

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude				Cook Inlet Crude			
Lab ID	BI85				BI86			
SDG	SDGS004				SDGS004			
File	DX4752.D				DX4799.D			
Sample Type	CIC				CIC			
Matrix	Oil				Oil			
Sample Size	5.06 mg				5.09 mg			
Weight Basis	OIL				OIL			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	8/22/1997				8/25/1997			
Min Reporting Limit	4.9				4.9			
Units	ug/g	T	%D	Q	ug/g	T	%D	Q
PAH								
Naphthalene	650	607	8.7		560	607	3.8	
C1-Naphthalenes	1700	1500	13		1500	1500	6.7	
C2-Naphthalenes	2700	2270	19		2400	2270	10	
C3-Naphthalenes	2100	1930	8.8		1800	1930	-1.6	
C4-Naphthalenes	1300	987	32		1200	987	22	
Acenaphthylene	2.2 J	1.8	22		1.9 J	1.8	11	
Acenaphthene	58	52	12		51	52	1.9	
Biphenyl	110	98	12		96	98	2	
Fluorene	160	133	20		130	133	5.3	
C1-Fluorenes	330	280	18		290	280	7.1	
C2-Fluorenes	420	363	16		360	363	1.9	
C3-Fluorenes	460	370	24		350	370	-2.7	
Anthracene	13	11	9.1		11	11	0	
Phenanthrene	340	303	5.6		310	303	-1	
C1-Phenanthrenes/anthracenes	820	690	10		700	690	-1.4	
C2-Phenanthrenes/anthracenes	1000	743	26		840	743	9	
C3-Phenanthrenes/anthracenes	650	483	24		510	483	1.4	
C4-Phenanthrenes/anthracenes	300	263	6.5		250	263	-8.8	
Dibenzothiophene	22	19	5.3		21	19	5.3	
C1-Dibenzothiophenes	71	61	8.2		68	61	8.2	
C2-Dibenzothiophenes	130	89	35		100	89	9	
C3-Dibenzothiophenes	75	70	0		78	70	8.6	
Fluoranthene	8.2	7.3	4.1		8.3	7.3	11	
Pyrene	22	19	10		20	19	0	
C1-Fluoranthenes/pyrenes	140	120	8.3		130	120	8.3	
C2-Fluoranthenes/pyrenes	230	173	21		190	173	4	
C3-Fluoranthenes/pyrenes	250	190	21		220	190	10	
Benzo[a]anthracene	25	20	15		21	20	0	
Chrysene	54	43	16		39	43	-12	
C1-Chrysenes	130	107	12		100	107	-6.6	
C2-Chrysenes	160	137	9.5		140	137	2.2	
C3-Chrysenes	130	100	20		110	100	10	
C4-Chrysenes	67	86	-28		80	86	-9.3	
Benzo[b]fluoranthene	10	7.3	30		6.8	7.3	-9.6	
Benzo[k]fluoranthene	4.2 J				3.5 J			
Benzo[e]pyrene	14	12	25		13	12	17	
Benzo[a]pyrene	3.3 J	3	20		3.2 J	3	17	
Perylene	3.3 J	5.3	-32		3.4 J	5.3	-30	
Indeno[1,2,3,-c,d]pyrene	ND				ND			
Dibenzo[a,h]anthracene	3.2 J	3.2	9.4		3.3 J	3.2	12	
Benzo[g,h,i]perylene	5.1	4.4	25		4.5	4.4	11	
Total PAH	15000				13000			
d8-Naphthalene	102				112			
d10-Acenaphthene	100				104			
d10-Phenanthrene	93				97			
d12-Benzo[a]pyrene	108				108			

