

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-AC-AC1-01-00- PHC-S	98-AC-AC1-02-00- PHC-S	98-AC-AC1-03-00- PHC-S	98-0-F1-01-00-PHC-S
Lab ID	98D2128	98D2125	98D2122	98D2091
SDG	SDGS002	SDGS002	SDGS002	SDGS001
File	DY0538.D	DY0535.D	DY0531.D	DZ6158.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	22.1 g	20.9 g	21 g	24 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-83PB	BV-S-83PB	BV-S-83PB	BV-S-80PB
Field Date	6/27/1998	6/27/1998	6/27/1998	7/3/1998
Extract Date	9/14/1998	9/14/1998	9/14/1998	9/10/1998
Analysis Date	9/22/1998	9/22/1998	9/22/1998	9/19/1998
Min Reporting Limit	0.56	0.6	0.6	0.52
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.024	0.022	0.022	0.0038
C1-Naphthalenes	0.082	0.079	0.076	0.0067
C2-Naphthalenes	0.17	0.16	0.16	0.015
C3-Naphthalenes	0.14	0.14	0.14	0.011
C4-Naphthalenes	0.083	0.076	0.072	0.014
Acenaphthylene	0.00018 J	0.00016 J	0.00017 J	0.00041 J
Acenaphthene	0.0033	0.0031	0.0032	0.0011
Biphenyl	0.022	0.021	0.021	0.0024
Fluorene	0.025	0.024	0.023	0.004
C1-Fluorenes	0.05	0.046	0.045	0.004
C2-Fluorenes	0.066	0.064	0.065	0.0062
C3-Fluorenes	0.068	0.064	0.066	0.0085
Anthracene	0.0042	0.0041	0.0039	0.0019
Phenanthrene	0.082 L	0.079 L	0.077 L	0.012
C1-Phenanthrenes/anthracenes	0.15	0.14	0.14	0.014
C2-Phenanthrenes/anthracenes	0.12	0.12	0.11	0.014
C3-Phenanthrenes/anthracenes	0.073	0.071	0.068	0.0072
C4-Phenanthrenes/anthracenes	0.049	0.043	0.047	0.0084
Dibenzothiophene	0.0096	0.0093	0.0089	0.0017
C1-Dibenzothiophenes	0.019	0.018	0.017	0.0021
C2-Dibenzothiophenes	0.019	0.018	0.018	0.0031
C3-Dibenzothiophenes	0.011	0.011	0.012	0.0027
Fluoranthene	0.013	0.013	0.013	0.0086
Pyrene	0.017	0.017	0.017	0.01
C1-Fluoranthenes/pyrenes	0.067	0.065	0.064	0.011
C2-Fluoranthenes/pyrenes	0.084	0.08	0.08	0.0082
C3-Fluoranthenes/pyrenes	0.066	0.062	0.064	0.0067
Benzo[a]anthracene	0.01	0.0098	0.0081	0.0025
Chrysene	0.03	0.027	0.025	0.0052
C1-Chrysenes	0.044	0.039	0.037	0.0064
C2-Chrysenes	0.045	0.047	0.044	0.0057
C3-Chrysenes	0.028	0.027	0.023	0.0028
C4-Chrysenes	0.016	0.018	0.017	0.0031
Benzo[b]fluoranthene	0.02	0.018	0.016	0.0039
Benzo[k]fluoranthene	0.0009	0.00076	0.0012	0.00092
Benzo[e]pyrene	0.016	0.014	0.014	0.003
Benzo[a]pyrene	0.0055	0.0051	0.0047	0.0018
Perylene	0.016	0.016	0.014	0.071
Indeno[1,2,3,-c,d]pyrene	0.0035	0.0032	0.0029	0.0018
Dibenzo[a,h]anthracene	0.0031	0.0031	0.0027	ND
Benzo[g,h,i]perylene	0.012	0.012	0.011	0.013
Total PAH	1.8	1.7	1.7	0.31
d8-Naphthalene	89	90	82	79
d10-Acenaphthene	93	90	87	84
d10-Phenanthrene	99	95	95	81
d12-Benzo[a]pyrene	87	89	89	83

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1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-0-F1-02-00-PHC-S	98-0-F1-02-00-PHC-S	98-0-F1-03-00-PHC-S	98-0-F2-01-00-PHC-S
Lab ID	98D2118	98D2118DUP	98D2107	98D2094
SDG	SDGS002	SDGS002	SDGS001	SDGS001
File	DY0526.D	DY0527.D	DZ6175.D	DZ6162.D
Sample Type	SAMP	QC	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	25.2 g	25.4 g	24.5 g	30.8 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-83PB	BV-S-83PB	BV-S-80PB	BV-S-80PB
Field Date	7/4/1998	7/4/1998	7/3/1998	7/3/1998
Extract Date	9/14/1998	9/14/1998	9/10/1998	9/10/1998
Analysis Date	9/22/1998	9/22/1998	9/20/1998	9/19/1998
Min Reporting Limit	0.5	0.49	0.51	0.4
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.0025	0.0026	0.0036	0.0036
C1-Naphthalenes	0.0048	0.0049	0.007	0.0077
C2-Naphthalenes	0.012	0.012	0.016	0.015
C3-Naphthalenes	0.0095	0.01	0.012	0.0095
C4-Naphthalenes	0.012	0.012	0.018	0.01
Acenaphthylene	0.00025 J	0.00027 J	0.00034 J	0.00033 J
Acenaphthene	0.00085	0.0009	0.001	0.00065
Biphenyl	0.002	0.002	0.0024	0.002
Fluorene	0.0036	0.0035	0.0038	0.0016
C1-Fluorenes	0.0037	0.0035	0.004	0.0023
C2-Fluorenes	0.0058	0.0055	0.0061	0.0034
C3-Fluorenes	0.0082	0.0091	0.0098	0.004
Anthracene	0.0011	0.0014	0.0015	0.00073
Phenanthrene	0.0093	0.0094	0.011	0.0058
C1-Phenanthrenes/anthracenes	0.012	0.012	0.014	0.0084
C2-Phenanthrenes/anthracenes	0.011	0.011	0.017	0.01
C3-Phenanthrenes/anthracenes	0.0057	0.0059	0.015	0.0048
C4-Phenanthrenes/anthracenes	0.0047	0.0041	0.0063	0.004
Dibenzothiophene	0.0014	0.0014	0.0017	0.00088
C1-Dibenzothiophenes	0.0019	0.0025	0.0028	0.0011
C2-Dibenzothiophenes	0.0029	0.0027	0.003	0.0014
C3-Dibenzothiophenes	0.0019	0.0022	0.0025	0.0012
Fluoranthene	0.0074	0.007	0.0084	0.002
Pyrene	0.0093	0.0088	0.011	0.002
C1-Fluoranthenes/pyrenes	0.0093	0.0091	0.011	0.0041
C2-Fluoranthenes/pyrenes	0.0076	0.0073	0.0082	0.0045
C3-Fluoranthenes/pyrenes	0.0047	0.0047	0.0082	0.0042
Benzo[a]anthracene	0.0018	0.0017	0.0021	0.00073
Chrysene	0.0032	0.0037	0.0042	0.0018
C1-Chrysenes	0.0033	0.0034	0.006	0.0028
C2-Chrysenes	0.0038	0.0044	0.007	0.0056
C3-Chrysenes	0.0017	0.002	0.002	0.0017
C4-Chrysenes	0.0018	0.0021	0.0029	0.0041
Benzo[b]fluoranthene	0.0034	0.0032	0.004	0.0011
Benzo[k]fluoranthene	0.00046 J	0.00041 J	0.00062	0.00031 J
Benzo[e]pyrene	0.0025	0.0023	0.0033	0.001
Benzo[a]pyrene	0.0011	0.0011	0.0014	0.00063
Perylene	0.056	0.057	0.068	0.0095
Indeno[1,2,3,-c,d]pyrene	0.0014	0.0014	0.0019	0.00076
Dibenzo[a,h]anthracene	0.00049 J	0.00039 J	0.00064	ND
Benzo[g,h,i]perylene	0.01	0.0099	0.015	0.0014
Total PAH	0.25	0.25	0.32	0.15
d8-Naphthalene	80	81	86	94
d10-Acenaphthene	87	89	85	92
d10-Phenanthrene	93	93	81	87
d12-Benzo[a]pyrene	91	92	79	97

