-dibenzothiophenes		0.8	0.5	-	-	-	-	-	-	0.6	0.4	-	-	-
C3-dibenzothiophenes		0.7	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**20**	**4**	**1**	**1**	**2**	**2**	**1**	**2**	**10**	**4**	**4**	**2**	**0.4**
fluoranthene		0.7	-	0.4	-	-	0.4	-	-	0.4	0.4	0.4	-	-
pyrene		0.6	-	-	-	-	-	-	-	0.4	0.4	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**1**	**-**	**0.4**	**-**	**-**	**0.4**	**-**	**-**	**0.8**	**0.8**	**0.4**	**-**	**-**
sample weight, grams :		5.05	5.06	5.04	5.08	5.01	4.99	5.01	5.09	5.00	5.00	4.99	5.00	5.01

Table B-3. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Tatitlek.

ACs	Species :	Pink salmon	Pink salmon					Rockfish	Pacific cod					Rockfish		
	Site :	TAT2	TAT3	TAT3	TAT3	TAT3	TAT3	TAT3	TAT4	TAT4	TAT4	TAT4	TAT4	TAT4	TAT4	TAT4
	Date collected :	Jul-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Jul-89	Jul-89	Mar-90	Mar-90	Mar-90	Jun-90	Jul-89	Jun-90	Jun-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	D&M	ADFG	ADFG
	Lab no. :	1	134R	139R	135	136	153	701	22	2396	2397	2398	2412	702	2413	2414
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	0.4	-	-	-	-	-	0.3	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.05	-	-	-	-	-	0.7	-	-	-	-	-	0.3	1	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.1**	-	-	-	-	-	**1**	-	-	-	-	-	**0.6**	**2**	-
fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		-	-	-	-	-	-	-	-	-	-	-	-	-	**1**	-
sample weight, grams :		3.83	5.25	5.12	5.40	5.20	4.47	5.27	3.65	4.93	4.79	4.77	5.00	5.19	5.04	5.09

Table B-4. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Tatitlek.

ACs	Species :	Halibut	Halibut	Coho salmon							Herring roe on seaweed				Smoked salmon	
	Site :	TAT4	TAT6	TAT7	TAT7	TAT7	TAT7	TAT7	TAT7	TAT7	TAT8	TAT8	TAT8	TAT8	TAT	TAT
	Date collected :	Jul-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Apr-90	Apr-90	Apr-90	Apr-90	Oct-89	Oct-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	D&M	D&M
	Lab no. :	27	132	362	363	364	448	449	450	451	1037	1038R	1040R	1039	526R	527R
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	1,200	1,200
C1-naphthalenes		-	-	2	2	2	0.3	0.7	0.2	0.2	-	-	-	-	800	950
C2-naphthalenes		-	-	2	2	3	-	0.2	-	2	0.2	0.6	0.9	0.5	930	1,500
C3-naphthalenes		-	-	2	1	2	-	0.2	-	-	-	-	-	-	770	1,400
C4-naphthalenes		-	-	-	-	0.1	-	-	0.2	-	-	-	-	-	650	1,200
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	3,000	3,400
acenaphthene		-	-	1	0.9	1	-	-	-	-	-	-	-	-	280	280
fluorene		-	-	1	1	2	-	0.2	-	-	-	-	-	-	1,800	2,100
C1-fluorene		-	-	0.3	0.3	0.4	-	-	-	-	-	-	-	-	940	1,000
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	1,700	1,400
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	260	130
phenanthrene		-	-	4	5	6	2	3	2	1	-	-	-	3	5,100	4,600
C1-phenanthrenes		-	-	0.2	0.4	0.6	-	-	-	-	-	-	-	2	1,800	1,400
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	710	430
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	220	110
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	4	1
dibenzothiophene		-	-	1	2	2	0.4	1	0.3	-	-	-	-	-	44	39
C1-dibenzothiophenes		-	-	0.1	0.09	0.2	-	-	-	-	-	-	-	-	23	26
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	10	11
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	4	3
Sum of LACs		**-**	**-**	**14**	**15**	**19**	**3**	**5**	**3**	**3**	**0.2**	**0.6**	**0.9**	**6**	**20,000**	**20,000**
fluoranthene		-	-	1	1	2	0.1	0.2	-	-	-	-	-	22	1,400	820
pyrene		-	-	0.1	-	0.3	-	-	-	-	-	-	-	16	1,000	590
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	3	440	250
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	0.6	45	32
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	4	41	29
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	0.2	7	5
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.7
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.3
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	1	16	12
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	1	21	16
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	0.6	20	17
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	9	8
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	8	7
Sum of HACs		**-**	**-**	**1**	**1**	**2**	**0.1**	**0.2**	**-**	**-**	**-**	**-**	**-**	**48**	**3,000**	**1,800**
sample weight, grams :		3.85	4.99	4.74	5.28	5.25	4.90	5.22	5.07	5.11	5.01	4.95	5.01	4.99	2.09	2.19

Table B-5. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Chenega Bay.

ACs	Species :	Pacific cod									Rockfish			Halibut		
	Site :	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2	CHE2
	Date collected :	Jul-89	Aug-89	Aug-89	Aug-89	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jul-89	Aug-89	Aug-89	Jul-89	Aug-89	Aug-89
	Collector :	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	23	149	151	487	2405	2406	2407	2408	2409	42	150	157	28	130	131
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	1	0.6	0.5	0.8	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	0.9	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**-**	**-**	**0.3**	**1**	**0.6**	**0.5**	**0.8**	**2**	**-**	**-**	**-**	**-**	**-**	**-**
fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		3.82	4.50	4.62	5.39	5.06	5.05	4.98	5.00	4.97	4.68	4.56	4.70	4.14	5.08	5.02

Table B-6. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Chenega Bay.

ACs	Species :	Halibut	Pink salmon								Pink salmon					
	Site :	CHE2	CHE3	CHE3	CHE3	CHE3	CHE3	CHE3	CHE3	CHE3	CHE4	CHE4	CHE4	CHE4	CHE4	CHE4
	Date collected :	Aug-89	Aug-89	Aug-89	Aug-89	Jul-90	Jul-90	Jul-90	Jul-90	Jul-90	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	485	137	138	152	1763	1764R	1769R	1765R	1770R	452	453R	456R	454	455	465
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.4	3	-	-	-	1	-	-	-	0.1	0.2	0.2	-	-
C2-naphthalenes		-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	0.06	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.5	0.5	5	-	0.5	1	1	0.4	0.4	0.3	2	2	0.9	0.2	-
C1-phenanthrenes		-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.5**	**0.9**	**20**	**-**	**0.5**	**1**	**2**	**0.4**	**0.4**	**0.3**	**2**	**2**	**1**	**0.2**	**-**
fluoranthene		-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**0.2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.36	5.07	5.38	4.47	5.03	5.03	5.01	5.10	5.02	5.01	5.42	5.44	5.08	4.93	5.29

Table B-7. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Chenega Bay.

ACs	Species :	Pink salmon												Rockfish	Halibut	
	Site :	CHE4	CHE4	CHE4	CHE4	CHE4	CHE4	CHE4	CHE4	CHE4	CHE4	CHE4	CHE4	CHE5	CHE5	CHE5
	Date collected :	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Mar-90	Oct-90	Oct-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG
	Lab no. :	466	467	468	469	470	471	472	473	474	483	484	593	1106	2360	2361
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	0.3	-	0.8	0.6
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.4	-	-	-	-	0.6	-	3	1	0.3	0.8	0.4	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.4**	**-**	**-**	**-**	**-**	**0.6**	**-**	**3**	**1**	**0.3**	**0.8**	**0.7**	**-**	**6**	**0.6**
fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.08	5.01	5.04	5.52	5.67	5.68	5.03	5.48	5.16	5.13	5.42	5.17	5.09	4.97	5.01

Table B-8. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Chenega Bay.

ACs	Species :	Greenling	Pacific cod	Ling cod	Rockfish	Ling cod	Yellowfin sole
	Site :	CHE6	CHE8	CHE13	CHE14	CHE15	CHE16
	Date collected :	Mar-90	Apr-90	Jul-90	Jul-90	Jul-90	Jul-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1107	1479	2451	2452	2438	2425
naphthalene		a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-
C3-naphthalenes		-	-	0.6	1	1	-
C4-naphthalenes		-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-
fluorene		-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-
Sum of LACs		**-**	**-**	**0.6**	**1**	**1**	**-**
fluoranthene		-	-	-	-	-	-
pyrene		-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-
chrysene		-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.08	5.15	5.01	5.00	5.00	4.98

Table B-9. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Port Graham/English Bay.

ACs	Species :	Irish Lord		Halibut	Chum salmon	Coho salmon		Pink salmon							
	Site :	PTG2	PTG2	PTG2	PTG3	PTG3	PTG3	PTG3	PTG3	PTG3	PTG3	PTG3	PTG3	PTG3	PTG3
	Date collected :	Jul-89	Jul-89	Jul-89	Jul-90	Jul-89	Sep-89	Jul-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Sep-89	Jul-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	709	710	39	2423	93	538	2	133	148	154	155	156	537	1767
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.2	0.2	-	2	0.5	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	2	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	1	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.4	0.2	-	1	0.7	-	-	1	-	-	-	-	-	-
C1-phenanthrenes		-	-	-	0.5	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.6**	**0.4**	**-**	**6**	**1**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**
fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	0.7	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**0.7**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.33	5.23	4.61	4.97	4.99	5.16	3.20	5.04	4.53	4.41	4.46	4.87	5.40	5.02

Table B-10. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Port Graham/English Bay.

ACs	Species :	Pink salmon	Pacific cod	Rock sole		Halibut	Greenling			Rock sole	Pink salmon		
	Site :	PTG3	PTG3	PTG3	PTG3	PTG5	PTG6	PTG6	PTG6	PTG6	PTG7	PTG7	PTG7
	Date collected :	Jul-90	Mar-90	Mar-90	Mar-90	Sep-89	Mar-90	Mar-90	Mar-90	Sep-90	Aug-89	Sep-90	Sep-90
	Collector :	D&M	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1768	2393	2394R	2399R	486	1099	1100	1101	2380	2377	2378	2379
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.9	-	-	-	0.2	-	-	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.9**	-	-	-	**0.2**	-	-	-	-	-	-	-
fluoranthene		0.7	-	-	-	-	-	-	-	-	-	-	-
pyrene		0.6	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**1**	-	-	-	-	-	-	-	-	-	-	-
sample weight, grams :		5.09	4.97	4.75	4.92	5.54	5.04	5.03	5.20	4.97	5.07	5.06	5.06

Table B-11. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Port Graham/English Bay.

ACs	Species :	Rock sole				Greenling
	Site :	PTG7	PTG7	PTG7	PTG7	PTG11
	Date collected :	Mar-90	Mar-90	Mar-90	Mar-90	Jul-90
	Collector :	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1102	1103	1104	1105	2444
naphthalene		a	a	a	a	a
C1-naphthalenes		-	-	-	-	-
C2-naphthalenes		-	-	-	-	-
C3-naphthalenes		-	-	-	-	0.9
C4-naphthalenes		-	-	-	-	-
acenaphthylene		-	-	-	-	-
acenaphthene		-	-	-	-	-
fluorene		-	-	-	-	-
C1-fluorene		-	-	-	-	-
C2-fluorene		-	-	-	-	-
C3-fluorene		-	-	-	-	-
phenanthrene		-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-
dibenzothiophene		-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-
Sum of LACs		**-**	**-**	**-**	**-**	**0.9**
fluoranthene		-	-	-	-	-
pyrene		-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-
benz[a]anthracene		-	-	-	-	-
chrysene		-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**
sample weight, grams :		4.99	5.17	5.15	5.13	5.05

Table B-12. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Windy Bay.

ACs	Species :	Pink salmon			
	Site :	WNB5	WNB5	WNB5	WNB5
	Date collected :	Jul-90	Jul-90	Jul-90	Jul-90
	Collector :	D&M	D&M	D&M	D&M
	Lab no. :	1766R	1771R	2453R	2459R
naphthalene		a	a	a	a
C1-naphthalenes		-	-	-	-
C2-naphthalenes		-	-	-	-
C3-naphthalenes		-	-	0.5	0.8
C4-naphthalenes		-	-	-	-
acenaphthylene		-	-	-	-
acenaphthene		-	-	-	-
fluorene		-	-	-	-
C1-fluorene		-	-	-	-
C2-fluorene		-	-	-	-
C3-fluorene		-	-	-	-
phenanthrene		-	-	-	-
C1-phenanthrenes		-	-	0.5	-
C2-phenanthrenes		-	-	-	-
C3-phenanthrenes		-	-	-	-
C4-phenanthrenes		-	-	-	-
dibenzothiophene		-	-	-	-
C1-dibenzothiophenes		-	-	-	-
C2-dibenzothiophenes		-	-	-	-
C3-dibenzothiophenes		-	-	-	-
Sum of LACs		**-**	**-**	**1**	**0.8**
fluoranthene		-	-	-	-
pyrene		-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-
benz[a]anthracene		-	-	-	-
chrysene		-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-
benzo[b]fluoranthene		-	-	-	-
benzo[k]fluoranthene		-	-	-	-
benzo[a]pyrene		-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-
dibenz[a,h]anthracene		-	-	-	-
benzo[ghi]perylene		-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**
sample weight, grams :		5.04	5.01	5.04	5.05

Table B-13. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Kodiak.

ACs	Species :	Rockfish	Halibut	Pink salmon												
	Site :	KOD1	KOD2	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5
	Date collected :	Jul-89	Jul-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Sep-89	Sep-89	Sep-89	Sep-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	24	4	166R	195R	187	188	189	628R	637R	629	630	488R	489R	490R	492R
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	7	5	3	2	0.6	4	0.9	0.2	1	-	-	-	-
C2-naphthalenes		-	-	14	10	6	1	-	8	0.7	-	0.9	-	-	-	-
C3-naphthalenes		-	-	9	6	6	1	0.5	8	0.5	-	0.7	-	-	-	-
C4-naphthalenes		-	-	0.1	0.1	0.2	-	-	0.3	-	-	-	-	-	-	-
acenaphthylene		-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	14	9	6	4	0.2	9	3	-	5	-	-	-	-
fluorene		-	-	15	10	7	3	1	12	3	-	5	-	-	-	-
C1-fluorene		-	-	3	2	2	0.3	0.3	4	0.5	-	0.5	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3
phenanthrene		-	-	37	24	18	10	3	30	12	4	17	0.7	0.5	1	0.7
C1-phenanthrenes		-	-	3	1	2	0.2	-	3	0.4	-	0.3	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	5	4	3	1	0.5	5	1	0.2	2	-	-	-	-
C1-dibenzothiophenes		-	-	1	0.6	1	-	-	1	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**-**	**110**	**72**	**54**	**22**	**6**	**84**	**22**	**4**	**32**	**0.7**	**0.5**	**1**	**1**
fluoranthene		-	-	12	8	5	2	0.2	10	3	0.2	5	-	-	-	-
pyrene		-	-	0.3	-	-	-	-	0.1	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**12**	**8**	**5**	**2**	**0.2**	**10**	**3**	**0.2**	**5**	**-**	**-**	**-**	**-**
sample weight, grams :		4.01	3.22	5.10	5.25	5.00	5.11	5.40	5.03	5.07	5.17	5.36	5.38	5.33	5.35	5.40

Table B-14. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples form Kodiak.

ACs	Species :	Pink salmon					Sockeye salmon	Dolly Varden	Halibut	
	Site :	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD5	KOD6	KOD6
	Date collected :	Sep-89	Sep-89	Aug-90	Aug-90	Aug-90	Aug-89	Jul-89	Aug-89	Sep-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	539R	540R	1812	1813	1814	194	94	193	508
naphthalene		a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	9	0.9	0.4	0.1	0.3
C2-naphthalenes		-	-	1	3	17	0.9	0.07	-	-
C3-naphthalenes		-	-	1	0.8	17	1	-	-	-
C4-naphthalenes		-	-	-	-	4	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-
acenaphthene		-	-	0.6	-	0.8	0.8	-	-	-
fluorene		-	-	1	0.5	2	2	-	-	-
C1-fluorene		-	-	-	1	3	0.4	-	-	-
C2-fluorene		-	-	-	-	2	-	-	-	-
C3-fluorene		-	-	-	-	3	-	-	-	-
phenanthrene		0.9	3	-	4	7	4	0.7	0.2	0.6
C1-phenanthrenes		-	-	-	2	4	0.1	-	-	-
C2-phenanthrenes		-	-	-	-	3	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	0.4	0.8	3	1	-	-	-
C1-dibenzothiophenes		-	-	0.3	0.6	3	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	2	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	0.2	-	-	-	-
Sum of LACs		**0.9**	**3**	**4**	**13**	**80**	**11**	**1**	**0.3**	**0.9**
fluoranthene		-	-	0.6	1	2	0.5	-	-	-
pyrene		-	-	0.2	0.3	0.4	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**0.8**	**1**	**2**	**0.5**	**-**	**-**	**-**
sample weight, grams :		5.04	5.34	5.08	4.92	5.01	5.44	5.28	5.26	5.38

Table B-15. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Chiniak.

ACs	Species :	Rockfish	Chum salmon		Pink salmon							Sockeye salmon	Halibut		Chum salmon
	Site :	CHI4	CHI5	CHI5	CHI5	CHI5	CHI5	CHI5	CHI5	CHI5	CHI5	CHI5	CHI6	CHI6	CHI7
	Date collected :	Jul-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Sep-89	Sep-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	25	280	654	261R	288R	265	266	287	648	649	651	706	509	525
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	1	0.3	1	0.1	0.5	0.5	0.6	0.8	0.7	0.5	0.4	0.2	-
C2-naphthalenes		-	0.4	-	-	-	0.1	-	-	0.1	0.1	-	-	-	-
C3-naphthalenes		-	0.3	-	-	-	0.1	-	-	0.1	0.1	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	0.6	-	-	-	0.2	-	-	0.1	0.2	-	-	-	-
C1-fluorene		-	-	-	-	-	0.1	-	-	0.2	0.2	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	0.5	-
phenanthrene		-	2	0.5	0.6	0.3	2	0.6	1	2	2	0.7	0.4	0.6	0.4
C1-phenanthrenes		-	0.07	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	0.3	-	-	-	0.1	-	-	0.2	0.2	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**5**	**0.8**	**2**	**0.4**	**3**	**1**	**2**	**4**	**4**	**1**	**0.8**	**1**	**0.4**
fluoranthene		-	0.2	-	-	-	0.2	-	-	0.2	0.2	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**0.2**	**-**	**-**	**-**	**0.2**	**-**	**-**	**0.2**	**0.2**	**-**	**-**	**-**	**-**
sample weight, grams :		4.26	5.23	5.10	5.09	5.43	5.37	4.91	5.01	5.00	5.27	5.05	5.13	5.08	5.26

Table B-16. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Chiniak.

ACs	Species :	Pink salmon					
	Site :	CHI7	CHI7	CHI7	CHI7	CHI7	CHI7
	Date collected:	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	501	502	503	579	580	600
naphthalene		a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-
fluorene		-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-
phenanthrene		0.3	0.3	0.3	0.3	-	0.3
C1-phenanthrenes		-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-
Sum of LACs		**0.3**	**0.3**	**0.3**	**0.3**	**-**	**0.3**
fluoranthene		-	-	-	-	-	-
pyrene		-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-
chrysene		-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.38	5.23	5.31	5.17	5.11	5.36

Table B-17. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Old Harbor.

ACs	Species :	Pacific cod		Halibut			Chum salmon	Pink salmon								
	Site :	OHA1	OHA1	OHA1	OHA1	OHA1	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2
	Date collected:	Jul-89	Jun-90	Jul-89	Aug-89	Aug-89	Aug-90	Jul-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Sep-89	Sep-89	Sep-89
	Collector :	D&M	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	26	2450	40	283	707	2424	11	262	269	270	279	650	541	544	545
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	0.3	0.3	0.9	-	0.5	1	0.4	0.3	1	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-
C3-naphthalenes		-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	0.9	0.5	0.8	-	0.6	1	1	0.8	3	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**1**	**-**	**1**	**0.8**	**2**	**-**	**1**	**2**	**1**	**1**	**4**	**-**	**-**	**-**
fluoranthene		-	-	-	-	-	-	-	-	0.1	-	-	0.3	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**-**	**-**	**0.3**	**-**	**-**	**-**
sample weight, grams :		3.80	5.00	4.78	4.70	5.15	4.90	3.10	5.38	5.11	4.77	5.52	5.14	5.48	5.56	5.39

Table B-18. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Old Harbor.

ACs	Species :	Pink salmon														
	Site :	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2	OHA2
	Date collected:	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Aug-90	Aug-90	Aug-90	Aug-90	Aug-90	Aug-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	546	555	556	557	558	559	573	598	599	1762	1809	1815	2421	2422R	2429R
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	0.5	0.3	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	0.7	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	0.2	0.2	0.4	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.2**	**0.2**	**0.4**	**0.5**	**2**	**-**	**-**	**-**
fluoranthene		-	-	-	-	-	-	-	-	-	-	0.6	0.6	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	0.4	0.3	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**0.9**	**-**	**-**	**-**
sample weight, grams :		5.11	5.34	5.11	5.31	5.30	5.23	5.39	5.36	5.08	4.98	5.03	5.07	4.94	4.92	4.96

Table B-19. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Old Harbor.

ACs	Species :	Dolly Varden	Pacific cod	Pink salmon		Smoked salmon	
	Site :	OHA2	OHA2	OHA5	OHA5	OHA	OHA
	Date collected :	Jul-89	Sep-89	Aug-90	Aug-90	Oct-89	Oct-89
	Collector :	D&M	D&M	ADFG	ADFG	D&M	D&M
	Lab no. :	703	524	2363	2364	241R	244R
naphthalene		a	a	a	a	450	510
C1-naphthalenes		0.7	-	-	0.5	320	400
C2-naphthalenes		-	-	0.8	-	410	530
C3-naphthalenes		-	-	-	-	510	610
C4-naphthalenes		-	-	-	-	380	370
acenaphthylene		-	-	-	-	580	640
acenaphthene		-	-	-	-	75	91
fluorene		-	-	-	-	410	450
C1-fluorene		-	-	-	-	340	380
C2-fluorene		-	-	-	-	740	780
C3-fluorene		-	-	-	-	210	190
phenanthrene		0.7	0.7	-	-	1,800	1,800
C1-phenanthrenes		-	-	-	-	560	610
C2-phenanthrenes		-	-	-	-	230	250
C3-phenanthrenes		-	-	-	-	87	94
C4-phenanthrenes		-	-	-	-	2	2
dibenzothiophene		-	-	-	-	14	14
C1-dibenzothiophenes		-	-	-	-	11	13
C2-dibenzothiophenes		-	-	-	-	6	10
C3-dibenzothiophenes		-	-	-	-	0.3	7
Sum of LACs		**1**	**0.7**	**0.8**	**0.5**	**7,100**	**7,800**
fluoranthene		-	-	-	-	280	310
pyrene		-	-	0.8	-	200	210
C1-fluoranthenes/pyrenes		-	-	-	-	97	100
benz[a]anthracene		-	-	-	-	13	14
chrysene		-	-	-	-	23	24
C1-chrysenes/benz[a]anthracenes		-	-	-	-	8	11
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	1
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	6	7
benzo[k]fluoranthene		-	-	-	-	6	6
benzo[a]pyrene		-	-	-	-	7	6
indeno[1,2,3-cd]pyrene		-	-	-	-	3	4
dibenz[a,h]anthracene		-	-	-	-	0.2	0.6
benzo[ghi]perylene		-	-	-	-	3	3
Sum of HACs		**-**	**-**	**0.8**	**-**	**650**	**700**
sample weight, grams :		5.29	5.06	4.99	4.98	4.83	5.23

Table B-20. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Akhiok.

ACs	Species :	Sockeye salmon	Coho salmon	Pink salmon		Starry flounder		Rock sole
	Site :	AKH1	AKH4	AKH4	AKH4	AKH4	AKH4	AKH6
	Date collected :	Jul-89	Sep-89	Aug-89	Aug-89	Jul-90	Jul-90	Aug-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	5	560	263	267	2439	2440	2441
naphthalene		a	a	a	a	a	a	a
C1-naphthalenes		-	-	1	0.2	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	1	2	0.6
C4-naphthalenes		-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-
acenaphthene		-	-	0.2	-	-	-	-
fluorene		-	-	0.3	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-
phenanthrene		-	-	3	1	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-
Sum of LACs		**-**	**-**	**4**	**1**	**1**	**2**	**0.6**
fluoranthene		-	-	0.4	0.1	-	-	-
pyrene		-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**0.4**	**0.1**	**-**	**-**	**-**
sample weight, grams :		3.36	5.17	5.23	5.78	5.03	5.04	5.08

Table B-21. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Karluk.

ACs	Species :	Coho salmon		Pink salmon	Sockeye salmon				Dolly Varden					
	Site :	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1
	Date collected :	Sep-89	Sep-89	Jul-89	Jul-89	Aug-89	Jul-90	Jul-90	Jul-89	May-90	May-90	May-90	May-90	May-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	561	562	7	20	268	1807	1808	95	1703	1704	1705	1706	1707
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.2	-	-	0.3	-	-	0.2	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	0.4	0.8	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	0.5	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	0.2	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	0.2	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	0.2	-	-	-	-	-	-
fluorene		-	-	-	-	-	0.4	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.5	0.3	-	-	0.4	-	-	0.4	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.5**	**0.5**	**-**	**0.2**	**0.7**	**2**	**1**	**0.6**	**-**	**-**	**-**	**-**	**-**
fluoranthene		-	-	-	-	-	0.7	0.2	-	-	-	-	-	-
pyrene		-	-	-	-	-	0.5	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**1**	**0.2**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.13	5.15	3.43	2.96	5.29	5.06	4.98	5.24	5.09	5.03	4.98	5.01	5.03

Table B-22. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Larsen Bay.

ACs	Species :	Halibut	Chum salmon	Pink salmon	Sockeye salmon					Pacific cod		Halibut		Pink salmon		
	Site :	LAB5	LAB6	LAB6	LAB6	LAB6	LAB6	LAB6	LAB6	LAB6	LAB6	LAB6	LAB6	LAB7	LAB7	LAB7
	Date collected :	Jul-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Jul-89	Aug-89	Aug-89	Aug-89	Jul-89	Jul-89	Jul-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	41	655	281	264	282	286	652	653	704	285	284	708	10	29R	3R
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.3	0.4	2	0.6	0.7	2	0.9	0.2	0.1	0.1	0.2	-	-	-
C2-naphthalenes		-	-	-	0.7	0.1	-	0.5	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	0.1	-	-	0.06	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	1
fluorene		-	-	-	0.8	0.3	0.2	0.5	-	-	-	-	-	-	0.3	1
C1-fluorene		-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	1	2	2	2	1	2	2	0.3	0.2	0.2	0.5	1	12	11
C1-phenanthrenes		-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	0.7	0.4	0.1	0.6	0.2	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**1**	**2**	**6**	**3**	**2**	**6**	**3**	**0.5**	**0.3**	**0.3**	**0.7**	**1**	**12**	**13**
fluoranthene		-	-	-	0.2	-	-	0.1	-	-	-	-	-	-	0.2	0.7
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**0.2**	**-**	**-**	**0.1**	**-**	**-**	**-**	**-**	**-**	**-**	**0.2**	**0.7**
sample weight, grams :		4.46	5.08	4.62	5.99	4.57	4.99	5.13	5.10	5.16	5.47	5.13	5.15	3.47	4.01	3.00

Table B-23. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Larsen Bay.

ACs	Species :	Pink salmon												Sockeye salmon
	Site :	LAB8	LAB8	LAB8	LAB8	LAB8	LAB8	LAB8	LAB8	LAB8	LAB8	LAB8	LAB8	LAB8
	Date collected :	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Jul-90	Jul-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	504	505	506	507	543	581	582	594	595	596	597	2420	2427
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	0.2	0.2	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	0.09	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	0.5	-
phenanthrene		0.3	0.8	0.8	0.5	-	0.2	0.3	0.9	0.2	0.5	0.5	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.3**	**0.8**	**0.8**	**0.5**	**-**	**0.2**	**0.3**	**1**	**0.2**	**0.7**	**0.7**	**0.5**	**-**
fluoranthene		-	-	-	-	-	-	-	0.1	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.40	5.28	5.35	5.27	5.32	5.34	5.33	5.17	5.28	5.24	5.34	4.98	5.00

Table B-24. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Larsen Bay.

ACs	Species :	Halibut		Pacific cod	Pink salmon
	Site :	LAB8	LAB8	LAB12	LAB14
	Date collected :	Sep-89	Sep-89	Jun-90	Aug-90
	Collector :	D&M	D&M	ADFG	ADFG
	Lab no. :	520	521	2410	2362
naphthalene		a	a	a	a
C1-naphthalenes		0.2	0.2	0.7	0.5
C2-naphthalenes		-	-	-	-
C3-naphthalenes		-	-	-	-
C4-naphthalenes		-	-	-	-
acenaphthylene		-	-	-	-
acenaphthene		-	-	-	-
fluorene		-	-	-	-
C1-fluorene		-	-	-	-
C2-fluorene		-	-	-	-
C3-fluorene		-	-	-	-
phenanthrene		0.3	0.4	-	-
C1-phenanthrenes		-	-	-	-
C2-phenanthrenes		-	-	-	-
C3-phenanthrenes		-	-	-	-
C4-phenanthrenes		-	-	-	-
dibenzothiophene		-	-	-	-
C1-dibenzothiophenes		-	-	-	-
C2-dibenzothiophenes		-	-	-	-
C3-dibenzothiophenes		-	-	-	-
Sum of LACs		**0.5**	**0.6**	**0.7**	**0.5**
fluoranthene		-	-	-	-
pyrene		-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-
benz[a]anthracene		-	-	-	-
chrysene		-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-
benzo[b]fluoranthene		-	-	-	-
benzo[k]fluoranthene		-	-	-	-
benzo[a]pyrene		-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-
dibenz[a,h]anthracene		-	-	-	-
benzo[ghi]perylene		-	-	-	-
Sum of HACs		-	-	-	-
sample weight, grams :		5.23	5.42	4.98	5.02

Table B-25. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Port Lions.

ACs	Species :	Coho salmon						Pink salmon		Dolly Varden	Halibut	Halibut	Yellowfin sole
	Site :	PTL3	PTL3	PTL3	PTL3	PTL3	PTL3	PTL3	PTL3	PTL3	PTL3	PTL6	PTL6
	Date collected :	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Jul-89	Aug-89	Aug-90	Aug-89	Jul-89	Jul-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	D&M	D&M	D&M
	Lab no. :	564	576	577	578	591	592	6	169	2381	170	21	705
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.8	-	-	-	0.8	0.6	-	0.4	-	0.1	-	0.4
C2-naphthalenes		-	-	-	-	0.1	-	-	0.04	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	0.2	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		1	0.6	0.2	0.3	2	1	-	2	-	0.2	-	0.4
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	0.1	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**2**	**0.6**	**0.2**	**0.3**	**3**	**2**	**-**	**3**	**-**	**0.3**	**-**	**0.8**
fluoranthene		-	-	-	-	0.1	-	-	0.2	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**0.1**	**-**	**-**	**0.2**	**-**	**-**	**-**	**-**
sample weight, grams :		5.26	5.45	5.49	5.10	5.35	5.03	3.06	5.56	5.00	5.51	4.68	5.33

Table B-26. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Port Lions.

ACs	Species :	Pink salmon								Halibut		Pink salmon		Pacific cod	
	Site :	PTL7	PTL7	PTL7	PTL7	PTL7	PTL7	PTL7	PTL7	PTL8	PTL8	PTL9	PTL9	PTL9	PTL9
	Date collected :	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Sep-89	Sep-89	Aug-90	Aug-90	Apr-90	May-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG
	Lab no. :	167	168	173	174	190	196	646	647	522	523	2442	2443	2395	2411
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.2	0.1	-	0.2	-	-	0.5	0.3	-	-	-	-	-	0.8
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	3	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	3	2	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	1	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	0.6	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	0.4	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	0.7
phenanthrene		0.2	0.4	-	1	0.3	0.2	0.4	0.5	0.4	0.6	2	-	-	0.5
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	1	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	0.8	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	0.5	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.4**	**0.5**	**-**	**1**	**0.3**	**0.2**	**0.9**	**0.8**	**0.4**	**0.6**	**12**	**2**	**-**	**2**
fluoranthene		-	-	-	-	-	-	-	-	-	-	0.9	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	0.6	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**-**
sample weight, grams :		5.21	5.82	5.35	5.24	5.14	5.51	5.01	5.05	5.22	5.20	5.04	5.01	4.96	5.00

Table B-27. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Ouzinkie.

ACs	Species :	Chum salmon						Pink salmon		Halibut	Halibut				Pink salmon	
	Site :	OUZ1	OUZ1	OUZ1	OUZ1	OUZ1	OUZ1	OUZ1	OUZ1	OUZ1	OUZ3	OUZ3	OUZ3	OUZ3	OUZ5	OUZ5
	Date collected :	Aug-90	Aug-90	Aug-90	Aug-90	Aug-90	Aug-90	Jul-89	Aug-90	Jul-89	Aug-89	Aug-89	Sep-89	Sep-89	Aug-89	Aug-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1810	1811	2428	2435	2436	2437	9	2426	8	171	172	510	519	175	191
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	0.07	0.6	-	-	0.2	0.8
C2-naphthalenes		-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	0.3
C3-naphthalenes		-	-	-	2	1	0.9	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.5	0.6	-	-	-	-	-	-	-	-	-	-	-	-	0.1
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	1	-	-	-	-	-	0.1	0.5	-	0.3	1	2
C1-phenanthrenes		-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.5**	**2**	**-**	**3**	**1**	**1**	**-**	**-**	**-**	**0.2**	**1**	**-**	**0.3**	**1**	**3**
fluoranthene		0.4	0.8	-	-	-	-	-	-	-	-	0.1	-	-	-	-
pyrene		0.3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.7**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**-**	**-**	**-**	**-**
sample weight, grams :		5.01	4.98	4.96	5.04	5.02	5.01	3.23	4.97	3.22	6.13	5.63	5.07	5.29	4.72	5.21

Table B-28. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Ouzinkie.

ACs	Species :	Pink salmon							Coho salmon							
	Site :	OUZ5	OUZ5	OUZ5	OUZ5	OUZ5	OUZ5	OUZ5	OUZ6	OUZ6	OUZ6	OUZ6	OUZ6	OUZ6	OUZ6	OUZ6
	Date collected :	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89	Sep-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	192	631	632	633	634	635	636	528	542	563	574	575	609	610	611
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.3	-	-	-	-	-	-	0.4	-	0.5	-	-	1	0.7	0.9
C2-naphthalenes		0.3	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-
C4-naphthalenes		-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.4	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	0.3	-	-	-	-	0.3	0.2	0.6
phenanthrene		4	1	1	1	1	0.9	1	3	0.8	1	0.6	0.6	2	1	3
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.2	-	-	-	-	-	-	-	-	-	-	-	0.3	-	0.2
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**5**	**1**	**1**	**1**	**1**	**0.9**	**1**	**6**	**0.8**	**2**	**0.6**	**0.6**	**4**	**2**	**5**
fluoranthene		0.5	-	-	-	-	-	-	-	-	-	-	-	0.2	-	0.4
pyrene		-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.5**	**-**	**-**	**-**	**-**	**-**	**-**	**0.6**	**-**	**-**	**-**	**-**	**0.2**	**-**	**0.4**
sample weight, grams :		4.73	5.03	5.04	5.11	5.16	5.13	5.03	5.34	5.38	5.28	5.33	5.28	5.22	5.47	5.18

Table B-29. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Ouzinkie.