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude				Cook Inlet Crude			
Lab ID	BI86				BI86			
SDG	SDGS005				SDGS005			
File	W1285.D				W1228.D			
Sample Type	CIC				CIC			
Matrix	Oil				Oil			
Sample Size	5.09 mg				5.09 mg			
Weight Basis	OIL				OIL			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	9/2/1997				8/28/1997			
Min Reporting Limit	4.9				4.9			
Units	ug/g	T	%D	Q	ug/g	T	%D	Q
PAH								
Naphthalene	560	607	-7.8		570	607	-11	
C1-Naphthalenes	1200	1500	-20		1200	1500	-20	
C2-Naphthalenes	1800	2270	-21		1600	2270	-30	
C3-Naphthalenes	1300	1930	-33		1300	1930	-33	
C4-Naphthalenes	660	987	-33		650	987	-34	
Acenaphthylene	1.9 J	1.8	5.6		2.1 J	1.8	17	
Acenaphthene	51	52	-1.9		52	52	0	
Biphenyl	97	98	-1		95	98	-3.1	
Fluorene	140	133	5.3		140	133	5.3	
C1-Fluorenes	300	280	7.1		290	280	3.6	
C2-Fluorenes	340	363	-6.3		340	363	-6.3	
C3-Fluorenes	300	370	-19		320	370	-14	
Anthracene	23	11	110		14	11	27	
Phenanthrene	300	303	-1		300	303	2.3	
C1-Phenanthrenes/anthracenes	670	690	-4.4		670	690	0	
C2-Phenanthrenes/anthracenes	780	743	3.6		730	743	0.94	
C3-Phenanthrenes/anthracenes	440	483	-8.9		460	483	-2.7	
C4-Phenanthrenes/anthracenes	300	263	14		230	263	-8.8	
Dibenzothiophene	20	19	5.3		20	19	10	
C1-Dibenzothiophenes	67	61	8.2		71	61	20	
C2-Dibenzothiophenes	93	89	3.4		80	89	-6.8	
C3-Dibenzothiophenes	71	70	0		73	70	7.1	
Fluoranthene	7.1	7.3	-4.1		7.8	7.3	9.6	
Pyrene	19	19	0		19	19	5.3	
C1-Fluoranthenes/pyrenes	140	120	17		130	120	8.3	
C2-Fluoranthenes/pyrenes	190	173	9.8		180	173	9.8	
C3-Fluoranthenes/pyrenes	200	190	5.3		170	190	-5.3	
Benzo[a]anthracene	21	20	5		19	20	0	
Chrysene	48	43	12		41	43	-2.3	
C1-Chrysenes	110	107	2.8		110	107	2.8	
C2-Chrysenes	150	137	9.5		150	137	9.5	
C3-Chrysenes	130	100	30		110	100	10	
C4-Chrysenes	100	86	15		87	86	4.6	
Benzo[b]fluoranthene	6.2	7.3	-16		6.3	7.3	-11	
Benzo[k]fluoranthene	ND				ND			
Benzo[e]pyrene	13	12	8.3		14	12	17	
Benzo[a]pyrene	3.6 J	3	20		3.4 J	3	13	
Perylene	4 J	5.3	-25		4.7 J	5.3	-11	
Indeno[1,2,3,-c,d]pyrene	ND				ND			
Dibenzo[a,h]anthracene	3.1 J	3.2	-3.1		3.3 J	3.2	3.1	
Benzo[g,h,i]perylene	4.4 J	4.4	0		5	4.4	14	
Total PAH	11000				10000			
d8-Naphthalene	100				95			
d10-Acenaphthene	100				100			
d10-Phenanthrene	99				103			
d12-Benzo[a]pyrene	100				101			

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Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude
Lab ID	BI86
SDG	SDGS005
File	DX5077.D
Sample Type	CIC
Matrix	Oil
Sample Size	5.09 mg
Weight Basis	OIL
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	9/19/1997
Min Reporting Limit	4.9
Units	ug/g T %D Q

PAH			
Naphthalene	590	607	3.8
C1-Naphthalenes	1300	1500	-6.7
C2-Naphthalenes	2100	2270	-3.1
C3-Naphthalenes	1600	1930	-12
C4-Naphthalenes	940	987	1.3
Acenaphthylene	2.2 J	1.8	28
Acenaphthene	51	52	3.8
Biphenyl	94	98	2
Fluorene	130	133	5.3
C1-Fluorenes	300	280	14
C2-Fluorenes	420	363	21
C3-Fluorenes	430	370	24
Anthracene	22	11	100
Phenanthrene	300	303	-1
C1-Phenanthrenes/anthracenes	760	690	8.7
C2-Phenanthrenes/anthracenes	930	743	24
C3-Phenanthrenes/anthracenes	660	483	34
C4-Phenanthrenes/anthracenes	330	263	25
Dibenzothiophene	24	19	26
C1-Dibenzothiophenes	73	61	18
C2-Dibenzothiophenes	120	89	35
C3-Dibenzothiophenes	89	70	26
Fluoranthene	7.8	7.3	5.5
Pyrene	18	19	-5.3
C1-Fluoranthenes/pyrenes	130	120	8.3
C2-Fluoranthenes/pyrenes	220	173	27
C3-Fluoranthenes/pyrenes	240	190	26
Benzo[a]anthracene	20	20	0
Chrysene	39	43	-9.3
C1-Chrysenes	130	107	21
C2-Chrysenes	170	137	24
C3-Chrysenes	120	100	20
C4-Chrysenes	98	86	13
Benzo[b]fluoranthene	6.1	7.3	-18
Benzo[k]fluoranthene	ND		
Benzo[e]pyrene	11	12	0
Benzo[a]pyrene	4.2 J	3	53
Perylene	4.4 J	5.3	-9.4
Indeno[1,2,3,-c,d]pyrene	ND		
Dibenzo[a,h]anthracene	3.1 J	3.2	6.2
Benzo[g,h,i]perylene	4 J	4.4	0