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Field ID	98-0-F4-01-00-PHC-S	98-0-F5-01-00-PHC-S	98-0-F6-01-00-PHC-S	98-0-F8-01-00-PHC-S
Lab ID	98D2143	98D2144	98D2145	98D2089
SDG	SDGS002	SDGS002	SDGS002	SDGS001
File	DY0541.D	DY0542.D	DY0543.D	DZ6156.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	30.4 g	30 g	35.5 g	35.8 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-83PB	BV-S-83PB	BV-S-83PB	BV-S-80PB
Field Date	7/2/1998	7/2/1998	7/2/1998	7/2/1998
Extract Date	9/14/1998	9/14/1998	9/14/1998	9/10/1998
Analysis Date	9/22/1998	9/22/1998	9/22/1998	9/19/1998
Min Reporting Limit	0.41	0.42	0.35	0.35
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.0033	0.0035	0.002 B	0.0032
C1-Naphthalenes	0.01	0.0062	0.004	0.0065
C2-Naphthalenes	0.021	0.0096	0.0062	0.0094
C3-Naphthalenes	0.018	0.0076	0.0046	0.0065
C4-Naphthalenes	0.01	0.0049	0.0034	0.0054
Acenaphthylene	0.000049 J	0.00012 J	0.000091 J	0.00011 J
Acenaphthene	0.0004 J	0.00027 J	0.00017 J	0.00026 J
Biphenyl	0.0029	0.0017	0.00096	0.0013
Fluorene	0.0033	0.0012	0.0007	0.00092
C1-Fluorenes	0.0064	0.0018	0.00097	0.0016
C2-Fluorenes	0.0088	0.0034	0.002	0.0027
C3-Fluorenes	0.01	0.0048	0.0027	0.0041
Anthracene	0.00051	0.0003 J	0.00017 J	0.00024 J
Phenanthrene	0.011	0.0054	0.0033	0.0039
C1-Phenanthrenes/anthracenes	0.019	0.0074	0.0044	0.0052
C2-Phenanthrenes/anthracenes	0.016	0.0073	0.0046	0.0061
C3-Phenanthrenes/anthracenes	0.0094	0.0047	0.0026	0.0038
C4-Phenanthrenes/anthracenes	0.0064	0.0033	0.0019	0.0028
Dibenzothiophene	0.0013	0.00063	0.00041	0.00049
C1-Dibenzothiophenes	0.0025	0.001	0.00057	0.00069
C2-Dibenzothiophenes	0.0026	0.0012	0.00076	0.00096
C3-Dibenzothiophenes	0.0019	0.00083	0.00038	0.00062
Fluoranthene	0.002	0.0015	0.00088	0.0012
Pyrene	0.0025	0.0016	0.00097	0.0012
C1-Fluoranthenes/pyrenes	0.0083	0.0031	0.0019	0.0022
C2-Fluoranthenes/pyrenes	0.01	0.0038	0.0022	0.0028
C3-Fluoranthenes/pyrenes	0.0075	0.0027	0.0016	0.0024
Benzo[a]anthracene	0.0011	0.00061	0.00037	0.00035
Chrysene	0.0034	0.0015	0.00086	0.001
C1-Chrysenes	0.0052	0.0018	0.0011	0.0016
C2-Chrysenes	0.0056	0.0022	0.0013	0.0021
C3-Chrysenes	0.0038	0.00097	0.00059	0.00071
C4-Chrysenes	0.0024	0.0009	0.00075	0.00077
Benzo[b]fluoranthene	0.0023	0.0012	0.00067	0.00081
Benzo[k]fluoranthene	0.00015 J	0.00014 J	0.000088 J	0.00015 J
Benzo[e]pyrene	0.002	0.00097	0.00055	0.00077
Benzo[a]pyrene	0.00064	0.00039 J	0.00022 J	0.00031 J
Perylene	0.0025	0.0079	0.0048	0.0068
Indeno[1,2,3,-c,d]pyrene	0.00042	0.00037 J	0.00018 J	0.00032 J
Dibenzo[a,h]anthracene	0.00036 J	0.00018 J	0.00015 J	ND
Benzo[g,h,i]perylene	0.0013	0.00086	0.00043	0.00091
Total PAH	0.23	0.11	0.066	0.093
d8-Naphthalene	80	89	87	79
d10-Acenaphthene	88	94	90	79
d10-Phenanthrene	97	99	97	97
d12-Benzo[a]pyrene	91	89	88	84

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Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-0-F13-01-00-PHC-S	98-0-F14-01-00-PHC-S	98-1-F1-01-00-PHC-S	98-1-F1-02-00-PHC-S
Lab ID	98D2093	98D2092	98D2153	98D2154
SDG	SDGS001	SDGS001	SDGS004	SDGS004
File	DZ6161.D	DZ6160.D	DY0634.D	DY0636.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	29.3 g	21.3 g	27.6 g	28.4 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-80PB	BV-S-80PB	BV-S-97PB	BV-S-97PB
Field Date	7/3/1998	7/3/1998	7/2/1998	7/2/1998
Extract Date	9/10/1998	9/10/1998	9/25/1998	9/25/1998
Analysis Date	9/19/1998	9/19/1998	10/6/1998	10/6/1998
Min Reporting Limit	0.43	0.59	0.45	0.44
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.0042	0.0055	0.007	0.0067
C1-Naphthalenes	0.0091	0.014	0.021	0.021
C2-Naphthalenes	0.02	0.033	0.046	0.044
C3-Naphthalenes	0.014	0.031	0.04	0.047
C4-Naphthalenes	0.012	0.019	0.031	0.03
Acenaphthylene	0.00021 J	0.00035 J	0.00019 J	0.00021 J
Acenaphthene	0.0005	0.001	0.0008	0.00083
Biphenyl	0.0029	0.0044	0.0052	0.0051
Fluorene	0.0027	0.0061	0.0058	0.0056
C1-Fluorenes	0.0038	0.0086	0.012	0.011
C2-Fluorenes	0.0061	0.012	0.017	0.016
C3-Fluorenes	0.0077	0.014	0.019	0.018
Anthracene	0.00098	0.0018	0.00096	0.00094
Phenanthrene	0.0095	0.016	0.021	0.02
C1-Phenanthrenes/anthracenes	0.015	0.025	0.037	0.035
C2-Phenanthrenes/anthracenes	0.015	0.025	0.034	0.033
C3-Phenanthrenes/anthracenes	0.01	0.011	0.023	0.02
C4-Phenanthrenes/anthracenes	0.0067	0.0095	0.012	0.012
Dibenzothiophene	0.0013	0.0023	0.0024	0.0022
C1-Dibenzothiophenes	0.0021	0.0034	0.0043	0.0042
C2-Dibenzothiophenes	0.0026	0.0046	0.005	0.0047
C3-Dibenzothiophenes	0.0021	0.0032	0.0031	0.0031
Fluoranthene	0.004	0.0076	0.0039	0.0038
Pyrene	0.0048	0.0095	0.0047	0.0045
C1-Fluoranthenes/pyrenes	0.0076	0.014	0.016	0.015
C2-Fluoranthenes/pyrenes	0.0082	0.013	0.019	0.019
C3-Fluoranthenes/pyrenes	0.007	0.012	0.015	0.015
Benzo[a]anthracene	0.0015	0.0025	0.0021	0.002
Chrysene	0.003	0.006	0.0058	0.0051
C1-Chrysenes	0.0047	0.0079	0.0086	0.0081
C2-Chrysenes	0.0058	0.0092	0.0096	0.0093
C3-Chrysenes	0.0044	0.0057	0.0076	0.0067
C4-Chrysenes	0.0048	0.0038	0.0044	0.0038
Benzo[b]fluoranthene	0.0022	0.0052	0.004	0.0037
Benzo[k]fluoranthene	0.00035 J	0.00085	0.00052	0.00042 J
Benzo[e]pyrene	0.002	0.0042	0.0034	0.0032
Benzo[a]pyrene	0.00098	0.0019	0.0012	0.0012
Perylene	0.026	0.05	0.0081	0.0087
Indeno[1,2,3,-c,d]pyrene	0.0011	0.0022	0.00095	0.00085
Dibenzo[a,h]anthracene	0.00032 J	ND	0.00081	0.00077
Benzo[g,h,i]perylene	0.0059	0.013	0.0032	0.0031
Total PAH	0.24	0.42	0.47	0.45
d8-Naphthalene	87	87	72	72
d10-Acenaphthene	86	90	76	74
d10-Phenanthrene	84	102	79	79
d12-Benzo[a]pyrene	88	93	76	80