ACs	Species :	Coho salmon			Pacific cod	Halibut	
	Site :	OUZ10	OUZ10	OUZ10	OUZH	OUZH	OUZH
	Date collected :	Sep-90	Sep-90	Sep-90	Sep-90	Sep-90	Sep-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	2365	2366R	2384R	2369	2367	2368
naphthalene		a	a	a	a	a	a
C1-naphthalenes		0.6	0.8	-	0.9	-	0.9
C2-naphthalenes		-	-	-	1	-	1
C3-naphthalenes		-	-	-	1	-	1
C4-naphthalenes		-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-
fluorene		-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-
Sum of LACs		**0.6**	**0.8**	**-**	**3**	**-**	**3**
fluoranthene		-	-	-	-	-	-
pyrene		-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-
chrysene		-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		4.98	5.07	4.93	5.00	5.02	5.00

Table B-30. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in fish samples from Perryville.

ACs	Species :	Greenling		Irish Lord	Coho salmon	
	Site :	PER1	PER1	PER1	PER4	PER4
	Date collected :	Feb-90	Feb-90	Feb-90	Sep-90	Sep-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	2390	2391	2392	2375	2376
naphthalene		a	a	a	a	a
C1-naphthalenes		-	-	-	-	-
C2-naphthalenes		-	-	-	-	-
C3-naphthalenes		-	-	-	-	-
C4-naphthalenes		-	-	-	-	-
acenaphthylene		-	-	-	-	-
acenaphthene		-	-	-	-	-
fluorene		-	-	-	-	-
C1-fluorene		-	-	-	-	-
C2-fluorene		-	-	-	-	-
C3-fluorene		-	-	-	-	-
phenanthrene		-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-
dibenzothiophene		-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-
Sum of LACs		-	-	-	-	-
fluoranthene		-	-	-	-	-
pyrene		-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-
benz[a]anthracene		-	-	-	-	-
chrysene		-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-
Sum of HACs		-	-	-	-	-
sample weight, grams :		4.84	4.82	4.87	4.98	5.07

SECTION C

CONCENTRATIONS OF METABOLITES OF FLUORESCENT AROMATIC COMPOUNDS (FACs) IN BILE FROM MARINE MAMMALS

Explanatory notes for Table C-1 and C-2

Samples collected by the Alaska Department of Fish and Game are noted by * after the sample number; other samples were collected by NOAA.

$FACs_{NPH}$ and $FACs_{PHN}$ represent the compounds that fluoresce at naphthalene and phenanthrene wavelengths. Units are ng FACs per g bile.

† indicates that the animal was visibly oiled.

In specimen TS-HS-23F, the "F" denotes the sample is a fetus.

Bile was not collected from harbor seals JT-2, JT-3, JT-4, and JT-5, however, tissue samples were collected and analyzed (Section D).

Table C-1. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in bile from harbor seals. The prefix for all lab numbers is 60.

Field sample no.	Site	FACs NPH	FACs PHN	Protein mg/ml	Lab no. for ACs	Date collected
TS-HS-1*†	Herring Bay/PWS	200,000	95,000	23.0	1324;1325	Apr-89
TS-HS-10*†	Herring Bay/PWS	38,000	17,000	27.3	1380;1414;1458	Jun-89
TS-HS-11*†	Herring Bay/PWS	30,000	15,000	21.9	1388;1425;1459	Jun-89
TS-HS-20*	Herring Bay/PWS	68,000	14,000	44.0	1391;1428;1462	Apr-90
TS-HS-24*	Herring Bay/PWS	36,000	5,400	32.4	1405;1440;1474	Apr-90
TS-HS-22*	Herring Bay/PWS	28,000	4,200	23.3	1393;1430;1464	Apr-90
TS-HS-21*	Herring Bay/PWS	22,000	4,000	17.0	1392;1429;1463	Apr-90
TS-HS-9*†	Herring Bay/PWS	4,900	1,300	68.0	1379;1413;1457	Jun-89
TS-HS-8*†	Bay of Isles/PWS	360,000	210,000	10.4	1322;1323;1449	Jun-89
TS-HS-7*†	Bay of Isles/PWS	53,000	36,000	10.9	1378;1397;1412;1424;1448;1477	Jun-89
TS-HS-5*†	Bay of Isles/PWS	52,000	32,000	13.2	1376;1410;1446	Jun-89
TS-HS-25*	Bay of Isles/PWS	67,000	12,000	84.4	1406;1441;1475	Apr-90
TS-HS-2*†	Bay of Isles/PWS	31,000	8,800	12.6	1373;1407;1443	Jun-89
TS-HS-4*†	Seal Island/PWS	46,000	25,000	15.4	1375;1409;1445	Jun-89
TS-HS-3*†	Seal Island/PWS	2,300	2,700	4.0	1374;1408;1444	Jun-89
TS-HS-6*†	Applegate Rocks/PWS	7,000	3,700	16.9	1377;1396;1411;1423;1447;1476	Jun-89
TS-HS-19*	Agnes Island/PWS	20,000	6,200	21.4	1390;1427;1461	Nov-89
692-HBSL-001	New Year Island/PWS	12,000	1,500	44.0	1309;1338;1304;1343	Mar-90
692-HBSL-003	Galena Bay/PWS	29,000	2,500	40.6	1313;1347;1308;1345	Apr-90
692-HBSL-002	Galena Bay/PWS	17,000	1,100	26.7	1312;1260;1307;1344	Apr-90
TS-HS-23*	NE Eleanor Island/PWS	110,000	44,000	53.2	1394;1431;1465	Apr-90
TS-HS-23F*	NE Eleanor Island/PWS	3,300	1,800	55.8	1395;1432;1466	Apr-90
TS-HS-17*†	Perl Island/Outer Kenai	7,700	2,200	14.1	724;758;793;817	Jul-89
TS-HS-18*	Big Fort Island/Gulf of AK	1,400	170	14.8	1389;1426;1460	Oct-89
TS-HS-14*†	West Amatuli - Barren Islands/Gulf of AK	14,000	8,000	18.5	721;755;779;790	Jun-89
TS-HS-15*	Ushagat Island - Barren Islands/Gulf of AK	11,000	3,000	31.4	722;756;791;815	Jun-89
TS-HS-16*	Ushagat Island - Barren Islands/Gulf of AK	4,400	800	11.4	723;757;792;816	Jun-89
TS-HS-12*	Perenosa Bay - Afognak/Gulf of AK	5,600	730	16.8	719;753;777;788	Jun-89
TS-HS-13*	Between Perenosa and Seal Bay/Gulf of AK	7,200	2,200	23.8	720;754;778;789	Jun-89

Table C-2. Concentrations of metabolites of fluorescent aromatic compounds (FACs, NPH for naphthalene, PHN for phenanthrene; ng/g) in bile from Steller sea lions. The prefix for all lab numbers is 60.

Field sample no.	Site	FACs NPH	FACs PHN	Protein mg/ml	Lab no. for ACs	Date collected
SL-586*	The Needle/PWS	37,000	8,500	30.8	739;744;745;775;805	Jul-89
SL-585*	The Needle/PWS	19,000	3,700	9.0	738;743;774;804	Jul-89
SL-583*	The Needle/PWS	29,000	3,100	47.5	736;741;772;822	Jul-89
SL-584*	The Needle/PWS	31,000	3,000	34.6	737;742;773;823	Jul-89
SL-582*	The Needle/PWS	19,000	890	35.9	728;762;771;821	Jul-89
SL-587*	Chiswell Island/Gulf of AK	4,200	390	7.8	740;776;787;806	Jul-89
692-STSL-001	Flat Island/Gulf of AK	38,000	4,600	13.3	1326;1265;1259;1321;1346	Mar-90
SL-580*	Ushagat Island - Barren Islands/Gulf of AK	13,000	2,700	39.2	726;760;795;796;819	Jun-89
SL-581*	Ushagat Island - Barren Islands/Gulf of AK	45,000	2,100	54.4	727;761;770;820	Jun-89
SL-579*	Ushagat Island - Barren Islands/Gulf of AK	18,000	1,200	29.9	725;759;794;818	Jun-89

SECTION D

CONCENTRATIONS OF AROMATIC COMPOUNDS (ACs) IN EDIBLE TISSUES OF MARINE MAMMAL SAMPLES

Explanatory notes for Tables D-1 through D-12

Results on sample extracts were determined by gas chromatography/mass spectrometry (GC/MS) using sequenced selected ion monitoring.

A hyphen (-) indicates that the analyte was not detected above the limit of detection which ranged from 0.02 to 1 ng/g (ppb) wet weight.

Low levels of naphthalene found were often indistinguishable from those in method blanks and were not reported. They are designated by "a."

Some samples were analyzed in replicate as part of the quality assurance (QA) plan—all of the data are included in the tables. Adjacent data columns with an "R" after the Lab no. are replicate analyses of a sample.

In specimen TS-HS-23F, the "F" denotes the sample is a fetus.

The Steller sea lion samples were collected by the Alaska Department of Fish and Game as agents under Marine Mammal Protection Act permit 584 issued to the Alaska Fisheries Science Center, Seattle, WA (T.R. Loughlin).

Table D-1. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of harbor seals.

ACs	General area:	PWS		PWS			PWS			PWS			PWS			PWS		
	Site :	Herring Bay		Herring Bay			Herring Bay			Herring Bay			Herring Bay			Herring Bay		
	Specimen :	TS-HS-1		TS-HS-9			TS-HS-10			TS-HS-11			TS-HS-20					
	Date collected :	Apr-89	Apr-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Apr-90	Apr-90	Apr-90			
	Tissue type :	blubber	liver	blubber	liver	muscle	blubber	liver	muscle	blubber	liver	muscle	blubber	liver	muscle			
	Visibly oiled :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No			
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG			
	Lab no. :	1325	1324	1413	1379	1457	1414	1380	1458	1425	1388	1459	1428	1391	1462			
naphthalene		a	a	95	a	a	16	a	a	12	a	a	13	a	a			
C1-naphthalenes		31	-	17	-	-	2	-	-	19	-	-	4	-	-			
C2-naphthalenes		110	0.8	9	-	-	-	-	-	9	-	-	-	-	-			
C3-naphthalenes		190	-	9	-	-	10	-	-	17	-	-	-	-	-			
C4-naphthalenes		84	-	1	-	-	4	-	-	-	-	-	-	-	-			
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
fluorene		12	-	3	-	-	-	-	-	-	-	-	-	-	-			
C1-fluorene		41	-	8	-	-	9	-	-	5	-	-	-	-	-			
C2-fluorene		19	-	-	-	-	-	-	-	-	-	-	-	-	-			
C3-fluorene		14	-	-	-	-	-	-	-	-	-	-	-	-	-			
phenanthrene		47	-	14	-	-	13	-	-	6	-	-	2	-	-			
C1-phenanthrenes		81	-	9	-	-	34	-	-	7	-	-	-	-	-			
C2-phenanthrenes		18	-	1	-	-	3	-	-	-	-	-	-	-	-			
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
dibenzothiophene		46	1	7	-	0.7	11	-	-	3	-	-	0.3	-	-			
C1-dibenzothiophenes		75	-	-	-	-	37	-	-	20	-	-	-	-	-			
C2-dibenzothiophenes		36	-	-	-	-	9	-	-	-	-	-	-	-	-			
C3-dibenzothiophenes		0.8	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sum of LACs		**800**	**2**	**78**	**-**	**0.7**	**130**	**-**	**-**	**86**	**-**	**-**	**6**	**-**	**-**			
fluoranthene		-	-	5	-	-	1	-	-	3	-	-	1	-	-			
pyrene		-	-	2	-	-	-	-	-	2	-	-	1	-	-			
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
benz[a]anthracene		-	-	-	-	-	-	-	-	0.8	-	-	-	-	-			
chrysene		0.8	-	-	-	-	-	-	-	2	-	-	-	-	-			
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
dibenz[a,h]anthracene		-	-	-	-	0.5	-	-	-	-	-	-	-	-	-			
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Sum of HACs		**0.8**	**-**	**7**	**-**	**0.5**	**1**	**-**	**-**	**8**	**-**	**-**	**2**	**-**	**-**			
sample weight, grams :		3.14	3.10	3.06	3.01	5.09	3.02	2.97	5.10	3.05	3.12	5.11	3.09	3.02	5.09			

Table D-2. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of harbor seals.

ACs	General area:	PWS			PWS			PWS			PWS			PWS		
	Site :	Herring Bay			Herring Bay			Herring Bay			Bay of Isles			Bay of Isles		
	Specimen :	TS-HS-21			TS-HS-22			TS-HS-24			TS-HS-2			TS-HS-5		
	Date collected :	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89
	Tissue type :	blubber	liver	muscle	blubber	liver	muscle	blubber	liver	muscle	blubber	liver	muscle	blubber	liver	muscle
	Visibly oiled :	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1429	1392	1463	1430	1393	1464	1440	1405	1474	1407	1373	1443	1410	1376	1446
naphthalene		13	a	a	13	a	a	21	a	a	16	a	a	15	a	a
C1-naphthalenes		4	-	-	6	2	-	21	-	-	3	-	5	2	-	5
C2-naphthalenes		-	-	-	-	11	-	-	-	-	-	-	-	0.6	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	3	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	0.7	-	-	2	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	3	-	-	4	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		2	-	-	4	0.9	-	6	-	-	9	-	3	9	-	-
C1-phenanthrenes		-	-	-	-	0.5	-	-	-	-	15	-	0.7	17	-	-
C2-phenanthrenes		-	-	-	-	0.8	-	-	-	-	1	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.3	-	-	2	-	-	3	-	-	8	-	-	8	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	15	-	0.8	22	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	3	-	-	5	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**6**	**-**	**-**	**13**	**15**	**-**	**30**	**-**	**-**	**61**	**-**	**10**	**70**	**-**	**5**
fluoranthene		1	-	-	2	-	-	3	-	-	2	-	-	1	-	-
pyrene		0.8	-	-	2	-	-	3	-	-	0.3	-	-	0.4	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
chrysene		-	-	-	0.7	-	-	4	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	0.7	-	-	2	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	0.7	-	-	3	-	-	-	-	-	-	0.4	-
benzo[a]pyrene		-	-	-	0.7	-	-	2	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	5	-	0.6	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	0.3	10	-	1	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	4	-	0.3	-	-	-	-	-	-
Sum of HACs		**2**	**-**	**-**	**7**	**-**	**0.3**	**39**	**-**	**2**	**2**	**-**	**-**	**1**	**0.4**	**-**
sample weight, grams :		2.98	2.97	5.06	3.10	3.06	5.03	3.02	3.03	5.00	3.10	3.08	5.01	3.08	3.04	5.07

Table D-3. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of harbor seals.

ACs	General area:	PWS						PWS			PWS			PWS		
	Site :	Bay of Isles						Bay of Isles			Bay of Isles			Seal Island		
	Specimen :	TS-HS-7						TS-HS-8			TS-HS-25			TS-HS-3		
	Date collected :	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Apr-90	Apr-90	Apr-90	Jun-89	Jun-89	Jun-89
	Tissue type :	blubber	blubber	liver	liver	muscle	muscle	blubber	liver	muscle	blubber	liver	muscle	blubber	liver	muscle
	Visibly oiled :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1424R	1412R	1378R	1397R	1477R	1448R	1323	1322	1449	1441	1406	1475	1408	1374	1444
naphthalene		15	14	a	a	a	a	a	a	a	32	a	a	a	a	a
C1-naphthalenes		10	6	-	-	-	1	-	-	-	24	-	-	-	-	4
C2-naphthalenes		34	24	-	-	0.7	-	16	-	-	-	-	-	-	-	-
C3-naphthalenes		80	57	-	-	1	-	32	-	-	-	-	-	-	-	-
C4-naphthalenes		45	24	-	-	-	-	21	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	5	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		6	4	-	-	-	-	5	-	-	-	-	-	-	-	-
C1-fluorene		24	22	-	-	-	-	12	-	-	-	-	-	-	-	-
C2-fluorene		15	6	-	-	-	-	0.7	-	-	-	-	-	-	-	-
C3-fluorene		33	10	-	-	-	-	20	-	-	-	-	-	-	-	-
phenanthrene		34	37	-	-	-	-	24	-	-	25	-	-	5	-	3
C1-phenanthrenes		63	66	0.8	-	1	1	19	-	-	-	-	-	5	-	1
C2-phenanthrenes		18	12	-	-	-	-	1	-	-	-	-	-	-	-	-
C3-phenanthrenes		4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		36	38	0.7	-	0.5	0.6	22	0.4	-	-	-	-	3	-	-
C1-dibenzothiophenes		67	71	-	-	2	2	29	-	1	-	-	-	8	-	-
C2-dibenzothiophenes		38	34	-	-	-	-	5	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**510**	**410**	**2**	**-**	**5**	**5**	**210**	**0.4**	**1**	**54**	**-**	**-**	**21**	**-**	**8**
fluoranthene		2	0.8	-	-	-	-	-	-	-	9	-	-	2	-	-
pyrene		1	0.6	-	-	-	-	-	-	-	-	-	-	0.4	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		0.6	-	-	-	-	-	-	-	-	5	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	1	-	0.3	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	0.4	-	-	-	-	-	0.5	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**4**	**1**	**-**	**-**	**-**	**0.4**	**-**	**-**	**-**	**15**	**-**	**0.8**	**2**	**-**	**-**
sample weight, grams :		3.01	3.10	3.07	3.01	4.98	5.04	3.12	3.10	5.08	2.95	3.00	5.06	3.03	3.12	5.10

Table D-4. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of harbor seals.

ACs	General area:	PWS			PWS						PWS		
	Site :	Seal Island			Applegate Rocks						Agnes Island		
	Specimen :	TS-HS-4			TS-HS-6						TS-HS-19		
	Date collected :	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Nov-89	Nov-89	Nov-89
	Tissue type :	blubber	liver	muscle	blubber	blubber	liver	liver	muscle	muscle	blubber	liver	muscle
	Visibly oiled :	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1409	1375	1445	1411R	1423R	1396R	1377R	1476R	1447R	1427	1390	1461
naphthalene		14	a	a	14	13	a	a	a	a	12	a	a
C1-naphthalenes		3	-	5	3	4	-	-	-	2	6	-	-
C2-naphthalenes		-	-	0.9	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		0.7	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		3	-	-	1	2	-	-	-	-	3	-	-
C1-phenanthrenes		-	-	2	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	4	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	1	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		3	-	-	-	0.4	-	-	-	-	0.3	-	-
C1-dibenzothiophenes		2	-	2	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	0.6	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**12**	**-**	**16**	**4**	**6**	**-**	**-**	**-**	**2**	**9**	**-**	**-**
fluoranthene		-	-	-	0.6	0.9	-	-	-	-	2	-	-
pyrene		-	-	-	-	0.4	-	-	-	-	1	-	0.4
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	0.6	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**0.6**	**0.6**	**1**	**-**	**-**	**-**	**-**	**3**	**-**	**0.4**
sample weight, grams :		3.15	2.98	4.99	3.01	3.00	3.00	3.13	5.06	5.01	2.97	2.93	5.08

Table D-5. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of harbor seals.

ACs	General area:	PWS				PWS				PWS			PWS		PWS	
	Site :	New Year Island				Little Green Island				Little Green Island			L. Green Island		L. Green Island	
	Specimen :	692-HBSL-001				JT-2				JT-3			JT-4		JT-5	
	Date collected :	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90
	Tissue type :	blubber	kidney	liver	muscle	blubber	kidney	liver	liver	blubber	kidney	liver	kidney	liver	kidney	liver
	Visibly oiled :	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Collector :	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA
	Lab no. :	1309	1338	1304	1343	1310	1341	1266R	1305R	1311	1342	1306	1340	1371	1339	1372
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	3	-	3
C2-naphthalenes		-	-	3	-	2	-	1	3	-	1	3	-	2	0.3	3
C3-naphthalenes		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	0.8	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	1	-	-	2	-	-	-	-
Sum of LACs		**-**	**-**	**3**	**-**	**4**	**-**	**1**	**4**	**-**	**1**	**5**	**-**	**6**	**0.7**	**6**
fluoranthene		-	-	-	-	-	-	0.2	-	-	-	-	-	0.3	-	0.3
pyrene		-	-	-	-	-	-	0.3	-	-	-	-	-	0.2	-	0.1
C1-fluoranthenes/pyrenes		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	0.2	-	-	-	-	-	-	-	-	-	0.1	-	0.1	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	2	-	-	-	0.4	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**2**	**0.2**	**-**	**-**	**-**	**-**	**0.5**	**-**	**3**	**-**	**1**	**0.1**	**0.9**	**0.1**	**0.4**
sample weight, grams :		3.00	5.07	3.04	5.04	2.99	5.13	3.06	3.02	2.98	5.00	3.01	5.03	3.02	4.99	3.00

Table D-6. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of harbor seals.

ACs	General area:	PWS				PWS				PWS			PWS		
	Site :	Galena Bay				Galena Bay				NE Eleanor Island			NE Eleanor Island		
	Specimen :	692-HBSL-002				692-HBSL-003				TS-HS-23			TS-HS-23F		
	Date collected :	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Tissue type :	blubber	kidney	liver	muscle	blubber	kidney	liver	muscle	blubber	liver	muscle	blubber	liver	muscle
	Visibly oiled :	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Collector :	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	NOAA	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1312	1260	1307	1344	1313	1347	1308	1345	1431	1394	1465	1432	1395	1466
naphthalene		a	a	a	a	a	a	a	a	14	a	a	10	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	7	-	-	5	-	-
C2-naphthalenes		5	-	3	-	4	0.4	1	-	0.9	-	-	0.3	-	6
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	0.7	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	4	-	-	3	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	1	-	-	1	-	0.5
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	0.7	-	-	0.3	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	1	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**5**	**-**	**4**	**-**	**4**	**0.4**	**1**	**-**	**14**	**-**	**-**	**10**	**-**	**6**
fluoranthene		4	-	-	-	-	-	-	-	1	-	-	2	-	-
pyrene		-	-	-	-	-	-	-	-	1	-	-	2	-	1
C1-fluoranthenes/pyrenes		-	-	-	-	0.8	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		0.9	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**5**	**-**	**-**	**-**	**0.8**	**-**	**-**	**-**	**2**	**-**	**-**	**4**	**-**	**1**
sample weight, grams :		2.98	5.09	3.02	5.12	2.98	5.01	3.01	5.05	3.03	2.98	5.05	3.09	3.06	5.09

Table D-7. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of harbor seals.

ACs	General area:	Outer Kenai				Gulf of AK			Gulf of AK				Gulf of AK			
	Site :	Perl Island				Big Fort Island			W. Amatuli Island - Barren Islands				Ushagat Island - Barren Islands			
	Specimen :	TS-HS-17				TS-HS-18			TS-HS-14				TS-HS-15			
	Date collected :	Jul-89	Jul-89	Jul-89	Jul-89	Oct-89	Oct-89	Oct-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89
	Tissue type :	blubber	kidney	liver	muscle	blubber	liver	muscle	blubber	kidney	liver	muscle	blubber	kidney	liver	muscle
	Visibly oiled :	Light	Light	Light	Light	No	No	No	Moderate	Moderate	Moderate	Moderate	No	No	No	No
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	817	793	758	724	1426	1389	1460	779	790	755	721	815	791	756	722
naphthalene		a	a	a	a	14	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	5	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		2	-	-	-	2	-	-	-	-	-	-	-	-	-	-
C1-phenanthrenes		-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	0.6	-	-	-	-	-	-	-	-	0.9	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**2**	**-**	**5**	**-**	**7**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**-**
fluoranthene		-	-	0.4	-	1	-	-	-	-	-	-	0.3	-	-	-
pyrene		-	-	0.3	-	0.8	-	-	-	-	-	-	0.1	-	-	-
C1-fluoranthenes/pyrenes		-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**0.9**	**-**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**-**
sample weight, grams :		3.06	5.08	5.04	5.11	3.02	3.03	5.03	5.03	5.05	5.23	5.07	3.02	5.03	-	5.05

Table D-8. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of harbor seals.

ACs	General area:	Gulf of AK				Gulf of AK				Gulf of AK			
	Site :	Ushagat Island - Barren Islands				Perenosa Bay - Afognak				Between Perenosa and Seal Bay			
	Specimen :	TS-HS-16				TS-HS-12				TS-HS-13			
	Date collected :	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89
	Tissue type :	blubber	kidney	liver	muscle	blubber	kidney	liver	muscle	blubber	kidney	liver	muscle
	Visibly oiled :	No	No	No	No	No	No	No	No	No	No	No	No
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	816	792	757	723	777	788	753	719	778	789	754	720
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	2	-
C2-naphthalenes		-	-	-	-	-	-	1	-	-	-	1	-
C3-naphthalenes		-	-	0.2	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	0.4
acenaphthylene		-	-	-	-	-	-	0.1	-	-	-	0.1	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		1	-	-	-	2	-	-	-	-	-	-	-
C1-phenanthrenes		-	-	0.5	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	2	-	-	-	0.6	-	-	-	0.2	-
C3-phenanthrenes		-	-	0.4	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	2	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	0.1	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	2	-	-	-	0.8	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	0.1	-
Sum of LACs		**1**	**-**	**3**	**-**	**4**	**-**	**4**	**-**	**-**	**-**	**4**	**0.4**
fluoranthene		-	-	0.5	-	-	-	0.3	-	-	-	0.2	-
pyrene		-	-	0.5	-	-	-	0.2	-	-	-	0.1	-
C1-fluoranthenes/pyrenes		-	-	0.6	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	0.04	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	0.07	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	0.7	-	-	-	-	-	-	-	0.06	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**2**	**-**	**-**	**-**	**0.5**	**-**	**-**	**-**	**0.4**	**-**
sample weight, grams :		3.03	5.21	5.05	5.20	5.04	5.11	5.00	5.16	-	5.06	5.10	5.18

Table D-9. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of Steller sea lions.

ACs	General area:	PWS				PWS				PWS			
	Site :	The Needle				The Needle				The Needle			
	Specimen :	SL-582				SL-583				SL-584			
	Date collected :	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89
	Tissue type :	blubber	kidney	liver	muscle	blubber	kidney	liver	muscle	blubber	kidney	liver	muscle
	Visibly oiled :	No	No	No	No	No	No	No	No	No	No	No	No
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	821	771	762	728	822	772	741	736	823	773	742	737
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	1	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	2	0.3	-	-	-	0.6
C4-naphthalenes		-	-	0.09	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	1	-	-	-
C1-phenanthrenes		-	-	0.2	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	0.09	0.4	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	0.5	-	-	-	0.2	-	-	-	-	-
C4-phenanthrenes		-	-	0.1	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	0.2	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**0.1**	**1**	**-**	**-**	**-**	**3**	**0.3**	**1**	**-**	**-**	**0.6**
fluoranthene		0.5	-	0.4	-	-	0.06	0.6	-	-	0.2	0.1	-
pyrene		0.1	0.06	0.3	-	-	-	0.9	-	-	0.1	0.1	-
C1-fluoranthenes/pyrenes		-	-	0.1	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	0.3	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.6**	**0.1**	**1**	**-**	**-**	**0.1**	**2**	**-**	**-**	**0.3**	**0.2**	**-**
sample weight, grams :		3.05	5.06	5.17	5.16	3.03	5.14	5.04	5.09	3.03	5.05	5.03	5.04

Table D-10. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of Steller sea lions.

ACs	General area:	PWS				PWS					Gulf of AK			
	Site :	The Needle				The Needle					Chiswell Island			
	Specimen :	SL-585				SL-586					SL-587			
	Date collected :	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89
	Tissue type :	blubber	kidney	liver	muscle	blubber	kidney	liver	liver	muscle	blubber	kidney	liver	muscle
	Visibly oiled :	No	No	No	No	No	No	No	No	No	No	No	No	No
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	804	774	743	738	805	775	745R	744R	739	806	776	787	740
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	1	1	-	-	1	0.7	0.9	-	-	-	0.7
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**-**	**1**	**1**	**-**	**-**	**1**	**0.7**	**0.9**	**-**	**-**	**-**	**0.7**
fluoranthene		0.2	0.07	0.2	-	0.3	0.06	0.3	0.3	-	0.5	-	-	-
pyrene		-	0.06	0.1	-	-	-	0.3	0.2	-	0.1	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.2**	**0.1**	**0.3**	**-**	**0.3**	**0.1**	**0.6**	**0.5**	**-**	**0.6**	**-**	**-**	**-**
sample weight, grams :		3.01	5.09	5.07	5.04	3.04	5.02	5.07	5.02	5.05	3.07	5.06	5.07	5.15

Table D-11. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of Steller sea lions.

ACs	General area:	Gulf of AK					Gulf of AK				Gulf of AK				
	Site :	Flat Island					Ushagat Island - Barren Islands				Ushagat Island - Barren Islands				
	Specimen :	692-STSL-001					SL-579				SL-580				
	Date collected :	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89	Jun-89
	Tissue type :	blubber	blubber	kidney	liver	muscle	blubber	kidney	liver	muscle	blubber	kidney	kidney	liver	muscle
	Visibly oiled :	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Collector :	NOAA	NOAA	NOAA	NOAA	NOAA	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1326R	1265R	1259	1321	1346	818	794	759	725	819	795R	796R	760	726
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	1	0.5	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	3	-	-	-	1	-	-	-	-	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	0.08	-	-	-	-	-	-
C2-phenanthrenes		2	-	-	-	-	-	-	1	-	-	-	-	-	-
C3-phenanthrenes		6	12	-	-	-	-	-	0.2	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		6	-	-	-	-	-	-	0.6	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
Sum of LACs		**14**	**15**	**-**	**1**	**0.5**	**1**	**-**	**2**	**-**	**-**	**-**	**-**	**-**	**-**
fluoranthene		-	2	-	-	-	-	-	0.3	-	0.5	-	-	-	-
pyrene		-	2	-	-	-	-	-	0.3	-	0.4	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	0.2	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	0.04	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	0.3	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	0.2	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	0.2	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**5**	**-**	**-**	**-**	**-**	**-**	**0.9**	**-**	**0.9**	**-**	**-**	**-**	**-**
sample weight, grams :		3.08	3.05	5.07	3.04	5.10	3.00	5.02	5.14	5.05	3.03	5.07	5.01	5.14	5.18

Table D-12. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in samples of edible tissue of Steller sea lions.

ACs	General area:	Gulf of AK			
	Site :	Ushagat Island - Barren Islands			
	Specimen :	SL-581			
	Date collected :	Jun-89	Jun-89	Jun-89	Jun-89
	Tissue type :	blubber	kidney	liver	muscle
	Visibly oiled :	No	No	No	No
	Collector :	ADFG	ADFG	ADFG	ADFG
	Lab no. :	820	770	761	727
naphthalene		a	a	a	a
C1-naphthalenes		-	-	-	-
C2-naphthalenes		-	-	2	0.08
C3-naphthalenes		-	-	0.1	-
C4-naphthalenes		-	-	-	-
acenaphthylene		-	-	0.06	-
acenaphthene		-	-	-	-
fluorene		-	-	-	-
C1-fluorene		-	-	-	-
C2-fluorene		-	-	-	-
C3-fluorene		-	-	-	-
phenanthrene		-	-	-	-
C1-phenanthrenes		-	-	0.3	-
C2-phenanthrenes		-	0.1	0.7	-
C3-phenanthrenes		-	-	0.5	-
C4-phenanthrenes		-	-	-	-
dibenzothiophene		-	-	0.1	-
C1-dibenzothiophenes		-	-	-	-
C2-dibenzothiophenes		-	-	1	-
C3-dibenzothiophenes		-	-	0.7	-
Sum of LACs		**-**	**0.1**	**5**	**0.1**
fluoranthene		0.3	-	0.4	-
pyrene		-	-	0.5	-
C1-fluoranthenes/pyrenes		-	-	0.3	-
benz[a]anthracene		-	-	-	-
chrysene		-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	0.04	-
C3-chrysenes/benz[a]anthracenes		-	-	0.3	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-
benzo[b]fluoranthene		-	-	-	-
benzo[k]fluoranthene		-	-	-	-
benzo[a]pyrene		-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-
dibenz[a,h]anthracene		-	-	-	-
benzo[ghi]perylene		-	-	-	-
Sum of HACs		**0.3**	**-**	**2**	**-**
sample weight, grams :		3.01	5.13	5.21	5.09

SECTION E

CONCENTRATIONS OF AROMATIC COMPOUNDS (ACs) IN INVERTEBRATE SAMPLES

Explanatory notes for Tables E-1 through E-84

Results on sample extracts were determined by gas chromatography/mass spectrometry (GC/MS) using sequenced multiple ion detection.

A hyphen (-) indicates that the analyte was not detected above the limit of detection which ranged from 0.02 to 1 ng/g (ppb) wet weight.

In some cases, low levels of naphthalene, C1-naphthalenes, and phenanthrene were indistinguishable from those in method blanks and were not reported. They are designated by "a."

Some samples were analyzed in replicate as part of the quality assurance (QA) plan—all of the data are included in the tables. Adjacent data columns with an "R" after the Lab no. are replicate analyses of a sample.

Table E-1. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Angoon (Reference area).

ACs	Species :	Mussel		Chiton		Butter clam	Horse clam	
	Site :	AGN1	AGN1	AGN1	AGN1	AGN2	AGN2	AGN2
	Date collected :	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	232	324	326	327	231	325R	328R
naphthalene		a	a	a	a	a	a	a
C1-naphthalenes		0.3	0.3	0.6	0.8	0.2	0.2	0.4
C2-naphthalenes		-	-	0.07	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-
phenanthrene		0.3	0.7	0.7	0.6	0.3	0.3	0.4
C1-phenanthrenes		-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-
Sum of LACs		**0.6**	**1**	**1**	**1**	**0.5**	**0.5**	**0.8**
fluoranthene		-	0.1	-	-	-	-	-
pyrene		-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-
Sum of HACs		**-**	**0.1**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.43	5.30	5.28	5.32	5.09	5.32	5.64

Table E-2. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Yakutat.

ACs	Species :	Mussel							Butter clam						Littleneck clam	
	Site :	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1	YAK1
	Date collected :	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	3033	3034R	3057R	3036	3037	3038	3035	3039	3040	3041	3042	3048	3049	3050	3051
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		0.4	0.9	2	0.5	0.7	0.5	-	0.6	-	-	-	-	0.5	-	-
C3-naphthalenes		-	-	0.4	0.6	1	-	-	-	-	-	0.4	-	-	-	-
C4-naphthalenes		-	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	0.7	-	0.5	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.5	0.6	1	0.7	0.7	0.7	0.5	0.7	0.5	0.5	0.5	0.4	0.6	0.5	0.6
C1-phenanthrenes		0.5	-	1	0.5	-	-	-	0.6	-	-	-	-	0.4	-	-
C2-phenanthrenes		-	-	0.7	-	-	-	-	0.4	0.4	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**1**	**2**	**6**	**3**	**3**	**1**	**0.9**	**2**	**0.9**	**0.5**	**0.9**	**0.4**	**2**	**0.5**	**0.6**
fluoranthene		0.4	-	0.4	0.4	0.4	-	-	0.5	-	-	-	-	0.5	-	0.4
pyrene		-	-	0.6	-	-	-	-	-	-	-	-	-	0.4	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.4**	**-**	**1**	**0.4**	**0.4**	**-**	**-**	**0.5**	**-**	**-**	**-**	**-**	**0.9**	**-**	**0.4**
sample weight, grams :		5.00	5.03	5.08	5.08	5.02	5.04	5.04	5.02	5.04	5.04	5.00	5.03	5.11	5.00	5.08

Table E-3. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Yakutat.