Total PAH 12000

d8-Naphthalene	107
d10-Acenaphthene	106
d10-Phenanthrene	99
d12-Benzo[a]pyrene	109

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude				Cook Inlet Crude			
Lab ID	BI86				BI86			
SDG	SDGS006				SDGS009			
File	DX6414.D				DX5040.D			
Sample Type	CIC				CIC			
Matrix	Oil				Oil			
Sample Size	5.09 mg				5.09 mg			
Weight Basis	OIL				OIL			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	12/30/1997				9/17/1997			
Min Reporting Limit	4.9				4.9			
Units	ug/g	T	%D	Q	ug/g	T	%D	Q
PAH								
Naphthalene	550	607	2.1		610	607	2.1	
C1-Naphthalenes	1400	1500	0		1300	1500	-6.7	
C2-Naphthalenes	2500	2270	14		2100	2270	-3.1	
C3-Naphthalenes	2000	1930	8.8		1600	1930	-12	
C4-Naphthalenes	1200	987	32		960	987	1.3	
Acenaphthylene	2.6 J	1.8	56		2.3 J	1.8	33	
Acenaphthene	51	52	3.8		52	52	3.8	
Biphenyl	94	98	2		96	98	2	
Fluorene	130	133	5.3		130	133	5.3	
C1-Fluorenes	300	280	14		320	280	18	
C2-Fluorenes	400	363	16		390	363	13	
C3-Fluorenes	390	370	11		400	370	14	
Anthracene	15	11	36		18	11	54	
Phenanthrene	300	303	-1		310	303	-4.3	
C1-Phenanthrenes/anthracenes	730	690	5.8		760	690	4.3	
C2-Phenanthrenes/anthracenes	900	743	21		920	743	17	
C3-Phenanthrenes/anthracenes	550	483	14		660	483	30	
C4-Phenanthrenes/anthracenes	300	263	14		350	263	25	
Dibenzothiophene	19	19	0		22	19	10	
C1-Dibenzothiophenes	67	61	9.8		67	61	4.9	
C2-Dibenzothiophenes	92	89	3.4		120	89	24	
C3-Dibenzothiophenes	81	70	16		89	70	21	
Fluoranthene	7.4	7.3	1.4		6.2	7.3	-19	
Pyrene	19	19	0		22	19	10	
C1-Fluoranthenes/pyrenes	120	120	0		130	120	0	
C2-Fluoranthenes/pyrenes	180	173	4		210	173	16	
C3-Fluoranthenes/pyrenes	200	190	5.3		230	190	16	
Benzo[a]anthracene	16	20	-20		23	20	10	
Chrysene	40	43	-7		42	43	-7	
C1-Chrysenes	96	107	-10		130	107	12	
C2-Chrysenes	140	137	2.2		180	137	24	
C3-Chrysenes	98	100	-2		130	100	20	
C4-Chrysenes	72	86	-16		110	86	16	
Benzo[b]fluoranthene	6.2	7.3	-15		6.1	7.3	-21	
Benzo[k]fluoranthene	ND				ND			
Benzo[e]pyrene	9.3	12	-17		10	12	-8.3	
Benzo[a]pyrene	1.9 J	3	-33		2.6 J	3	-6.7	
Perylene	4 J	5.3	-19		4.8	5.3	-1.9	
Indeno[1,2,3,-c,d]pyrene	ND				ND			
Dibenzo[a,h]anthracene	2.7 J	3.2	-9.4		2.9 J	3.2	-3.1	
Benzo[g,h,i]perylene	3.9 J	4.4	-4.6		4.7	4.4	14	
Total PAH	13000				13000			
d8-Naphthalene	112				102			
d10-Acenaphthene	106				104			
d10-Phenanthrene	100				95			
d12-Benzo[a]pyrene	107				107			