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Field ID	98-1-F1-03-00-PHC-S	98-1-F2-01-00-PHC-S	98-1-16-01-00-PHC-S	98-1-17-01-00-PHC-S
Lab ID	98D2152	98D2121	98D2149	98D2147
SDG	SDGS004	SDGS002	SDGS002	SDGS002
File	DY0633.D	DY0530.D	DY0548.D	DY0545.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	28 g	20 g	24.7 g	29.7 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-97PB	BV-S-83PB	BV-S-83PB	BV-S-83PB
Field Date	7/2/1998	6/28/1998	7/2/1998	7/2/1998
Extract Date	9/25/1998	9/14/1998	9/14/1998	9/14/1998
Analysis Date	10/6/1998	9/22/1998	9/23/1998	9/23/1998
Min Reporting Limit	0.45	0.62	0.51	0.42
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.0063	0.0091	0.0065	0.0042
C1-Naphthalenes	0.019	0.031	0.018	0.013
C2-Naphthalenes	0.042	0.066	0.038	0.027
C3-Naphthalenes	0.038	0.058	0.032	0.023
C4-Naphthalenes	0.03	0.034	0.017	0.013
Acenaphthylene	0.00019 J	0.00015 J	0.00008 J	0.000057 J
Acenaphthene	0.00072	0.0014	0.00072	0.00064
Biphenyl	0.0048	0.0089	0.0052	0.0039
Fluorene	0.0054	0.01	0.006	0.0042
C1-Fluorenes	0.011	0.02	0.012	0.009
C2-Fluorenes	0.016	0.027	0.016	0.012
C3-Fluorenes	0.016	0.03	0.017	0.013
Anthracene	0.00083	0.0018	0.00073	0.00084
Phenanthrene	0.019	0.034	0.02	0.015
C1-Phenanthrenes/anthracenes	0.034	0.063	0.034	0.028
C2-Phenanthrenes/anthracenes	0.031	0.051	0.028	0.024
C3-Phenanthrenes/anthracenes	0.018	0.029	0.017	0.014
C4-Phenanthrenes/anthracenes	0.009	0.02	0.01	0.0085
Dibenzothiophene	0.0023	0.004	0.0023	0.0021
C1-Dibenzothiophenes	0.0036	0.0072	0.0042	0.0034
C2-Dibenzothiophenes	0.0044	0.0084	0.0045	0.0038
C3-Dibenzothiophenes	0.0027	0.0055	0.003	0.0028
Fluoranthene	0.0035	0.0061	0.0036	0.0028
Pyrene	0.0044	0.0078	0.0044	0.0034
C1-Fluoranthenes/pyrenes	0.014	0.028	0.014	0.012
C2-Fluoranthenes/pyrenes	0.018	0.034	0.018	0.014
C3-Fluoranthenes/pyrenes	0.014	0.028	0.013	0.012
Benzo[a]anthracene	0.0017	0.0037	0.0018	0.0016
Chrysene	0.0048	0.013	0.006	0.0049
C1-Chrysenes	0.0075	0.018	0.0092	0.0075
C2-Chrysenes	0.0088	0.02	0.01	0.0089
C3-Chrysenes	0.0061	0.013	0.0061	0.0042
C4-Chrysenes	0.004	0.008	0.0034	0.0037
Benzo[b]fluoranthene	0.0035	0.008	0.006	0.0031
Benzo[k]fluoranthene	0.00033 J	0.00057 J	0.00042 J	0.0002 J
Benzo[e]pyrene	0.0031	0.0064	0.0049	0.0024
Benzo[a]pyrene	0.0011	0.0023	0.0012	0.00091
Perylene	0.0077	0.0091	0.0077	0.0036
Indeno[1,2,3,-c,d]pyrene	0.00083	0.0016	0.0012	0.00058
Dibenzo[a,h]anthracene	0.00081	0.0013	0.00094	0.00052
Benzo[g,h,i]perylene	0.0032	0.0052	0.0035	0.0019
Total PAH	0.42	0.73	0.41	0.31
d8-Naphthalene	73	84	76	83
d10-Acenaphthene	78	86	91	94
d10-Phenanthrene	81	94	101	99
d12-Benzo[a]pyrene	81	92	63	101

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-1-19-01-00-PHC-S	98-1-21-01-00-PHC-S	98-1-22-01-00-PHC-S	98-1-23-01-00-PHC-S
Lab ID	98D2148	98D2151	98D2146	98D2150
SDG	SDGS002	SDGS004	SDGS002	SDGS004
File	DY0547.D	DY0632.D	DY0544.D	DY0630.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	29.3 g	35.1 g	32.7 g	30.4 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-83PB	BV-S-97PB	BV-S-83PB	BV-S-97PB
Field Date	7/2/1998	7/2/1998	7/2/1998	7/2/1998
Extract Date	9/14/1998	9/25/1998	9/14/1998	9/25/1998
Analysis Date	9/23/1998	10/6/1998	9/22/1998	10/6/1998
Min Reporting Limit	0.43	0.36	0.38	0.41
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.0034	0.0035	0.0034	0.0045
C1-Naphthalenes	0.0063	0.01	0.0087	0.0093
C2-Naphthalenes	0.011	0.023	0.017	0.016
C3-Naphthalenes	0.0076	0.021	0.014	0.013
C4-Naphthalenes	0.0063	0.017	0.0094	0.012
Acenaphthylene	0.0001 J	0.00016 J	0.000066 J	0.00015 J
Acenaphthene	0.00025 J	0.00042	0.00032 J	0.00037 J
Biphenyl	0.0017	0.0028	0.0025	0.0023
Fluorene	0.0013	0.0032	0.0023	0.0017
C1-Fluorenes	0.002	0.0063	0.0044	0.0031
C2-Fluorenes	0.0037	0.009	0.0064	0.005
C3-Fluorenes	0.0048	0.01	0.0076	0.0075
Anthracene	0.00032 J	0.00055	0.00038	0.00041
Phenanthrene	0.0058	0.011	0.0088	0.008
C1-Phenanthrenes/anthracenes	0.0083	0.02	0.015	0.011
C2-Phenanthrenes/anthracenes	0.0078	0.019	0.013	0.012
C3-Phenanthrenes/anthracenes	0.0049	0.011	0.0077	0.0079
C4-Phenanthrenes/anthracenes	0.0033	0.007	0.0056	0.0042
Dibenzothiophene	0.00076	0.0013	0.001	0.00096
C1-Dibenzothiophenes	0.00099	0.0023	0.002	0.0013
C2-Dibenzothiophenes	0.0014	0.0026	0.0019	0.0019
C3-Dibenzothiophenes	0.00091	0.0019	0.0017	0.00094
Fluoranthene	0.0016	0.0024	0.0016	0.0022
Pyrene	0.0017	0.0029	0.0019	0.0024
C1-Fluoranthenes/pyrenes	0.0034	0.0089	0.0065	0.005
C2-Fluoranthenes/pyrenes	0.0042	0.011	0.0084	0.0058
C3-Fluoranthenes/pyrenes	0.003	0.0081	0.0068	0.0049
Benzo[a]anthracene	0.00069	0.0013	0.00081	0.00086
Chrysene	0.0017	0.0032	0.0026	0.0022
C1-Chrysenes	0.002	0.0049	0.004	0.0027
C2-Chrysenes	0.0026	0.0052	0.005	0.0032
C3-Chrysenes	0.00099	0.004	0.0029	0.002
C4-Chrysenes	0.0014	0.0025	0.0021	0.0019
Benzo[b]fluoranthene	0.0014	0.0023	0.0018	0.0018
Benzo[k]fluoranthene	0.00016 J	0.00031 J	0.00012 J	0.00024 J
Benzo[e]pyrene	0.0011	0.002	0.0016	0.0014
Benzo[a]pyrene	0.00045	0.00076	0.00056	0.00058
Perylene	0.0069	0.013	0.0041	0.01
Indeno[1,2,3,-c,d]pyrene	0.00031 J	0.0005	0.0004	0.00046
Dibenzo[a,h]anthracene	0.00023 J	0.0004	0.00034 J	0.00026 J
Benzo[g,h,i]perylene	0.0012	0.0018	0.0013	0.002
Total PAH	0.12	0.26	0.19	0.17
d8-Naphthalene	87	67	91	74
d10-Acenaphthene	95	70	97	78
d10-Phenanthrene	101	74	104	81
d12-Benzo[a]pyrene	88	77	91	82