ACs	Species :	Littleneck clam				Chiton					
	Site :	YAK1	YAK1	YAK1	YAK1	YAK5	YAK5	YAK5	YAK5	YAK5	YAK5
	Date collected :	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90	Jun-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	3052	3053	3054	3055	3056	3076	3077	3078	3079	3080
naphthalene		a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	0.6	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	0.5	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	0.4	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-
phenanthrene		0.5	0.5	0.5	0.6	0.5	0.5	0.7	0.8	0.8	0.6
C1-phenanthrenes		-	-	-	-	-	0.4	0.5	0.6	0.7	0.5
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.5**	**0.5**	**1**	**0.6**	**1**	**0.9**	**1**	**2**	**2**	**1**
fluoranthene		-	-	-	0.4	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**0.4**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.13	5.07	5.08	5.02	5.10	5.02	5.01	5.04	5.04	5.00

Table E-4. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Tatitlek Village.

ACs	Species :	Mussel			Butter clam							Mussel				
	Site :	T1	T1	T1	T1	T1	T1	T1	T1	T1	T1	TAT1	TAT1	TAT1	TAT1	TAT1
	Date collected :	Nov-90	Nov-90	Nov-90	Mar-90	Mar-90	Mar-90	Mar-90	Jun-90	Jun-90	Jun-90	Jul-89	Jul-89	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2157	2158	2159	840	917R	920R	918	1596	1597	1598	43R	66R	1952	1953	1954
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	1	0.9	1	-	-	-	-	-	2	2	2
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.4	0.7
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	0.6
C4-naphthalenes		1	0.9	0.6	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		0.4	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.6	1	0.5	-	-	-	-	0.8	0.7	1	-	-	0.3	-	0.3
C1-fluorene		0.8	1	3	-	-	-	-	-	-	-	-	-	0.3	-	-
C2-fluorene		-	0.5	-	-	-	-	-	-	-	-	-	-	0.5	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
phenanthrene		-	-	-	2	2	2	1	13	9	13	-	-	1	1	2
C1-phenanthrenes		-	4	-	-	2	2	1	4	2	4	-	-	1	0.9	1
C2-phenanthrenes		4	0.4	2	-	2	2	1	0.7	0.4	0.6	-	-	1	0.7	0.8
C3-phenanthrenes		0.9	1	0.8	-	0.4	0.4	-	-	-	-	-	-	-	0.3	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.4	0.4	-	-	-	-	-	0.2	-	-	-	-	0.3	-	0.3
C1-dibenzothiophenes		0.7	1	0.6	-	0.3	0.3	-	-	-	-	-	-	0.8	0.3	0.6
C2-dibenzothiophenes		2	2	-	-	0.6	0.8	-	-	-	-	-	-	0.8	0.5	0.5
C3-dibenzothiophenes		2	2	2	-	0.4	0.4	-	-	-	-	-	-	-	0.4	-
Sum of LACs		**13**	**16**	**10**	**2**	**9**	**9**	**4**	**19**	**12**	**19**	**-**	**-**	**10**	**8**	**10**
fluoranthene		2	3	1	5	6	8	3	39	26	34	-	-	0.8	0.6	0.7
pyrene		2	3	1	3	5	6	2	25	17	22	-	-	-	-	-
C1-fluoranthenes/pyrenes		1	1	-	-	2	3	0.9	5	3	4	-	-	-	-	-
benz[a]anthracene		0.8	1	0.6	1	4	5	2	8	6	6	-	-	-	-	-
chrysene		1	2	1	0.5	4	5	2	12	8	9	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	0.4	0.4	-	0.2	0.2	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		1	2	2	-	4	4	2	15	9	10	-	-	-	-	-
benzo[k]fluoranthene		1	2	1	-	1	2	0.5	4	3	4	-	-	-	-	-
benzo[a]pyrene		-	0.7	-	-	0.5	0.6	0.4	2	1	2	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**9**	**15**	**7**	**10**	**27**	**34**	**13**	**110**	**73**	**91**	**-**	**-**	**0.8**	**0.6**	**0.7**
sample weight, grams :		4.27	4.50	4.99	5.12	5.00	5.04	5.01	5.07	5.04	5.01	5.01	5.10	5.00	5.00	4.99

Table E-5. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Tatitlek Village.

ACs	Species :	Mussel				Butter clam							Littleneck clam			
	Site :	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1	TAT1
	Date collected :	Apr-90	Nov-90	Nov-90	Nov-90	Mar-90	Mar-90	Mar-90	Apr-90	Apr-90	Jun-90	Jun-90	Apr-90	Apr-90	Apr-90	Jun-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	D&M	D&M	D&M	ADFG
	Lab no. :	1955	2166	2167	2168	919	941	942	2034	2035	1594	1595	2052	2053	2054	1611
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		2	-	-	-	-	-	-	4	-	-	-	-	-	-	-
C2-naphthalenes		0.1	-	-	-	-	0.5	-	3	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	2	0.9	-	-	0.9	1	0.9	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	0.6	0.4	0.3	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	0.4	0.4	-	-	-	-	0.7	0.3	-	-	-	-	-	-
C1-fluorene		-	-	0.7	-	-	-	-	0.4	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	0.7	0.4	-	-	-	-	-	-
C3-fluorene		1	-	-	-	-	-	-	2	2	-	-	0.4	0.7	0.3	-
phenanthrene		1	-	-	-	0.7	2	-	5	2	0.5	0.3	-	-	-	-
C1-phenanthrenes		0.8	-	-	-	0.6	0.8	-	4	2	-	-	1	1	1	-
C2-phenanthrenes		0.7	-	0.4	1	0.4	0.6	-	3	1	-	-	0.7	0.5	0.5	-
C3-phenanthrenes		-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	0.8	-	-	-	0.3	0.3	0.3	-
C1-dibenzothiophenes		0.4	-	-	-	-	-	-	1	0.9	-	-	-	-	-	-
C2-dibenzothiophenes		0.5	-	-	-	-	-	-	1	0.4	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-
Sum of LACs		**6**	**0.4**	**2**	**1**	**2**	**4**	**-**	**28**	**10**	**0.5**	**0.3**	**4**	**4**	**3**	**-**
fluoranthene		0.6	-	-	-	0.6	1	-	3	1	-	-	0.9	1	1	0.8
pyrene		-	-	-	-	-	1	-	1	-	-	-	-	-	-	0.9
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	0.2	0.4	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.6**	**-**	**-**	**-**	**0.8**	**2**	**-**	**4**	**1**	**-**	**-**	**0.9**	**1**	**1**	**2**
sample weight, grams :		5.00	4.80	4.90	4.90	5.03	5.02	5.09	5.09	5.07	5.08	5.03	4.99	5.05	4.97	5.01

Table E-6. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Tatitlek Village.

ACs	Species :	Mussel				Butter clam			Littleneck clam		Mussel					
	Site :	TAT2	TAT2	TAT2	TAT2	TAT2	TAT2	TAT2	TAT2	TAT2	TAT5	TAT5	TAT5	TAT5	TAT5	TAT5
	Date collected :	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89	Aug-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1956	1957	1958	1959	2036	2037	2106	2055	2056	111	112	113	307	308	309
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		2	2	2	2	-	-	-	-	-	0.2	0.2	0.2	0.2	0.4	0.1
C2-naphthalenes		0.6	0.3	0.5	0.8	5	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		0.7	-	0.4	0.6	1	1	-	2	0.6	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	0.3	0.5	1	1	0.3	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	0.5	0.6	0.5	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.4	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		0.3	-	-	-	0.3	0.3	0.2	-	-	-	-	-	-	-	-
C2-fluorene		0.5	-	-	0.4	0.4	0.5	0.5	-	-	-	-	-	-	-	-
C3-fluorene		1	2	0.8	1	3	3	-	0.5	-	-	-	-	-	-	-
phenanthrene		2	1	1	2	2	2	1	-	-	2	2	2	0.6	0.7	0.8
C1-phenanthrenes		1	0.7	0.8	1	2	2	-	1	0.8	-	-	-	-	-	-
C2-phenanthrenes		0.8	0.4	0.4	0.7	1	2	0.7	0.7	0.3	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.3	-	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-
C1-dibenzothiophenes		0.8	0.4	0.3	0.6	0.8	0.9	0.6	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		0.9	-	0.3	0.7	0.7	1	0.7	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-
Sum of LACs		**11**	**7**	**6**	**10**	**17**	**13**	**5**	**6**	**2**	**3**	**3**	**3**	**0.8**	**1**	**0.9**
fluoranthene		0.6	0.4	0.3	0.5	0.7	0.9	0.4	0.7	0.8	0.2	0.1	0.3	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.6**	**0.4**	**0.3**	**0.5**	**0.7**	**0.9**	**0.4**	**0.7**	**0.8**	**0.2**	**0.1**	**0.3**	**-**	**-**	**-**
sample weight, grams :		4.99	5.00	5.00	5.06	5.04	5.00	5.02	5.04	4.98	5.04	5.48	5.31	4.47	5.32	4.08

Table E-7. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Tatitlek Village.

ACs	Species :	Chiton	
	Site :	TAT5	TAT5
	Date collected :	Aug-89	Aug-89
	Collector :	D&M	D&M
	Lab no. :	120	357
naphthalene		a	a
C1-naphthalenes		-	0.8
C2-naphthalenes		-	-
C3-naphthalenes		-	-
C4-naphthalenes		-	-
acenaphthylene		-	-
acenaphthene		-	-
fluorene		-	-
C1-fluorene		-	-
C2-fluorene		-	-
C3-fluorene		-	-
phenanthrene		-	0.4
C1-phenanthrenes		-	-
C2-phenanthrenes		-	-
C3-phenanthrenes		-	-
C4-phenanthrenes		-	-
dibenzothiophene		-	-
C1-dibenzothiophenes		-	-
C2-dibenzothiophenes		-	-
C3-dibenzothiophenes		-	-
Sum of LACs		**-**	**1**
fluoranthene		-	-
pyrene		-	-
C1-fluoranthenes/pyrenes		-	-
benz[a]anthracene		-	-
chrysene		-	-
C1-chrysenes/benz[a]anthracenes		-	-
C2-chrysenes/benz[a]anthracenes		-	-
C3-chrysenes/benz[a]anthracenes		-	-
C4-chrysenes/benz[a]anthracenes		-	-
benzo[b]fluoranthene		-	-
benzo[k]fluoranthene		-	-
benzo[a]pyrene		-	-
indeno[1,2,3-cd]pyrene		-	-
dibenz[a,h]anthracene		-	-
benzo[ghi]perylene		-	-
Sum of HACs		**-**	**-**
sample weight, grams :		5.05	5.27

Table E-8. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Mussel														
	Site :	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1
	Date collected :	Jul-89	Aug-89	Aug-89	Aug-89	Aug-89	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Jun-91	Jun-91	Jun-91	Jun-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	44	114	304	305	306	896	897	898	899	1119	1120	2821	2822	2823	2845
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.7	0.5	0.2	0.5	0.2	-	0.2	0.1	-	-	-	-	-	-
C2-naphthalenes		-	0.2	0.2	0.1	0.1	-	-	-	-	-	-	-	-	-	1
C3-naphthalenes		0.5	2	2	1	1	-	-	-	-	0.6	0.5	4	4	4	3
C4-naphthalenes		1	4	3	3	3	-	-	-	-	0.5	0.7	5	9	8	8
acenaphthylene		-	1	-	-	-	-	-	-	-	-	-	0.4	-	-	0.4
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	0.4	0.5	-	0.7
fluorene		-	0.5	0.2	0.1	0.3	-	-	-	-	0.2	0.07	0.7	0.7	-	0.6
C1-fluorene		0.2	1	1	1	0.9	-	-	-	-	0.2	0.1	2	3	2	3
C2-fluorene		3	4	4	3	2	-	-	-	-	0.3	1	4	9	8	9
C3-fluorene		0.2	0.4	0.6	2	0.7	0.3	-	-	-	1	3	1	4	5	6
phenanthrene		5	7	5	4	4	0.8	0.4	0.6	0.7	2	2	3	3	2	3
C1-phenanthrenes		18	12	10	9	7	0.1	-	-	-	3	3	4	7	6	7
C2-phenanthrenes		52	29	22	23	15	-	-	-	-	4	11	4	12	1	11
C3-phenanthrenes		46	29	22	23	14	-	-	-	-	4	17	2	6	6	7
C4-phenanthrenes		0.5	4	3	6	2	-	-	-	-	0.5	5	-	-	-	-
dibenzothiophene		0.5	1	3	2	1	-	-	-	-	0.1	0.09	0.8	1	-	0.9
C1-dibenzothiophenes		10	8	14	11	5	-	-	-	-	0.5	0.6	2	5	5	5
C2-dibenzothiophenes		40	26	49	42	18	-	-	-	-	0.05	8	5	12	11	11
C3-dibenzothiophenes		47	33	56	56	21	-	-	-	-	-	15	3	9	9	8
Sum of LACs		**220**	**160**	**200**	**190**	**96**	**1**	**0.4**	**0.8**	**0.8**	**17**	**67**	**41**	**85**	**67**	**85**
fluoranthene		5	6	8	7	6	0.6	2	1	0.5	2	3	5	2	3	2
pyrene		2	3	5	4	3	0.1	1	0.4	-	1	2	2	1	2	1
C1-fluoranthenes/pyrenes		0.4	1	3	3	1	-	-	-	-	1	3	1	0.6	1	2
benz[a]anthracene		-	0.8	1	1	0.9	-	0.2	0.1	-	1	1	0.5	0.5	0.6	0.5
chrysene		8	4	3	4	2	0.8	0.9	0.8	0.5	3	4	1	0.9	1	1
C1-chrysenes/benz[a]anthracenes		5	3	1	3	0.8	-	-	-	-	1	4	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	1	0.1	1	0.05	-	-	-	-	0.5	4	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		0.1	2	1	2	1	0.7	0.4	3	0.3	2	1	1	0.6	1	0.5
benzo[k]fluoranthene		-	1	0.3	0.7	0.3	0.5	0.2	2	0.2	2	1	0.7	0.8	0.7	0.5
benzo[a]pyrene		-	-	0.09	0.2	0.1	-	-	0.08	-	0.4	0.4	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	0.2	-	0.5	0.2	0.5	0.5	0.5	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	0.4	-	0.7	0.4	-	-	-	-
Sum of HACs		**20**	**22**	**22**	**26**	**15**	**3**	**5**	**8**	**2**	**15**	**25**	**12**	**7**	**10**	**8**
sample weight, grams :		5.05	4.61	4.83	5.19	4.49	5.03	5.01	5.05	5.12	5.04	5.03	5.01	5.08	5.01	2.98

Table E-9. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Butter clam														
	Site :	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1
	Date collected :	Jul-89	Jul-89	Feb-90	Feb-90	Jun-90	Jun-90	Jun-90	Jun-90	Sep-90	Sep-90	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91
	Collector :	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M
	Lab no. :	664	665	944	945	1599	1600	1601R	1620R	2094	2095	2817	2818	2819	2820R	2824R
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.7	0.4	-	-	-	0.2	-	-	-	-	-	-	-	-	-
C2-naphthalenes		0.6	-	-	0.1	-	-	-	0.7	-	-	-	-	3	-	-
C3-naphthalenes		2	0.07	-	-	-	-	-	-	-	-	0.4	0.9	2	-	-
C4-naphthalenes		0.8	0.06	-	-	-	-	-	-	0.8	1	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-
acenaphthene		-	-	-	0.1	-	-	-	-	-	-	0.4	-	0.8	-	0.5
fluorene		-	-	-	0.6	0.2	-	-	1	-	0.6	0.5	0.5	0.9	0.4	0.9
C1-fluorene		-	0.1	-	0.1	-	-	-	-	-	0.5	0.4	-	1	-	-
C2-fluorene		0.1	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-
C3-fluorene		0.8	0.5	-	0.2	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		3	2	-	17	6	6	6	6	-	-	2	2	2	2	2
C1-phenanthrenes		7	3	0.2	8	0.4	0.4	0.2	0.9	-	-	1	2	2	2	2
C2-phenanthrenes		10	4	0.3	4	-	-	-	-	2	3	0.8	2	2	1	1
C3-phenanthrenes		2	0.1	-	0.8	-	-	-	-	0.8	0.9	-	-	-	-	-
C4-phenanthrenes		-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		1	0.2	-	0.1	-	-	-	-	-	-	-	-	0.5	-	0.4
C1-dibenzothiophenes		2	0.8	-	0.2	-	-	-	-	0.5	0.7	0.4	0.5	0.6	0.5	0.7
C2-dibenzothiophenes		7	3	-	0.8	-	-	-	-	2	2	0.4	1	1	-	-
C3-dibenzothiophenes		-	1	-	0.3	-	-	-	-	2	3	-	-	-	-	-
Sum of LACs		**37**	**15**	**0.5**	**32**	**7**	**7**	**6**	**9**	**8**	**12**	**6**	**9**	**16**	**6**	**8**
fluoranthene		3	2	-	44	8	7	8	8	3	5	3	4	5	3	4
pyrene		1	1	-	33	3	2	2	3	2	4	2	2	3	2	2
C1-fluoranthenes/pyrenes		-	-	-	10	-	-	-	0.8	0.9	1	0.9	1	2	-	1
benz[a]anthracene		-	-	-	6	-	-	-	0.7	0.5	0.9	0.8	0.9	1	0.8	0.7
chrysene		0.6	0.3	-	6	0.5	0.3	0.2	1	0.9	1	1	1	2	0.8	0.8
C1-chrysenes/benz[a]anthracenes		-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	6	-	-	-	0.5	0.5	0.9	0.6	0.7	0.8	0.5	0.4
benzo[k]fluoranthene		-	-	-	3	-	-	-	-	-	0.6	0.4	0.4	0.9	0.6	0.4
benzo[a]pyrene		-	-	-	2	-	-	-	-	-	0.8	-	0.4	0.4	-	-
indeno[1,2,3-cd]pyrene		-	-	-	0.8	-	-	-	-	-	1	0.4	0.5	0.7	0.4	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	0.6	-	-	-	-	0.4	0.7	0.4	-	0.6	-	-
Sum of HACs		**5**	**3**	**-**	**110**	**12**	**9**	**10**	**14**	**8**	**16**	**10**	**11**	**16**	**8**	**9**
sample weight, grams :		5.07	5.02	4.38	4.27	5.02	5.03	5.12	5.07	5.09	5.07	5.05	5.01	5.01	4.98	5.02

Table E-10. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Littleneck clam								Chiton		Chiton		Mussel		
	Site :	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE1	CHE10	CHE10	CHE7	CHE7	CHE7
	Date collected :	Feb-90	Mar-90	Sep-90	Sep-90	Jun-91	Jun-91	Jun-91	Jun-91	Feb-90	Mar-90	Jun-90	Jun-90	Apr-90	Apr-90	Apr-90
	Collector :	ADFG	D&M	ADFG	ADFG	D&M	D&M	D&M	D&M	ADFG	D&M	ADFG	ADFG	D&M	D&M	D&M
	Lab no. :	943	929	2096	2097	2846	2847	2848	2849	1021	963	1613	1614	1530	1536	1537
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
C2-naphthalenes		0.1	-	-	-	0.8	1	1	0.7	-	0.3	0.7	0.4	2	1	0.8
C3-naphthalenes		-	-	-	-	1	0.9	2	1	-	-	-	-	-	-	-
C4-naphthalenes		-	-	1	-	-	-	0.5	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	0.4	-	0.5	-	-	-	-	-	3	1	1
fluorene		0.3	-	0.4	-	0.5	0.4	0.4	0.4	-	-	-	-	5	2	2
C1-fluorene		-	-	0.4	-	-	-	-	-	-	-	-	-	2	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	0.1	-	-	0.8	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
phenanthrene		7	-	2	2	2	2	2	2	-	1	-	-	52	24	26
C1-phenanthrenes		3	-	2	2	0.9	1	1	1	-	0.5	-	-	12	4	5
C2-phenanthrenes		2	-	2	3	0.5	1	1	0.8	-	0.2	-	-	17	9	6
C3-phenanthrenes		0.2	-	-	-	-	-	-	-	-	-	-	-	4	-	0.5
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-
dibenzothiophene		0.4	-	-	-	0.4	0.4	-	-	-	-	-	-	4	2	2
C1-dibenzothiophenes		0.2	-	2	1	0.6	-	0.4	0.6	-	-	-	-	4	1	2
C2-dibenzothiophenes		0.5	-	1	0.9	-	-	0.7	0.4	-	-	-	-	2	0.8	1
C3-dibenzothiophenes		-	-	0.5	-	-	-	-	-	-	-	-	-	3	0.3	1
Sum of LACs		**14**	**-**	**11**	**9**	**7**	**7**	**10**	**7**	**-**	**5**	**0.7**	**0.4**	**110**	**45**	**47**
fluoranthene		15	-	3	3	3	6	4	4	-	0.8	1	0.7	90	38	40
pyrene		9	-	1	1	1	3	2	1	-	0.6	-	-	40	12	15
C1-fluoranthenes/pyrenes		2	-	0.5	-	0.5	0.9	-	0.6	-	0.09	-	-	11	2	3
benz[a]anthracene		1	-	-	-	0.4	0.7	0.5	0.4	-	0.02	-	-	14	3	3
chrysene		1	-	2	-	0.5	0.9	0.7	0.5	-	0.08	0.5	0.7	35	7	7
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	14	2	2
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	4	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	0.5	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	0.5	-	-	4	-	-
benzo[b]fluoranthene		0.7	-	-	-	-	0.4	0.4	-	-	0.1	-	-	26	5	5
benzo[k]fluoranthene		0.4	-	-	-	-	0.5	0.4	-	-	0.04	-	-	28	4	5
benzo[a]pyrene		-	-	-	-	-	0.4	-	-	-	0.04	-	-	5	1	0.9
indeno[1,2,3-cd]pyrene		-	-	-	-	-	0.6	0.5	0.4	-	-	-	-	7	2	2
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	2	2	0.7
benzo[ghi]perylene		-	-	-	-	-	0.5	-	-	-	-	-	-	7	2	2
Sum of HACs		**29**	**-**	**6**	**4**	**5**	**14**	**8**	**7**	**-**	**2**	**2**	**1**	**290**	**80**	**86**
sample weight, grams :		5.07	5.01	5.00	5.05	5.00	5.00	5.00	5.00	4.39	5.02	5.04	5.02	5.03	5.01	5.05

Table E-11. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Mussel									Butter clam					
	Site :	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7
	Date collected:	Apr-90	Jul-90	Jul-90	Jul-90	Jul-90	Jun-91	Jun-91	Jun-91	Jun-91	Feb-90	Feb-90	Feb-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	D&M	D&M	D&M
	Lab no. :	1538	1753	1754	1755	1756	2815	2816	2838	2839	947	948	949	1521	1522	1523
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	24	3	1	2	-	-	-	-	-	-	-	0.9	1	2
C2-naphthalenes		2	34	8	0.7	2	3	0.9	1	0.9	2	1	1	-	-	1
C3-naphthalenes		2	32	11	-	0.7	1	-	1	2	2	0.9	1	-	-	-
C4-naphthalenes		-	18	8	-	-	-	-	-	-	0.9	0.2	0.4	-	-	-
acenaphthylene		-	2	0.7	-	-	0.5	0.5	0.4	-	-	0.1	0.2	-	-	-
acenaphthene		2	53	12	2	2	0.7	0.9	0.7	1	3	2	3	-	-	-
fluorene		4	64	17	2	3	1	0.8	1	1	5	3	4	-	0.5	0.8
C1-fluorene		1	19	8	1	1	1	-	1	2	4	2	3	-	-	-
C2-fluorene		-	17	8	-	-	-	-	-	2	2	-	0.9	-	-	-
C3-fluorene		-	20	-	-	-	-	-	-	-	2	0.7	1	-	-	-
phenanthrene		39	340	150	20	27	5	4	7	7	100	55	72	5	6	9
C1-phenanthrenes		9	110	64	5	6	2	1	3	3	61	39	46	2	2	3
C2-phenanthrenes		12	96	74	5	6	2	1	3	4	28	14	20	2	2	5
C3-phenanthrenes		3	50	29	3	3	1	-	0.9	2	8	2	4	-	-	0.6
C4-phenanthrenes		-	8	3	-	-	-	-	-	-	-	0.7	1	-	-	-
dibenzothiophene		3	29	11	1	2	0.5	0.5	1	1	2	0.7	1	-	-	-
C1-dibenzothiophenes		3	18	13	0.7	1	0.4	-	1	1	2	2	2	-	0.7	0.9
C2-dibenzothiophenes		2	21	12	0.9	0.7	0.6	0.7	3	2	4	2	2	-	-	-
C3-dibenzothiophenes		2	18	11	0.7	-	-	-	2	3	1	0.4	0.4	0.8	-	-
Sum of LACs		**84**	**970**	**440**	**43**	**56**	**19**	**10**	**26**	**32**	**230**	**130**	**160**	**11**	**12**	**22**
fluoranthene		75	530	490	38	52	15	6	15	18	280	160	210	11	13	20
pyrene		28	300	260	10	17	8	2	6	5	230	130	170	6	6	11
C1-fluoranthenes/pyrenes		6	150	120	11	12	6	3	7	9	88	40	64	1	1	2
benz[a]anthracene		7	-	-	-	-	3	2	4	5	43	18	30	2	2	4
chrysene		14	88	120	13	14	5	3	6	8	33	18	26	3	2	5
C1-chrysenes/benz[a]anthracenes		3	45	46	3	3	2	1	2	4	13	5	7	1	0.6	1
C2-chrysenes/benz[a]anthracenes		0.7	21	15	-	-	-	-	0.5	1	2	0.4	0.5	-	-	0.4
C3-chrysenes/benz[a]anthracenes		-	7	3	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	0.4	4	-	-	-	-	-	-	-	-	-	0.9	-	0.5
benzo[b]fluoranthene		10	42	57	8	9	6	3	7	13	30	14	19	3	2	4
benzo[k]fluoranthene		8	43	61	8	8	6	2	5	10	18	11	11	1	1	3
benzo[a]pyrene		2	20	19	2	2	1	0.5	1	2	19	10	12	1	0.8	2
indeno[1,2,3-cd]pyrene		2	6	8	2	2	3	0.9	2	4	7	4	3	1	0.7	1
dibenz[a,h]anthracene		0.6	2	2	-	-	0.5	-	0.4	0.7	1	0.4	0.3	2	0.6	0.5
benzo[ghi]perylene		3	5	6	2	2	3	0.9	2	4	6	3	3	1	0.7	1
Sum of HACs		**160**	**1300**	**1200**	**97**	**120**	**58**	**24**	**58**	**84**	**770**	**410**	**560**	**34**	**30**	**55**
sample weight, grams :		5.24	5.03	5.10	5.09	5.24	5.08	5.00	2.98	2.98	5.05	5.04	5.05	5.04	5.04	5.13

Table E-12. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Butter clam							Littleneck clam							
	Site :	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7
	Date collected:	Jun-90	Jun-90	Jun-90	Jun-91	Jun-91	Jun-91	Jun-91	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Apr-90	Apr-90
	Collector :	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1602	1603	1612	2830	2831	2832	2833	930	931	932	933	1006	1007	1524	1525
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.2	0.6	-	-	-	-	-	-	-	-	-	0.2	-	2	2
C2-naphthalenes		-	-	1	1	2	2	1	-	-	-	-	-	-	2	1
C3-naphthalenes		-	-	-	1	2	3	0.4	-	-	-	-	-	-	2	-
C4-naphthalenes		-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-
acenaphthene		0.9	2	3	0.8	3	0.8	0.8	-	-	-	-	-	-	0.9	1
fluorene		2	3	3	1	3	1	1	-	-	-	-	-	-	1	1
C1-fluorene		-	-	-	-	-	0.9	-	-	-	-	-	-	-	0.4	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		24	36	29	7	16	8	6	11	4	11	10	12	8	11	12
C1-phenanthrenes		4	9	6	3	5	5	4	2	-	1	1	3	2	5	4
C2-phenanthrenes		0.4	2	6	3	4	4	3	-	-	-	-	1	0.8	9	6
C3-phenanthrenes		-	-	-	-	1	0.6	-	-	-	-	-	-	-	0.6	0.9
C4-phenanthrenes		-	-	-	-	0.8	-	-	-	-	-	-	1	0.5	-	-
dibenzothiophene		0.2	1	1	1	2	2	0.9	-	-	-	-	-	-	0.7	0.8
C1-dibenzothiophenes		-	-	1	1	2	2	1	-	-	-	-	-	-	2	2
C2-dibenzothiophenes		-	-	-	-	0.7	3	2	-	-	-	-	-	-	-	2
C3-dibenzothiophenes		-	-	-	0.8	1	1	-	-	-	-	-	-	-	-	1
Sum of LACs		**32**	**54**	**50**	**20**	**44**	**33**	**20**	**13**	**4**	**12**	**11**	**17**	**11**	**37**	**34**
fluoranthene		68	80	57	23	38	29	30	70	27	75	51	60	45	33	38
pyrene		25	41	24	12	20	16	15	44	9	41	32	41	26	17	18
C1-fluoranthenes/pyrenes		5	12	6	0.7	8	9	10	-	-	-	-	13	7	4	3
benz[a]anthracene		2	4	3	3	5	5	5	6	0.9	6	6	8	6	4	2
chrysene		6	10	8	5	7	6	6	5	1	5	6	9	6	6	3
C1-chrysenes/benz[a]anthracenes		-	0.7	1	-	2	2	2	-	-	-	-	0.3	0.2	2	0.9
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	0.6	0.4	-	-	-	-	-	-	0.7	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		4	7	5	3	5	6	5	2	0.3	2	4	9	3	3	1
benzo[k]fluoranthene		3	5	-	2	3	3	3	1	0.1	0.8	2	6	2	3	1
benzo[a]pyrene		2	4	2	2	2	2	2	1	-	0.7	1	3	1	3	0.5
indeno[1,2,3-cd]pyrene		0.2	1	0.8	0.9	1	2	2	0.1	-	-	-	3	0.2	2	1
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
benzo[ghi]perylene		0.4	1	1	0.9	0.9	1	1	0.9	-	0.3	0.3	3	0.6	3	2
Sum of HACs		**120**	**170**	**110**	**52**	**92**	**82**	**81**	**130**	**38**	**130**	**100**	**160**	**97**	**81**	**70**
sample weight, grams :		5.04	5.00	5.00	5.02	4.99	5.02	5.03	5.13	5.03	5.03	5.02	5.04	5.01	5.01	5.01

Table E-13. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Littleneck clam													Mussel	
	Site :	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE7	CHE9	CHE9
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Jul-90	Jul-90	Jul-90	Jul-90	Jun-91	Jun-91	Jun-91	Jun-91	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1526	1527	1528R	1545R	1529	1777	1778	1779	1780	2834	2836	2837	3027	1480	1481
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		4	3	1	-	1	3	2	2	3	-	-	-	-	-	-
C2-naphthalenes		1	-	-	2	-	1	-	1	2	1	1	0.6	-	-	0.6
C3-naphthalenes		-	-	-	0.6	-	-	-	0.7	1	0.4	-	1	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	0.3	-	-	0.3	-	-	0.4	-	-	-
acenaphthene		1	0.6	0.9	1	0.6	3	2	4	3	1	0.9	2	-	-	-
fluorene		1	0.5	1	1	0.6	3	2	4	3	1	0.9	1	0.8	-	-
C1-fluorene		-	-	-	-	-	0.7	-	0.7	0.3	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		11	-	9	9	4	19	17	26	30	5	5	4	3	-	-
C1-phenanthrenes		5	2	2	3	3	5	4	6	6	3	2	2	2	1	-
C2-phenanthrenes		5	3	6	6	6	6	4	5	7	2	2	2	1	4	8
C3-phenanthrenes		1	-	-	0.5	0.6	-	-	-	-	-	-	-	0.9	3	4
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
dibenzothiophene		0.7	0.4	0.6	0.6	0.4	1	0.9	2	2	0.9	1	1	-	-	-
C1-dibenzothiophenes		2	1	0.6	0.4	-	2	-	1	1	1	0.7	0.7	-	1	0.4
C2-dibenzothiophenes		1	-	-	-	-	-	-	-	0.2	-	0.5	1	-	2	2
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	0.6	-	-	-	-	5	7
Sum of LACs		**33**	**10**	**21**	**24**	**16**	**44**	**32**	**52**	**59**	**15**	**14**	**16**	**8**	**18**	**24**
fluoranthene		39	19	29	32	37	79	58	72	87	22	24	24	23	-	-
pyrene		19	7	11	14	13	26	18	27	32	8	9	8	7	-	-
C1-fluoranthenes/pyrenes		4	1	2	2	4	11	7	8	9	5	6	5	5	-	0.4
benz[a]anthracene		6	0.8	0.9	3	4	2	2	2	2	2	2	1	2	-	-
chrysene		6	2	3	5	12	6	6	4	5	4	3	3	3	1	2
C1-chrysenes/benz[a]anthracenes		2	0.4	0.5	2	2	0.7	0.3	0.3	0.2	0.8	0.6	-	0.4	2	2
C2-chrysenes/benz[a]anthracenes		0.5	-	-	0.7	0.6	-	-	-	-	-	0.4	-	0.4	3	2
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	1
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5
benzo[b]fluoranthene		3	0.7	1	3	3	2	2	0.7	0.7	2	1	1	1	-	0.4
benzo[k]fluoranthene		3	0.6	0.7	4	4	2	1	0.9	0.9	1	1	1	2	-	-
benzo[a]pyrene		2	-	0.4	4	3	1	1	0.6	0.3	0.7	0.6	0.5	0.7	-	-
indeno[1,2,3-cd]pyrene		2	0.6	0.9	3	2	0.5	0.3	0.2	0.3	1	0.8	0.8	0.8	-	-
dibenz[a,h]anthracene		0.6	-	0.4	0.6	0.6	0.2	0.3	-	-	0.4	-	-	-	-	-
benzo[ghi]perylene		3	1	1	4	3	1	0.9	0.6	1	2	1	2	0.9	-	-
Sum of HACs		**90**	**33**	**51**	**77**	**88**	**130**	**97**	**120**	**140**	**49**	**49**	**46**	**46**	**7**	**8**
sample weight, grams :		5.01	5.07	5.20	5.18	5.18	5.04	5.05	4.44	5.03	3.02	3.02	3.00	5.20	5.12	5.01

Table E-14. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Mussel						Chiton								
	Site :	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9	CHE9
	Date collected:	Apr-90	Apr-90	Jun-91	Jun-91	Jun-91	Jun-91	Apr-90	Apr-90	Apr-90	Apr-90	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1482	1483	2862	2863	2864	2865	1491	1492	1493	1494	2860	2861	2882	2883R	2884R
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	0.7	0.6	0.5	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	-	-	0.5	0.6	0.6	0.5	0.5
C1-phenanthrenes		1	2	-	-	0.5	0.6	0.2	-	-	-	-	-	-	-	0.5
C2-phenanthrenes		5	7	-	-	-	0.5	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		3	2	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		2	5	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		2	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		1	3	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		5	13	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**19**	**33**	**-**	**-**	**2**	**2**	**0.7**	**-**	**-**	**-**	**0.5**	**0.6**	**0.6**	**0.5**	**1**
fluoranthene		-	1	0.4	0.5	0.4	0.6	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		1	2	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		2	5	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		3	5	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		0.8	1	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		0.4	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**9**	**19**	**0.4**	**0.5**	**0.8**	**0.6**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.02	5.10	5.00	5.00	5.07	5.01	5.05	5.00	5.02	5.00	5.00	5.03	5.02	5.02	5.08