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude
Lab ID	BI86
SDG	SDGS010
File	DX5077.D
Sample Type	CIC
Matrix	Oil
Sample Size	5.09 mg
Weight Basis	OIL
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	9/19/1997
Min Reporting Limit	4.9
Units	ug/g T %D Q

PAH			
Naphthalene	590	607	3.8
C1-Naphthalenes	1300	1500	-6.7
C2-Naphthalenes	2100	2270	-3.1
C3-Naphthalenes	1600	1930	-12
C4-Naphthalenes	940	987	1.3
Acenaphthylene	2.2 J	1.8	28
Acenaphthene	51	52	3.8
Biphenyl	94	98	2
Fluorene	130	133	5.3
C1-Fluorenes	300	280	14
C2-Fluorenes	420	363	21
C3-Fluorenes	430	370	24
Anthracene	13	11	18
Phenanthrene	300	303	-1
C1-Phenanthrenes/anthracenes	760	690	8.7
C2-Phenanthrenes/anthracenes	930	743	24
C3-Phenanthrenes/anthracenes	660	483	34
C4-Phenanthrenes/anthracenes	330	263	25
Dibenzothiophene	24	19	26
C1-Dibenzothiophenes	73	61	18
C2-Dibenzothiophenes	120	89	35
C3-Dibenzothiophenes	89	70	26
Fluoranthene	7.8	7.3	5.5
Pyrene	18	19	-5.3
C1-Fluoranthenes/pyrenes	130	120	8.3
C2-Fluoranthenes/pyrenes	220	173	27
C3-Fluoranthenes/pyrenes	240	190	26
Benzo[a]anthracene	20	20	0
Chrysene	39	43	-9.3
C1-Chrysenes	130	107	21
C2-Chrysenes	170	137	24
C3-Chrysenes	120	100	20
C4-Chrysenes	98	86	13
Benzo[b]fluoranthene	6.1	7.3	-18
Benzo[k]fluoranthene	ND		
Benzo[e]pyrene	11	12	0
Benzo[a]pyrene	4.2 J	3	53
Perylene	4.4 J	5.3	-9.4
Indeno[1,2,3,-c,d]pyrene	ND		
Dibenzo[a,h]anthracene	3.1 J	3.2	6.2
Benzo[g,h,i]perylene	4 J	4.4	0

Total PAH 12000

d8-Naphthalene	107
d10-Acenaphthene	106
d10-Phenanthrene	99
d12-Benzo[a]pyrene	109