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-1-23-01-00-PHC-S	98-2-F1-01-00-PHC-S	98-2-F2-01-00-PHC-S	98-2-F2-02-00-PHC-S
Lab ID	98D2150DUP	98D2102	98D2101	98D2098
SDG	SDGS004	SDGS001	SDGS001	SDGS001
File	DY0631.D	DZ6169.D	DZ6168.D	DZ6166.D
Sample Type	QC	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	30.3 g	22.6 g	19.4 g	19.6 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-97PB	BV-S-80PB	BV-S-80PB	BV-S-80PB
Field Date	7/2/1998	7/1/1998	7/1/1998	7/1/1998
Extract Date	9/25/1998	9/10/1998	9/10/1998	9/10/1998
Analysis Date	10/6/1998	9/19/1998	9/19/1998	9/19/1998
Min Reporting Limit	0.41	0.55	0.64	0.64
Units	ug/g	ug/g	ug/g	ug/g

PAH				
Naphthalene	0.0048	0.0082	0.01	0.011
C1-Naphthalenes	0.0092	0.021	0.032	0.035
C2-Naphthalenes	0.016	0.039	0.061	0.069
C3-Naphthalenes	0.013	0.038	0.059	0.066
C4-Naphthalenes	0.013	0.021	0.03	0.037
Acenaphthylene	0.00017 J	0.0002 J	0.00023 J	0.00023 J
Acenaphthene	0.00028 J	0.00094	0.0012	0.0014
Biphenyl	0.0022	0.0057	0.0085	0.0094
Fluorene	0.0018	0.0054	0.0085	0.0096
C1-Fluorenes	0.0033	0.0097	0.015	0.018
C2-Fluorenes	0.0046	0.013	0.022	0.025
C3-Fluorenes	0.0083	0.014	0.021	0.025
Anthracene	0.00037 J	0.0012	0.0014	0.0018
Phenanthrene	0.0081	0.021	0.026	0.037
C1-Phenanthrenes/anthracenes	0.011	0.033	0.044	0.059
C2-Phenanthrenes/anthracenes	0.012	0.031	0.041	0.056
C3-Phenanthrenes/anthracenes	0.0072	0.018	0.023	0.031
C4-Phenanthrenes/anthracenes	0.0045	0.013	0.014	0.018
Dibenzothiophene	0.001	0.0026	0.0034	0.0043
C1-Dibenzothiophenes	0.0014	0.0044	0.0058	0.0076
C2-Dibenzothiophenes	0.0019	0.0051	0.0064	0.0083
C3-Dibenzothiophenes	0.0012	0.0031	0.0045	0.0053
Fluoranthene	0.0021	0.0046	0.0054	0.0071
Pyrene	0.0025	0.0052	0.0062	0.0082
C1-Fluoranthenes/pyrenes	0.0052	0.014	0.019	0.024
C2-Fluoranthenes/pyrenes	0.0059	0.016	0.023	0.029
C3-Fluoranthenes/pyrenes	0.0048	0.014	0.018	0.025
Benzo[a]anthracene	0.00098	0.002	0.0026	0.0035
Chrysene	0.0021	0.0057	0.0084	0.01
C1-Chrysenes	0.0028	0.009	0.013	0.018
C2-Chrysenes	0.0032	0.011	0.014	0.02
C3-Chrysenes	0.0023	0.0053	0.0079	0.013
C4-Chrysenes	0.0018	0.0083	0.01	0.011
Benzo[b]fluoranthene	0.0018	0.0036	0.0052	0.0062
Benzo[k]fluoranthene	0.00027 J	0.00033 J	0.00074	0.00089
Benzo[e]pyrene	0.0015	0.0033	0.0049	0.0059
Benzo[a]pyrene	0.00062	0.0013	0.0018	0.0022
Perylene	0.01	0.013	0.013	0.014
Indeno[1,2,3,-c,d]pyrene	0.00049	0.00099	0.0012	0.0016
Dibenzo[a,h]anthracene	0.00032 J	0.00061	0.00092	0.0012
Benzo[g,h,i]perylene	0.002	0.004	0.0047	0.0053

Total PAH	0.18	0.43	0.6	0.74
d8-Naphthalene	69	83	89	82
d10-Acenaphthene	76	84	86	83
d10-Phenanthrene	79	85	98	84
d12-Benzo[a]pyrene	78	87	89	86

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-2-F2-03-00-PHC-S	98-2-F3-01-00-PHC-S	98-2-F3-02-00-PHC-S	98-2-F3-03-00-PHC-S
Lab ID	98D2096	98D2249	98D2194	98D2257
SDG	SDGS001	SDGS006	SDGS004	SDGS006
File	DZ6164.D	DY0706.D	DY0650.D	DY0715.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	18.8 g	20.8 g	19.1 g	19.7 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-80PB	BW-S-41PB	BV-S-97PB	BW-S-41PB
Field Date	7/1/1998	6/30/1998	6/30/1998	6/30/1998
Extract Date	9/10/1998	10/6/1998	9/25/1998	10/6/1998
Analysis Date	9/19/1998	10/18/1998	10/7/1998	10/18/1998
Min Reporting Limit	0.66	0.6	0.65	0.63
Units	ug/g	ug/g	ug/g	ug/g