Table E-15. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Mussel											Butter clam			
	Site :	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10
	Date collected:	Apr-90	Apr-90	Apr-90	Jun-91	Jun-91	Jun-91	Jun-91	Aug-91	Aug-91	Aug-91	Aug-91	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M
	Lab no. :	1512	1513	1514	2878	2879	2880	2881	2936	2937	2938	2939	1495	1496	1497	1499
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		1	2	1	0.4	0.5	0.7	0.9	1	0.5	2	0.6	-	-	-	-
C3-naphthalenes		-	3	3	-	-	-	-	1	-	0.9	0.6	-	-	-	-
C4-naphthalenes		2	4	9	-	-	-	-	0.9	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	0.4	0.5	-	-	-	-	-	-	-	-	-	-
fluorene		0.6	0.9	1	0.5	-	-	0.4	-	-	0.6	-	-	-	-	-
C1-fluorene		-	0.7	2	-	-	-	-	0.5	-	0.7	-	-	-	-	-
C2-fluorene		2	6	9	-	-	-	-	1	-	0.5	0.6	-	-	-	-
C3-fluorene		18	16	41	-	-	-	-	1	-	0.7	0.9	-	-	-	-
phenanthrene		5	5	21	1	3	0.8	1	1	0.6	1	0.6	-	-	-	-
C1-phenanthrenes		7	7	32	0.8	2	0.8	1	2	0.6	0.9	0.7	0.6	1	1	0.4
C2-phenanthrenes		59	62	130	1	2	1	2	5	1	2	1	3	3	7	2
C3-phenanthrenes		87	110	240	2	4	2	2	7	2	2	3	2	2	3	1
C4-phenanthrenes		36	54	100	1	3	2	0.7	3	0.8	0.7	2	-	-	0.6	-
dibenzothiophene		0.7	1	2	-	0.4	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		6	8	15	0.5	0.7	0.4	0.6	0.4	-	-	-	1	-	0.7	0.6
C2-dibenzothiophenes		54	60	120	2	2	1	1	3	0.7	0.6	0.7	2	9	3	2
C3-dibenzothiophenes		160	180	360	7	5	3	3	4	1	1	1	6	-	11	6
Sum of LACs		**440**	**520**	**1100**	**17**	**23**	**12**	**13**	**31**	**7**	**14**	**12**	**15**	**15**	**26**	**12**
fluoranthene		14	4	99	0.7	0.7	0.8	1	2	0.4	0.4	0.4	0.5	0.8	1	0.9
pyrene		9	3	59	0.5	0.6	0.4	1	1	-	0.4	-	0.4	0.4	0.8	0.4
C1-fluoranthenes/pyrenes		12	8	36	0.4	0.9	-	0.8	2	-	0.4	0.4	-	-	0.6	0.4
benz[a]anthracene		4	2	26	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		32	21	78	1	2	1	1	2	0.7	0.6	0.7	2	1	3	0.9
C1-chrysenes/benz[a]anthracenes		58	61	140	2	3	2	1	3	1	1	1	1	1	3	1
C2-chrysenes/benz[a]anthracenes		61	91	160	2	3	2	1	3	1	1	2	2	1	4	1
C3-chrysenes/benz[a]anthracenes		36	49	66	1	1	0.4	-	2	0.7	0.8	1	0.3	0.4	2	-
C4-chrysenes/benz[a]anthracenes		3	4	6	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		5	5	21	0.4	-	-	-	-	-	-	-	-	-	0.4	-
benzo[k]fluoranthene		3	2	14	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		1	1	7	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		0.5	1	2	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		0.5	1	2	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		2	2	3	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**240**	**260**	**720**	**8**	**11**	**7**	**6**	**15**	**4**	**5**	**6**	**6**	**5**	**15**	**5**
sample weight, grams :		5.07	5.02	5.05	5.00	4.97	5.06	5.00	5.00	5.01	5.02	5.02	5.11	5.03	5.02	5.01

Table E-16. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Butter clam													Littleneck clam	
	Site :	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Jun-91	Jun-91	Jun-91	Jun-91	Aug-91	Aug-91	Aug-91	Aug-91	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	D&M	D&M
	Lab no. :	1498R	1515R	1500	1506	1507	2850	2851	2852	2853	2940	2941	2942	2943	1508	1509
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	1	-	-	0.7	0.5	0.8	-	0.6	0.6	-	-	1
C3-naphthalenes		-	-	-	-	-	-	-	-	-	0.4	-	-	0.7	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	0.4	-	-	0.5	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	0.4	-	-	0.6	-	-
phenanthrene		-	-	-	-	-	0.4	0.6	0.6	0.7	0.6	0.7	0.5	0.4	-	-
C1-phenanthrenes		1	0.5	1	-	1	-	0.7	0.5	0.6	0.6	0.6	0.6	0.7	-	1
C2-phenanthrenes		2	4	5	3	6	-	0.6	-	0.6	0.7	1	0.9	0.9	1	5
C3-phenanthrenes		2	4	3	1	4	-	0.5	-	0.6	0.4	0.6	0.4	0.8	1	1
C4-phenanthrenes		-	-	0.5	-	0.9	-	-	-	-	-	-	-	-	-	0.6
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3
C1-dibenzothiophenes		-	2	1	0.7	2	-	-	-	-	-	-	-	-	0.5	1
C2-dibenzothiophenes		2	2	3	2	4	-	-	-	-	-	0.4	0.4	0.7	0.9	1
C3-dibenzothiophenes		7	7	7	6	13	-	0.9	-	0.8	0.5	-	0.6	0.8	0.6	2
Sum of LACs		**14**	**20**	**20**	**14**	**31**	**0.4**	**4**	**2**	**5**	**4**	**4**	**4**	**6**	**4**	**13**
fluoranthene		1	1	0.9	-	-	0.4	0.7	0.4	0.4	0.4	0.5	0.5	0.5	-	-
pyrene		0.6	0.8	0.6	-	-	-	-	-	-	-	-	-	0.4	-	-
C1-fluoranthenes/pyrenes		-	-	0.2	-	0.9	-	-	-	-	-	-	-	0.5	-	0.3
benz[a]anthracene		-	0.4	-	-	0.4	-	-	-	-	-	-	-	-	-	-
chrysene		2	2	1	1	3	0.5	0.8	0.6	-	-	0.4	0.4	0.8	1	1
C1-chrysenes/benz[a]anthracenes		2	2	2	0.8	3	-	0.8	0.5	0.5	-	-	-	0.8	0.4	0.4
C2-chrysenes/benz[a]anthracenes		2	2	2	0.8	3	-	1	0.6	0.7	-	-	-	1	-	0.8
C3-chrysenes/benz[a]anthracenes		0.4	-	0.6	-	0.9	-	-	-	-	-	-	-	0.5	-	0.5
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	0.4	0.4	0.4	0.5	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	1	0.5	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**8**	**9**	**8**	**5**	**12**	**0.9**	**3**	**2**	**2**	**0.4**	**0.9**	**0.9**	**4**	**1**	**3**
sample weight, grams :		5.02	5.01	5.09	5.03	5.07	5.00	5.03	4.99	5.05	5.00	5.00	5.01	5.00	5.02	5.03

Table E-17. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Littleneck clam											Spot shrimp			
	Site :	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE10	CHE11	CHE11	CHE11	CHE11
	Date collected:	Apr-90	Apr-90	Jun-91	Jun-91	Jun-91	Jun-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M
	Lab no. :	1510	1511	2854	2875	2876	2877	2944	2945	2951R	2960R	3023	1560R	1566R	1567	1568
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	5	0.8	0.5	-	-	-	-	-	-	-	0.7	2	1
C3-naphthalenes		-	-	7	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	5	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	0.6	0.4	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	1	0.7	0.5	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	4	0.4	-	-	0.4	0.5	0.6	0.6	0.6	-	-	-	-
C1-phenanthrenes		1	-	4	1	0.7	0.6	0.4	0.5	0.9	0.4	-	-	0.7	2	-
C2-phenanthrenes		3	4	4	2	2	0.9	-	0.8	0.7	0.4	-	-	-	-	-
C3-phenanthrenes		3	3	0.7	2	0.5	0.6	-	0.4	-	-	-	-	-	-	-
C4-phenanthrenes		1	2	-	0.4	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.5	-	0.8	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		1	-	2	0.5	-	-	-	-	-	-	-	0.9	-	0.6	-
C2-dibenzothiophenes		8	1	3	2	1	0.4	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		3	5	1	2	-	0.9	-	-	-	-	-	-	-	-	-
Sum of LACs		**20**	**15**	**46**	**12**	**5**	**3**	**0.8**	**2**	**2**	**1**	**0.6**	**0.9**	**1**	**5**	**1**
fluoranthene		3	-	3	0.9	0.6	0.7	0.4	0.5	0.7	0.5	0.4	-	-	-	-
pyrene		-	-	3	0.5	-	0.4	-	-	0.5	-	0.4	-	-	-	-
C1-fluoranthenes/pyrenes		0.8	0.7	5	0.6	0.4	0.4	-	-	0.6	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		2	1	0.7	0.9	0.7	0.6	-	0.5	0.5	0.4	0.5	-	-	-	-
C1-chrysenes/benz[a]anthracenes		2	0.5	0.4	-	0.4	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		2	1	0.5	1	0.8	0.5	0.4	0.5	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		1	0.8	0.5	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-
Sum of HACs		**11**	**4**	**13**	**4**	**3**	**3**	**0.8**	**2**	**3**	**0.9**	**1**	**-**	**-**	**-**	**-**
sample weight, grams :		5.01	5.05	5.02	5.00	5.00	5.02	5.03	5.00	5.03	4.97	5.08	5.02	5.03	5.01	5.00

Table E-18. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Spot shrimp	Spot shrimp			Chiton	Chiton	Chiton									
	Site :	CHE11	CHE18	CHE18	CHE18	CHE19	CHE20	CHE21	CHE21	CHE21	CHE21	CHE21	CHE21	CHE21	CHE21	CHE21
	Date collected:	Apr-90	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1569	2928	2929	2930	2914	2920	2921	2922	2923	2924	2982	2983	2984	2985R	2986R
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	1	1	1	0.8	-	-	-	-	-	0.5	0.4	0.4	0.5	0.5
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
Sum of LACs		**-**	**1**	**1**	**1**	**0.8**	**-**	**-**	**-**	**-**	**-**	**3**	**0.4**	**0.4**	**0.9**	**0.5**
fluoranthene		-	1	1	0.8	0.9	-	-	-	-	-	-	-	-	-	-
pyrene		-	0.4	0.4	-	0.5	-	-	-	-	-	-	-	-	-	0.4
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**1**	**1**	**0.8**	**1**	**-**	**-**	**-**	**-**	**-**	**4**	**-**	**-**	**-**	**0.4**
sample weight, grams :		5.06	3.01	2.99	3.05	-	-	-	-	-	-	5.01	5.02	5.09	5.03	5.00

Table E-19. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Mussel								Littleneck clam				Mussel		
	Site :	CHE22	CHE22	CHE22	CHE22	CHE22	CHE22	CHE22	CHE22	CHE22	CHE22	CHE22	CHE22	CHE23	CHE23	CHE23
	Date collected:	Jun-91	Jun-91	Jun-91	Jun-91	Aug-91	Aug-91	Aug-91	Aug-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91
	Collector :	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2890	2891	2892	2893	2953	2954	2955	2956	2866	2867	2868	2869	2894	2895	2896
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	0.6	0.6	-	1	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	0.7	-	1	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.8	0.9	0.5	0.6	-	-	-	-	-	-	-	-	0.7	0.5	0.9
C1-phenanthrenes		-	-	-	-	-	0.4	-	1	-	-	1	0.5	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	1	0.4	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.8**	**0.9**	**0.5**	**1**	**-**	**0.4**	**-**	**2**	**1**	**-**	**6**	**0.9**	**0.7**	**0.5**	**0.9**
fluoranthene		-	-	-	-	0.4	0.5	-	-	0.6	0.4	0.7	0.5	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**0.4**	**0.5**	**-**	**-**	**0.6**	**0.4**	**0.7**	**0.5**	**-**	**-**	**-**
sample weight, grams :		5.07	3.06	3.06	5.00	5.08	5.03	5.03	5.08	5.00	5.04	5.00	5.09	5.00	5.00	5.00

Table E-20. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Mussel					Littleneck clam					Chiton		
	Site :	CHE23	CHE23	CHE23	CHE23	CHE23	CHE23	CHE23	CHE23	CHE23	CHE23	CHE23	CHE23	CHE23
	Date collected:	Jun-91	Aug-91	Aug-91	Aug-91	Aug-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91	Jun-91
	Collector :	D&M	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2897	2967	2968	2969	3024	2898R	2899R	2905	2906	2907	2925	2926	2927
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	2	0.5	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	0.5	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	0.7	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	0.9	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	1	0.4	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	0.9	0.5	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.7	0.6	1	0.6	0.4	0.5	0.6	0.5	0.7	0.5	0.7	0.4	0.4
C1-phenanthrenes		-	-	1	0.7	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.7**	**0.6**	**8**	**3**	**0.4**	**0.5**	**0.6**	**0.5**	**0.7**	**0.5**	**0.7**	**0.4**	**0.4**
fluoranthene		-	0.4	0.4	-	-	-	-	-	-	-	-	-	-
pyrene		-	0.4	0.7	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	0.8	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**0.8**	**2**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.07	5.03	5.00	5.04	5.28	5.00	5.01	4.98	5.00	5.01	3.06	3.03	3.11

Table E-21. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chenega Bay.

ACs	Species :	Mussel								Butter clam	Littleneck clam
	Site :	CHE24	CHE24	CHE24	CHE24	CHE24	CHE24	CHE24	CHE24	CHE24	CHE24
	Date collected:	Jun-91	Jun-91	Jun-91	Jun-91	Aug-91	Aug-91	Aug-91	Aug-91	Jun-91	Jun-91
	Collector :	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	D&M	D&M
	Lab no. :	2910	2911	2912	2913	2957	2958	2959	2966	2908	2909
naphthalene		a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.4	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	2	-	-	-
C3-naphthalenes		-	-	-	-	-	-	7	-	-	-
C4-naphthalenes		-	-	-	-	-	-	16	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	0.6	-	-	-
C1-fluorene		-	-	-	-	0.8	-	3	-	-	-
C2-fluorene		-	-	-	-	-	-	11	-	-	-
C3-fluorene		-	-	-	-	-	-	12	-	-	-
phenanthrene		0.4	0.5	0.4	0.4	-	-	-	0.6	0.4	0.4
C1-phenanthrenes		-	-	-	-	0.7	0.4	7	0.6	-	-
C2-phenanthrenes		-	-	-	-	0.6	0.4	26	-	-	-
C3-phenanthrenes		0.5	-	-	-	-	-	46	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	25	-	-	-
dibenzothiophene		-	-	-	-	-	-	1	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	3	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	30	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	51	-	-	-
Sum of LACs		**0.9**	**0.9**	**0.4**	**0.4**	**2**	**0.8**	**240**	**1**	**0.4**	**0.4**
fluoranthene		-	-	-	-	0.4	0.4	0.9	0.4	-	-
pyrene		-	-	-	-	0.4	0.4	1	0.5	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	6	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	5	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	13	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	15	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	6	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	1	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	0.4	-	0.4	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**1**	**0.8**	**48**	**0.9**	**-**	**-**
sample weight, grams :		5.05	5.02	5.00	5.00	4.99	5.00	5.00	5.00	4.98	4.99

Table E-22. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Graham/English Bay.

ACs	Species :								Mussel							
	Site :	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1
	Date collected:	Jul-89	Aug-89	Aug-89	Sep-89	Sep-89	Sep-89	Feb-90	Feb-90	Feb-90	Feb-90	Feb-90	Feb-90	Feb-90	Feb-90	Mar-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG
	Lab no. :	45	115	116	337	338	339	880	881	882	883	2454	2455	2456	2457	850
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.3	0.1	0.7	0.7	0.5	-	0.2	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	1	1	1	1	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	0.8	0.6	0.9	0.9	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	3	0.9	0.7	0.8	0.7	-	0.2	0.3	0.3	-	-	-	-	2
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	0.4	0.5	0.5	0.6	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**4**	**1**	**1**	**2**	**1**	**-**	**0.4**	**0.3**	**0.3**	**2**	**2**	**2**	**4**	**2**
fluoranthene		-	0.4	-	-	-	-	-	-	-	-	0.4	0.6	0.5	0.7	1
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**0.4**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.4**	**0.6**	**0.5**	**0.7**	**2**
sample weight, grams :		4.78	2.92	3.77	5.30	5.13	5.35	5.07	5.01	5.01	5.07	5.08	4.99	5.06	4.98	5.00

Table E-23. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Graham/English Bay.

ACs	Species :	Mussel												Littleneck clam		Cockle
	Site :	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1
	Date collected:	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Jun-90	Jun-90	Jun-90	Oct-90	Oct-90	Oct-90	Oct-90	Aug-89	Feb-90	Aug-89
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M
	Lab no. :	852	853	854	855	1478	1718	1719	1720	2141	2142	2143	2144	340	928	302
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.9	0.7	0.8	0.4	2	-	-	-	-	-	-	-	0.6	-	0.2
C2-naphthalenes		-	-	-	-	0.9	-	-	-	-	-	-	-	0.1	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-
C4-naphthalenes		1	-	-	1	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	0.4	-	0.4	0.4	0.1	-	-
C1-fluorene		2	-	-	-	-	-	-	-	-	0.7	0.5	0.8	0.09	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		2	2	2	2	-	0.4	0.3	-	-	-	-	-	5	-	3
C1-phenanthrenes		-	-	-	-	1	-	-	-	-	-	-	-	6	-	-
C2-phenanthrenes		0.8	-	-	-	-	-	-	-	-	-	-	-	3	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	0.6	-	-	-	-	-	-	-	-	-	-	0.4	-	-
C1-dibenzothiophenes		-	-	-	-	0.8	-	-	-	-	-	-	-	1	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	0.3	0.5	-	-	0.08	-	-
C3-dibenzothiophenes		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**8**	**3**	**3**	**3**	**5**	**0.4**	**0.3**	**-**	**1**	**1**	**0.9**	**1**	**20**	**-**	**3**
fluoranthene		-	-	-	0.9	-	-	-	-	0.4	0.3	0.5	-	6	-	5
pyrene		-	-	-	-	-	-	-	-	0.4	0.2	0.4	-	2	-	3
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	0.08	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	0.5
chrysene		-	-	-	-	0.5	-	-	-	-	-	-	-	0.6	-	1
C1-chrysenes/benz[a]anthracenes		-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	0.3
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**2**	**-**	**-**	**0.9**	**1**	**-**	**-**	**-**	**0.8**	**0.5**	**0.9**	**-**	**9**	**-**	**10**
sample weight, grams :		5.00	5.01	4.98	5.03	4.96	5.04	5.12	5.03	5.12	5.10	4.31	5.01	5.05	5.03	5.03

Table E-24. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Graham/English Bay.

ACs	Species :	Chiton													Limpet	Sea urchin
	Site :	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1	PTG1
	Date collected:	Jul-89	Aug-89	Sep-89	Feb-90	Feb-90	Feb-90	Feb-90	Feb-90	Feb-90	Fef-90	Feb-90	Feb-90	Mar-90	Feb-90	Feb-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	D&M	D&M
	Lab no. :	75	121	359	1114	1115	1116	1117	958	959	960R	965R	961	1017	2458	980
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.3	-	0.4	-	-	-	-	-	-	-	-	-	-	-	a
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	0.1	-	0.2	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.4	0.2	0.3	-	-	-	-	-	-	-	-	-	-	-	a
C1-phenanthrenes		-	-	-	-	-	0.1	-	-	-	-	-	-	-	0.4	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.7**	**0.2**	**0.7**	**0.1**	**-**	**0.3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**
fluoranthene		-	-	-	-	-	0.1	0.5	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	0.2	0.4	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**0.3**	**0.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.19	5.12	5.09	5.02	5.00	5.00	5.01	5.06	5.08	5.01	5.01	5.05	5.03	5.03	5.03

Table E-25. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Graham/English Bay.

ACs	Species :	Mussel								Littleneck clam	Bent-nosed clam	Soft-shelled clam				
	Site :	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4	PTG4
	Date Collected :	Jul-89	Aug-89	Aug-89	Aug-89	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	46	117	118	119	900R	905R	901	902	934	1113	1008	1118	935	956	957
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.2	0.3	0.09	0.2	-	-	-	-	-	-	-	-	1	1
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	0.08
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	0.1	-	-	-	0.06	-
fluorene		-	0.1	-	-	-	-	-	-	-	0.2	-	0.2	-	0.4	0.2
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		2	4	3	2	2	2	1	1	1	2	2	2	0.7	3	3
C1-phenanthrenes		-	0.2	0.3	-	-	-	-	-	-	0.5	-	0.4	-	1	0.6
C2-phenanthrenes		-	0.09	0.1	-	-	-	-	-	-	0.7	-	0.1	-	0.3	0.2
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	0.1	-	-	-	-	-	-	-	0.05	-	0.05	-	0.2	0.1
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.06
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	-
Sum of LACs		**2**	**5**	**4**	**2**	**2**	**2**	**1**	**1**	**1**	**4**	**2**	**3**	**0.7**	**6**	**5**
fluoranthene		0.07	6	4	2	3	3	2	1	6	5	7	7	5	9	8
pyrene		0.1	2	2	0.5	1	0.9	0.3	0.1	7	11	3	4	2	5	4
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	2	-	0.8	-	1	0.6
benz[a]anthracene		-	0.5	0.1	-	0.1	-	-	-	2	2	-	0.4	-	0.7	0.4
chrysene		-	2	2	0.3	0.8	-	0.4	0.3	3	4	0.3	0.8	-	1	0.9
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	1	0.4	0.2	0.6	0.5	0.3	-	0.9	2	-	0.2	-	0.5	0.3
benzo[k]fluoranthene		-	0.6	0.1	-	0.2	-	-	-	0.2	0.8	-	0.1	-	0.1	0.2
benzo[a]pyrene		-	-	-	-	-	-	-	-	0.3	0.5	-	-	-	0.03	0.03
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-
Sum of HACs		**0.2**	**12**	**9**	**3**	**6**	**4**	**3**	**1**	**19**	**28**	**10**	**13**	**7**	**17**	**14**
sample weight, grams :		4.72	5.45	5.17	5.33	5.03	5.04	5.08	5.15	5.09	3.18	5.04	5.01	5.06	5.04	5.09

Table E-26. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Graham/English Bay.

ACs	Species :	Chiton		Snail	Chiton							Chiton		
	Site :	PTG4	PTG4	PTG4	PTG8	PTG8	PTG8	PTG8	PTG8	PTG8	PTG8	PTG8/9	PTG8/9	PTG8/9
	Date collected:	Mar-90	Mar-90	Jul-89	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG
	Lab no. :	964	971	683	972	973	974	975	1098	1121	1122	1721	1722	1723
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.9	1	-	-	-	-	-	-	-	-	1	-
C2-naphthalenes		-	0.1	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		0.9	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		1	1	2	-	-	-	-	-	-	-	0.4	0.4	0.2
C1-phenanthrenes		0.09	0.2	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**2**	**2**	**3**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.4**	**1**	**0.2**
fluoranthene		0.5	0.8	0.6	-	-	-	-	-	-	-	-	-	-
pyrene		0.3	0.6	0.2	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	0.08	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	0.2	-	-	-	-	-	-	-	-	-	-	-
chrysene		0.09	0.4	0.07	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		0.3	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		0.05	0.5	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	0.07	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	0.06	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**1**	**3**	**0.9**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.03	5.03	5.00	5.04	5.18	5.08	5.05	5.05	5.08	5.04	5.10	5.04	5.20

Table E-27. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Graham/English Bay.

ACs	Species :	Chiton				Chiton								Kelp	
	Site :	PTG9	PTG9	PTG9	PTG9	PTG10	PTG10	PTG10	PTG10	PTG10	PTG10	PTG10	PTG10	PTG10	PTG10
	Date collected:	Mar-90	Mar-90	Mar-90	Mar-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	976	977	978	979	1244	1245	1246	1247	1248	1249	1250	1251	2570	2571
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	10	8
C2-naphthalenes		-	-	-	-	-	0.7	0.7	1	0.7	-	0.9	0.6	19	9
C3-naphthalenes		-	-	-	-	-	-	-	1	-	-	-	-	9	4
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.7
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	-	-	-	-	1	1
C1-phenanthrenes		-	-	-	-	0.8	0.8	0.7	0.9	0.7	0.5	-	0.5	0.4	0.4
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	0.4	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**-**	**-**	**-**	**0.8**	**2**	**1**	**3**	**1**	**0.5**	**0.9**	**1**	**41**	**23**
fluoranthene		-	-	-	-	0.7	-	-	0.4	0.4	-	0.5	-	0.4	-
pyrene		-	-	-	-	0.5	-	-	0.4	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	0.4	-	-	0.4	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**2**	**-**	**-**	**1**	**0.4**	**-**	**0.5**	**-**	**0.4**	**-**
sample weight, grams :		5.05	5.02	5.07	5.01	5.10	5.06	5.11	5.15	5.10	5.14	5.06	5.05	5.05	5.10

Table E-28. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Mussel												Chiton		
	Site :	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1	WNB1
	Date collected:	Jul-89	Sep-89	Sep-89	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Jul-89	Sep-89	Apr-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	47	242	243	2776	2777	2778	2779	2800	2801R	2809R	2802	2803	76	360	2804
naphthalene		a	2	1	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	16	0.3	-	-	-	-	-	-	-	-	-	0.4	0.6	-
C2-naphthalenes		0.3	120	1	0.7	-	-	-	-	-	-	-	-	0.04	0.2	-
C3-naphthalenes		54	340	14	-	-	-	-	-	-	-	0.5	-	-	3	-
C4-naphthalenes		34	560	46	-	-	-	-	-	-	-	-	-	0.02	43	-
acenaphthylene		-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	14	0.4	-	-	-	-	-	-	-	1	-	-	0.2	-
C1-fluorene		10	88	7	-	-	-	-	-	-	-	-	-	0.03	4	-
C2-fluorene		81	600	54	-	-	-	-	-	-	-	-	-	2	98	-
C3-fluorene		78	180	31	-	-	-	-	-	-	-	-	-	-	77	-
phenanthrene		17	72	6	0.8	0.7	0.7	0.6	0.8	-	-	5	-	2	5	-
C1-phenanthrenes		140	560	63	0.8	0.8	0.6	0.5	0.7	0.8	0.8	2	1	1	38	0.6
C2-phenanthrenes		540	2400	330	1	1	1	1	1	2	2	3	2	2	380	-
C3-phenanthrenes		740	3700	630	3	1	2	1	2	3	4	6	4	3	1000	-
C4-phenanthrenes		160	980	200	0.9	0.5	0.6	-	0.8	0.9	1	5	1	0.4	310	-
dibenzothiophene		11	70	4	-	-	-	-	-	-	-	0.5	-	0.3	3	-
C1-dibenzothiophenes		100	420	48	0.4	-	-	-	0.4	0.5	0.4	0.6	0.6	0.1	25	-
C2-dibenzothiophenes		510	2300	310	1	1	2	0.8	1	2	2	2	2	0.7	580	-
C3-dibenzothiophenes		780	3500	620	3	2	2	2	2	5	5	8	4	0.9	1400	-
Sum of LACs		**3300**	**16000**	**2400**	**12**	**7**	**9**	**6**	**9**	**14**	**15**	**34**	**15**	**13**	**4000**	**0.6**
fluoranthene		13	47	8	0.6	0.5	0.7	0.5	0.5	0.5	0.5	2	0.7	0.04	11	-
pyrene		9	56	7	-	-	-	0.4	-	-	0.4	1	0.4	-	22	-
C1-fluoranthenes/pyrenes		68	450	60	-	-	-	-	-	0.6	0.5	1	0.7	0.6	220	-
benz[a]anthracene		0.7	10	2	-	-	-	-	-	0.1	-	-	-	-	5	-
chrysene		110	380	73	0.6	0.4	0.8	0.5	1	1	1	2	0.5	1	220	-
C1-chrysenes/benz[a]anthracenes		160	520	160	0.7	0.5	1	0.4	1	2	1	3	2	0.6	370	-
C2-chrysenes/benz[a]anthracenes		68	600	160	1	0.8	-	0.2	0.7	2	1	3	2	1	400	-
C3-chrysenes/benz[a]anthracenes		0.2	270	52	-	-	-	-	-	-	-	1	-	0.02	230	-
C4-chrysenes/benz[a]anthracenes		-	58	5	-	-	-	-	-	-	-	-	-	-	270	-
benzo[b]fluoranthene		8	62	15	-	-	-	-	-	-	-	0.4	-	-	41	-
benzo[k]fluoranthene		-	56	0.9	-	-	-	-	-	-	-	-	-	-	3	-
benzo[a]pyrene		-	7	2	-	-	-	-	-	-	-	-	-	-	6	-
indeno[1,2,3-cd]pyrene		-	3	-	-	-	-	-	-	-	-	-	-	-	3	-
dibenz[a,h]anthracene		-	5	0.5	-	-	-	-	-	-	-	-	-	-	4	-
benzo[ghi]perylene		-	17	3	-	-	-	-	-	-	-	-	-	-	19	-
Sum of HACs		**440**	**2500**	**550**	**3**	**2**	**2**	**2**	**3**	**6**	**4**	**13**	**6**	**3**	**1800**	**-**
sample weight, grams :		4.58	4.93	5.19	5.00	5.00	4.97	5.03	5.00	5.01	5.00	4.99	5.04	5.49	4.98	5.01

Table E-29. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Chiton			Snail	Mussel										
	Site :	WNB1	WNB1	WNB1	WNB1	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2
	Date collected:	Apr-91	Apr-91	Apr-91	Jul-89	Mar-90	Mar-90	Jul-90	Jul-90	Jul-90	Jul-90	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2805	2806	2807	684	888	889	1749	1750	1751	1752	2785	2786	2787	2788	2808
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	1	0.2	-	2	1	1	1	-	-	-	0.7	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
fluorene		-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	1
C1-fluorene		-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	16	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	13	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	6	0.9	1	0.8	1	-	1	0.4	0.4	0.4	0.5	8
C1-phenanthrenes		-	-	0.4	11	1	0.9	-	-	-	1	-	-	-	-	4
C2-phenanthrenes		-	-	-	99	6	7	4	4	3	7	-	-	1	-	3
C3-phenanthrenes		-	-	-	170	18	38	2	3	2	5	-	-	2	-	1
C4-phenanthrenes		-	-	-	40	-	12	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	0.8
C1-dibenzothiophenes		-	-	-	2	0.9	-	0.8	2	-	0.9	-	-	-	-	0.4
C2-dibenzothiophenes		-	-	-	54	11	14	1	2	0.9	3	-	-	1	-	0.8
C3-dibenzothiophenes		-	-	-	210	23	43	2	3	3	7	-	-	2	0.6	1
Sum of LACs		**-**	**-**	**0.8**	**620**	**61**	**120**	**13**	**16**	**10**	**26**	**0.4**	**0.4**	**6**	**2**	**22**
fluoranthene		-	-	-	1	0.6	2	-	0.8	0.9	0.9	-	-	-	-	20
pyrene		-	-	0.4	2	0.3	1	-	-	-	-	-	-	-	-	7
C1-fluoranthenes/pyrenes		-	-	-	13	1	2	-	-	-	-	-	-	-	-	5
benz[a]anthracene		-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	3
chrysene		-	-	-	39	4	6	0.8	-	0.9	1	-	-	0.4	-	2
C1-chrysenes/benz[a]anthracenes		0.4	-	-	54	6	12	-	1	-	1	-	-	-	-	0.8
C2-chrysenes/benz[a]anthracenes		-	-	-	38	4	11	-	0.7	0.7	1	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	10	0.3	1	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	0.9	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	2	0.2	0.7	-	-	-	-	-	-	-	-	1
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.4**	**-**	**0.4**	**160**	**16**	**36**	**0.8**	**2**	**2**	**4**	**-**	**-**	**0.4**	**-**	**39**
sample weight, grams :		5.05	5.02	4.99	5.14	5.14	5.01	5.01	5.06	5.06	5.02	4.99	4.98	5.02	4.98	4.78

Table E-30. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species : Littleneck clam	Soft-shelled clam													
	Site : WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2
	Date collected: Jul-89	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90
	Collector : D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. : 666	1001	1002	1003	1004	903	904	926	927	990	991	992	993	994	995
naphthalene	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes	0.7	-	-	-	-	0.09	-	-	-	-	-	-	-	-	-
C2-naphthalenes	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene	7	0.1	-	-	-	-	0.2	-	-	-	-	-	-	-	-
C1-phenanthrenes	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-phenanthrenes	130	4	-	2	7	0.5	1	2	7	0.3	0.5	0.3	1	-	-
C3-phenanthrenes	180	13	-	6	25	-	-	9	35	3	3	2	7	1	-
C4-phenanthrenes	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes	120	3	3	1	5	-	-	1	2	-	-	-	-	-	-
C3-dibenzothiophenes	220	17	15	6	32	-	-	8	16	-	-	-	-	-	-
Sum of LACs	**830**	**37**	**18**	**15**	**69**	**0.6**	**1**	**20**	**60**	**3**	**4**	**2**	**8**	**1**	**-**
fluoranthene	4	0.2	0.2	-	-	-	0.2	-	0.2	-	-	-	-	-	-
pyrene	3	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene	24	3	2	2	4	2	3	2	3	2	1	1	2	1	-
C1-chrysenes/benz[a]anthracenes	32	3	3	2	5	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes	32	3	1	0.5	3	-	0.6	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene	2	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-
benzo[k]fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene	0.1	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-
Sum of HACs	**130**	**9**	**6**	**4**	**12**	**2**	**4**	**2**	**3**	**2**	**1**	**1**	**2**	**1**	**-**
sample weight, grams :	5.06	5.00	5.03	5.01	5.01	5.06	5.14	5.10	5.16	5.00	5.03	5.16	5.03	5.11	5.02