PAH				
Naphthalene	0.012	0.0069	0.0091	0.007
C1-Naphthalenes	0.036	0.023	0.023	0.022
C2-Naphthalenes	0.068	0.05	0.05	0.052
C3-Naphthalenes	0.066	0.037	0.045	0.037
C4-Naphthalenes	0.036	0.031	0.034	0.031
Acenaphthylene	0.00033 J	0.00048 J	0.00081	0.00044 J
Acenaphthene	0.0015	0.001	0.0011	0.0011
Biphenyl	0.0099	0.006	0.0067	0.0063
Fluorene	0.0099	0.0067	0.0073	0.0069
C1-Fluorenes	0.018	0.013	0.014	0.014
C2-Fluorenes	0.024	0.016	0.019	0.015
C3-Fluorenes	0.024	0.018	0.019	0.018
Anthracene	0.0022	0.0018	0.0028	0.002
Phenanthrene	0.036	0.024	0.03	0.024
C1-Phenanthrenes/anthracenes	0.057	0.035	0.046	0.036
C2-Phenanthrenes/anthracenes	0.051	0.034	0.042	0.036
C3-Phenanthrenes/anthracenes	0.03	0.023	0.024	0.026
C4-Phenanthrenes/anthracenes	0.021	0.012	0.014	0.012
Dibenzothiophene	0.0043	0.0033	0.0032	0.0035
C1-Dibenzothiophenes	0.0073	0.0053	0.0053	0.0054
C2-Dibenzothiophenes	0.0082	0.0062	0.0063	0.0063
C3-Dibenzothiophenes	0.0055	0.0044	0.0062	0.0048
Fluoranthene	0.007	0.0058	0.011	0.0051
Pyrene	0.008	0.0044	0.013	0.0049
C1-Fluoranthenes/pyrenes	0.023	0.019	0.02	0.019
C2-Fluoranthenes/pyrenes	0.027	0.019	0.02	0.018
C3-Fluoranthenes/pyrenes	0.023	0.015	0.017	0.015
Benzo[a]anthracene	0.0028	0.0037	0.0052	0.004
Chrysene	0.0099	0.0078	0.0085	0.0084
C1-Chrysenes	0.016	0.0098	0.009	0.01
C2-Chrysenes	0.018	0.0078	0.01	0.0077
C3-Chrysenes	0.011	0.0058	0.0076	0.0051
C4-Chrysenes	0.012	0.0044	0.013	0.0049
Benzo[b]fluoranthene	0.0054	0.006	0.0066	0.0067
Benzo[k]fluoranthene	0.00072	0.00093	0.0012	0.00099
Benzo[e]pyrene	0.005	0.0046	0.0049	0.0048
Benzo[a]pyrene	0.0017	0.0022	0.0032	0.0025
Perylene	0.013	0.018	0.013	0.022
Indeno[1,2,3,-c,d]pyrene	0.0013	0.0018	0.002	0.0018
Dibenzo[a,h]anthracene	0.001	0.00087	0.00084	0.0009
Benzo[g,h,i]perylene	0.0046	0.0044	0.0039	0.0042

Total PAH	0.72	0.5	0.58	0.51
d8-Naphthalene	87	70	76	59
d10-Acenaphthene	85	66	79	60
d10-Phenanthrene	86	67	79	62
d12-Benzo[a]pyrene	91	69	75	59



**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-2-F4-01-00-PHC-S	98-2-F4-02-00-PHC-S	98-2-F4-03-00-PHC-S	98-2-16-01-00-PHC-S
Lab ID	98D2235	98D2234	98D2106	98D2104
SDG	SDGS004	SDGS004	SDGS001	SDGS001
File	DY0652.D	DY0651.D	DZ6174.D	DZ6171.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	20.5 g	20 g	18.6 g	21.3 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-97PB	BV-S-97PB	BV-S-80PB	BV-S-80PB
Field Date	7/1/1998	7/1/1998	7/1/1998	7/1/1998
Extract Date	9/25/1998	9/25/1998	9/10/1998	9/10/1998
Analysis Date	10/7/1998	10/7/1998	9/20/1998	9/20/1998
Min Reporting Limit	0.61	0.62	0.67	0.59
Units	ug/g	ug/g	ug/g	ug/g

**PAH**

Naphthalene	0.0061	0.0066	0.0068	0.0096
C1-Naphthalenes	0.016	0.017	0.016	0.027
C2-Naphthalenes	0.037	0.042	0.037	0.05
C3-Naphthalenes	0.033	0.035	0.026	0.041
C4-Naphthalenes	0.025	0.027	0.017	0.027
Acenaphthylene	0.00047 J	0.00037 J	0.00035 J	0.00015 J
Acenaphthene	0.00085	0.0009	0.00082	0.0011
Biphenyl	0.0047	0.0051	0.0047	0.0069
Fluorene	0.0057	0.0063	0.0052	0.007
C1-Fluorenes	0.01	0.011	0.009	0.013
C2-Fluorenes	0.014	0.015	0.012	0.018
C3-Fluorenes	0.015	0.018	0.013	0.019
Anthracene	0.002	0.002	0.0016	0.0012
Phenanthrene	0.02	0.02	0.019	0.022
C1-Phenanthrenes/anthracenes	0.033	0.035	0.029	0.037
C2-Phenanthrenes/anthracenes	0.031	0.033	0.028	0.036
C3-Phenanthrenes/anthracenes	0.017	0.019	0.014	0.019
C4-Phenanthrenes/anthracenes	0.01	0.01	0.01	0.013
Dibenzothiophene	0.0025	0.0026	0.0023	0.0027
C1-Dibenzothiophenes	0.0039	0.004	0.0044	0.0051
C2-Dibenzothiophenes	0.0047	0.0052	0.0046	0.0052
C3-Dibenzothiophenes	0.0033	0.0035	0.003	0.0034
Fluoranthene	0.007	0.0071	0.0056	0.0044
Pyrene	0.007	0.0068	0.0052	0.005
C1-Fluoranthenes/pyrenes	0.015	0.015	0.013	0.015
C2-Fluoranthenes/pyrenes	0.016	0.016	0.015	0.019
C3-Fluoranthenes/pyrenes	0.012	0.013	0.014	0.016
Benzo[a]anthracene	0.0035	0.0031	0.0026	0.0021
Chrysene	0.0063	0.0067	0.006	0.0065
C1-Chrysenes	0.0079	0.0081	0.009	0.011
C2-Chrysenes	0.008	0.0085	0.011	0.014
C3-Chrysenes	0.0057	0.0064	0.0055	0.0068
C4-Chrysenes	0.0056	0.0054	0.0043	0.0047
Benzo[b]fluoranthene	0.0053	0.0054	0.0039	0.0045
Benzo[k]fluoranthene	0.00091	0.00082	0.00058 J	0.00034 J
Benzo[e]pyrene	0.0038	0.0039	0.0033	0.0041
Benzo[a]pyrene	0.0019	0.0019	0.0016	0.0014
Perylene	0.012	0.012	0.01	0.011
Indeno[1,2,3,-c,d]pyrene	0.0012	0.001	0.001	0.0012
Dibenzo[a,h]anthracene	0.00072	0.00069	0.00054 J	0.00083
Benzo[g,h,i]perylene	0.0039	0.0048	0.0039	0.0045

Total PAH	0.42	0.45	0.38	0.5
d8-Naphthalene	77	66	82	84
d10-Acenaphthene	80	74	87	82
d10-Phenanthrene	79	76	87	94
d12-Benzo[a]pyrene	75	75	90	84