Table E-31. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Soft-shelled clam										Mussel				
	Site :	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB2	WNB3	WNB3	WNB3	WNB3	WNB3
	Date collected:	Jul-90	Jul-90	Jul-90	Jul-90	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1796	1797	1798	1799	2789	2790	2791	2792	2793R	2794R	1009	1010	884	885	886
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	1	0.6	0.8
C2-naphthalenes		2	2	-	-	-	-	-	-	-	-	-	-	5	0.6	0.6
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	24	13	8
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	70	71	35
acenaphthylene		0.3	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.4	0.4	0.4	0.4	-	-	-	-	-	-	-	-	0.6	0.2	-
C1-fluorene		0.3	0.3	0.4	-	-	-	-	-	-	-	-	-	13	8	7
C2-fluorene		0.8	-	-	-	-	-	-	-	-	-	-	-	95	71	64
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	89	86	64
phenanthrene		-	-	-	-	-	-	-	-	-	-	0.6	0.4	8	5	5
C1-phenanthrenes		0.9	1	1	0.7	-	-	-	-	-	-	-	-	85	84	62
C2-phenanthrenes		5	3	5	6	-	-	-	-	-	-	10	4	430	510	370
C3-phenanthrenes		1	1	1	1	-	0.4	-	-	-	-	42	18	950	1200	820
C4-phenanthrenes		0.1	-	-	-	-	-	-	-	-	-	19	9	310	380	340
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	7	4	3
C1-dibenzothiophenes		0.7	0.3	0.2	0.2	-	-	-	-	-	-	-	-	68	64	47
C2-dibenzothiophenes		0.9	0.9	1	0.9	-	-	-	-	-	-	9	4	510	560	400
C3-dibenzothiophenes		3	3	3	3	0.4	0.6	-	-	-	0.4	41	18	1100	1400	1000
Sum of LACs		**15**	**12**	**12**	**12**	**0.4**	**1**	**-**	**-**	**-**	**0.4**	**120**	**53**	**3800**	**4500**	**3200**
fluoranthene		0.5	0.5	0.6	0.4	-	0.4	-	-	-	-	0.6	0.2	8	10	7
pyrene		0.3	0.5	0.4	0.3	-	-	-	-	-	-	0.2	-	9	9	8
C1-fluoranthenes/pyrenes		0.3	0.3	0.3	0.4	-	-	-	-	-	-	0.7	0.1	88	100	86
benz[a]anthracene		0.1	0.1	0.2	-	-	-	-	-	-	-	-	-	4	3	4
chrysene		0.6	0.6	0.9	0.5	-	-	-	-	-	-	4	2	85	93	86
C1-chrysenes/benz[a]anthracenes		0.5	0.2	0.3	0.4	-	-	-	-	-	-	9	4	210	240	220
C2-chrysenes/benz[a]anthracenes		0.4	0.1	0.2	0.2	-	-	-	-	-	-	10	3	270	220	250
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	1	0.2	91	150	120
C4-chrysenes/benz[a]anthracenes		0.3	0.1	-	-	-	-	-	-	-	-	-	-	20	16	15
benzo[b]fluoranthene		0.1	0.2	0.3	0.1	-	-	-	-	-	-	0.6	-	17	20	17
benzo[k]fluoranthene		-	-	0.4	0.1	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	0.4	0.1	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		0.1	0.1	0.8	0.2	-	-	-	-	-	-	-	-	0.3	0.4	0.1
dibenz[a,h]anthracene		0.2	0.2	2	0.4	-	-	-	-	-	-	-	-	2	2	1
benzo[ghi]perylene		0.2	0.2	0.5	0.2	-	-	-	-	-	-	-	-	5	5	5
Sum of HACs		**4**	**3**	**7**	**3**	**-**	**0.4**	**-**	**-**	**-**	**-**	**26**	**10**	**810**	**870**	**820**
sample weight, grams :		5.29	5.00	5.00	4.99	5.03	4.98	5.03	4.99	5.02	5.03	5.00	5.00	4.99	5.03	5.04

Table E-32. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Mussel														
	Site :	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3
	Date collected:	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Jul-90	Jul-90	Jul-90	Jul-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	887	986	987	988	989	1539	1540	1541	1542	1543	1544	1732	1733	1734	1735
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	6
C1-naphthalenes		0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	5
C2-naphthalenes		0.3	-	-	-	-	2	1	2	0.7	1	1	2	-	-	12
C3-naphthalenes		9	-	-	-	-	2	1	2	2	-	0.6	26	6	6	47
C4-naphthalenes		41	-	-	-	-	5	2	5	4	-	0.9	130	60	53	130
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	0.6	-	-	-	-	-	1	0.4	0.4	2
C1-fluorene		7	-	-	-	-	1	-	0.6	0.7	-	-	12	5	5	16
C2-fluorene		70	-	-	-	-	5	4	6	5	2	1	120	62	59	120
C3-fluorene		78	-	-	-	-	31	19	-	-	-	-	150	86	80	130
phenanthrene		6	0.2	-	0.5	-	3	2	2	2	2	2	6	4	4	11
C1-phenanthrenes		72	-	-	-	-	4	3	5	5	2	2	88	41	42	100
C2-phenanthrenes		410	8	5	9	5	52	27	48	45	22	20	630	380	370	660
C3-phenanthrenes		890	23	17	30	15	110	52	66	68	24	23	1300	760	700	1200
C4-phenanthrenes		280	-	-	-	-	53	21	21	28	11	11	420	270	240	370
dibenzothiophene		3	-	-	-	-	0.6	0.4	0.6	0.5	-	-	5	2	1	8
C1-dibenzothiophenes		56	-	-	-	-	6	4	7	7	3	3	72	34	34	78
C2-dibenzothiophenes		460	-	-	-	-	49	26	43	41	16	14	600	350	350	620
C3-dibenzothiophenes		1000	-	-	-	-	160	72	93	90	34	31	1100	690	640	1100
Sum of LACs		**3400**	**31**	**22**	**40**	**20**	**480**	**230**	**300**	**300**	**120**	**110**	**4700**	**2800**	**2600**	**4600**
fluoranthene		8	0.3	-	0.2	0.2	2	1	2	1	1	1	9	8	6	9
pyrene		9	-	-	-	-	1	2	1	1	0.7	0.7	14	9	8	13
C1-fluoranthenes/pyrenes		89	-	-	-	-	7	5	4	5	0.9	0.6	98	52	54	96
benz[a]anthracene		3	-	-	-	-	0.6	0.4	0.4	0.5	1	0.9	3	2	2	4
chrysene		73	4	3	4	3	12	8	10	10	5	4	100	66	62	110
C1-chrysenes/benz[a]anthracenes		200	-	-	-	-	26	13	14	18	7	6	210	140	130	230
C2-chrysenes/benz[a]anthracenes		220	-	-	-	-	23	15	13	10	6	8	210	140	120	240
C3-chrysenes/benz[a]anthracenes		140	-	-	-	-	10	9	6	-	-	-	90	60	57	110
C4-chrysenes/benz[a]anthracenes		14	-	-	-	-	-	-	-	-	-	-	10	6	5	11
benzo[b]fluoranthene		16	0.4	0.2	0.4	0.1	2	1	1	1	0.8	0.8	17	12	11	19
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	0.6	0.5	3	2	2	3
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	2	2	1	3
indeno[1,2,3-cd]pyrene		0.4	-	-	-	-	-	-	-	-	-	-	0.4	-	-	0.5
dibenz[a,h]anthracene		2	-	-	-	-	0.6	0.6	-	-	-	-	2	0.9	0.8	2
benzo[ghi]perylene		5	-	-	-	-	0.5	0.6	-	0.5	-	-	6	3	4	6
Sum of HACs		**780**	**5**	**3**	**5**	**3**	**85**	**56**	**51**	**47**	**23**	**22**	**770**	**500**	**460**	**860**
sample weight, grams :		5.02	5.01	5.01	5.16	5.14	5.03	5.05	5.02	4.99	4.99	4.99	5.07	5.01	5.04	5.23

Table E-33. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Mussel														
	Site :	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3
	Date collected:	Jul-90	Jul-90	Jul-90	Jul-90	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1736	1737	1738	1739	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2725
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	0.4	-	0.3	1	1	1
C3-naphthalenes		-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
C4-naphthalenes		-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	0.5
C1-fluorene		-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-
C2-fluorene		-	0.9	-	-	-	-	-	-	0.6	2	-	1	-	-	-
C3-fluorene		-	2	0.5	-	-	-	-	-	3	4	3	3	1	0.5	1
phenanthrene		1	1	1	0.6	-	-	-	-	-	-	-	-	-	-	-
C1-phenanthrenes		0.5	2	1	-	0.7	1	0.8	0.6	2	2	2	1	2	1	2
C2-phenanthrenes		8	26	13	3	1	2	2	1	7	11	8	7	5	3	7
C3-phenanthrenes		16	60	33	11	2	2	2	2	15	27	20	16	12	7	15
C4-phenanthrenes		1	10	5	1	-	0.5	0.5	0.4	8	14	12	9	5	3	11
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	1	0.5	-	-	-	-	-	0.7	1	1	0.8	0.5	-	0.6
C2-dibenzothiophenes		6	22	11	3	1	1	0.8	1	6	11	8	6	4	3	6
C3-dibenzothiophenes		12	46	26	7	2	2	2	2	14	26	22	17	11	7	20
Sum of LACs		**44**	**170**	**91**	**26**	**7**	**8**	**8**	**7**	**57**	**100**	**76**	**61**	**42**	**26**	**64**
fluoranthene		0.9	0.7	0.7	0.4	0.5	0.6	0.5	0.6	0.7	0.8	1	0.8	0.7	0.6	0.6
pyrene		0.3	0.4	0.5	-	-	-	-	-	0.7	0.6	0.9	0.6	0.5	0.5	0.7
C1-fluoranthenes/pyrenes		0.2	2	3	0.2	-	-	-	-	3	5	3	3	2	1	3
benz[a]anthracene		-	-	-	-	0.4	0.7	-	0.4	0.4	-	-	-	-	-	0.4
chrysene		1	4	6	1	0.9	1	0.9	1	6	9	6	5	5	3	7
C1-chrysenes/benz[a]anthracenes		2	8	7	2	0.8	1	-	0.9	8	14	9	9	7	4	10
C2-chrysenes/benz[a]anthracenes		1	6	5	1	-	0.7	0.8	0.8	8	15	11	10	7	5	10
C3-chrysenes/benz[a]anthracenes		-	0.3	0.9	-	-	-	1	-	4	7	5	4	3	0.9	4
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	0.3	0.3	-	-	-	0.4	-	0.8	1	0.9	0.9	1	0.6	1
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**5**	**22**	**23**	**5**	**3**	**4**	**4**	**4**	**32**	**52**	**37**	**33**	**26**	**16**	**37**
sample weight, grams :		5.05	5.02	5.21	5.02	4.99	4.98	4.98	5.01	4.99	5.02	5.02	4.99	5.00	5.03	5.04

Table E-34. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :								Mussel							
	Site :	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3
	Date collected:	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	2726	2727	2728	2729	2730	2731	2732	2971	2974	2975	2993	2994	2995	2996	2997
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	0.5	2	-	1	1	0.7	-	1	0.4	1	-	1	1	-
C3-naphthalenes		-	-	0.7	-	-	-	-	0.7	-	1	7	-	2	3	3
C4-naphthalenes		-	-	-	-	-	-	-	1	-	2	17	-	2	3	18
acenaphthylene		-	-	-	-	-	-	-	-	0.4	0.5	-	-	-	-	-
acenaphthene		-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	2	-	-	-	-	0.4	-	-	0.7	-	-	0.4	-
C1-fluorene		-	-	-	-	-	-	-	0.8	0.4	0.9	2	-	0.5	1	2
C2-fluorene		-	-	2	-	-	1	1	2	2	4	19	-	3	3	27
C3-fluorene		-	-	3	-	-	0.8	-	2	-	4	22	-	2	1	35
phenanthrene		-	1	6	1	1	1	1	0.7	0.6	0.7	2	0.5	0.7	0.9	0.9
C1-phenanthrenes		-	1	3	1	2	2	1	2	0.9	2	9	0.9	2	2	5
C2-phenanthrenes		-	4	10	9	8	9	8	4	3	11	60	3	8	5	70
C3-phenanthrenes		-	8	25	17	15	16	17	6	4	25	130	7	14	7	170
C4-phenanthrenes		-	4	24	9	9	7	10	2	1	8	49	3	5	2	71
dibenzothiophene		-	-	0.9	-	-	-	-	-	-	-	1	-	-	0.4	0.6
C1-dibenzothiophenes		-	0.4	1	0.7	0.8	0.9	0.8	1	0.7	2	9	-	2	2	6
C2-dibenzothiophenes		4	3	10	6	7	7	7	4	3	12	70	3	9	6	95
C3-dibenzothiophenes		11	8	30	19	19	55	19	8	4	29	150	7	15	8	200
Sum of LACs		**15**	**30**	**120**	**63**	**63**	**100**	**66**	**35**	**21**	**100**	**550**	**24**	**66**	**46**	**700**
fluoranthene		0.6	0.5	2	0.8	0.6	0.5	0.6	0.5	0.4	0.7	2	-	0.4	0.4	2
pyrene		0.6	0.4	2	0.7	0.7	0.6	0.6	-	0.4	0.6	3	0.4	0.4	0.5	3
C1-fluoranthenes/pyrenes		2	1	5	3	3	2	3	0.7	-	4	14	0.7	2	1	16
benz[a]anthracene		-	-	0.6	0.4	-	0.4	-	-	-	-	0.5	-	-	-	-
chrysene		5	3	8	8	7	7	7	1	0.9	6	24	2	2	2	17
C1-chrysenes/benz[a]anthracenes		6	4	13	11	9	10	10	3	2	14	55	3	5	2	42
C2-chrysenes/benz[a]anthracenes		7	5	16	10	9	9	9	2	2	16	64	4	6	3	48
C3-chrysenes/benz[a]anthracenes		4	2	8	5	4	4	4	0.6	-	8	34	1	2	1	25
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	3	-	-	-	0.7
benzo[b]fluoranthene		0.7	0.6	1	1	0.9	1	1	-	-	1	3	0.4	0.5	-	3
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	0.1
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		0.4	-	0.4	0.4	0.4	-	-	-	-	0.4	0.8	-	-	-	0.6
Sum of HACs		**26**	**16**	**56**	**41**	**35**	**34**	**35**	**8**	**6**	**51**	**200**	**12**	**18**	**10**	**160**
sample weight, grams :		5.04	5.05	5.04	3.43	4.85	5.04	4.99	5.02	5.00	5.00	5.05	5.06	5.02	5.00	5.06

Table E-35. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Mussel													Chiton	
	Site :	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3
	Date collected:	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Mar-90	Apr-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M
	Lab no. :	2998	2999	3000R	3002R	3001	3008	3009	3010	3011	3012	3013	3025	3026	962	1570
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
C2-naphthalenes		0.6	2	0.6	0.8	2	1	-	-	-	-	-	-	0.9	0.2	-
C3-naphthalenes		3	2	1	2	2	0.8	1	-	-	-	-	2	4	-	-
C4-naphthalenes		5	1	1	0.6	2	-	2	-	-	-	-	3	7	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.4	0.4	-	-	0.6	-	0.4	0.6	-	-	-	-	-	-	-
C1-fluorene		2	1	0.9	0.8	0.7	0.7	1	-	0.8	0.4	-	1	2	1	-
C2-fluorene		4	2	1	2	4	1	2	-	-	-	0.4	3	4	40	-
C3-fluorene		2	-	-	0.9	-	-	0.5	-	-	-	-	3	3	24	-
phenanthrene		0.9	0.8	0.8	0.8	1	0.7	0.8	-	-	-	-	1	1	1	-
C1-phenanthrenes		2	1	1	1	2	1	2	0.7	0.9	0.4	0.8	3	3	6	-
C2-phenanthrenes		5	3	5	4	10	3	5	0.8	2	0.8	1	7	9	7	-
C3-phenanthrenes		5	3	11	11	22	7	8	2	3	1	2	12	13	-	-
C4-phenanthrenes		1	-	6	6	10	3	3	1	1	0.4	1	3	3	-	-
dibenzothiophene		-	-	-	-	0.6	-	-	-	-	-	-	-	0.5	-	-
C1-dibenzothiophenes		2	0.8	0.9	1	2	1	2	0.5	0.6	-	0.6	2	3	-	-
C2-dibenzothiophenes		6	3	5	5	12	8	10	3	4	2	3	8	11	0.06	-
C3-dibenzothiophenes		8	4	12	12	24	15	21	4	6	2	6	13	17	0.3	-
Sum of LACs		**47**	**24**	**46**	**48**	**95**	**42**	**59**	**13**	**18**	**7**	**15**	**61**	**81**	**81**	**-**
fluoranthene		0.4	0.5	0.6	0.5	0.5	0.5	0.5	-	0.6	0.4	0.4	0.7	0.7	0.3	-
pyrene		0.4	0.6	0.4	0.4	0.6	0.5	0.6	-	-	0.4	-	-	0.6	0.2	-
C1-fluoranthenes/pyrenes		-	0.8	2	2	2	1	2	-	0.4	-	-	1	1	5	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
chrysene		0.6	-	2	2	3	2	2	-	0.8	-	0.6	2	2	0.8	-
C1-chrysenes/benz[a]anthracenes		0.8	-	5	4	8	4	4	0.4	1	0.4	1	4	2	0.8	-
C2-chrysenes/benz[a]anthracenes		1	-	7	8	12	5	4	0.6	2	0.7	2	4	3	0.3	-
C3-chrysenes/benz[a]anthracenes		-	-	3	3	7	2	1	-	-	1	0.4	0.5	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	0.5	0.5	0.7	0.4	0.4	-	-	-	-	-	0.4	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-
Sum of HACs		**3**	**2**	**20**	**20**	**34**	**15**	**15**	**1**	**5**	**3**	**4**	**12**	**10**	**8**	**-**
sample weight, grams :		5.04	5.00	5.04	5.06	5.01	5.04	5.00	5.06	5.01	5.01	5.00	5.18	5.03	5.01	5.00

Table E-36. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Chiton														
	Site :	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Jul-90	Jul-90	Jul-90	Jul-90	Jul-90	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1571	1572	1573	1574	1575	1781	1782	1783	1784	1785	2696	2697	2698	2699	2700
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	2	-	2	2	3	-	-	-	-	-
C2-naphthalenes		-	1	0.6	0.7	-	0.5	0.8	0.4	0.6	2	0.8	-	2	1	0.5
C3-naphthalenes		-	-	-	-	-	-	0.4	-	0.3	0.4	-	-	-	0.9	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	0.3	-	0.3	0.3	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	0.3	0.3	0.3	0.2	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
phenanthrene		-	-	-	-	-	-	-	-	-	-	0.7	0.6	0.7	0.7	-
C1-phenanthrenes		-	-	-	-	-	0.2	-	0.5	0.2	0.7	0.5	0.5	0.8	0.8	0.5
C2-phenanthrenes		-	-	-	-	-	0.2	-	-	0.8	0.4	0.4	0.8	0.6	0.9	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	0.2	-	1	1	0.5	0.5
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	0.5	0.8	0.2	-	0.6	-	-	-	0.4	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-
Sum of LACs		**-**	**1**	**0.6**	**0.7**	**-**	**3**	**3**	**3**	**4**	**8**	**2**	**4**	**5**	**10**	**2**
fluoranthene		0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	3	-	0.5	-
benz[a]anthracene		-	-	-	-	-	0.2	0.2	-	0.1	-	-	-	-	-	-
chrysene		-	0.6	0.8	0.6	-	-	-	-	-	-	-	5	0.7	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	0.1	-	0.1	-	0.1	-	5	0.4	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	0.2	-	-	-	-	-	5	2	0.5	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	6	1	0.5	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-
Sum of HACs		**0.8**	**0.6**	**0.8**	**0.6**	**-**	**0.5**	**0.2**	**0.1**	**0.1**	**0.1**	**-**	**26**	**1**	**2**	**-**
sample weight, grams :		5.06	5.03	5.04	5.05	5.00	5.02	5.04	5.05	5.13	5.06	5.01	5.01	5.02	5.02	5.06

Table E-37. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Chiton								Snail	Mussel					
	Site :	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB3	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4
	Date collected:	Apr-91	Apr-91	Apr-91	Aug-91	Aug-91	Aug-91	Aug-91	Aug-91	Mar-90	Apr-90	Apr-90	Apr-90	Apr-90	Jul-90	Jul-90
	Collector :	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2701	2702	2703	2981	3014	3015	3016	3017	1005	1551	1552	1553	1554	1740	1741
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		0.7	0.8	0.7	-	-	-	-	-	-	0.5	-	1	-	-	-
C3-naphthalenes		-	0.8	0.4	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	1	-	2	2	-	0.7	0.6
C1-phenanthrenes		0.4	0.6	0.5	-	-	-	-	-	0.8	1	1	1	0.9	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	37	5	6	5	5	2	0.8
C3-phenanthrenes		-	-	-	-	-	-	-	-	130	7	6	6	5	4	3
C4-phenanthrenes		-	-	-	-	-	-	-	-	39	1	0.9	0.7	0.7	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	0.8	1	0.6	0.5	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	31	5	4	4	3	1	0.6
C3-dibenzothiophenes		-	-	0.8	-	-	-	-	-	140	8	8	9	7	3	2
Sum of LACs		**1**	**2**	**2**	**-**	**-**	**-**	**-**	**-**	**380**	**28**	**29**	**29**	**22**	**11**	**7**
fluoranthene		-	0.4	0.5	-	0.4	-	-	-	-	-	-	-	-	0.2	0.2
pyrene		-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	2	0.4	-	0.6	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	22	2	2	1	1	0.5	0.6
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	23	2	2	1	1	0.7	0.4
C2-chrysenes/benz[a]anthracenes		-	-	0.4	-	-	-	-	-	23	0.8	0.5	0.5	0.8	0.3	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	5	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**0.4**	**0.9**	**-**	**0.4**	**-**	**-**	**-**	**75**	**5**	**4**	**3**	**3**	**2**	**1**
sample weight, grams :		5.01	4.99	5.01	5.02	5.09	5.01	5.00	5.01	5.00	5.04	5.07	5.02	5.04	5.02	5.01

Table E-38. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Mussel							Littleneck clam							
	Site :	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4
	Date collected:	Jul-90	Jul-90	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Jul-90	Jul-90	Jul-90	Jul-90	Jul-90	Jul-90	Jul-90	Apr-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1747	1748	2741	2742	2743	2744	2745	1786R	1800R	1801R	1792	1793	1794	1795	2740
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		1	0.9	-	-	-	-	-	-	3	2	2	2	2	4	-
C2-naphthalenes		-	-	0.8	-	0.8	-	0.7	-	2	1	3	3	2	2	0.5
C3-naphthalenes		-	-	-	-	-	-	-	-	1	2	2	2	2	2	-
C4-naphthalenes		-	-	-	-	-	-	-	-	1	0.6	1	-	0.5	0.7	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	6	0.3	0.3	0.3	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	0.6	0.5	0.9	1	0.9	0.7	-
C1-fluorene		-	-	-	-	-	-	-	-	1	0.7	1	1	0.9	0.9	-
C2-fluorene		-	-	-	-	-	-	-	-	0.9	1	2	-	1	1	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.7	1	0.6	0.6	0.7	0.7	0.6	-	-	-	2	3	2	2	-
C1-phenanthrenes		-	0.7	0.6	0.6	0.6	0.7	0.6	0.5	2	2	2	3	2	2	0.6
C2-phenanthrenes		4	8	1	1	1	1	1	6	10	11	10	12	10	8	2
C3-phenanthrenes		2	4	2	2	2	1	1	2	5	5	6	6	5	6	2
C4-phenanthrenes		-	0.7	0.4	0.5	0.7	-	0.4	0.2	1	0.9	2	2	2	2	-
dibenzothiophene		-	-	-	-	-	-	-	0.3	0.2	-	0.2	0.2	0.2	0.2	-
C1-dibenzothiophenes		-	1	-	-	-	-	-	0.3	1	1	1	0.4	1	0.7	0.4
C2-dibenzothiophenes		0.7	2	1	1	1	1	1	1	3	3	3	3	3	4	1
C3-dibenzothiophenes		2	6	2	2	2	2	2	4	8	5	8	6	5	7	2
Sum of LACs		**10**	**24**	**8**	**8**	**9**	**6**	**7**	**14**	**40**	**36**	**5**	**45**	**40**	**44**	**8**
fluoranthene		0.7	0.7	0.5	0.6	0.7	0.7	0.6	-	0.9	1	1	1	1	0.9	0.8
pyrene		-	-	-	-	-	-	-	-	0.6	0.7	0.7	0.8	0.7	0.6	0.4
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	0.9	0.9	1	2	1	1	-
benz[a]anthracene		-	-	-	-	-	-	-	-	0.1	0.2	0.2	0.2	0.1	0.1	-
chrysene		0.6	0.7	0.9	0.7	0.6	0.5	0.4	-	1	1	2	1	1	1	0.6
C1-chrysenes/benz[a]anthracenes		-	0.5	0.5	0.8	0.5	-	0.5	0.4	0.8	0.6	0.9	1	0.9	0.7	-
C2-chrysenes/benz[a]anthracenes		-	0.9	0.4	0.5	0.4	-	0.5	0.5	0.6	0.5	0.8	1	0.9	0.7	0.5
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	0.4	-	-	0.5	0.4	0.4	0.4	0.4	0.3	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	0.4	0.6	0.4	0.6	0.4	0.3	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	0.2	0.1	0.6	0.3	0.2	0.1	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	0.8	0.2	0.1	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	0.3	-	0.1	0.9	0.2	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	0.1	-	7	1	0.4	0.2	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	0.3	0.2	14	3	1	0.4	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	0.2	0.1	3	0.8	0.4	0.2	-
Sum of HACs		**1**	**3**	**2**	**3**	**2**	**2**	**2**	**1**	**7**	**6**	**34**	**14**	**8**	**6**	**2**
sample weight, grams :		5.08	5.04	5.00	4.98	4.99	5.03	4.97	5.05	5.19	5.25	5.07	5.03	5.04	5.09	4.97

Table E-39. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Littleneck clam			Macoma			Soft-shelled clam								
	Site :	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4	WNB4
	Date collected :	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-91	Apr-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2733R	2734R	2746	2749	2755R	2764R	1555	1556	1557	1558	1559	1724	1725	2747	2756
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	1	0.8	-	-	-	-	-	-	-	-	0.8
C2-naphthalenes		-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
C1-phenanthrenes		0.5	0.6	0.6	1	0.9	0.8	1	-	-	0.8	1	-	-	0.7	-
C2-phenanthrenes		1	1	0.8	4	2	3	12	6	3	5	7	0.5	0.4	0.9	0.9
C3-phenanthrenes		1	1	1	10	5	5	10	7	3	8	8	1	0.9	2	1
C4-phenanthrenes		-	-	-	4	-	-	1	0.5	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	0.6	-	-	1	-	-	0.8	1	-	-	-	-
C2-dibenzothiophenes		0.7	0.8	1	4	3	3	5	3	2	4	5	-	-	1	0.9
C3-dibenzothiophenes		0.9	1	0.8	11	8	8	14	9	4	12	13	1	1	3	1
Sum of LACs		**4**	**4**	**4**	**37**	**20**	**21**	**46**	**26**	**12**	**31**	**35**	**2**	**2**	**8**	**5**
fluoranthene		0.7	0.8	0.6	1	0.9	0.8	-	-	-	2	-	-	-	0.7	0.5
pyrene		0.4	0.4	-	1	0.8	0.6	-	-	-	2	-	-	-	0.5	0.4
C1-fluoranthenes/pyrenes		-	-	-	2	1	0.8	0.6	0.5	-	0.6	1	-	-	0.4	-
benz[a]anthracene		-	-	-	-	-	-	-	2	-	0.5	-	-	-	-	-
chrysene		0.4	0.4	0.6	2	1	1	2	-	1	2	2	0.5	0.5	0.9	0.5
C1-chrysenes/benz[a]anthracenes		-	-	-	3	1	1	2	1	1	2	2	-	-	0.5	-
C2-chrysenes/benz[a]anthracenes		0.6	0.6	0.5	5	2	1	2	0.7	0.6	0.5	0.9	-	-	1	-
C3-chrysenes/benz[a]anthracenes		-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	0.6	0.4	-	-	-	-	-	-	-	-	0.4	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**2**	**2**	**2**	**18**	**7**	**5**	**7**	**4**	**3**	**10**	**6**	**0.5**	**0.5**	**4**	**1**
sample weight, grams :		5.01	5.02	4.98	5.03	5.01	5.01	5.03	5.02	5.20	5.00	5.03	5.01	5.04	4.99	4.99

Table E-40. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Windy Bay.

ACs	Species :	Soft-shelled clam		Cockle	Mussel					Littleneck clam					Macoma
	Site :	WNB4	WNB4	WNB4	WNB5	WNB5	WNB5	WNB5	WNB5	WNB5	WNB5	WNB5	WNB5	WNB5	WNB5
	Date collected:	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91	Apr-91
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2757	2758	2748	2771	2772	2773	2774	2775	2760	2761	2762	2763	2770	2759
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		1	3	-	2	2	-	-	-	0.9	1	2	0.8	-	0.9
C2-naphthalenes		-	2	0.6	0.5	-	-	-	-	4	-	1	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.8
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	5
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	0.5	-	-	-
fluorene		-	0.5	-	-	-	-	-	-	-	-	0.7	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	0.4	-	-	-	-	-	-	-	-	-	5
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	3
phenanthrene		-	2	-	0.8	0.7	0.6	0.5	0.6	-	-	-	-	-	-
C1-phenanthrenes		0.4	2	0.5	0.6	0.9	0.4	-	0.7	0.8	0.7	1	0.8	1	3
C2-phenanthrenes		0.8	1	0.5	2	4	2	1	1	0.4	2	4	2	3	31
C3-phenanthrenes		0.9	0.8	1	3	9	3	2	2	2	2	3	3	3	66
C4-phenanthrenes		-	-	-	0.9	5	0.5	0.5	0.5	-	-	-	-	0.5	12
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	0.4	-	-	-	-	0.4	-	0.4	-	0.5	3
C2-dibenzothiophenes		0.6	-	0.5	1	4	2	1	1	2	2	2	2	2	35
C3-dibenzothiophenes		2	2	2	2	10	2	2	2	3	3	3	4	4	100
Sum of LACs		**6**	**13**	**5**	**14**	**36**	**10**	**7**	**8**	**14**	**11**	**18**	**13**	**14**	**260**
fluoranthene		0.5	7	0.6	0.5	0.4	0.5	0.4	0.4	0.6	0.6	1	0.7	0.6	2
pyrene		0.5	5	-	0.4	-	-	-	-	0.5	0.5	0.7	0.5	-	3
C1-fluoranthenes/pyrenes		-	2	-	-	1	-	-	-	0.7	0.7	0.8	0.7	0.5	12
benz[a]anthracene		0.7	0.5	-	-	-	-	-	-	-	-	-	-	-	0.6
chrysene		-	0.8	0.4	0.6	2	0.9	0.6	-	0.7	0.8	0.6	1	1	11
C1-chrysenes/benz[a]anthracenes		-	-	-	0.6	4	0.8	0.6	0.4	0.4	0.4	-	0.5	0.5	16
C2-chrysenes/benz[a]anthracenes		-	-	0.9	1	6	0.8	0.7	-	0.4	0.7	0.5	0.8	0.6	13
C3-chrysenes/benz[a]anthracenes		-	-	-	-	2	-	-	-	-	-	-	-	-	3
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	0.6	-	-	-	-	-	-	-	-	1
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**2**	**15**	**2**	**3**	**16**	**3**	**2**	**0.8**	**3**	**4**	**4**	**4**	**3**	**62**
sample weight, grams :		5.00	5.00	4.97	5.07	5.01	5.00	5.01	5.00	5.00	5.01	5.00	5.01	5.06	4.98

Table E-41. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Dick.

ACs	Species :	Mussel	Littleneck clam							Horse clam	
	Site :	PTD1	PTD1	PTD1	PTD1	PTD1	PTD1	PTD1	PTD1	PTD1	PTD1
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2518	2547R	2549R	2548	2555	2556	2562	2563	2473	2474
naphthalene		a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		0.9	1	1	1	1	0.9	1	1	2	1
C3-naphthalenes		0.7	1	1	0.6	0.6	0.8	0.9	0.9	0.9	0.8
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	0.4	0.4	-	-	-	-	0.4	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	-	-
C1-phenanthrenes		0.7	0.7	0.6	0.7	0.6	0.7	0.6	0.8	0.8	0.6
C2-phenanthrenes		1	1	1	0.9	1	1	1	0.8	1	2
C3-phenanthrenes		2	0.9	0.7	-	0.8	0.7	0.5	0.5	0.6	2
C4-phenanthrenes		0.4	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		0.7	0.8	0.7	0.4	0.8	0.7	0.7	0.5	-	1
C3-dibenzothiophenes		1	0.5	-	-	0.5	0.5	-	0.4	-	2
Sum of LACs		**7**	**6**	**5**	**4**	**5**	**5**	**5**	**5**	**5**	**9**
fluoranthene		0.4	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.6
pyrene		-	0.4	-	-	0.4	-	0.4	0.4	0.4	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	0.5
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	0.6
C1-chrysenes/benz[a]anthracenes		0.6	-	-	-	-	-	-	-	-	0.5
C2-chrysenes/benz[a]anthracenes		0.4	-	-	-	-	-	-	-	-	0.4
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-
Sum of HACs		**1**	**1**	**0.5**	**0.5**	**0.9**	**0.5**	**1**	**1**	**0.9**	**3**
sample weight, grams :		5.07	2.99	3.04	3.06	5.01	5.01	5.00	5.06	5.01	5.02

Table E-42. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chugach Bay.

ACs	Species :	Chiton						
	Site :	CHB1	CHB1	CHB1	CHB1	CHB1	CHB1	CHB1
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2510	2511	2512	2513	2528	2529	2541
naphthalene		a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	0.7	0.6	5
C2-naphthalenes		1	0.7	0.9	1	-	-	1
C3-naphthalenes		0.8	0.7	0.6	0.9	-	-	0.8
C4-naphthalenes		-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	0.4
acenaphthene		-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-
phenanthrene		-	-	-	-	0.6	0.5	-
C1-phenanthrenes		0.5	0.4	0.4	0.4	-	-	0.5
C2-phenanthrenes		0.5	0.5	0.4	-	-	-	0.5
C3-phenanthrenes		-	-	0.5	-	-	-	0.5
C4-phenanthrenes		-	0.8	-	-	-	-	0.4
dibenzothiophene		-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-
Sum of LACs		**3**	**3**	**3**	**2**	**1**	**1**	**9**
fluoranthene		-	-	-	-	-	-	0.5
pyrene		-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		0.9	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	2	0.5	-	-	-	0.4
C3-chrysenes/benz[a]anthracenes		2	2	0.5	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-
Sum of HACs		**3**	**4**	**1**	**-**	**-**	**-**	**0.9**
sample weight, grams :		4.98	5.00	4.95	4.97	5.03	4.95	2.99

Table E-43. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Chatham.

ACs	Species :	Littleneck clam						Mussel		Chiton						
	Site :	PTC1	PTC1	PTC1	PTC1	PTC1	PTC1	PTC2	PTC2	PTC2	PTC2	PTC2	PTC2	PTC2	PTC2	PTC2
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2465	2480	2481	2690	1252R	1253R	2471	2472	2467	2468	2469	2470	2542	2543	2544
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	4	-	-	-	-	-	-	-
C2-naphthalenes		0.9	0.8	0.8	-	-	-	1	3	1	1	2	1	2	2	2
C3-naphthalenes		1	-	-	-	-	-	1	2	1	1	1	0.5	1	1	0.7
C4-naphthalenes		-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	0.4
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	0.9	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.9	0.7	0.8	0.6	-	-	-	2	-	-	-	-	-	-	-
C1-phenanthrenes		1	0.8	0.7	-	1	1	0.7	1	0.4	0.5	0.5	0.5	-	0.6	0.7
C2-phenanthrenes		2	1	0.8	-	3	2	0.6	1	-	0.5	-	-	-	-	0.4
C3-phenanthrenes		0.9	-	-	-	0.5	0.5	-	0.4	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	0.5	0.4	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		0.8	0.5	-	-	1	1	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		0.9	-	-	-	1	0.5	-	-	-	-	-	-	-	-	-
Sum of LACs		**8**	**4**	**3**	**0.6**	**7**	**5**	**3**	**16**	**2**	**3**	**4**	**2**	**3**	**4**	**4**
fluoranthene		0.6	-	-	0.4	0.6	-	0.4	0.6	-	-	-	-	0.4	0.5	0.4
pyrene		0.6	-	-	-	-	-	-	1	-	-	-	-	-	0.4	0.4
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	0.6	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**1**	**-**	**-**	**1**	**0.6**	**-**	**0.4**	**2**	**-**	**-**	**-**	**-**	**0.4**	**0.9**	**0.8**
sample weight, grams :		5.03	5.02	5.00	3.28	5.07	5.14	5.01	5.04	5.00	5.02	5.04	5.01	3.01	3.06	3.03

Table E-44. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Chatham.