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-2-17-01-00-PHC-S	98-2-19-01-00-PHC-S	98-2-20-01-00-PHC-S	98-2-21-01-00-PHC-S
Lab ID	98D2095	98D2097	98D2099	98D2105
SDG	SDGS001	SDGS001	SDGS001	SDGS001
File	DZ6163.D	DZ6165.D	DZ6167.D	DZ6173.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	21 g	25.1 g	23.1 g	20.2 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-80PB	BV-S-80PB	BV-S-80PB	BV-S-80PB
Field Date	7/1/1998	7/1/1998	7/1/1998	7/1/1998
Extract Date	9/10/1998	9/10/1998	9/10/1998	9/10/1998
Analysis Date	9/19/1998	9/19/1998	9/19/1998	9/20/1998
Min Reporting Limit	0.6	0.5	0.54	0.62
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.011	0.0066	0.0084	0.011
C1-Naphthalenes	0.032	0.015	0.023	0.031
C2-Naphthalenes	0.064	0.026	0.042	0.058
C3-Naphthalenes	0.061	0.025	0.041	0.048
C4-Naphthalenes	0.033	0.013	0.022	0.032
Acenaphthylene	0.00046 J	0.00018 J	0.00018 J	0.00024 J
Acenaphthene	0.0015	0.00063	0.00092	0.0012
Biphenyl	0.0089	0.0038	0.0058	0.0081
Fluorene	0.0088	0.0034	0.0056	0.0083
C1-Fluorenes	0.016	0.0059	0.01	0.015
C2-Fluorenes	0.022	0.009	0.015	0.022
C3-Fluorenes	0.022	0.01	0.015	0.021
Anthracene	0.0018	0.00074	0.0011	0.0015
Phenanthrene	0.034	0.014	0.022	0.026
C1-Phenanthrenes/anthracenes	0.054	0.02	0.035	0.044
C2-Phenanthrenes/anthracenes	0.052	0.02	0.033	0.04
C3-Phenanthrenes/anthracenes	0.029	0.012	0.019	0.023
C4-Phenanthrenes/anthracenes	0.019	0.0075	0.014	0.016
Dibenzothiophene	0.0041	0.0017	0.0026	0.0032
C1-Dibenzothiophenes	0.007	0.0028	0.0046	0.0059
C2-Dibenzothiophenes	0.0079	0.0031	0.0052	0.0064
C3-Dibenzothiophenes	0.0053	0.0021	0.0029	0.0044
Fluoranthene	0.0065	0.0032	0.0043	0.0054
Pyrene	0.0076	0.0037	0.005	0.0063
C1-Fluoranthenes/pyrenes	0.023	0.009	0.015	0.019
C2-Fluoranthenes/pyrenes	0.026	0.01	0.018	0.024
C3-Fluoranthenes/pyrenes	0.022	0.0092	0.014	0.019
Benzo[a]anthracene	0.0034	0.0013	0.0022	0.0026
Chrysene	0.0096	0.0041	0.0069	0.0082
C1-Chrysenes	0.016	0.0062	0.011	0.013
C2-Chrysenes	0.019	0.0075	0.012	0.016
C3-Chrysenes	0.01	0.0043	0.0078	0.0072
C4-Chrysenes	0.0096	0.0056	0.011	0.0077
Benzo[b]fluoranthene	0.0054	0.0025	0.0037	0.0058
Benzo[k]fluoranthene	0.00069	0.00035 J	0.00048 J	0.00044 J
Benzo[e]pyrene	0.0052	0.0024	0.0035	0.0052
Benzo[a]pyrene	0.002	0.0009	0.0013	0.002
Perylene	0.013	0.01	0.0099	0.015
Indeno[1,2,3,-c,d]pyrene	0.0015	0.00072	0.00097	0.0013
Dibenzo[a,h]anthracene	0.001	0.00043 J	0.00071	0.00096
Benzo[g,h,i]perylene	0.0053	0.0027	0.0032	0.0048
Total PAH	0.68	0.29	0.46	0.59
d8-Naphthalene	88	86	86	79
d10-Acenaphthene	86	86	85	81
d10-Phenanthrene	85	86	83	92
d12-Benzo[a]pyrene	90	90	88	82

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-2-23-01-00-PHC-S	98-3-F1-01-00-PHC-S	98-3-F1-01-00-PHC-S	98-3-F2-01-00-PHC-S
Lab ID	98D2103	98D2247	98D2247DUP	98D2248
SDG	SDGS001	SDGS006	SDGS006	SDGS006
File	DZ6170.D	DY0703.D	DY0704.D	DY0705.D
Sample Type	SAMP	SAMP	QC	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	22.8 g	22.3 g	22.3 g	23.5 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-80PB	BW-S-41PB	BW-S-41PB	BW-S-41PB
Field Date	7/1/1998	6/30/1998	6/30/1998	6/30/1998
Extract Date	9/10/1998	10/6/1998	10/6/1998	10/6/1998
Analysis Date	9/20/1998	10/18/1998	10/18/1998	10/18/1998
Min Reporting Limit	0.55	0.56	0.56	0.53
Units	ug/g	ug/g	ug/g	ug/g

PAH				
Naphthalene	0.01	0.009	0.0089	0.0088
C1-Naphthalenes	0.028	0.027	0.028	0.026
C2-Naphthalenes	0.054	0.054	0.054	0.053
C3-Naphthalenes	0.044	0.04	0.04	0.039
C4-Naphthalenes	0.03	0.035	0.035	0.033
Acenaphthylene	0.00026 J	0.0003 J	0.00028 J	0.0002 J
Acenaphthene	0.0012	0.0011	0.0012	0.0011
Biphenyl	0.0074	0.0069	0.0068	0.0072
Fluorene	0.0075	0.0068	0.0067	0.0064
C1-Fluorenes	0.014	0.013	0.014	0.013
C2-Fluorenes	0.02	0.017	0.017	0.016
C3-Fluorenes	0.022	0.019	0.021	0.02
Anthracene	0.0016	0.0011	0.0012	0.00096
Phenanthrene	0.024	0.024	0.024	0.022
C1-Phenanthrenes/anthracenes	0.039	0.035	0.035	0.032
C2-Phenanthrenes/anthracenes	0.038	0.034	0.033	0.032
C3-Phenanthrenes/anthracenes	0.022	0.026	0.027	0.022
C4-Phenanthrenes/anthracenes	0.015	0.012	0.011	0.01
Dibenzothiophene	0.003	0.0033	0.0029	0.003
C1-Dibenzothiophenes	0.0052	0.005	0.0052	0.0048
C2-Dibenzothiophenes	0.006	0.0059	0.006	0.0054
C3-Dibenzothiophenes	0.0038	0.0042	0.0046	0.0029
Fluoranthene	0.0053	0.0055	0.0058	0.0048
Pyrene	0.0061	0.0048	0.0042	0.0057
C1-Fluoranthenes/pyrenes	0.017	0.017	0.017	0.015
C2-Fluoranthenes/pyrenes	0.021	0.018	0.017	0.016
C3-Fluoranthenes/pyrenes	0.017	0.015	0.014	0.013
Benzo[a]anthracene	0.0024	0.0022	0.0021	0.0017
Chrysene	0.0072	0.0065	0.0064	0.0053
C1-Chrysenes	0.012	0.0082	0.0087	0.0067
C2-Chrysenes	0.015	0.0074	0.0073	0.0063
C3-Chrysenes	0.0069	0.0055	0.0058	0.0048
C4-Chrysenes	0.011	0.0048	0.0042	0.0057
Benzo[b]fluoranthene	0.0057	0.0041	0.0043	0.0033
Benzo[k]fluoranthene	0.00039 J	0.00057	0.00038 J	0.00031 J
Benzo[e]pyrene	0.005	0.0036	0.0037	0.003
Benzo[a]pyrene	0.0018	0.0013	0.0014	0.0011
Perylene	0.018	0.018	0.018	0.013
Indeno[1,2,3,-c,d]pyrene	0.0015	0.0012	0.0012	0.001
Dibenzo[a,h]anthracene	0.00091	0.0008	0.00083	0.0006
Benzo[g,h,i]perylene	0.0053	0.0035	0.0038	0.0028

Total PAH	0.56	0.51	0.51	0.47
d8-Naphthalene	82	60	65	63
d10-Acenaphthene	84	60	63	61
d10-Phenanthrene	97	63	68	68
d12-Benzo[a]pyrene	79	64	69	68

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-3-F2-02-00-PHC-S	98-3-F2-03-00-PHC-S	98-3-7-01-00-PHC-S	98-3-11-01-00-PHC-S
Lab ID	98D2251	98D2254	98D2119	98D2124
SDG	SDGS006	SDGS006	SDGS002	SDGS002
File	DY0709.D	DY0712.D	DY0528.D	DY0534.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	22.8 g	22.9 g	19.2 g	20 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BW-S-41PB	BW-S-41PB	BV-S-83PB	BV-S-83PB
Field Date	6/30/1998	6/30/1998	6/28/1998	6/29/1998
Extract Date	10/6/1998	10/6/1998	9/14/1998	9/14/1998
Analysis Date	10/18/1998	10/18/1998	9/22/1998	9/22/1998
Min Reporting Limit	0.55	0.55	0.65	0.62
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.014	0.0095	0.0096	0.0087
C1-Naphthalenes	0.028	0.029	0.027	0.025
C2-Naphthalenes	0.057	0.057	0.049	0.048
C3-Naphthalenes	0.041	0.041	0.041	0.04
C4-Naphthalenes	0.031	0.034	0.026	0.024
Acenaphthylene	0.00022 J	0.00021 J	0.00012 J	0.00014 J
Acenaphthene	0.0011	0.0011	0.0011	0.0011
Biphenyl	0.0068	0.0076	0.008	0.0073
Fluorene	0.0067	0.0067	0.0077	0.0071
C1-Fluorenes	0.014	0.013	0.014	0.013
C2-Fluorenes	0.016	0.015	0.022	0.019
C3-Fluorenes	0.019	0.018	0.023	0.021
Anthracene	0.0014	0.001	0.0011	0.0014
Phenanthrene	0.026	0.024	0.027	0.024
C1-Phenanthrenes/anthracenes	0.036	0.033	0.045	0.04
C2-Phenanthrenes/anthracenes	0.035	0.031	0.035	0.034
C3-Phenanthrenes/anthracenes	0.025	0.022	0.022	0.02
C4-Phenanthrenes/anthracenes	0.013	0.01	0.015	0.015
Dibenzothiophene	0.0035	0.0032	0.003	0.003
C1-Dibenzothiophenes	0.0054	0.0051	0.0054	0.0051
C2-Dibenzothiophenes	0.0064	0.0053	0.0053	0.0053
C3-Dibenzothiophenes	0.0055	0.0046	0.0034	0.0033
Fluoranthene	0.0062	0.0039	0.0051	0.0054
Pyrene	0.0052	0.0036	0.0058	0.0058
C1-Fluoranthenes/pyrenes	0.018	0.015	0.019	0.016
C2-Fluoranthenes/pyrenes	0.017	0.014	0.024	0.022
C3-Fluoranthenes/pyrenes	0.015	0.012	0.019	0.015
Benzo[a]anthracene	0.0026	0.0019	0.0027	0.0022
Chrysene	0.0071	0.005	0.0089	0.0074
C1-Chrysenes	0.011	0.0072	0.011	0.01
C2-Chrysenes	0.0088	0.006	0.013	0.012
C3-Chrysenes	0.0062	0.0039	0.008	0.0074
C4-Chrysenes	0.0052	0.0036	0.0074	0.005
Benzo[b]fluoranthene	0.0054	0.0035	0.0057	0.0052
Benzo[k]fluoranthene	0.00057	0.00044 J	0.00035 J	0.00038 J
Benzo[e]pyrene	0.0046	0.0031	0.0047	0.0043
Benzo[a]pyrene	0.0016	0.0011	0.0016	0.0015
Perylene	0.019	0.014	0.02	0.021
Indeno[1,2,3,-c,d]pyrene	0.0014	0.00096	0.0012	0.0011
Dibenzo[a,h]anthracene	0.0011	0.0007	0.00084	0.00084
Benzo[g,h,i]perylene	0.0041	0.0024	0.0039	0.0036
Total PAH	0.53	0.47	0.55	0.51
d8-Naphthalene	69	71	73	83
d10-Acenaphthene	63	66	82	85
d10-Phenanthrene	63	69	92	94
d12-Benzo[a]pyrene	63	65	92	89

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-3-14-01-00-PHC-S	98-3-16-01-00-PHC-S	98-3-17-01-00-PHC-S	98-3-18-01-00-PHC-S
Lab ID	98D2127	98D2129	98D2130	98D2246
SDG	SDGS002	SDGS002	SDGS002	SDGS006
File	DY0537.D	DY0539.D	DY0540.D	DY0702.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	20.4 g	21.1 g	23.2 g	21.3 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-83PB	BV-S-83PB	BV-S-83PB	BW-S-41PB
Field Date	6/29/1998	6/29/1998	6/29/1998	6/30/1998
Extract Date	9/14/1998	9/14/1998	9/14/1998	10/6/1998
Analysis Date	9/22/1998	9/22/1998	9/22/1998	10/18/1998
Min Reporting Limit	0.61	0.59	0.54	0.59
Units	ug/g	ug/g	ug/g	ug/g

PAH				
Naphthalene	0.0093	0.009	0.007	0.0096
C1-Naphthalenes	0.026	0.025	0.017	0.03
C2-Naphthalenes	0.049	0.048	0.033	0.06
C3-Naphthalenes	0.04	0.039	0.027	0.044
C4-Naphthalenes	0.024	0.022	0.017	0.037
Acenaphthylene	0.00013 J	0.00014 J	0.00011 J	0.00033 J
Acenaphthene	0.0011	0.001	0.00077	0.0012
Biphenyl	0.0075	0.0072	0.0046	0.0077
Fluorene	0.0074	0.0074	0.0048	0.0073
C1-Fluorenes	0.013	0.014	0.0086	0.014
C2-Fluorenes	0.019	0.019	0.012	0.018
C3-Fluorenes	0.02	0.021	0.014	0.021
Anthracene	0.0013	0.0016	0.0011	0.0012
Phenanthrene	0.026	0.026	0.017	0.026
C1-Phenanthrenes/anthracenes	0.042	0.042	0.028	0.038
C2-Phenanthrenes/anthracenes	0.034	0.034	0.024	0.036
C3-Phenanthrenes/anthracenes	0.021	0.02	0.015	0.029
C4-Phenanthrenes/anthracenes	0.014	0.014	0.0086	0.012
Dibenzothiophene	0.0032	0.0031	0.0022	0.0033
C1-Dibenzothiophenes	0.0058	0.0052	0.0036	0.0056
C2-Dibenzothiophenes	0.0058	0.0059	0.0042	0.0061
C3-Dibenzothiophenes	0.0035	0.0036	0.003	0.0047
Fluoranthene	0.0056	0.0055	0.0039	0.0055
Pyrene	0.0061	0.006	0.0043	0.0036
C1-Fluoranthenes/pyrenes	0.018	0.018	0.012	0.019
C2-Fluoranthenes/pyrenes	0.023	0.022	0.014	0.018
C3-Fluoranthenes/pyrenes	0.016	0.016	0.01	0.015
Benzo[a]anthracene	0.0028	0.0028	0.002	0.0021
Chrysene	0.0084	0.0079	0.0058	0.0066
C1-Chrysenes	0.011	0.011	0.007	0.0089
C2-Chrysenes	0.014	0.012	0.0088	0.0076
C3-Chrysenes	0.0075	0.0068	0.0039	0.0055
C4-Chrysenes	0.005	0.0049	0.0043	0.0036
Benzo[b]fluoranthene	0.0056	0.0058	0.0038	0.0043
Benzo[k]fluoranthene	0.00048 J	0.00043 J	0.00035 J	0.00049 J
Benzo[e]pyrene	0.0046	0.0047	0.0031	0.0038
Benzo[a]pyrene	0.0016	0.0016	0.0011	0.0013
Perylene	0.021	0.022	0.015	0.018
Indeno[1,2,3,-c,d]pyrene	0.0011	0.0011	0.00079	0.0012
Dibenzo[a,h]anthracene	0.00084	0.00093	0.00059	0.0008
Benzo[g,h,i]perylene	0.0039	0.0041	0.0029	0.0039

Total PAH	0.53	0.52	0.36	0.54
d8-Naphthalene	82	88	81	68
d10-Acenaphthene	87	92	89	65
d10-Phenanthrene	90	99	98	69
d12-Benzo[a]pyrene	88	87	92	69