ACs	Species :	Chiton		Limpet		
	Site :	PTC2	PTC2	PTC2	PTC2	PTC2
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2545	2546	2575	2576R	2579R
naphthalene		a	a	a	a	a
C1-naphthalenes		-	-	-	-	-
C2-naphthalenes		1	1	0.7	0.7	0.8
C3-naphthalenes		0.6	0.8	0.5	0.5	0.5
C4-naphthalenes		-	-	-	-	-
acenaphthylene		-	-	-	-	-
acenaphthene		-	-	-	-	-
fluorene		-	-	-	-	-
C1-fluorene		-	-	-	-	-
C2-fluorene		-	-	-	-	-
C3-fluorene		-	-	-	-	-
phenanthrene		-	-	0.5	0.5	0.4
C1-phenanthrenes		0.4	0.5	-	-	-
C2-phenanthrenes		-	0.4	-	-	-
C3-phenanthrenes		-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-
dibenzothiophene		-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-
Sum of LACs		**2**	**3**	**2**	**2**	**2**
fluoranthene		0.4	0.4	-	-	-
pyrene		-	0.4	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-
benz[a]anthracene		-	-	-	-	-
chrysene		-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-
Sum of HACs		**0.4**	**0.8**	**-**	**-**	**-**
sample weight, grams :		3.00	3.00	5.04	5.05	5.06

Table E-45. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Point Bede.

ACs	Species :	Chiton								Limpet		Kelp		
	Site :	BED1	BED1	BED1	BED1	BED1	BED1	BED1	BED1	BED1	BED1	BED1	BED1	BED1
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2514	2515	2516R	2519R	2517	2525	2526	2527	2577	2578	2572	2573	2574
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	0.4	0.4	-	-	-	-	-
C2-naphthalenes		0.8	0.7	0.6	0.8	1	-	-	-	0.9	0.7	0.5	0.9	0.8
C3-naphthalenes		0.8	0.5	0.4	0.6	0.8	-	-	-	0.7	0.4	-	-	0.5
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	0.6	0.4	0.5	0.7	0.5	-	0.5	0.5
C1-phenanthrenes		0.4	-	-	-	0.4	-	-	-	0.4	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**2**	**1**	**1**	**1**	**2**	**0.6**	**0.8**	**0.9**	**3**	**2**	**0.5**	**1**	**2**
fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.03	4.96	5.01	5.00	4.98	4.95	5.01	5.00	4.99	5.04	5.06	5.08	5.04

Table E-46. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Kasitsna Bay.

ACs	Species :	Mussel		Butter clam	Littleneck clam							Horse clam				
	Site :	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1	KAS1
	Date collected:	Sep-89	Sep-89	Sep-89	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	355	356	361	2500	2501	2502	2503R	2504R	2540	2564	2482	2483	2484	2485	2486
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.3	0.3	0.4	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	1	0.6	0.4	0.6	0.8	1	0.9	0.8	0.7	0.8	0.7	0.8
C3-naphthalenes		-	-	-	0.8	-	-	-	-	0.9	0.8	-	-	-	0.4	0.5
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	0.4	0.4	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.8	0.4	1	1	1	1	1	1	1	2	-	-	-	-	-
C1-phenanthrenes		-	-	0.4	2	2	2	2	2	0.7	1	0.6	-	-	0.4	0.4
C2-phenanthrenes		-	-	0.4	3	3	2	3	3	0.7	0.9	-	-	-	-	-
C3-phenanthrenes		-	-	-	0.6	0.5	-	-	0.5	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	1	0.8	0.6	0.8	0.9	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	1	2	1	1	1	0.4	0.6	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	0.4	1	0.8	-	-	-	-	-	-	-	-	-
Sum of LACs		**1**	**0.7**	**2**	**11**	**11**	**8**	**8**	**9**	**5**	**7**	**1**	**0.7**	**0.8**	**2**	**2**
fluoranthene		-	-	0.3	0.6	0.8	0.9	0.8	0.8	0.7	1	0.5	-	-	-	0.4
pyrene		-	-	0.09	0.4	0.6	0.4	0.4	0.4	-	0.6	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**0.4**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**0.5**	**-**	**-**	**-**	**0.4**
sample weight, grams :		5.42	5.32	5.34	5.05	4.98	5.05	5.02	5.03	3.03	5.02	5.04	5.00	5.00	5.00	5.00

Table E-47. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Kasitsna Bay.

ACs	Species :	Horse clam				Chiton
	Site :	KAS1	KAS1	KAS1	KAS1	KAS1
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Sep-89
	Collector :	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2531	2532	2533	2534	358
naphthalene		a	a	a	a	a
C1-naphthalenes		-	-	0.4	0.4	0.8
C2-naphthalenes		-	-	-	-	-
C3-naphthalenes		-	-	-	-	-
C4-naphthalenes		-	-	-	-	-
acenaphthylene		-	-	-	-	-
acenaphthene		-	-	-	-	-
fluorene		-	-	-	-	-
C1-fluorene		-	-	-	-	-
C2-fluorene		-	-	-	-	-
C3-fluorene		-	-	-	-	-
phenanthrene		0.5	0.8	0.5	0.7	0.7
C1-phenanthrenes		-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-
dibenzothiophene		-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-
Sum of LACs		**0.5**	**0.8**	**0.9**	**1**	**2**
fluoranthene		0.4	0.4	-	0.6	-
pyrene		-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-
benz[a]anthracene		-	-	-	-	-
chrysene		-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-
Sum of HACs		**0.4**	**0.4**	**-**	**0.6**	**-**
sample weight, grams :		5.00	5.00	5.04	4.99	5.50

Table E-48. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Sadie Cove.

ACs	Species :	Mussel			Littleneck clam					Horse clam				
	Site :	SAD1	SAD1	SAD1	SAD1	SAD1	SAD1	SAD1	SAD1	SAD1	SAD1	SAD1	SAD1	SAD1
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2487	2488R	2489R	2557	2558	2559	2560	2561	2495	2496	2497	2498	2499
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		1	1	0.7	0.9	0.8	1	1	0.8	-	1	1	0.9	1
C3-naphthalenes		0.4	0.8	0.4	0.9	0.6	0.9	0.8	0.7	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	0.4	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-phenanthrenes		0.5	0.5	0.4	0.5	0.9	0.6	0.5	0.6	-	0.4	0.7	0.6	0.7
C2-phenanthrenes		-	-	-	0.5	0.5	0.5	0.4	0.5	-	0.4	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**2**	**2**	**2**	**3**	**3**	**3**	**3**	**3**	**-**	**2**	**2**	**2**	**2**
fluoranthene		0.5	0.4	0.4	0.6	0.7	0.8	0.6	-	0.4	0.4	0.4	0.4	0.4
pyrene		-	-	-	-	0.4	0.4	0.4	-	-	-	0.4	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	0.4	-	-	-	-	-	-	-
Sum of HACs		**0.5**	**0.4**	**0.4**	**0.6**	**1**	**2**	**1**	**-**	**0.4**	**0.4**	**0.8**	**0.4**	**0.4**
sample weight, grams :		5.03	5.01	5.03	5.05	5.02	5.02	5.01	5.06	5.04	5.04	5.01	5.04	4.99

Table E-49. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Kodiak.

ACs	Species :	Mussel					Butter clam									
	Site :	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3
	Date collected:	Jul-89	Apr-90	Apr-90	Apr-90	Apr-90	Aug-89	Mar-90	Mar-90	Apr-90	Apr-90	Apr-90	Apr-90	May-90	May-90	May-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG
	Lab no. :	48	1844	1845	1846	1853	212	1157	1166	1862	1868	1869	1870	1649	1650	1656
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	6	2	3	3	1	8	12	-	4	5	3	6	7	9
C2-naphthalenes		4	13	5	10	7	4	47	72	5	9	9	8	43	50	33
C3-naphthalenes		41	43	19	37	29	24	180	220	19	34	27	32	180	200	120
C4-naphthalenes		85	68	27	59	24	40	290	310	27	47	43	48	100	220	110
acenaphthylene		-	0.4	-	0.4	0.5	0.06	0.5	0.4	-	0.3	0.4	-	-	-	-
acenaphthene		-	0.8	-	0.7	0.5	0.8	3	2	0.4	0.6	0.8	0.5	2	2	2
fluorene		2	6	2	4	4	2	8	8	2	2	2	1	6	7	6
C1-fluorene		27	15	7	15	12	8	33	33	8	7	7	7	36	41	31
C2-fluorene		110	13	4	13	12	28	140	130	5	20	6	19	87	86	55
C3-fluorene		73	36	19	36	21	8	81	76	13	9	12	10	39	83	22
phenanthrene		34	20	11	18	18	16	61	58	10	14	13	14	53	58	48
C1-phenanthrenes		140	46	26	50	44	32	160	150	25	26	24	26	110	150	120
C2-phenanthrenes		250	84	49	100	81	45	230	220	44	38	36	41	160	190	140
C3-phenanthrenes		150	72	37	95	69	22	150	140	31	19	22	21	72	78	47
C4-phenanthrenes		5	15	4	23	13	42	20	19	1	2	3	2	7	4	0.8
dibenzothiophene		14	7	3	7	7	5	6	9	3	3	2	2	12	11	9
C1-dibenzothiophenes		99	33	16	37	35	66	70	69	19	17	15	14	88	88	67
C2-dibenzothiophenes		270	91	49	110	87	41	230	210	52	42	44	28	190	200	150
C3-dibenzothiophenes		230	100	52	140	110	28	180	160	46	31	36	35	110	130	78
Sum of LACs		**1500**	**670**	**330**	**760**	**580**	**410**	**1900**	**1900**	**310**	**320**	**310**	**310**	**1300**	**1600**	**1000**
fluoranthene		57	20	11	25	19	27	110	88	20	20	21	19	51	56	49
pyrene		25	7	4	8	5	14	65	51	12	11	13	10	26	28	24
C1-fluoranthenes/pyrenes		14	10	6	13	9	4	33	27	8	5	6	5	12	12	11
benz[a]anthracene		6	2	1	2	2	0.8	8	8	2	1	2	1	2	2	3
chrysene		19	6	4	8	7	3	16	16	4	4	5	4	8	8	9
C1-chrysenes/benz[a]anthracenes		-	0.7	0.3	-	1	0.04	4	4	0.6	0.5	1	-	2	1	2
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	2	1	-	-	-	-	0.5	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		5	1	0.9	2	1	0.7	6	4	1	1	3	1	2	1	2
benzo[k]fluoranthene		37	1	0.8	2	1	0.5	2	3	1	0.6	0.9	0.6	2	0.7	0.9
benzo[a]pyrene		-	-	-	0.3	-	0.1	1	1	0.6	0.5	1	0.5	0.7	0.5	0.6
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	0.3	0.6	-	-	-	-	0.5	0.5	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	0.3
benzo[ghi]perylene		-	-	-	-	-	-	0.3	0.6	-	-	-	-	0.5	0.3	0.4
Sum of HACs		**160**	**48**	**28**	**60**	**45**	**50**	**250**	**200**	**49**	**44**	**53**	**41**	**110**	**110**	**100**
sample weight, grams :		5.31	5.08	5.06	5.00	4.98	5.11	5.07	5.21	5.00	5.01	5.32	4.94	5.01	5.03	5.08

Table E-50. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Kodiak.

ACs	Species :	Butter clam			Littleneck clam							Chiton				
	Site :	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3	KOD3
	Date collected:	Sep-90	Sep-90	Sep-90	Sep-89	Sep-89	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Aug-89	Sep-89	Apr-90	Apr-90	Apr-90
	Collector :	ADFG	ADFG	ADGG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2124	2125	2382	437	447	1886	1887	1888	1889R	1986R	208	396	1996	1997	1998
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		6	6	3	0.9	-	2	2	3	3	-	3	1	-	-	-
C2-naphthalenes		36	41	23	2	-	6	6	12	11	4	4	0.3	-	2	3
C3-naphthalenes		130	160	-	14	4	19	21	39	12	17	14	1	0.9	1	2
C4-naphthalenes		190	230	170	22	6	27	28	49	17	24	27	1	0.8	0.9	1
acenaphthylene		-	-	0.5	-	-	-	-	0.3	-	-	-	-	-	-	-
acenaphthene		1	1	0.8	-	-	0.5	0.5	0.7	0.5	-	2	-	-	-	-
fluorene		5	6	5	1	-	1	1	2	1	2	3	0.3	0.6	0.6	0.5
C1-fluorene		30	41	35	6	3	5	5	9	3	6	9	3	0.9	0.7	0.5
C2-fluorene		95	120	110	18	6	15	18	25	9	21	45	7	6	6	5
C3-fluorene		44	69	66	9	2	9	11	14	5	15	12	3	6	3	5
phenanthrene		28	38	32	8	4	8	0.3	13	7	9	14	13	3	4	5
C1-phenanthrenes		95	130	130	28	14	18	20	26	13	27	30	34	4	5	5
C2-phenanthrenes		130	170	130	42	22	33	34	43	20	35	21	14	3	5	4
C3-phenanthrenes		61	110	61	20	8	16	18	22	9	21	19	4	1	3	2
C4-phenanthrenes		12	24	9	0.9	-	3	3	3	0.6	1	2	-	-	-	-
dibenzothiophene		8	15	10	4	2	3	4	6	2	3	3	0.5	0.5	0.4	0.3
C1-dibenzothiophenes		60	81	63	17	9	11	13	18	7	13	6	1	0.7	0.9	0.7
C2-dibenzothiophenes		140	190	130	44	24	33	38	52	23	37	11	3	1	2	1
C3-dibenzothiophenes		92	150	78	31	15	30	33	36	17	29	9	4	0.7	2	1
Sum of LACs		**1200**	**1600**	**1100**	**270**	**120**	**240**	**260**	**370**	**160**	**260**	**230**	**90**	**29**	**36**	**36**
fluoranthene		38	40	49	23	15	29	33	33	19	26	11	7	1	1	1
pyrene		18	18	23	11	7	14	17	16	9	13	0.4	7	0.8	0.8	0.7
C1-fluoranthenes/pyrenes		12	14	14	51	0.9	5	6	0.4	3	6	9	13	0.4	0.8	0.5
benz[a]anthracene		2	2	2	0.2	-	0.7	1	0.8	-	0.8	0.8	0.1	-	-	-
chrysene		6	7	7	2	0.8	3	3	3	2	3	4	3	-	0.4	0.9
C1-chrysenes/benz[a]anthracenes		1	2	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		0.4	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		1	1	1	0.2	-	0.4	0.6	0.4	0.4	0.7	0.8	-	-	-	-
benzo[k]fluoranthene		1	1	1	-	-	0.5	1	0.5	0.5	1	0.5	-	-	-	-
benzo[a]pyrene		0.5	-	0.4	-	-	-	0.4	-	0.6	-	0.1	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**80**	**86**	**97**	**87**	**24**	**53**	**62**	**54**	**34**	**50**	**27**	**30**	**2**	**3**	**3**
sample weight, grams :		5.03	5.05		5.35	5.62	5.08	5.14	5.16	5.15	5.06	5.08	3.80	5.01	5.01	5.00

Table E-51. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Kodiak.

ACs	Species :	Chiton	Dungeness crab		Butter clam				Littleneck clam				Chiton			
	Site :	KOD3	KOD4	KOD5	KOD7	KOD7	KOD7	KOD7	KOD7	KOD7	KOD7	KOD7	KOD7	KOD7	KOD7	KOD7
	Date collected:	Apr-90	Jul-89	Aug-89	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1999	96	341	1905	1906	1950	1951	1901	1902	1903	1904	2000	2001	2007	2008
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.1	0.2	-	-	2	1	-	-	-	-	-	-	-	-
C2-naphthalenes		3	-	-	0.3	-	0.4	-	-	-	-	-	-	-	-	-
C3-naphthalenes		3	-	0.08	1	-	0.6	-	-	0.8	0.6	0.4	-	-	-	1
C4-naphthalenes		3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		8	-	-	0.5	-	0.3	-	-	-	-	-	2	0.6	-	0.3
C3-fluorene		6	-	-	1	-	0.8	1	0.6	1	1	1	-	-	-	-
phenanthrene		6	0.09	0.3	1	1	2	1	1	1	1	1	-	-	-	-
C1-phenanthrenes		6	-	-	3	1	2	1	1	2	2	2	-	-	-	0.3
C2-phenanthrenes		7	-	-	2	0.4	1	0.5	0.7	2	1	1	0.6	-	-	0.6
C3-phenanthrenes		4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		2	-	-	0.7	-	0.6	0.4	-	0.6	0.5	-	-	-	-	-
C2-dibenzothiophenes		4	-	-	2	-	0.9	-	-	0.9	0.8	0.5	-	-	-	-
C3-dibenzothiophenes		4	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**59**	**0.2**	**0.6**	**12**	**2**	**11**	**5**	**3**	**8**	**7**	**6**	**3**	**0.6**	**-**	**2**
fluoranthene		2	-	-	1	0.8	1	1	0.9	1	1	1	-	-	-	-
pyrene		1	-	-	0.5	-	0.5	0.3	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**4**	**-**	**-**	**2**	**0.8**	**2**	**1**	**0.9**	**1**	**1**	**1**	**-**	**-**	**-**	**-**
sample weight, grams :		5.09	5.13	5.38	5.01	5.01	4.99	4.98	5.00	4.99	5.00	5.02	5.00	5.00	5.05	5.00

Table E-52. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Kodiak.

ACs	Species :	Mussel			Dungeness crab
	Site :	K7	K7	K7	K7
	Date collected:	Sep-90	Sep-90	Sep-90	Sep-90
	Collector :	ADFG	ADFG	ADFG	ADFG
	Lab no. :	2126	2154	2155	2183
naphthalene		a	a	a	a
C1-naphthalenes		-	-	-	-
C2-naphthalenes		-	-	-	-
C3-naphthalenes		8	-	6	-
C4-naphthalenes		8	5	7	-
acenaphthylene		-	0.4	0.5	-
acenaphthene		0.4	0.5	0.5	-
fluorene		0.8	0.9	1	-
C1-fluorene		2	1	2	-
C2-fluorene		3	2	4	-
C3-fluorene		4	-	5	-
phenanthrene		3	3	4	-
C1-phenanthrenes		4	6	9	-
C2-phenanthrenes		8	11	17	-
C3-phenanthrenes		15	8	12	-
C4-phenanthrenes		7	3	4	-
dibenzothiophene		0.6	0.8	0.9	-
C1-dibenzothiophenes		2	3	6	-
C2-dibenzothiophenes		5	-	13	-
C3-dibenzothiophenes		11	11	21	-
Sum of LACs		**82**	**56**	**110**	**-**
fluoranthene		2	2	4	-
pyrene		1	1	2	-
C1-fluoranthenes/pyrenes		1	-	1	-
benz[a]anthracene		-	-	-	-
chrysene		0.8	0.8	1	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-
benzo[b]fluoranthene		-	-	-	-
benzo[k]fluoranthene		-	-	-	-
benzo[a]pyrene		-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-
dibenz[a,h]anthracene		-	-	-	-
benzo[ghi]perylene		-	-	-	-
Sum of HACs		**5**	**4**	**8**	**-**
sample weight, grams :		5.03	5.00	5.20	5.14

Table E-53. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chiniak.

ACs	Species :	Mussel									Butter clam					Littleneck clam
	Site :	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1	CHI1
	Date collected:	Jul-89	Mar-90	May-90	May-90	May-90	May-90	Jul-90	Jul-90	Jul-90	Jul-89	Sep-89	Sep-89	Mar-90	Mar-90	Aug-89
	Collector :	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	ADFG	ADFG	D&M
	Lab no. :	57	1657	1646	1647R	1665R	1648	2151	2152	2153	667	413	428	1155	1156	246
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	0.5	-	0.1	-	-	0.2
C2-naphthalenes		-	-	1	1	0.7	0.8	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	1	0.9	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	0.6	0.4	0.4	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	0.5	0.4	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	0.7	0.7	0.6	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-
phenanthrene		-	2	1	1	2	1	-	-	-	0.6	0.2	0.5	2	-	0.4
C1-phenanthrenes		-	-	-	1	1	0.6	-	-	-	-	-	-	0.4	-	-
C2-phenanthrenes		-	-	-	1	0.5	-	2	2	-	-	-	-	0.1	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	0.4	0.4	0.4	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	0.9	0.7	0.6	0.4	0.7	0.6	0.6	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	1	1	0.5	0.5	-	0.5	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**2**	**3**	**7**	**7**	**3**	**5**	**5**	**2**	**1**	**0.2**	**0.6**	**2**	**-**	**0.6**
fluoranthene		-	0.6	-	1	1	0.4	0.7	0.7	0.7	0.1	-	0.3	1	0.7	0.3
pyrene		-	0.3	0.4	0.4	-	-	0.5	0.5	0.5	-	-	-	0.1	0.2	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**0.9**	**0.4**	**2**	**1**	**0.4**	**1**	**1**	**1**	**0.1**	**-**	**0.3**	**1**	**0.9**	**0.3**
sample weight, grams :		5.10	5.07	5.02	5.07	5.11	5.04	5.14	4.94	4.97	5.08	5.98	5.26	5.11	5.13	4.99

Table E-54. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chiniak.

ACs	Species: Littleneck clam	Mussel						Butter clam							
Site :	CHI1	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2
Date collected:	Sep-89	Jul-89	Mar-90	May-90	May-90	May-90	May-90	Jul-89	Aug-89	Sep-89	Sep-89	Mar-90	Mar-90	May-90	May-90
Collector :	D&M	D&M	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	D&M	D&M
Lab no. :	613	58	915	2595	2596	2597	2598	668	223	415	429	1032	843	2599	2600
naphthalene	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes	0.1	-	0.9	-	-	0.5	1	-	-	-	0.6	-	-	0.4	0.6
C2-naphthalenes	-	-	-	-	-	-	0.4	-	-	-	-	0.4	-	-	-
C3-naphthalenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-
C1-fluorene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-
C3-fluorene	1	-	-	-	0.4	0.5	0.4	-	-	-	-	-	-	0.4	0.6
phenanthrene	0.8	-	2	0.7	0.8	1	1	0.3	0.5	0.3	0.3	4	1	1	1
C1-phenanthrenes	-	-	1	-	-	0.4	0.9	-	-	-	-	2	-	0.7	0.7
C2-phenanthrenes	-	-	1	-	-	-	-	-	-	-	-	5	-	-	-
C3-phenanthrenes	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
C4-phenanthrenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-
C1-dibenzothiophenes	-	-	0.5	-	-	-	-	-	-	-	-	0.2	-	-	-
C2-dibenzothiophenes	-	-	0.8	-	-	-	-	-	-	-	-	0.6	-	-	-
C3-dibenzothiophenes	-	-	0.5	-	-	-	-	-	-	-	-	0.7	-	-	-
Sum of LACs	**2**	**-**	**7**	**0.7**	**1**	**2**	**4**	**0.3**	**0.5**	**0.3**	**0.9**	**15**	**1**	**2**	**3**
fluoranthene	0.4	-	1	0.4	0.5	0.7	1	-	-	-	-	7	3	1	1
pyrene	-	-	0.8	-	-	-	-	-	-	-	-	8	3	-	0.4
C1-fluoranthenes/pyrenes	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-
benz[a]anthracene	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
chrysene	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
C1-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs	**0.4**	**-**	**2**	**0.4**	**0.5**	**0.7**	**1**	**-**	**-**	**-**	**-**	**24**	**6**	**1**	**1**
sample weight, grams :	5.33	5.05	5.15	4.99	4.98	5.03	5.05	5.07	5.06	5.53	5.26	5.01	5.04	5.00	4.99

Table E-55. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chiniak.

ACs	Species :	Butter clam		Littleneck clam					Cockle				Chiton			
	Site :	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2
	Date collected:	May-90	May-90	Sep-89	Mar-90	May-90	May-90	May-90	Aug-89	Sep-89	Sep-89	Mar-90	Jul-89	Aug-89	Aug-89	Sep-89
	Collector :	D&M	D&M	D&M	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	D&M	D&M	D&M	D&M
	Lab no. :	2601	2602	614	844	2188	2189	2190	303	612R	618R	1031	77	343	344	397
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		2	0.5	0.3	-	3	3	3	0.2	-	0.1	-	0.2	0.3	0.6	-
C2-naphthalenes		-	-	-	-	4	4	4	-	-	-	0.2	-	-	-	-
C3-naphthalenes		-	-	-	-	3	3	2	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	0.7	0.6	0.5	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	0.4	0.4	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	0.5	0.5	0.5	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	0.4	0.3	-	-	-	-	-	0.3	-	-	-	-	-	-
phenanthrene		0.9	0.9	0.5	2	-	-	-	0.6	0.4	0.4	1	1	0.7	0.6	0.5
C1-phenanthrenes		-	0.5	-	-	-	-	-	-	-	-	0.8	-	-	-	-
C2-phenanthrenes		-	-	-	-	1	0.9	2	-	-	-	1	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	0.4	-	-	-	-	-	0.1	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	0.5	1	0.9	-	-	-	0.5	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	0.5	0.6	0.7	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**3**	**2**	**1**	**2**	**14**	**14**	**14**	**0.8**	**0.7**	**0.5**	**4**	**1**	**1**	**1**	**0.5**
fluoranthene		0.8	0.8	0.1	1	1	1	1	0.1	-	-	-	0.1	0.08	0.09	-
pyrene		-	-	-	-	-	0.4	-	-	-	-	-	0.04	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.8**	**0.8**	**0.1**	**1**	**1**	**1**	**1**	**0.1**	**-**	**-**	**1**	**0.1**	**0.1**	**0.1**	**-**
sample weight, grams :		5.00	5.08	5.15	5.11	5.04	5.12	5.15	5.42	5.26	5.49	5.01	5.01	5.30	5.37	5.41

Table E-56. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chiniak.

ACs	Species :	Chiton					Snail	Dungeness crab	Mussel				
	Site :	CHI2	CHI2	CHI2	CHI2	CHI2	CHI2	CHI3	CHI7	CHI7	CHI7	CHI7	CHI7
	Date collected:	Sep-89	May-90	May-90	May-90	May-90	Jul-89	Jul-89	May-90	May-90	May-90	May-90	May-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	398	2603	2604	2610	2611	685	97	2612	2613R	2619R	2614	2615
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	0.8	-	-	4	1	2	2
C2-naphthalenes		-	-	-	-	-	-	-	-	3	0.8	1	2
C3-naphthalenes		-	-	-	1	-	-	-	-	1	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	0.5	-	-	-
fluorene		-	-	-	0.4	-	-	-	-	0.9	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	0.9	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	0.9	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.1	-	0.4	0.9	0.6	0.6	0.1	0.6	2	0.7	0.7	1
C1-phenanthrenes		-	-	-	0.6	0.6	-	-	0.6	1	0.8	0.9	1
C2-phenanthrenes		-	-	-	-	-	-	-	0.4	1	0.6	0.6	0.8
C3-phenanthrenes		-	-	-	-	-	-	-	-	0.4	0.4	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	0.5	0.5	-	0.4
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	0.6	0.6	0.7	0.6
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	0.4	-	-	-
Sum of LACs		**0.1**	**-**	**0.4**	**3**	**1**	**1**	**0.1**	**2**	**17**	**5**	**6**	**8**
fluoranthene		-	-	-	0.4	0.4	-	-	0.4	0.6	0.5	0.6	0.6
pyrene		-	-	-	-	-	-	-	-	1	-	-	0.4
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	0.8	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**0.4**	**0.4**	**-**	**-**	**0.4**	**2**	**0.5**	**0.6**	**1**
sample weight, grams :		5.31	4.99	5.08	5.00	5.03	5.09	5.25	5.03	5.03	5.00	5.07	5.05

Table E-57. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Old Harbor.

ACs	Species :	Tanner crab	Mussel						Butter clam							
	Site :	OHA2	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3
	Date collected:	Jul-89	Jul-89	Mar-90	Apr-90	Apr-90	Apr-90	Apr-90	Jul-89	Aug-89	Aug-89	Sep-89	Sep-89	Mar-90	Apr-90	Apr-90
	Collector :	D&M	D&M	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	D&M	D&M
	Lab no. :	98	60	1137	1854	1855	1856	1857	669	225	226	431	432	839	1871	1872
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.08	-	-	-	-	-	-	0.6	0.2	0.2	0.3	-	-	-	-
C2-naphthalenes		-	-	-	-	-	0.4	-	-	-	-	-	-	-	2	0.8
C3-naphthalenes		-	-	-	-	-	0.3	-	-	-	-	-	-	-	2	0.8
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
phenanthrene		0.05	-	1	2	2	2	2	1	0.9	0.5	1	0.3	0.7	2	2
C1-phenanthrenes		-	-	0.2	0.6	0.8	2	1	-	0.3	-	-	-	-	2	-
C2-phenanthrenes		-	-	0.3	-	-	0.8	0.5	-	0.1	-	-	-	-	2	0.5
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	0.3	0.3	-	-	-	-	-	-	-	0.7	0.3
C2-dibenzothiophenes		-	-	0.2	-	-	0.5	-	-	-	-	-	-	-	0.9	0.7
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-
Sum of LACs		**0.1**	**-**	**2**	**3**	**3**	**9**	**4**	**2**	**2**	**0.7**	**1**	**0.3**	**0.7**	**13**	**5**
fluoranthene		-	-	0.5	0.4	0.5	0.9	0.7	0.6	0.7	0.3	0.9	-	0.7	1	0.8
pyrene		-	-	0.2	-	-	0.8	0.5	-	0.1	-	0.2	-	-	0.4	0.3
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**0.7**	**0.4**	**0.5**	**2**	**1**	**0.6**	**0.8**	**0.3**	**1**	**-**	**0.7**	**1**	**1**
sample weight, grams :		5.95	5.32	5.05	4.94	5.03	5.05	5.06	5.03	5.07	5.04	5.26	5.31	5.16	5.11	5.16

Table E-58. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Old Harbor.

ACs	Species :	Butter clam								Littleneck clam					Cockle	
	Site :	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3
	Date collected:	Apr-90	Apr-90	Jun-90	Jun-90	Jun-90	Aug-90	Aug-90	Aug-90	Sep-89	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1873	1874	1664	1671	1672	2121	2122	2123	615	1890	1891	1892	1898	2013	2014
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-
C2-naphthalenes		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		1	-	-	-	-	-	-	-	-	0.3	1	0.4	-	-	-
C4-naphthalenes		0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-
phenanthrene		2	3	1	-	-	1	0.8	1	1	0.7	1	0.6	-	-	-
C1-phenanthrenes		1	0.4	-	-	0.5	0.8	0.5	0.9	-	-	0.7	0.6	-	-	0.6
C2-phenanthrenes		1	0.9	-	-	-	1	0.7	0.7	-	-	1	0.5	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		0.4	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		0.7	-	-	-	-	0.6	-	-	-	-	0.4	-	-	-	-
C3-dibenzothiophenes		0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**9**	**5**	**1**	**0.5**	**0.5**	**3**	**2**	**3**	**2**	**1**	**4**	**2**	**-**	**-**	**0.6**
fluoranthene		0.9	0.9	1	0.7	1	0.7	0.5	0.5	0.7	0.5	0.8	0.3	-	-	-
pyrene		0.3	0.4	-	-	0.4	-	0.2	-	-	-	0.3	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**1**	**1**	**1**	**0.7**	**2**	**0.7**	**0.7**	**0.5**	**0.7**	**0.5**	**1**	**0.3**	**-**	**-**	**-**
sample weight, grams :		4.96	4.98	5.11	5.02	5.03	5.04	5.02	4.99	5.34	5.13	5.29	5.02	5.00	5.14	4.99

Table E-59. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Old Harbor.

ACs	Species :	Cockle	Chiton											Sea urchin		
	Site :	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3	OHA3
	Date collected:	Apr-90	Jul-89	Aug-89	Sep-89	Mar-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Aug-90	Jul-89	Mar-90	Jun-90
	Collector :	D&M	D&M	D&M	D&M	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	D&M	ADFG	ADFG
	Lab no. :	2015	79	345	401	1024	1985	1992	1993	1994R	2016R	1995	2182	691	1025	1673
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.5	0.3	-	-	-	-	-	-	-	-	-	2	a	a
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	0.3
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	0.9	0.6	0.5	-	1	-	-	-	-	-	-	2	1	a
C1-phenanthrenes		0.9	0.02	-	-	-	0.3	-	-	-	-	-	-	0.9	0.2	0.3
C2-phenanthrenes		0.3	1	-	-	-	-	-	-	-	-	-	-	0.2	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**2**	**2**	**0.9**	**0.5**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**5.4**	**1.2**	**1.3**
fluoranthene		-	0.05	-	-	-	-	-	-	-	-	-	-	0.9	-	-
pyrene		-	0.03	-	-	-	-	-	-	-	-	-	-	0.8	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	0.2
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**0.1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2.1**	**-**	**0.2**
sample weight, grams :		5.00	4.58	5.31	5.21	5.04	5.06	4.99	4.98	5.00	5.11	5.09	5.02	5.06	5.03	5.13

Table E-60. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Old Harbor.

ACs	Species :	Sea urchin	Mussel						Butter clam							
	Site :	OHA3	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4
	Date collected:	Aug-90	Mar-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Jul-89	Aug-89	Aug-89	Sep-89	Sep-89	Sep-89	Mar-90	Apr-90
	Collector :	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	D&M
	Lab no. :	2181	1158	1858R	1877R	1859	1860	1861	670	227	247	418R	419R	433	841	1875
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		a	-	-	-	-	-	-	0.1	0.2	0.4	0.2	0.4	0.4	-	-
C2-naphthalenes		-	3	0.4	1	0.3	0.8	1	-	-	-	2	3	0.9	-	2
C3-naphthalenes		-	24	0.7	-	0.5	2	3	-	-	-	26	33	16	-	2
C4-naphthalenes		-	58	-	-	-	0.8	2	-	-	-	23	39	21	-	2
acenaphthylene		-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	0.2	-	-	-	-	0.3	-	-	-	-	-	-	-	0.3
fluorene		-	1	0.5	-	0.6	1	1	-	-	-	0.8	1	0.3	-	0.5
C1-fluorene		-	5	0.4	-	0.4	0.9	2	-	-	-	9	11	3	-	0.7
C2-fluorene		-	28	-	-	-	0.5	0.7	-	-	-	9	19	14	-	0.9
C3-fluorene		-	25	4	-	2	3	3	-	-	-	-	1	3	-	-
phenanthrene		a	9	6	6	5	6	9	3	2	2	16	19	13	7	4
C1-phenanthrenes		-	29	5	2	4	6	7	1	2	1	37	46	36	-	3
C2-phenanthrenes		0.5	60	3	2	4	7	7	0.3	0.8	0.4	32	44	40	-	3
C3-phenanthrenes		-	51	1	0.6	2	6	3	-	-	-	5	13	15	-	0.6
C4-phenanthrenes		-	6	-	-	-	-	-	-	-	-	-	0.05	-	-	-
dibenzothiophene		-	3	0.6	0.6	0.5	1	1	-	-	-	-	3	4	-	0.4
C1-dibenzothiophenes		-	16	1	0.4	1	2	3	-	0.3	0.2	23	30	-	-	1
C2-dibenzothiophenes		-	58	1	1	2	5	5	0.1	0.3	0.1	33	47	25	-	2
C3-dibenzothiophenes		-	60	0.7	1	2	8	4	-	-	-	10	22	22	-	2
Sum of LACs		**0.5**	**440**	**24**	**15**	**24**	**50**	**52**	**4**	**6**	**4**	**230**	**330**	**210**	**7**	**24**
fluoranthene		-	25	3	3	3	4	6	5	3	2	12	15	10	14	4
pyrene		-	14	1	0.8	0.9	2	2	2	2	1	8	10	7	10	2
C1-fluoranthenes/pyrenes		-	9	0.7	-	0.6	1	2	-	-	-	0.3	2	1	-	0.6
benz[a]anthracene		-	3	0.5	-	0.4	0.4	0.9	-	0.1	-	-	0.4	0.5	-	0.3
chrysene		-	6	1	0.3	1	1	2	0.1	0.2	0.1	0.5	1	1	-	0.8
C1-chrysenes/benz[a]anthracenes		-	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	2	-	0.3	-	0.4	0.4	-	-	-	-	0.2	0.5	-	-
benzo[k]fluoranthene		-	2	-	-	-	0.3	0.4	-	-	-	-	-	0.2	-	-
benzo[a]pyrene		-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**62**	**6**	**4**	**6**	**9**	**14**	**7**	**5**	**3**	**21**	**29**	**20**	**24**	**8**
sample weight, grams :		5.02	5.13	5.08	5.17	4.99	5.02	5.09	5.05	5.20	5.52	5.00	5.65	5.38	5.00	4.98

Table E-61. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Old Harbor.