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-4-F1-01-00-PHC-S	98-4-F1-02-00-PHC-S	98-4-F1-03-00-PHC-S	98-4-F2-01-00-PHC-S
Lab ID	98D2252	98D2253	98D2250	98D2126
SDG	SDGS006	SDGS006	SDGS006	SDGS002
File	DY0710.D	DY0711.D	DY0707.D	DY0536.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	21.3 g	21.6 g	20.8 g	19.4 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BW-S-41PB	BW-S-41PB	BW-S-41PB	BV-S-83PB
Field Date	6/30/1998	6/30/1998	6/30/1998	6/28/1998
Extract Date	10/6/1998	10/6/1998	10/6/1998	9/14/1998
Analysis Date	10/18/1998	10/18/1998	10/18/1998	9/22/1998
Min Reporting Limit	0.59	0.58	0.6	0.64
Units	ug/g	ug/g	ug/g	ug/g
<b>PAH</b>				
Naphthalene	0.011	0.011	0.011	0.01
C1-Naphthalenes	0.034	0.036	0.034	0.029
C2-Naphthalenes	0.065	0.072	0.066	0.053
C3-Naphthalenes	0.048	0.05	0.048	0.043
C4-Naphthalenes	0.043	0.045	0.043	0.027
Acenaphthylene	0.0003 J	0.00025 J	0.00037 J	0.00013 J
Acenaphthene	0.0014	0.0015	0.0013	0.0012
Biphenyl	0.011	0.0095	0.0093	0.0085
Fluorene	0.0086	0.0091	0.0084	0.0084
C1-Fluorenes	0.017	0.018	0.017	0.015
C2-Fluorenes	0.024	0.023	0.021	0.021
C3-Fluorenes	0.024	0.024	0.024	0.022
Anthracene	0.0013	0.0015	0.0014	0.0014
Phenanthrene	0.031	0.033	0.032	0.029
C1-Phenanthrenes/anthracenes	0.045	0.046	0.045	0.046
C2-Phenanthrenes/anthracenes	0.041	0.042	0.043	0.038
C3-Phenanthrenes/anthracenes	0.034	0.033	0.035	0.024
C4-Phenanthrenes/anthracenes	0.014	0.014	0.016	0.016
Dibenzothiophene	0.004	0.0042	0.0039	0.0033
C1-Dibenzothiophenes	0.0061	0.0065	0.006	0.0058
C2-Dibenzothiophenes	0.0069	0.0068	0.0072	0.006
C3-Dibenzothiophenes	0.0034 L	0.005	0.0048	0.0036
Fluoranthene	0.007	0.0066	0.007	0.006
Pyrene	0.0067	0.0056	0.0071	0.0064
C1-Fluoranthenes/pyrenes	0.023	0.023	0.024	0.02
C2-Fluoranthenes/pyrenes	0.022	0.023	0.025	0.026
C3-Fluoranthenes/pyrenes	0.018	0.018	0.022	0.018
Benzo[a]anthracene	0.0028	0.0029	0.0028	0.0028
Chrysene	0.0089	0.0082	0.0091	0.0087
C1-Chrysenes	0.012	0.011	0.012	0.012
C2-Chrysenes	0.0086	0.009	0.01	0.014
C3-Chrysenes	0.0071	0.0066	0.007	0.0068
C4-Chrysenes	0.0067	0.0056	0.0071	0.005
Benzo[b]fluoranthene	0.0062	0.0057	0.0063	0.006
Benzo[k]fluoranthene	0.00061	0.00062	0.00056 J	0.00047 J
Benzo[e]pyrene	0.0052	0.0048	0.0053	0.005
Benzo[a]pyrene	0.0017	0.0016	0.0016	0.0016
Perylene	0.024	0.025	0.026	0.023
Indeno[1,2,3,-c,d]pyrene	0.0013	0.0012	0.0016	0.0012
Dibenzo[a,h]anthracene	0.00094	0.00085	0.00098	0.00083
Benzo[g,h,i]perylene	0.0043	0.0039	0.0048	0.0039
Total PAH	0.64	0.65	0.66	0.58
d8-Naphthalene	68	63	63	87
d10-Acenaphthene	61	62	61	88
d10-Phenanthrene	65	67	64	95
d12-Benzo[a]pyrene	61	68	64	91

**Arthur D. Little, Inc.**

Environmental Monitoring and Analysis

**Minerals Management Service - Shelikof Strait and Outermost Cook Inlet**

1997 Final Data (Surrogate Corrected) - Surface Sediment - PAH

Field ID	98-4-F2-02-00-PHC-S	98-4-F2-03-00-PHC-S	98-4-F4-01-00-PHC-S	98-4-F4-02-00-PHC-S
Lab ID	98D2123	98D2120	98D2255	98D2256
SDG	SDGS002	SDGS002	SDGS006	SDGS006
File	DY0532.D	DY0529.D	DY0713.D	DY0714.D
Sample Type	SAMP	SAMP	SAMP	SAMP
Matrix	Sediment	Sediment	Sediment	Sediment
Sample Size	19.2 g	19.4 g	21.3 g	20.6 g
Weight Basis	DRY	DRY	DRY	DRY
Associated Blank	BV-S-83PB	BV-S-83PB	BW-S-41PB	BW-S-41PB
Field Date	6/28/1998	6/28/1998	6/30/1998	6/30/1998
Extract Date	9/14/1998	9/14/1998	10/6/1998	10/6/1998
Analysis Date	9/22/1998	9/22/1998	10/18/1998	10/18/1998
Min Reporting Limit	0.65	0.64	0.59	0.61
Units	ug/g	ug/g	ug/g	ug/g

PAH				
Naphthalene	0.0086	0.0093	0.011	0.011
C1-Naphthalenes	0.024	0.027	0.034	0.038
C2-Naphthalenes	0.045	0.05	0.069	0.073
C3-Naphthalenes	0.037	0.041	0.048	0.051
C4-Naphthalenes	0.022	0.025	0.042	0.044
Acenaphthylene	0.00016 J	0.00014 J	0.00033 J	0.00035 J
Acenaphthene	0.00097	0.0011	0.0013	0.0014
Biphenyl	0.0073	0.008	0.0095	0.0098
Fluorene	0.0067	0.0076	0.0087	0.0086
C1-Fluorenes	0.012	0.014	0.017	0.018
C2-Fluorenes	0.018	0.021	0.021	0.021
C3-Fluorenes	0.02	0.02	0.023	0.024
Anthracene	0.0012	0.0015	0.0013	0.0016
Phenanthrene	0.023	0.027	0.03	0.033
C1-Phenanthrenes/anthracenes	0.039	0.045	0.042	0.047
C2-Phenanthrenes/anthracenes	0.033	0.036	0.038	0.045
C3-Phenanthrenes/anthracenes	0.019	0.022	0.027	0.035
C4-Phenanthrenes/anthracenes	0.013	0.014	0.013	0.014
Dibenzothiophene	0.0028	0.0031	0.0037	0.0044
C1-Dibenzothiophenes	0.0051	0.0052	0.0059	0.0067
C2-Dibenzothiophenes	0.0055	0.0055	0.0064	0.0073
C3-Dibenzothiophenes	0.0034	0.004	0.0028 L	0.005
Fluoranthene	0.005	0.0055	0.0053	0.0069
Pyrene	0.0053	0.0061	0.0044	0.0058
C1-Fluoranthenes/pyrenes	0.016	0.019	0.019	0.025
C2-Fluoranthenes/pyrenes	0.02	0.025	0.019	0.026
C3-Fluoranthenes/pyrenes	0.015	0.019	0.016	0.021
Benzo[a]anthracene	0.0022	0.0027	0.0024	0.003
Chrysene	0.0069	0.0092	0.0067	0.0099
C1-Chrysenes	0.0093	0.011	0.0091	0.014
C2-Chrysenes	0.012	0.013	0.0076	0.01
C3-Chrysenes	0.0066	0.01	0.0053	0.0069
C4-Chrysenes	0.0043	0.0071	0.0044	0.0058
Benzo[b]fluoranthene	0.0046	0.006	0.0048	0.007
Benzo[k]fluoranthene	0.00025 J	0.00041 J	0.00062	0.00067
Benzo[e]pyrene	0.004	0.0051	0.0039	0.0058
Benzo[a]pyrene	0.0014	0.0017	0.0014	0.0019
Perylene	0.016	0.02	0.019	0.027
Indeno[1,2,3,-c,d]pyrene	0.00093	0.0012	0.001	0.0017
Dibenzo[a,h]anthracene	0.00074	0.00088	0.00078	0.0011
Benzo[g,h,i]perylene	0.0031	0.0042	0.003	0.0048
Total PAH	0.48	0.55	0.59	0.68
d8-Naphthalene	85	82	63	70
d10-Acenaphthene	89	84	61	64
d10-Phenanthrene	94	92	65	65
d12-Benzo[a]pyrene	93	87	63	61