ACs	Species :	Butter clam								Littleneck clam						
	Site :	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4	OHA4
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Jun-90	Jun-90	Jun-90	Sep-89	Mar-90	Apr-90	Apr-90	Aug-90	Aug-90	Aug-90
	Collector :	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	D&M	ADFG	D&M	D&M	ADFG	ADFG	ADFG
	Lab no. :	1876	1883	1884R	1907R	1885	1674	1675	1676	616	842	1899	1900	2098	2156	2160
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-
C2-naphthalenes		0.7	-	-	-	-	-	1	2	0.9	-	-	-	-	-	-
C3-naphthalenes		-	1	1	-	1	-	-	-	17	-	-	-	-	-	-
C4-naphthalenes		-	-	0.3	-	0.5	-	-	-	16	-	-	-	5	2	1
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4
acenaphthene		-	0.4	-	-	0.3	-	-	-	-	-	-	-	0.4	0.4	0.4
fluorene		-	0.4	0.3	-	0.4	-	-	0.8	0.4	-	-	-	0.6	0.6	0.5
C1-fluorene		-	0.5	-	-	0.4	-	-	-	8	-	-	-	2	0.7	-
C2-fluorene		-	0.4	-	-	0.4	-	-	-	9	-	-	-	1	0.8	-
C3-fluorene		-	-	-	-	-	-	-	-	3	-	-	-	-	-	-
phenanthrene		2	3	2	2	3	-	-	-	15	3	2	2	4	-	-
C1-phenanthrenes		0.7	1	2	1	2	3	2	2	34	-	0.8	0.8	6	4	3
C2-phenanthrenes		0.5	2	3	0.3	2	1	1	1	32	-	-	-	9	6	3
C3-phenanthrenes		-	0.3	-	-	0.3	-	-	-	9	-	-	-	2	2	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	0.3	0.3	-	0.3	-	-	-	8	-	-	-	1	0.7	0.4
C1-dibenzothiophenes		-	0.7	0.7	-	1	0.8	0.4	0.5	21	-	-	-	2	1	0.9
C2-dibenzothiophenes		-	1	1	-	2	1	-	0.3	18	-	-	-	4	3	1
C3-dibenzothiophenes		-	0.4	0.8	-	0.8	0.5	-	-	10	-	-	-	3	4	-
Sum of LACs		**4**	**11**	**11**	**3**	**14**	**6**	**4**	**7**	**200**	**3**	**3**	**3**	**40**	**26**	**11**
fluoranthene		-	3	3	2	3	5	3	5	11	7	2	2	9	9	3
pyrene		-	1	1	0.9	1	3	2	3	7	4	0.9	0.9	5	6	1
C1-fluoranthenes/pyrenes		-	-	-	-	-	0.4	-	0.6	0.5	-	-	-	1	2	-
benz[a]anthracene		-	-	-	-	0.3	-	0.3	0.4	-	-	-	-	0.5	0.5	-
chrysene		-	0.4	0.4	-	0.5	0.5	0.5	0.5	0.3	-	-	-	1	2	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	0.2	0.2	0.3	-	-	-	-	0.4	0.5	-
benzo[k]fluoranthene		-	-	-	-	-	0.2	0.2	-	-	-	-	-	0.4	0.5	-
benzo[a]pyrene		-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	0.8	0.4	-
Sum of HACs		**-**	**4**	**4**	**3**	**5**	**9**	**6**	**10**	**19**	**11**	**3**	**3**	**18**	**21**	**4**
sample weight, grams :		4.98	5.02	5.04	5.04	5.51	5.09	5.04	5.08	5.24	5.01	5.01	5.01	5.03	5.03	5.04

Table E-62. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Akhiok.

ACs	Species :	Mussel	Butter clam			Chiton	Mussel					Butter clam			Littleneck clam	
	Site :	AKH2	AKH2	AKH2	AKH2	AKH2	AKH3	AKH3	AKH3	AKH3	AKH3	AKH3	AKH3	AKH3	AKH3	AKH3
	Date collected:	Sep-89	Jul-89	Sep-89	Sep-89	Sep-89	Aug-89	Feb-90	Jun-90	Jun-90	Jun-90	Feb-90	Jun-90	Jun-90	Aug-89	Aug-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M
	Lab no. :	392	62	417	430	399	251	1128	1630	1631	1632	1130	1633	1641	301R	310R
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	0.1	0.4	0.2	-	-	-	2	-	-	-	-	0.2
C2-naphthalenes		-	-	-	-	-	-	-	1	2	2	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	2	3	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	0.5	0.5	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.3	-	0.4	0.2	0.7	0.2	1	2	2	2	0.9	-	1	0.3	0.5
C1-phenanthrenes		-	-	-	-	-	-	0.2	-	2	2	0.2	1	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	0.1	-	0.9	2	0.1	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	0.4	0.4	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	0.7	0.9	0.9	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	1	0.9	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	0.3	0.3	-	-	-	-	-
Sum of LACs		**0.3**	**-**	**0.4**	**0.3**	**1**	**0.4**	**1**	**4**	**12**	**18**	**1**	**1**	**1**	**0.3**	**0.7**
fluoranthene		-	-	-	-	-	-	0.7	0.7	1	1	0.7	0.8	0.5	-	-
pyrene		-	-	-	-	-	-	0.2	0.5	0.4	0.4	0.1	0.3	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	0.2	0.2	0.2	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**0.9**	**1**	**2**	**2**	**0.8**	**1**	**0.5**	**-**	**-**
sample weight, grams :		5.21	5.09	5.84	5.20	5.18	5.02	5.16	5.03	5.22	5.10	5.09	5.05	5.02	5.35	5.07

Table E-63. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Akhiok.

ACs	Species :	Littleneck clam						Sea urchin	Mussel			
	Site :	AKH3	AKH3	AKH3	AKH3	AKH3	AKH3	AKH3	AKH6	AKH6	AKH6	AKH6
	Date collected:	Feb-90	Feb-90	Feb-90	Jun-90	Jun-90	Jun-90	Jun-90	Aug-90	Aug-90	Aug-90	Aug-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M
	Lab no. :	1129	1131	1132	1642	1643	1644	1645	1826	1827	1828	1829
naphthalene		a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	a	-	-	-	-
C2-naphthalenes		-	-	-	0.8	1	1	2	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.6	0.8	-	0.9	0.9	1	1	-	-	-	-
C1-phenanthrenes		-	-	-	-	-	-	-	0.7	-	-	0.3
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	0.5
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.6**	**0.8**	**-**	**2**	**2**	**2**	**3**	**0.7**	**-**	**-**	**0.8**
fluoranthene		0.4	0.5	0.3	0.6	0.6	0.7	0.5	-	-	-	-
pyrene		-	0.1	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	0.2	-	-	0.3
chrysene		-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	0.3
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	0.3
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	0.2
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	0.1	0.1	-	0.2
dibenz[a,h]anthracene		-	-	-	-	-	-	-	0.2	0.2	-	0.3
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	0.2
Sum of HACs		**0.4**	**0.6**	**0.3**	**0.6**	**0.6**	**0.7**	**0.5**	**0.5**	**0.3**	**-**	**2**
sample weight, grams :		5.03	5.00	5.02	5.07	5.04	5.08	5.03	5.04	5.01	5.06	5.03

Table E-64. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Karluk.

ACs	Species :	Mussel					Chiton	Mussel							Butter clam	
	Site :	KAR1	KAR1	KAR1	KAR1	KAR1	KAR1	KAR2	KAR2	KAR2	KAR2	KAR2	KAR2	KAR2	KAR2	KAR2
	Date collected:	Jul-89	Apr-90	Apr-90	Apr-90	Apr-90	Jul-89	Aug-89	Sep-89	Sep-89	May-90	May-90	May-90	May-90	Aug-89	May-90
	Collector :	D&M	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	59	1169	1170	1171	1172	78	245	393	394	2626	2627	2628	2629	224	2630
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	0.1	0.2	0.1	-	-	-	-	-	0.1	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	0.6	-	0.9	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	-	-	-	0.1	0.2	0.2	0.3	0.4	0.4	2	0.4	0.2	-
C1-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	2	0.4	-	0.4
C2-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	2	-	-	0.4
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	0.9	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Sum of LACs		**-**	**-**	**-**	**-**	**-**	**0.2**	**0.4**	**0.3**	**0.3**	**1**	**0.4**	**12**	**0.8**	**0.3**	**0.8**
fluoranthene		-	-	-	-	-	-	-	-	-	-	-	3	-	-	0.4
pyrene		-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	0.9	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**7**	**-**	**-**	**0.4**
sample weight, grams :		5.58	5.09	5.02	5.00	5.02	5.04	5.33	5.40	5.18	5.02	5.02	5.01	5.00	5.00	4.97

Table E-65. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Karluk.

ACs	Species :	Butter clam			Littleneck clam				Chiton
	Site :	KAR2	KAR2	KAR2	KAR2	KAR2	KAR2	KAR2	KAR2
	Date collected:	May-90	May-90	May-90	May-90	May-90	May-90	May-90	Sep-89
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2631	2632	2633	2616	2617	2618	2688	400
naphthalene		a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	2	1	-
C3-naphthalenes		-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-
fluorene		-	-	-	0.4	-	0.6	-	-
C1-fluorene		-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-
phenanthrene		0.4	0.4	0.5	0.5	0.6	0.7	0.5	-
C1-phenanthrenes		-	-	-	1	0.6	2	-	-
C2-phenanthrenes		-	-	-	0.5	0.4	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-
Sum of LACs		**0.4**	**0.4**	**0.5**	**2**	**2**	**5**	**2**	**-**
fluoranthene		-	-	-	0.4	0.4	-	-	-
pyrene		-	-	-	-	0.4	0.6	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**0.4**	**0.8**	**0.6**	**-**	**-**
sample weight, grams :		5.01	5.01	5.00	5.04	5.05	5.08	5.03	5.13

Table E-66. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Larsen Bay.

ACs	Species :	Mussel	Butter clam										Chiton		Limpet
	Site :	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1	LAB1
	Date collected:	Jul-89	Jul-89	Sep-89	Sep-89	Jun-90	Jun-90	Jun-90	Aug-90	Aug-90	Aug-90	Aug-90	Jul-89	Aug-89	Jul-89
	Collector :	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M
	Lab no. :	61	673	416	435	1677	1678	1679	2127	2128	2129R	2130R	81	346	690
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	0.3	-	0.3	7	-	-	-	-	-	-	0.2	0.2	0.9
C2-naphthalenes		-	-	-	-	2	1	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	1	0.9	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	2	2	2	2	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	0.5	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	0.9	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	0.5	0.5	0.4	0.5	-	-	-
C2-fluorene		-	-	-	-	-	-	-	0.5	0.8	-	0.7	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		1	2	0.5	0.7	3	3	3	2	2	2	2	0.4	0.7	0.6
C1-phenanthrenes		-	0.3	-	-	3	3	1	1	1	1	2	-	-	-
C2-phenanthrenes		-	0.3	-	-	5	2	2	2	1	1	1	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	0.6	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	0.4	0.3	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	1	2	2	0.6	0.5	0.6	0.7	-	-	-
C2-dibenzothiophenes		0.1	-	-	-	1	0.7	1	0.8	0.7	0.9	1	-	-	-
C3-dibenzothiophenes		0.06	-	-	-	0.7	2	1	-	-	0.5	0.7	-	-	-
Sum of LACs		**1**	**3**	**0.5**	**1**	**26**	**15**	**10**	**9**	**8**	**8**	**11**	**0.6**	**0.9**	**2**
fluoranthene		0.3	1	-	-	4	2	-	1	1	1	2	0.05	0.4	0.1
pyrene		-	0.3	-	-	2	1	1	0.7	0.7	0.7	0.8	0.01	0.2	-
C1-fluoranthenes/pyrenes		-	-	-	-	0.4	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	0.5	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	0.7	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	0.4	0.3	0.3	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	0.3	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	0.4	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.3**	**1**	**-**	**-**	**9**	**3**	**1**	**2**	**2**	**2**	**3**	**0.1**	**0.6**	**0.1**
sample weight, grams :		5.09	5.08	5.17	5.38	5.19	5.11	5.19	5.03	5.01	4.99	5.00	5.15	5.50	5.03

Table E-67. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Larsen Bay.

ACs	Species :	Mussel					Butter clam									
	Site :	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2
	Date collected:	Jul-90	Jul-90	Jul-90	Jul-90	Jul-90	Jul-89	Aug-89	Aug-89	Aug-89	Jun-90	Jun-90	Jun-90	Aug-90	Aug-90	Aug-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1822	1823	1824R	1847R	1825	682	249	250	260	1694	1716	1717	2091	2092	2093
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	0.9	0.3	0.2	0.7	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		0.8	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.6	1
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.7	-	-	0.1	0.7	-	-	-	-	-	-	-	-	-	-
C1-fluorene		1	0.8	0.6	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		3	3	3	1	3	1	1	0.8	2	1	0.6	0.4	-	-	-
C1-phenanthrenes		-	0.4	0.7	0.5	1	-	2	-	0.6	0.9	-	-	-	-	-
C2-phenanthrenes		-	2	3	1	1	-	0.5	-	0.3	0.7	-	-	0.8	1	0.9
C3-phenanthrenes		-	1	-	0.6	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	0.3	-	-	-	-	-	-	-	-	0.9	-	-
C2-dibenzothiophenes		-	-	1	0.2	-	-	0.1	-	-	-	-	-	-	-	0.4
C3-dibenzothiophenes		-	2	2	0.4	-	-	-	-	-	-	-	-	0.5	-	-
Sum of LACs		**6**	**10**	**11**	**4**	**8**	**2**	**4**	**1**	**4**	**3**	**0.6**	**0.4**	**3**	**2**	**2**
fluoranthene		-	-	-	0.6	-	0.1	0.7	0.2	0.7	-	0.2	-	0.5	-	0.5
pyrene		-	-	-	0.3	-	-	0.1	-	0.1	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		0.5	0.3	0.3	-	0.2	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		0.4	0.3	0.2	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		0.7	0.3	0.2	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		0.6	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	0.6	0.3	-	0.2	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	2	0.9	-	0.4	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	0.2	0.1	-	0.1	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**2**	**4**	**2**	**0.9**	**0.9**	**0.1**	**0.8**	**0.2**	**0.8**	**-**	**0.2**	**-**	**0.5**	**-**	**0.5**
sample weight, grams :		5.00	5.02	4.99	5.27	5.02	5.11	5.38	5.02	5.16	5.00	5.14	5.11	5.08	5.13	5.12

Table E-68. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Larsen Bay.

ACs	Species :	Littleneck clam				Chiton	Octopus	Sea urchin	Sea urchin	Dungeness crab	King crab	Tanner crab	Snail
	Site :	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB2	LAB3	LAB4	LAB4	LAB4	LAB4
	Date collected:	Jul-90	Jul-90	Jul-90	Jul-90	Sep-89	Mar-90	Mar-90	Jul-89	Jul-89	Jul-89	Jul-89	Jul-89
	Collector :	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1830	1831	1838	1839	411	1173	1687	692	99	689	100	686
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	1	a	0.7	-	0.8	0.1	0.5
C2-naphthalenes		-	-	-	-	-	0.4	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	0.3	0.1	-	-	0.2	0.6	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	2	-	-	-	-	-	-
phenanthrene		-	-	1	-	0.4	3	2	1	0.08	0.9	0.1	0.8
C1-phenanthrenes		0.5	1	0.4	-	-	3	-	-	-	-	-	-
C2-phenanthrenes		-	0.7	0.1	-	-	4	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	3	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	0.1	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	1	0.3	-	-	-	-	-
C1-dibenzothiophenes		-	1	-	-	-	0.4	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	0.5	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	0.9	-	-	-	-	-	-
Sum of LACs		**0.5**	**3**	**2**	**-**	**0.4**	**20**	**2.9**	**1.7**	**0.1**	**2**	**0.2**	**1**
fluoranthene		-	-	0.5	0.2	-	6	-	0.8	-	-	-	-
pyrene		-	-	0.2	-	-	5	0.9	0.3	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	2	-	-	-	-	-	-
benz[a]anthracene		0.2	-	-	-	-	0.9	-	-	-	-	-	-
chrysene		-	-	-	-	-	2	0.4	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	0.2	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	2	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	19	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	0.6	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	0.5	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	0.4	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	0.3	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.2**	**-**	**0.7**	**0.2**	**-**	**38**	**2.5**	**1.1**	**-**	**-**	**-**	**-**
sample weight, grams :		5.08	5.08	5.14	5.04	5.38	5.01	5.01	5.01	5.18	5.00	5.11	5.08

Table E-69. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Larsen Bay.

ACs	Species :	Cockle		Butter clam		Littleneck clam			Tanner crab				Chiton
	Site :	LAB9	LAB9	LAB10	LAB10	LAB10	LAB10	LAB10	LAB10	LAB10	LAB10	LAB10	LAB11
	Date collected:	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Mar-90	Jul-90	Jul-90	Jul-90	Jul-90	Mar-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	ADFG
	Lab no. :	1680R	1695R	1134	1136	1133	1135	1167	1840	1841	1842	1843	1686
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	1	-	-	-	-	1
C2-naphthalenes		-	-	0.3	-	-	-	-	-	-	-	-	0.9
C3-naphthalenes		-	-	0.3	0.3	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	0.3	0.9	-	0.1	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	0.2	-	-	-	-	-	-	-	-	-
fluorene		0.7	-	0.9	0.3	0.1	0.2	-	-	-	-	-	-
C1-fluorene		-	-	0.3	0.2	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	0.1	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		-	-	7	5	4	6	3	-	-	-	-	3
C1-phenanthrenes		-	0.5	4	4	1	2	2	-	-	-	-	0.3
C2-phenanthrenes		-	2	2	3	1	2	1	-	-	-	-	-
C3-phenanthrenes		-	-	0.3	0.4	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.3	-	-	-	0.2	0.4	0.1	-	-	-	-	0.2
C1-dibenzothiophenes		-	-	0.1	0.3	-	0.2	0.2	-	-	-	-	-
C2-dibenzothiophenes		-	-	0.9	1	0.2	0.4	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	0.2	0.4	-	-	-	-	-	-	-	-
Sum of LACs		**1**	**2**	**17**	**16**	**6**	**11**	**7**	**-**	**-**	**-**	**-**	**5**
fluoranthene		2	2	12	10	6	8	4	-	-	-	-	-
pyrene		-	0.6	5	4	2	2	1	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	0.8	0.8	0.5	-	0.2	-	-	-	-	-	-
benz[a]anthracene		-	-	0.8	0.5	0.2	0.2	-	-	-	-	-	-
chrysene		0.8	0.9	1	0.7	0.3	0.3	0.3	-	-	-	-	0.4
C1-chrysenes/benz[a]anthracenes		-	0.3	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		0.6	0.5	0.3	0.2	-	-	-	-	-	-	-	0.9
benzo[k]fluoranthene		0.4	0.5	0.1	-	-	-	-	-	-	-	-	0.5
benzo[a]pyrene		0.3	0.2	-	-	-	-	-	-	-	-	-	0.5
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**4**	**6**	**20**	**16**	**8**	**11**	**5**	**-**	**-**	**-**	**-**	**2**
sample weight, grams :		5.43	5.03	5.10	5.03	5.09	5.10	5.04	4.95	5.14	5.35	5.21	5.02

Table E-70. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Lions.

ACs	Species :	Mussel										Butter clam				
	Site :	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1
	Date collected:	Apr-90	Apr-90	Apr-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	Jul-89	Aug-89	Aug-89	Sep-89	Sep-89
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	1149	1150	1152	1659	1660	1731	1977	1978	1979	1980	64	205	206	414	436
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	0.3	0.3	-	0.3
C2-naphthalenes		0.8	0.6	0.9	1	-	-	3	-	-	-	-	-	-	-	-
C3-naphthalenes		2	1	2	1	1	-	2	-	-	-	-	-	-	-	-
C4-naphthalenes		2	2	3	1	-	-	2	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	0.4	-	-	0.3	-	-	-	-	-	-	-	-
fluorene		0.8	0.6	0.6	1	-	-	0.4	-	-	0.3	-	-	-	-	-
C1-fluorene		2	1	2	2	-	-	0.6	-	-	-	-	-	-	-	-
C2-fluorene		2	2	3	2	0.9	-	0.9	-	-	-	-	-	-	-	-
C3-fluorene		2	1	1	3	-	-	0.4	-	-	-	-	-	-	-	-
phenanthrene		5	4	5	9	6	4	3	3	3	6	0.9	0.7	1	1	1
C1-phenanthrenes		6	5	7	4	4	0.5	1	0.7	0.9	2	-	-	0.07	-	-
C2-phenanthrenes		7	5	7	9	6	-	2	0.3	-	0.6	-	-	-	-	-
C3-phenanthrenes		4	1	2	2	-	-	0.8	-	-	-	-	-	-	-	-
C4-phenanthrenes		0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		1	1	2	0.8	0.7	-	0.4	-	-	0.3	-	-	-	-	-
C1-dibenzothiophenes		4	3	4	2	3	-	0.8	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		6	4	7	4	2	-	2	-	0.3	0.3	-	-	-	-	-
C3-dibenzothiophenes		6	3	4	3	-	-	1	-	-	-	-	-	-	-	-
Sum of LACs		**51**	**34**	**50**	**45**	**24**	**4**	**21**	**4**	**4**	**10**	**0.9**	**1**	**1**	**1**	**1**
fluoranthene		2	2	4	7	5	2	2	0.9	2	4	0.4	0.2	1	1	1
pyrene		0.4	0.3	0.9	3	2	0.6	0.5	-	-	2	-	-	0.3	-	-
C1-fluoranthenes/pyrenes		-	-	0.1	2	0.3	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-
chrysene		0.2	0.1	0.5	1	0.7	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**3**	**2**	**6**	**14**	**8**	**3**	**2**	**0.9**	**2**	**6**	**0.4**	**0.2**	**1**	**1**	**1**
sample weight, grams :		5.18	5.00	5.09	5.05	5.02	5.04	4.98	5.02	5.00	5.03	5.28	6.00	5.17	5.54	5.43

Table E-71. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Lions.

ACs	Species :	Butter clam							Littleneck clam							
	Site :	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1
	Date collected:	May-90	May-90	May-90	May-90	Aug-90	Aug-90	Aug-90	Aug-89	Sep-89	Apr-90	Apr-90	Apr-90	May-90	May-90	May-90
	Collector :	D&M	D&M	D&M	D&M	ADFG	ADFG	ADFG	D&M	D&M	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	2039	2040	2041	2042	2113	2114	2115	213	617	1151	1153	1154	1661	1662	1663
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	0.2	0.2	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	0.3	-	0.3	0.5	-	-
C3-naphthalenes		2	0.4	0.5	2	-	-	-	-	-	0.8	1	0.3	-	-	-
C4-naphthalenes		0.6	-	-	2	0.8	0.9	2	-	-	0.7	0.7	0.2	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.6	-	0.3	0.6	-	-	-	-	-	0.2	0.2	0.2	-	0.5	-
C1-fluorene		0.5	-	-	0.9	-	-	0.5	-	-	0.5	0.5	0.2	-	-	-
C2-fluorene		1	-	0.7	2	-	-	0.4	-	-	0.3	0.3	-	-	-	-
C3-fluorene		3	2	3	4	-	-	-	-	-	-	0.2	0.2	-	-	-
phenanthrene		5	3	3	4	-	-	-	1	1	3	4	3	2	2	3
C1-phenanthrenes		5	2	2	5	-	-	-	0.3	-	4	4	2	0.8	3	0.7
C2-phenanthrenes		2	0.7	1	4	1	1	2	0.3	-	3	2	0.6	-	2	1
C3-phenanthrenes		-	-	-	0.6	-	-	-	-	-	0.2	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	3	-	-	-	-	-	0.7	0.9	0.6	0.3	0.5	0.3
C1-dibenzothiophenes		1	0.4	0.6	2	-	-	-	-	-	1	1	0.3	1	1	1
C2-dibenzothiophenes		2	0.3	0.6	3	0.4	-	0.6	-	-	2	1	0.2	0.4	0.7	0.6
C3-dibenzothiophenes		-	-	-	0.7	-	-	-	-	-	-	0.1	-	-	-	0.2
Sum of LACs		**23**	**9**	**12**	**34**	**2**	**2**	**6**	**2**	**1**	**17**	**16**	**8**	**5**	**10**	**7**
fluoranthene		4	2	2	4	1	0.8	2	1	0.9	3	3	1	3	4	4
pyrene		0.8	0.5	0.6	0.8	0.4	0.5	0.5	0.1	0.1	0.4	0.6	0.3	0.9	1	1
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**5**	**2**	**3**	**5**	**1**	**1**	**2**	**1**	**1**	**3**	**4**	**1**	**4**	**5**	**5**
sample weight, grams :		5.01	5.08	5.07	5.06	4.99	4.98	5.13	5.37	5.26	5.12	5.02	5.06	5.13	5.03	5.04

Table E-72. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Lions.

ACs	Species :	Littleneck clam				Chiton			Snail	Mussel				Butter clam		
	Site :	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL1	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2
	Date collected:	May-90	May-90	May-90	May-90	Jul-89	Aug-89	Sep-89	Jul-89	May-90	May-90	May-90	May-90	Jul-89	Aug-89	May-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2057	2064	2065	2066	82	210	412	687	1981	1982	1984	2383	65	211	2043
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	0.2	1	0.4	0.3	-	-	-	-	-	0.3	-
C2-naphthalenes		-	-	3	-	-	-	-	-	-	-	-	0.4	-	-	-
C3-naphthalenes		-	-	2	-	-	-	-	-	0.9	-	1	0.9	-	-	2
C4-naphthalenes		-	-	0.6	0.4	-	-	-	-	0.4	-	0.3	0.4	-	-	2
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.3	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	0.3	-	0.3	-	-	-	0.7
C2-fluorene		-	-	0.5	-	-	-	-	-	1	-	1	0.6	-	-	2
C3-fluorene		0.8	-	-	-	-	-	-	-	2	2	2	1	-	-	3
phenanthrene		2	2	2	2	0.4	0.7	0.7	0.5	3	1	3	2	2	2	3
C1-phenanthrenes		0.9	0.6	1	1	-	-	-	-	3	0.8	4	1	-	0.09	5
C2-phenanthrenes		0.3	0.6	1	0.6	-	-	-	-	2	0.4	2	1	-	-	3
C3-phenanthrenes		-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	0.5
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	0.3	0.3	0.3	-	-	-	-	0.5	-	0.5	-	-	-	-
C1-dibenzothiophenes		-	-	0.4	0.5	-	-	-	-	1	-	2	0.6	-	-	2
C2-dibenzothiophenes		-	-	0.6	-	-	-	-	-	3	0.3	2	1	-	-	3
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	1	-	0.5	0.4	-	-	0.5
Sum of LACs		**4**	**4**	**11**	**5**	**0.6**	**2**	**1**	**0.8**	**19**	**4**	**19**	**9**	**2**	**2**	**27**
fluoranthene		2	1	2	1	-	-	-	-	2	0.5	3	1	0.1	1	2
pyrene		0.6	-	0.4	-	-	-	-	-	0.4	-	0.5	-	-	0.2	0.6
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**3**	**1**	**2**	**1**	**-**	**-**	**-**	**-**	**2**	**0.5**	**4**	**1**	**0.1**	**1**	**3**
sample weight, grams :		5.09	5.03	5.00	5.00	5.03	5.03	5.18	5.06	5.00	5.11	5.05	5.11	5.19	5.12	4.97

Table E-73. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Lions.

ACs	Species :	Butter clam			Littleneck clam				Horse clam				Chiton			
	Site :	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2	PTL2
	Date collected:	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	Jul-89	Jul-89	Aug-89	May-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	2049	2050	2051	2058	2071	2072	2073	2067	2068	2070	2107	83R	84R	209	2009
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.7	-
C2-naphthalenes		-	-	-	-	3	3	3	-	-	-	-	-	-	-	-
C3-naphthalenes		2	1	1	-	4	2	2	-	-	-	-	-	-	-	-
C4-naphthalenes		3	2	2	1	3	2	1	0.3	-	-	0.6	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		0.3	0.3	0.4	0.4	0.3	-	-	-	-	-	-	-	-	-	-
C1-fluorene		0.7	0.4	0.6	-	0.6	0.6	-	-	-	-	0.4	-	-	-	-
C2-fluorene		3	0.9	1	0.4	-	0.5	-	-	-	-	0.3	-	-	-	-
C3-fluorene		1	1	1	2	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		3	3	3	3	3	2	2	1	2	1	5	0.2	0.3	0.6	-
C1-phenanthrenes		4	3	3	3	4	2	1	1	0.8	0.6	3	-	-	-	-
C2-phenanthrenes		3	2	3	2	2	3	1	0.7	-	0.4	3	-	-	-	-
C3-phenanthrenes		-	-	0.3	-	0.7	-	-	-	-	-	1	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.3	-	0.3	0.5	0.7	0.4	0.4	0.5	0.4	-	0.5	-	-	-	-
C1-dibenzothiophenes		1	0.6	0.9	0.4	2	1	0.3	0.5	0.5	0.3	0.6	-	-	-	-
C2-dibenzothiophenes		0.5	0.8	0.4	0.4	3	2	1	0.3	0.4	0.6	0.9	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	1	0.3	-	0.6	-	-	0.9	-	-	-	-
Sum of LACs		**22**	**15**	**17**	**13**	**27**	**19**	**12**	**5**	**4**	**3**	**16**	**0.3**	**0.4**	**1**	**-**
fluoranthene		3	2	2	2	2	2	1	0.6	0.7	0.4	16	-	-	-	-
pyrene		1	0.9	0.7	0.7	0.4	0.3	0.3	0.4	0.3	-	14	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	2	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	0.5	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	0.9	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	0.9	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**4**	**3**	**3**	**3**	**2**	**2**	**1**	**1**	**1**	**0.4**	**41**	**-**	**-**	**-**	**-**
sample weight, grams :		5.12	5.07	5.02	5.05	4.99	5.01	5.02	5.02	4.95	5.02	5.02	5.10	5.42	5.33	5.11

Table E-74. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Port Lions.

ACs	Species :	Chiton			Snail	King crab	Tanner crab		Dungeness crab	Tanner crab	
	Site :	PTL2	PTL2	PTL2	PTL2	PTL4	PTL4	PTL4	PTL5	PTL9	PTL9
	Date collected:	May-90	May-90	May-90	Jul-89	Aug-89	Jul-89	Sep-89	Jul-89	Apr-90	Apr-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	ADFG
	Lab no. :	2010	2011	2012	688	342	101	491	102	1174	1175
naphthalene		a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	0.5	1	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	-	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	0.5	-	-	-	-	-
fluorene		-	-	-	-	0.2	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	0.3	-	-	-
phenanthrene		-	-	-	0.4	1	0.07	0.4	0.09	-	-
C1-phenanthrenes		-	-	0.7	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	0.3	-	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
Sum of LACs		**-**	**-**	**1**	**0.9**	**3**	**0.1**	**0.7**	**0.1**	**-**	**-**
fluoranthene		-	-	-	-	-	-	-	-	-	-
pyrene		-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		4.99	5.00	4.99	5.19	5.31	5.53	5.53	4.91	5.13	5.21

Table E-75. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Ouzinkie.

ACs	Species :	Mussel					Butter clam							Littleneck clam		
	Site :	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2
	Date collected:	Sep-89	May-90	May-90	May-90	May-90	Jul-89	Sep-89	May-90	May-90	May-90	May-90	May-90	Jul-89	Aug-89	May-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M
	Lab no. :	395	2640	2641	2642	2689	63	434	2643	2644	2645	2646R	2649R	671	214	2647
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.2	-	-	-	-	-	0.2	-	-	-	-	-	0.3	0.2	1
C2-naphthalenes		-	0.7	1	2	0.9	-	-	1	1	1	0.6	-	-	-	0.5
C3-naphthalenes		-	-	-	-	0.9	-	-	-	0.9	1	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	-	-	0.5	0.4	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		0.7	-	-	-	0.8	-	0.7	-	-	-	-	-	0.7	0.4	-
C1-phenanthrenes		-	0.4	0.9	0.8	0.6	-	-	1	1	1	0.9	1	-	-	0.7
C2-phenanthrenes		-	-	-	0.4	0.7	-	-	0.5	0.6	0.7	0.5	0.6	-	-	0.6
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	-	0.4	0.5	-	0.4	-	-	-
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	0.7	0.6	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**0.9**	**1**	**2**	**3**	**4**	**-**	**0.9**	**3**	**5**	**5**	**2**	**2**	**1**	**0.6**	**3**
fluoranthene		-	-	0.4	0.4	-	-	-	0.5	0.5	0.5	0.4	0.5	-	-	0.5
pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**-**	**-**	**0.4**	**0.4**	**-**	**-**	**-**	**0.5**	**0.5**	**0.5**	**0.4**	**0.5**	**-**	**-**	**0.5**
sample weight, grams :		5.68	5.03	5.00	5.02	4.98	5.31	5.28	5.09	5.40	5.09	5.08	5.07	5.03	5.30	5.07

Table E-76. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Ouzinkie.

ACs	Species :	Littleneck clam			Chiton						Mussel	Butter clam				
	Site :	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ2	OUZ3	OUZ3	OUZ3	OUZ3	OUZ3	OUZ3
	Date collected:	May-90	May-90	May-90	Jul-89	Sep-89	May-90	May-90	May-90	May-90	Mar-90	Jul-89	Mar-90	Mar-90	May-90	May-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG	D&M	ADFG	ADFG	ADFG	ADFG
	Lab no. :	2648	2655	2656	80	410	2657	2658	2659	2660	1016	672	835	838	1691	1692
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		1	0.8	0.9	-	0.2	5	1	1	1	-	0.2	-	-	-	-
C2-naphthalenes		-	0.7	0.9	-	-	4	1	0.8	-	-	-	-	-	2	-
C3-naphthalenes		-	-	0.9	-	-	2	-	-	-	-	-	-	-	5	0.9
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-	-	-	-	4	0.9
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	-	-	-	-	0.9	-	-	-	0.1	-	-	-	0.5	0.5
C1-fluorene		-	-	-	-	-	0.6	-	-	-	-	-	-	-	2	0.6
C2-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.9
C3-fluorene		-	-	-	-	-	-	-	-	-	2	-	-	-	6	-
phenanthrene		-	-	-	0.1	0.3	-	-	-	-	2	2	2	0.9	3	2
C1-phenanthrenes		0.7	0.6	0.8	-	-	1	-	-	-	2	1	-	-	5	3
C2-phenanthrenes		-	-	0.5	-	-	0.6	-	-	-	2	2	-	-	9	5
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	2	0.3	-	-	2	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	-	-	-	0.1	-	-	-	0.5	0.3
C1-dibenzothiophenes		-	-	0.4	-	-	-	-	-	-	0.2	0.1	-	-	3	2
C2-dibenzothiophenes		-	-	0.5	-	-	-	-	-	-	1	1	-	-	5	2
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	3	0.4	-	-	3	0.5
Sum of LACs		**2**	**2**	**5**	**0.1**	**0.5**	**14**	**2**	**2**	**1**	**14**	**7**	**2**	**0.9**	**53**	**19**
fluoranthene		0.5	0.4	0.6	-	-	-	-	-	-	3	1	2	0.7	3	2
pyrene		-	-	-	-	-	0.6	-	-	-	1	0.5	0.8	-	1	0.8
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	0.3	-	-	-	0.7	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	0.2	-	-	-	0.3	-
chrysene		-	-	-	-	-	-	-	-	-	0.4	-	-	-	0.5	0.3
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.5**	**0.4**	**0.6**	**-**	**-**	**0.6**	**-**	**-**	**-**	**5**	**2**	**3**	**0.7**	**6**	**3**
sample weight, grams :		5.00	4.98	4.99	5.49	4.99	5.01	5.02	5.01	5.02	5.05	5.02	5.03	5.00	5.27	5.01

Table E-77. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Ouzinkie.

ACs	Species :	Butter clam				Littleneck clam		Sea urchin	Mussel			
	Site :	OUZ3	OUZ3	OUZ3	OUZ3	OUZ3	OUZ3	OUZ3	OUZ4	OUZ4	OUZ4	OUZ4
	Date collected:	May-90	Sep-90	Sep-90	Sep-90	Mar-90	Mar-90	Mar-90	May-90	May-90	May-90	May-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	D&M	D&M	D&M	D&M
	Lab no. :	1693	2110	2111	2112	836	837	1022	2661	2662	2663	2664
naphthalene		a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	a	0.9	1	1	1
C2-naphthalenes		2	-	-	-	-	-	-	0.9	2	1	1
C3-naphthalenes		3	-	-	-	-	-	-	-	3	0.5	0.6
C4-naphthalenes		2	0.9	-	2	-	-	-	-	0.8	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-
fluorene		0.7	-	-	-	-	-	-	-	0.6	-	0.5
C1-fluorene		1	0.4	-	0.5	-	-	-	-	0.9	-	-
C2-fluorene		2	0.5	0.4	0.7	-	-	-	-	2	0.9	1
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-
phenanthrene		3	-	-	-	1	2	1	-	-	-	-
C1-phenanthrenes		4	-	-	-	-	-	-	0.6	2	0.7	0.9
C2-phenanthrenes		8	0.7	1	1	-	-	-	0.7	2	1	0.8
C3-phenanthrenes		2	-	-	-	-	-	-	-	1	0.4	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.4	-	-	-	-	-	-	-	0.6	-	-
C1-dibenzothiophenes		3	0.4	-	0.5	-	-	-	0.4	1	0.4	0.5
C2-dibenzothiophenes		4	0.5	0.5	1	-	-	-	0.4	2	0.9	0.9
C3-dibenzothiophenes		4	-	0.5	0.8	-	-	-	-	2	0.6	0.4
Sum of LACs		**39**	**3**	**2**	**6**	**1**	**2**	**1**	**4**	**21**	**7**	**8**
fluoranthene		3	1	1	1	1	2	-	-	0.8	-	0.5
pyrene		2	0.6	0.7	0.8	0.5	0.3	-	-	-	-	-
C1-fluoranthenes/pyrenes		0.2	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-
chrysene		0.6	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**6**	**2**	**2**	**2**	**2**	**2**	**-**	**-**	**0.8**	**-**	**0.5**
sample weight, grams :		5.01	5.08	5.05	4.98	5.00	5.02	5.13	4.99	5.02	5.01	5.02

Table E-78. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Ouzinkie.

ACs	Species :	Butter clam					Littleneck clam				Chiton					Chiton
	Site :	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ4	OUZ7
	Date collected:	Aug-89	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	May-90	Mar-90
	Collector :	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	D&M	ADFG
	Lab no. :	207	2670	2671	2672	2673	2674	2675	2676	2677	2678R	2679R	2685	2686	2687	1023
naphthalene		a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	2	1	2	0.9	0.8	1	1	0.9	1	0.8	-	0.5	0.7	-
C3-naphthalenes		-	2	2	3	2	2	2	1	1	-	-	-	-	-	-
C4-naphthalenes		-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluorene		-	0.7	-	-	-	-	-	-	0.4	-	-	-	-	-	-
C1-fluorene		-	0.8	-	0.4	0.4	-	0.4	-	-	-	-	-	-	-	-
C2-fluorene		-	0.8	-	1	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene		1	1	1	1	1	1	0.9	0.7	1	0.5	0.5	0.8	0.8	0.5	-
C1-phenanthrenes		0.7	2	1	2	2	1	1	0.7	1	-	0.4	0.4	0.4	0.4	-
C2-phenanthrenes		0.4	2	1	2	1	1	1	0.5	1	-	-	-	-	-	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene		-	-	-	-	-	-	0.4	-	0.5	-	-	-	-	-	-
C1-dibenzothiophenes		0.1	0.7	0.8	1	0.9	0.6	0.6	-	0.6	-	-	-	-	-	-
C2-dibenzothiophenes		-	1	1	2	1	0.6	0.7	-	0.8	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	0.5	-	0.5	-	-	-	-	-	-	-	-	-	-
Sum of LACs		**3**	**13**	**8**	**15**	**10**	**7**	**8**	**4**	**7**	**2**	**2**	**1**	**2**	**2**	**-**
fluoranthene		0.5	0.9	0.8	1	0.8	0.6	0.7	0.4	0.7	-	-	-	-	-	-
pyrene		-	0.4	-	0.4	0.4	-	0.4	-	-	-	-	-	-	-	-
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**0.5**	**1**	**0.8**	**1**	**1**	**0.6**	**1**	**0.4**	**0.7**	**-**	**-**	**-**	**-**	**-**	**-**
sample weight, grams :		5.15	5.03	5.01	5.00	5.02	4.99	5.02	5.00	4.99	5.01	5.01	4.99	4.99	4.99	5.01

Table E-79. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Ouzinkie.

ACs	Species :	Butter clam						Horse clam
	Site :	OUZ9	OUZ9	OUZ9	OUZ9	OUZ9	OUZ9	OUZ9
	Date collected:	May-90	May-90	May-90	Sep-90	Sep-90	Sep-90	Sep-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1688	1689	1690	2108	2186	2187	2109
naphthalene		a	a	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-
C2-naphthalenes		2	3	2	-	-	-	-
C3-naphthalenes		3	6	5	-	-	-	-
C4-naphthalenes		2	4	4	1	0.9	0.9	2
acenaphthylene		-	-	0.2	-	-	-	-
acenaphthene		-	-	0.5	-	-	-	-
fluorene		0.6	0.5	0.6	-	-	-	-
C1-fluorene		0.6	1	2	0.4	-	-	0.5
C2-fluorene		1	2	3	0.6	-	-	-
C3-fluorene		-	-	3	-	-	-	-
phenanthrene		2	3	3	-	-	-	-
C1-phenanthrenes		3	5	5	-	-	-	-
C2-phenanthrenes		8	7	8	2	1	1	2
C3-phenanthrenes		0.2	1	0.8	0.4	-	-	0.4
C4-phenanthrenes		-	-	-	-	-	-	-
dibenzothiophene		0.3	0.6	0.5	-	-	-	0.4
C1-dibenzothiophenes		2	3	3	0.4	0.4	0.5	0.5
C2-dibenzothiophenes		3	4	3	0.8	0.4	-	1
C3-dibenzothiophenes		-	2	1	0.5	-	-	-
Sum of LACs		**28**	**42**	**45**	**6**	**3**	**2**	**7**
fluoranthene		-	1	1	0.5	0.4	0.5	1
pyrene		-	0.4	0.4	0.4	-	-	0.8
C1-fluoranthenes/pyrenes		-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	-	-
chrysene		0.2	-	0.2	-	-	-	-
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-
benzo[b]fluoranthene		-	-	-	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-
Sum of HACs		**0.2**	**1**	**2**	**0.9**	**0.4**	**0.5**	**2**
sample weight, grams :		5.21	5.01	5.46	4.99	5.06	5.13	5.00

Table E-80. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chignik Villages.

ACs	Species :	Mussel										
	Site :	CHG1	CHG1	CHG1	CHG1	CHG1	CHG1	CHG1	CHG1	CHG1	CHG1	CHG1
	Date collected:	Jan-90	Jan-90	Jan-90	Jan-90	Apr-90	Apr-90	Apr-90	Sep-90	Sep-90	Sep-90	Sep-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	856	857	858R	859R	1582	1583	1584	2136	2137R	2145R	2175
naphthalene		a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		0.3	-	0.4	0.5	5	1	1	-	-	-	-
C2-naphthalenes		-	-	-	-	3	0.8	0.4	7	-	-	-
C3-naphthalenes		-	-	-	-	4	4	4	5	-	4	-
C4-naphthalenes		-	-	-	-	4	3	4	3	1	2	0.5
acenaphthylene		-	-	-	-	-	0.3	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	0.4	-	-	-
fluorene		-	-	-	-	0.6	0.6	0.5	0.9	0.5	0.5	0.4
C1-fluorene		-	-	-	-	2	2	2	2	0.9	0.9	0.6
C2-fluorene		-	-	-	-	6	3	5	1	0.8	1	0.6
C3-fluorene		-	-	-	-	3	2	4	1	-	-	-
phenanthrene		3	2	2	2	11	7	10	4	-	-	-
C1-phenanthrenes		-	-	-	-	18	11	16	5	-	-	-
C2-phenanthrenes		-	-	-	-	19	14	18	7	4	5	2
C3-phenanthrenes		-	-	-	-	6	5	7	3	1	2	-
C4-phenanthrenes		-	-	-	-	-	-	-	0.4	-	-	-
dibenzothiophene		0.3	-	-	-	2	2	3	0.8	0.4	0.4	-
C1-dibenzothiophenes		-	-	-	-	7	6	8	3	-	1	2
C2-dibenzothiophenes		-	-	-	-	13	10	15	3	3	2	0.8
C3-dibenzothiophenes		-	-	-	-	7	6	9	4	3	3	1
Sum of LACs		**4**	**2**	**2**	**2**	**110**	**78**	**110**	**50**	**15**	**22**	**8**
fluoranthene		3	2	1	1	7	5	9	3	2	2	0.9
pyrene		1	1	0.5	0.6	1	0.7	2	1	0.8	0.8	0.5
C1-fluoranthenes/pyrenes		-	-	-	-	1	0.6	0.6	1	2	0.7	-
benz[a]anthracene		-	-	-	-	-	-	-	0.4	-	-	-
chrysene		0.6	0.6	0.2	0.4	1	0.8	0.8	1	0.9	1	0.4
C1-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	0.5	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	0.5	-	-	-	-	-
benzo[b]fluoranthene		0.4	-	-	-	-	0.2	-	-	-	-	-
benzo[k]fluoranthene		0.3	-	-	-	-	0.2	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**5**	**4**	**2**	**2**	**10**	**8**	**12**	**6**	**6**	**4**	**2**
sample weight, grams :		5.01	5.01	5.03	5.04	5.01	5.06	5.02	5.00	5.22	5.02	5.08

Table E-81. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Chignik Villages.

ACs	Species :						Mussel					
	Site :	CHG3	CHG3	CHG3	CHG3	CHG3	CHG3	CHG3	CHG3	CHG3	CHG3	CHG3
	Date collected:	Mar-90	Mar-90	Mar-90	Apr-90	Apr-90	Apr-90	Apr-90	Apr-90	Sep-90	Sep-90	Sep-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	911	912	913	1585R	1634R	1586	1587	1588	2138	2139	2140
naphthalene		a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes		-	2	2	-	-	-	-	-	-	-	-
C2-naphthalenes		1	1	0,8	-	1	-	-	-	6	-	7
C3-naphthalenes		1	2	1	-	0.4	-	-	-	4	-	9
C4-naphthalenes		-	1	0.9	-	-	-	-	-	5	4	10
acenaphthylene		-	-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	0.4	-	-
fluorene		-	-	-	-	-	-	-	-	0.6	-	0.6
C1-fluorene		-	-	-	-	-	-	-	-	1	2	4
C2-fluorene		-	-	-	-	-	-	-	-	3	4	6
C3-fluorene		-	-	-	-	-	-	-	-	3	4	4
phenanthrene		2	1	1	0.8	-	0.4	0.4	0.4	-	-	4
C1-phenanthrenes		2	1	1	-	1	-	-	-	5	5	11
C2-phenanthrenes		3	3	4	-	-	-	-	-	13	16	16
C3-phenanthrenes		2	3	5	-	-	-	-	-	9	15	10
C4-phenanthrenes		-	0.5	0.9	-	-	-	-	-	2	3	2
dibenzothiophene		-	-	-	-	-	-	-	-	0.5	0.5	2
C1-dibenzothiophenes		0.5	0.3	0.6	-	0.3	-	-	-	5	5	8
C2-dibenzothiophenes		1	1	2	-	0.4	-	-	-	13	2	18
C3-dibenzothiophenes		1	4	6	-	0.2	-	-	-	22	20	25
Sum of LACs		**14**	**20**	**25**	**0.8**	**3**	**0.4**	**0.4**	**0.4**	**92**	**80**	**140**
fluoranthene		2	0.7	0.7	0.3	0.5	-	-	-	1	0.7	1
pyrene		1	0.5	0.6	-	0.2	-	-	-	0.9	0.7	1
C1-fluoranthenes/pyrenes		1	0.3	0.3	-	-	-	-	-	12	19	13
benz[a]anthracene		1	0.2	-	-	-	-	-	-	-	-	-
chrysene		2	0.7	0.6	-	0.3	-	-	-	0.4	0.4	0.5
C1-chrysenes/benz[a]anthracenes		0.5	0.3	0.1	-	-	-	-	-	0.6	0.8	1
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	0.2	0.1	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		0.8	0.2	0.2	-	-	-	-	-	-	-	-
benzo[k]fluoranthene		0.9	0.2	0.2	-	-	-	-	-	-	-	-
benzo[a]pyrene		0.3	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-	-
Sum of HACs		**10**	**3**	**3**	**0.3**	**1**	**-**	**-**	**-**	**15**	**22**	**16**
sample weight, grams :		5.03	5.08	5.01	5.05	5.06	5.11	5.04	5.01	5.03	5.07	5.00

Table E-82. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Ivanof Bay.

ACs	Species: Dungeness crab	Cockle	Mussel										Butter clam		
Site :	IVB1	IVB2	IVB3	IVB3	IVB3	IVB3	IVB3	IVB3	IVB3	IVB3	IVB3	IVB3	IVB3	IVB3	IVB3
Date collected:	Feb-90	Feb-90	Feb-90	Feb-90	Feb-90	Feb-90	Apr-90	Apr-90	Apr-90	Sep-90	Sep-90	Sep-90	Apr-90	Apr-90	Apr-90
Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
Lab no. :	1019	1020	870	871R	874R	872	1615	1616	1617	2169	2170	2171	1589	1590	1626
naphthalene	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
C1-naphthalenes	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-
C2-naphthalenes	-	-	-	-	-	-	0.8	7	0.9	-	-	-	-	-	1
C3-naphthalenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-naphthalenes	-	-	-	-	-	-	-	-	-	0.5	-	1	-	-	-
acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
acenaphthene	-	-	-	-	-	-	-	-	-	0.4	-	0.4	-	-	-
fluorene	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
C1-fluorene	-	-	-	-	-	-	-	-	-	0.4	-	0.6	-	-	-
C2-fluorene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-fluorene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
phenanthrene	-	3	1	1	-	1	-	4	-	-	-	-	0.7	0.8	-
C1-phenanthrenes	-	0.7	-	0.4	-	0.9	-	2	-	-	-	-	-	-	-
C2-phenanthrenes	-	0.2	-	-	-	-	-	-	-	3	0.5	4	-	-	-
C3-phenanthrenes	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
C4-phenanthrenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenzothiophene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes	-	-	-	-	-	-	-	-	-	0.5	-	1	-	-	-
C2-dibenzothiophenes	-	-	-	-	-	-	-	-	-	0.4	-	1	-	-	-
C3-dibenzothiophenes	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Sum of LACs	**-**	**4**	**1**	**1**	**-**	**2**	**0.8**	**22**	**0.9**	**5**	**0.5**	**10**	**0.7**	**0.8**	**1**
fluoranthene	-	3	-	-	-	-	0.9	-	0.6	0.5	-	0.7	-	0.2	0.7
pyrene	-	0.8	-	-	-	-	0.6	-	-	-	-	0.7	-	-	0.3
C1-fluoranthenes/pyrenes	-	-	-	-	-	-	-	-	-	0.4	-	0.5	-	-	-
benz[a]anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
chrysene	-	0.4	-	-	-	-	-	0.7	-	-	-	-	-	-	0.2
C1-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[k]fluoranthene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sum of HACs	**-**	**4**	**-**	**-**	**-**	**-**	**2**	**0.7**	**0.6**	**0.9**	**-**	**2**	**-**	**0.2**	**1**
sample weight, grams :	5.04	5.13	5.04	5.00	5.07	5.05	5.02	5.03	5.03	5.05	5.05	5.01	5.05	5.11	5.06

Table E-83. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Perryville.

ACs	Species :	Chiton	Mussel								
	Site :	PER1	PER3	PER3	PER3	PER3	PER3	PER3	PER3	PER3	PER3
	Date collected:	Feb-90	Feb-90	Feb-90	Feb-90	Apr-90	Apr-90	Apr-90	Sep-90	Sep-90	Sep-90
	Collector :	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1018	866	867	868	1581	1618	1619	2172	2173	2174
naphthalene		a	a	a	a	2	a	a	a	a	a
C1-naphthalenes		-	-	-	-	-	-	-	-	-	-
C2-naphthalenes		-	-	-	-	-	0.8	-	-	-	-
C3-naphthalenes		-	-	-	-	-	-	-	-	-	-
C4-naphthalenes		-	-	-	-	-	-	-	-	-	-
acenaphthylene		-	-	-	-	-	-	-	-	-	-
acenaphthene		-	-	-	-	-	-	-	-	-	-
fluorene		0.2	-	-	-	-	-	-	-	-	-
C1-fluorene		-	-	-	-	-	-	-	0.4	0.4	0.5
C2-fluorene		-	-	-	-	-	-	-	-	-	-
C3-fluorene		0.4	-	-	-	-	-	-	-	-	-
phenanthrene		4	0.7	0.7	-	0.6	-	-	-	-	-
C1-phenanthrenes		1	-	-	-	-	-	-	-	-	-
C2-phenanthrenes		-	-	-	-	-	-	-	-	1	-
C3-phenanthrenes		-	-	-	-	-	-	-	-	-	-
C4-phenanthrenes		-	-	-	-	-	-	-	-	-	-
dibenzothiophene		0.4	-	-	-	-	-	-	-	-	-
C1-dibenzothiophenes		-	-	-	-	-	-	-	0.5	0.4	0.7
C2-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
C3-dibenzothiophenes		-	-	-	-	-	-	-	-	-	-
Sum of LACs		**6**	**0.7**	**0.7**	**-**	**0.6**	**0.8**	**-**	**0.9**	**2**	**1**
fluoranthene		-	-	-	-	-	0.7	1	-	-	-
pyrene		-	-	-	-	-	0.5	0.5	-	-	-
C1-fluoranthenes/pyrenes		0.2	-	-	-	-	-	-	-	-	-
benz[a]anthracene		-	-	-	-	-	0.4	-	-	-	-
chrysene		0.8	-	-	-	-	0.7	-	-	-	-
C1-chrysenes/benz[a]anthracenes		0.2	-	-	-	-	-	-	-	-	-
C2-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-	-	-	-	-	-	-
benzo[b]fluoranthene		0.5	-	-	-	-	0.4	-	-	-	-
benzo[k]fluoranthene		-	-	-	-	-	-	-	-	-	-
benzo[a]pyrene		-	-	-	-	-	-	-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-	-	-	-	-	-	-
dibenz[a,h]anthracene		-	-	-	-	-	-	-	-	-	-
benzo[ghi]perylene		-	-	-	-	-	-	-	-	-	-
Sum of HACs		**2**	**-**	**-**	**-**	**-**	**3**	**2**	**-**	**-**	**-**
sample weight, grams :		5.03	5.03	5.03	5.03	5.04	5.06	5.00	5.12	5.11	5.12

Table E-84. Concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in invertebrate samples from Kashvik Bay.

ACs	Species :	Razor clam			
	Site :	KAT1	KAT1	KAT1	KAT1
	Date collected:	Apr-90	Apr-90	Apr-90	Apr-90
	Collector :	ADFG	ADFG	ADFG	ADFG
	Lab no. :	1627	1628	1629	1637
naphthalene		a	a	a	a
C1-naphthalenes		-	-	-	-
C2-naphthalenes		-	0.6	-	-
C3-naphthalenes		-	-	-	-
C4-naphthalenes		-	-	-	-
acenaphthylene		-	-	-	-
acenaphthene		-	-	-	-
fluorene		-	0.3	-	-
C1-fluorene		-	-	-	-
C2-fluorene		-	-	-	-
C3-fluorene		-	-	-	-
phenanthrene		-	-	-	-
C1-phenanthrenes		-	0.9	-	-
C2-phenanthrenes		2	2	1	2
C3-phenanthrenes		3	4	3	6
C4-phenanthrenes		-	-	-	-
dibenzothiophene		-	-	-	-
C1-dibenzothiophenes		-	0.2	-	-
C2-dibenzothiophenes		1	2	0.3	7
C3-dibenzothiophenes		3	4	2	-
Sum of LACs		**9**	**14**	**6**	**15**
fluoranthene		0.4	0.7	0.5	0.7
pyrene		0.3	0.4	0.3	0.5
C1-fluoranthenes/pyrenes		0.2	0.2	-	-
benz[a]anthracene		-	-	-	-
chrysene		0.5	0.7	0.6	1
C1-chrysenes/benz[a]anthracenes		0.6	0.6	0.6	1
C2-chrysenes/benz[a]anthracenes		0.3	-	0.7	-
C3-chrysenes/benz[a]anthracenes		-	-	-	-
C4-chrysenes/benz[a]anthracenes		-	-	-	-
benzo[b]fluoranthene		-	-	-	-
benzo[k]fluoranthene		-	-	-	-
benzo[a]pyrene		-	-	-	-
indeno[1,2,3-cd]pyrene		-	-	-	-
dibenz[a,h]anthracene		-	-	-	-
benzo[ghi]perylene		-	-	-	-
Sum of HACs		**2**	**3**	**3**	**3**
sample weight, grams :		5.11	5.02	5.16	5.07

SECTION F

QUALITY ASSURANCE

QUALITY ASSURANCE

Quality Assurance for Analyses for Fluorescent Aromatic Compounds (FACs)

Quality assurance procedures for bile analyses included use of naphthalene (NPH) and phenanthrene (PHN) calibration standards, a "bile pool" control material, blank analyses, and replicate analyses to evaluate the performance of the high performance liquid chromatography fluorescence (HPLC/UV-F) method.

Quality Assurance for Analyses for Aromatic Compounds

Quality control (QC) measures included analyses of method blanks, spiked blanks, matrix spikes, and National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) 1974. Where possible, primary standard solutions were purchased. The recoveries of the following surrogates are reported as QC information: Naphthalene-d8, acenaphthene-d10, and benzo[*a*]pyrene-d12. Analyte concentrations are reported on the basis of the internal standards ("surrogates") added at the beginning of the sample extraction. The HPLC internal standard (used to determine the fraction of total sample extract used in the analysis for aromatic hydrocarbons) was phenanthrene-d10. Hexamethylbenzene was used as the gas chromatography (GC) internal standard to calculate the recoveries of the surrogates. The criterion for the recovery of each surrogate standard was greater than 50%, but less than 130%, and the relative standard deviations (RSDs) for surrogate recoveries in a set of samples was less than 25%. When the recovery of any surrogate was outside these limits, corrective action was taken, including instrument repair, inlet cleaning, column replacement, and/or reanalysis of the samples.

The GC calibration standards generally included all surrogates and analytes of interest, except for some classes of alkylated aromatic hydrocarbons and dibenzothiophenes. In these cases, the response factor for the corresponding

unsubstituted compound was used to calculate the analyte concentrations. Graduated concentrations of GC-calibration standards were used for determining multilevel response factors. A GC-calibration standard was analyzed after every six samples to demonstrate the stability of the calibration. The GC/MS was considered "under control" when the response for each analyte or surrogate in a GC-calibration standard was reproducible within ± 10% from analysis to analysis.

Target detection limits were ≤0.5 ng/g (wet weight basis). The instrument sensitivity, the sample weights for the associated sample set, the low-level instrument calibration standards, and the standard reference material were used to determine the detection limits.

One method blank was analyzed with each set of approximately 10 samples. The aromatic hydrocarbons (except NPH, which was present in the solvents at trace concentrations) and dibenzothiophenes in the blanks should not be present at the limit of detection. A matrix spike (containing 50-80 ng/g of each analyte) or a spiked blank (containing 40-70 ng/g of each analyte) was analyzed with each set of approximately 10 samples during the first year (about 1/3) of the study. During the latter part of the study, a sample of NIST Standard Reference Material 1974 was analyzed with each set of 10 samples.

The percent recovery of the surrogate standards provides a measure of losses incurred for each sample during the extraction and cleanup steps. Ideally, recoveries would be near 100%, but realistically, recoveries of approximately 90% are considered within quality control guidelines because the procedures involve so many sample handling steps. The mean percent recovery and standard deviation of the surrogate standards (deuterated naphthalene, deuterated acenaphthene, and deuterated benzo[a]pyrene) were 92% ± 15%.

Method detection limits are usually defined by a combination of factors including instrument signal-to-noise ratio, the lowest level of multilevel standard that can be reliably measured, the original sample weight, and the final volume of the sample extract. Based on the results for field blanks (Table F1), method blanks analyzed with each set of samples (Table F2), and results for the analyses of the NIST SRM 1974 analyzed with each set of samples after the first year (Table F3), our detection limits ranged from about 0.5 ng/g to about 1 ng/g. One of the

certified values in the NIST SRM is 0.35 ng/g for dibenz[a,h]anthracene (DBA). Our results for DBA were 0.3 ng/g ± 0.4 ng/g.

Naphthalene was present in the solvents at trace concentrations and resulted in concentrations in method blanks and in samples of about 1 ng/g (Table F2). Generally, the other analytes were not found in the method blanks at the stated limit of detection.

In the first year of the study, analytes were added to a method blank (also called a spiked blank) or to a tissue sample (also called a matrix spike) and then analyzed as a sample with each set of samples. The results were used to show that the analytes would be found by this method and to show losses due to sample handling but would not provide any information on extraction efficiency. The recoveries for the analytes in spiked blanks (Table F4) and in matrix spikes (Table F5) ranged from 75% to 130%. As soon as SRM 1974 tissue material was available, a sample of it was analyzed with every set of samples in place of a spiked blank or a matrix spike. The SRM was far more useful than the matrix spike for quality control because it was a homogeneous material, 11 analyte values were certified or noted, and its use afforded a way to monitor extraction efficiency as well as losses due to sample handling. Also, the SRM tissue contained all of the analytes we were monitoring in the subsistence samples, thus enabling us to monitor quality control for all of our analytes.

QA TABLES

Table F-1. Detection limits and standard deviations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in field blanks (n=10). The "less than" symbol (<) indicates that the analyte was not detected in concentrations above the stated value.

ACs	Mean	Standard deviation
C1-naphthalenes	< 0.5	0.4
C2-naphthalenes	< 0.6	1
C3-naphthalenes	< 0.4	0.6
C4-naphthalenes	< 0.2	0.2
acenaphthylene	< 0.2	0.2
acenaphthene	< 0.3	0.2
fluorene	< 0.2	0.2
C1-fluorenes	< 0.2	0.1
C2-fluorenes	< 0.2	0.1
C3-fluorenes	< 0.2	0.2
phenanthrene	< 0.4	0.2
C1-phenanthrenes	< 0.3	0.3
C2-phenanthrenes	< 0.2	0.2
C3-phenanthrenes	< 0.2	0.2
C4-phenanthrenes	< 0.1	0.1
dibenzothiophene	< 0.2	0.3
C1-dibenzothiophenes	< 0.2	0.1
C2-dibenzothiophenes	< 0.1	0.1
C3-dibenzothiophenes	< 0.1	0.1
fluoranthene	< 0.2	0.2
pyrene	< 0.2	0.2
C1-fluoranthenes/pyrenes	< 0.09	0.06
benz[a]anthracene (BAA)	< 0.2	0.2
chrysene	< 0.1	0.1
C1-chrysenes/BAAs	< 0.08	0.03
C2-chrysenes/BAAs	< 0.08	0.03
C3-chrysenes/BAAs	< 0.1	0.1
C4-chrysenes/BAAs	< 0.08	0.04
benzo[b]fluoranthene	< 0.1	0.09
benzo[k]fluoranthene	< 0.1	0.07
benzo[a]pyrene	< 0.1	0.07
indeno[1,2,3-cd]pyrene	< 0.1	0.08
dibenz[a,h]anthracene	< 0.2	0.1
benzo[ghi]perylene	< 0.1	0.1

Table F-2. Detection limits and standard deviations, ng/g (ppb) wet weight, of aromatic compounds (ACs) in method blanks (n=165). The "less than" symbol (<) indicates that the analyte was not detected in concentrations above the stated value.

ACs	Mean	Standard deviation
C1-naphthalenes	< 0.8	0.9
C2-naphthalenes	< 0.4	0.7
C3-naphthalenes	< 0.3	0.3
C4-naphthalenes	< 0.2	0.2
acenaphthylene	< 0.3	0.8
acenaphthene	< 0.3	0.3
fluorene	< 0.2	0.2
C1-fluorenes	< 0.2	0.2
C2-fluorenes	< 0.2	0.2
C3-fluorenes	< 0.3	0.3
phenanthrene	< 0.4	0.7
C1-phenanthrenes	< 0.1	0.2
C2-phenanthrenes	< 0.1	0.2
C3-phenanthrenes	< 0.1	0.1
C4-phenanthrenes	< 0.1	0.1
dibenzothiophene	< 0.1	0.1
C1-dibenzothiophenes	< 0.2	0.1
C2-dibenzothiophenes	< 0.2	0.1
C3-dibenzothiophenes	< 0.2	0.1
fluoranthene	< 0.2	0.3
pyrene	< 0.2	0.2
C1-fluoranthenes/pyrenes	< 0.1	0.1
benz[a]anthracene (BAA)	< 0.2	0.4
chrysene	< 0.2	0.4
C1-chrysenes/BAAs	< 0.2	0.4
C2-chrysenes/BAAs	< 0.2	0.4
C3-chrysenes/BAAs	< 0.2	0.4
C4-chrysenes/BAAs	< 0.2	0.4
benzo[b]fluoranthene	< 0.2	0.3
benzo[k]fluoranthene	< 0.1	0.2
benzo[a]pyrene	< 0.2	0.3
indeno[1,2,3-cd]pyrene	< 0.2	0.3
dibenz[a,h]anthracene	< 0.2	0.3
benzo[ghi]perylene	< 0.2	0.2

Table F-3. Mean concentrations, ng/g (ppb) wet weight, of aromatic compounds (ACs) determined in NIST Standard Reference Material 1974, standard deviation (n=121), and certified values.

ACs	Mean	σ	Certified concentrations	
			Mean	σ
naphthalene	4	1		
C1-naphthalenes	3	2	3.2*	0.5
C2-naphthalenes	4	2		
C3-naphthalenes	8	3		
C4-naphthalenes	24	9		
acenaphthylene	0.4	0.6		
acenaphthene	0.6	0.6		
fluorene	1	0.6	1.5*	0.2
C1-fluorenes	4	1		
C2-fluorenes	20	8		
C3-fluorenes	23	15		
phenanthrene	6	2	5.6	1.4
C1-phenanthrenes	11	4		
C2-phenanthrenes	44	15		
C3-phenanthrenes	49	19		
C4-phenanthrenes	11	8		
dibenzothiophene	0.9	0.4		
C1-dibenzothiophenes	5	2		
C2-dibenzothiophenes	29	10		
C3-dibenzothiophenes	34	13		
fluoranthene	46	8	33.6	5.8
pyrene	44	7	34.1	3.7
C1-fluoranthenes/pyrenes	25	7		
benz[a]anthracene (BAA)	5	1	4.6*	0.4
chrysene	18	3		
C1-chrysenes/BAAs	7	2		
C2-chrysenes/BAAs	3	2		
C3-chrysenes/BAAs	0.6	0.9		
C4-chrysenes/BAAs	0.0	0.4		
benzo[b]fluoranthene	7	2	6.5	1.2
benzo[k]fluoranthene	4	1		
benzo[a]pyrene	2	1	2.29	0.47
indeno[1,2,3-cd]pyrene	2	1.0	1.8	0.3
dibenz[a,h]anthracene	0.3	0.4	0.35*	0.01
benzo[ghi]perylene	2	1.0	2.47	0.28
sample weight, grams:	4	1.0		

* Noncertified concentrations reported by NIST.

Table F-4. Spiked blanks. Mean percent recoveries and relative standard deviations (RSD) of aromatic compounds (ACs) in spiked blanks (n=6).

ACs	Mean %	Relative standard deviation %	Amount spiked ng/g
naphthalene	100	4	65
acenaphthylene	95	7	63
acenaphthene	98	2	69
fluorene	98	4	66
phenanthrene	100	6	68
dibenzothiophene	110	7	120
benz[a]anthracene	120	18	58
chrysene	110	9	68
benzo[b]fluoranthene	110	16	66
benzo[k] fluoranthene	110	12	65
benzo[a]pyrene	96	4	59
indeno[1,2,3-cd]pyrene	110	15	54
dibenz[a.h]anthracene	120	19	43
benzo[ghi]perylene	100	13	56

Table F-5. Matrix spikes. Mean percent recoveries and relative standard deviations (RSD) of aromatic compounds in matrix spikes (n=39).

ACs	Mean %	Relative standard deviation %	Amount spiked ng/g
naphthalene	110	25	65
acenaphthylene	93	16	70
acenaphthene	92	13	63
fluorene	95	21	69
phenanthrene	110	13	68
dibenzothiophene	120	23	120
fluoranthene	130	30	
pyrene	120	30	
benz[a]anthracene	94	25	58
chrysene	94	24	68
benzo[b]fluoranthene	86	20	66
benzo[k]fluoranthene	82	20	65
benzo[a]pyrene	87	17	59
indeno[1,2,3-cd]pyrene	77	26	54
dibenz[a,h]anthracene	76	33	43
benzo[ghi]perylene	75	24	56

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