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude				Cook Inlet Crude			
Lab ID	BI84				BI84			
SDG	SDGS001				SDGS002			
File	DZ9902.D				DZ9933.D			
Sample Type	CIC				CIC			
Matrix	Oil				Oil			
Sample Size	5.04 mg				5.04 mg			
Weight Basis	OIL				OIL			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	7/30/1997				8/1/1997			
Min Reporting Limit	5				5			
Units	ug/g	T	%D	Q	ug/g	T	%D	Q
PAH								
Naphthalene	580	607	-6.1		630	607	2.1	
C1-Naphthalenes	1400	1500	-6.7		1600	1500	6.7	
C2-Naphthalenes	2100	2270	-7.5		2300	2270	1.3	
C3-Naphthalenes	2000	1930	3.6		2200	1930	14	
C4-Naphthalenes	1000	987	1.3		1200	987	22	
Acenaphthylene	1.8 J	1.8	0		1.6 J	1.8	-11	
Acenaphthene	52	52	0		52	52	0	
Biphenyl	98	98	-1		99	98	0	
Fluorene	130	133	-2.3		140	133	5.3	
C1-Fluorenes	280	280	0		290	280	3.6	
C2-Fluorenes	370	363	1.9		380	363	4.7	
C3-Fluorenes	380	370	2.7		400	370	8.1	
Anthracene	13	11	9.1		11	11	0	
Phenanthrene	330	303	2.3		330	303	5.6	
C1-Phenanthrenes/anthracenes	740	690	0		740	690	4.3	
C2-Phenanthrenes/anthracenes	800	743	-0.4		810	743	6.3	
C3-Phenanthrenes/anthracenes	520	483	-0.6		530	483	5.6	
C4-Phenanthrenes/anthracenes	290	263	2.7		290	263	6.5	
Dibenzothiophene	20	19	0		21	19	5.3	
C1-Dibenzothiophenes	74	61	13		58	61	-8.2	
C2-Dibenzothiophenes	96	89	0		92	89	0	
C3-Dibenzothiophenes	78	70	4.3		76	70	5.7	
Fluoranthene	7	7.3	-11		7.6	7.3	1.4	
Pyrene	19	19	-5.3		21	19	5.3	
C1-Fluoranthenes/pyrenes	130	120	0		110	120	-8.3	
C2-Fluoranthenes/pyrenes	170	173	-7.5		180	173	-1.7	
C3-Fluoranthenes/pyrenes	190	190	-5.3		200	190	0	
Benzo[a]anthracene	20	20	-5		21	20	0	
Chrysene	46	43	0		43	43	-2.3	
C1-Chrysenes	120	107	2.8		110	107	2.8	
C2-Chrysenes	150	137	2.2		140	137	2.2	
C3-Chrysenes	110	100	0		100	100	-2	
C4-Chrysenes	96	86	3.5		82	86	-7	
Benzo[b]fluoranthene	8	7.3	1.4		7	7.3	-6.8	
Benzo[k]fluoranthene	ND				ND			
Benzo[e]pyrene	12	12	0		12	12	0	
Benzo[a]pyrene	2.8 J	3	-3.3		2.3 J	3	-20	
Perylene	4.7 J	5.3	-9.4		5.3	5.3	3.8	
Indeno[1,2,3,-c,d]pyrene	ND				ND			
Dibenzo[a,h]anthracene	2.8 J	3.2	-9.4		3.1 J	3.2	0	
Benzo[g,h,i]perylene	4 J	4.4	-6.8		4.2 J	4.4	-2.3	
Total PAH	12000				13000			
d8-Naphthalene	98				99			
d10-Acenaphthene	99				99			
d10-Phenanthrene	93				97			
d12-Benzo[a]pyrene	103				103			

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude
Lab ID	BI86
SDG	SDGS003
File	DZ0044.D
Sample Type	CIC
Matrix	Oil
Sample Size	5.09 mg
Weight Basis	OIL
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	8/8/1997
Min Reporting Limit	4.9
Units	ug/g
	T %D Q

PAH			
Naphthalene	570	607	-1.2
C1-Naphthalenes	1500	1500	0
C2-Naphthalenes	2300	2270	1.3
C3-Naphthalenes	1900	1930	-1.6
C4-Naphthalenes	950	987	-1.7
Acenaphthylene	1.9 J	1.8	5.6
Acenaphthene	50	52	-1.9
Biphenyl	96	98	0
Fluorene	130	133	-2.3
C1-Fluorenes	270	280	0
C2-Fluorenes	350	363	-0.8
C3-Fluorenes	350	370	-2.7
Anthracene	13	11	18
Phenanthrene	310	303	-1
C1-Phenanthrenes/anthracenes	690	690	-1.4
C2-Phenanthrenes/anthracenes	770	743	0.94
C3-Phenanthrenes/anthracenes	500	483	1.4
C4-Phenanthrenes/anthracenes	280	263	2.7
Dibenzothiophene	19	19	0
C1-Dibenzothiophenes	61	61	-1.6
C2-Dibenzothiophenes	91	89	0
C3-Dibenzothiophenes	71	70	0
Fluoranthene	7.8	7.3	5.5
Pyrene	19	19	0
C1-Fluoranthenes/pyrenes	120	120	0
C2-Fluoranthenes/pyrenes	180	173	4
C3-Fluoranthenes/pyrenes	200	190	5.3
Benzo[a]anthracene	20	20	0
Chrysene	43	43	-2.3
C1-Chrysenes	110	107	2.8
C2-Chrysenes	130	137	-5.1
C3-Chrysenes	100	100	0
C4-Chrysenes	84	86	-4.7
Benzo[b]fluoranthene	7	7.3	-5.5
Benzo[k]fluoranthene	ND		
Benzo[e]pyrene	11	12	0
Benzo[a]pyrene	2.9 J	3	3.3
Perylene	4.8	5.3	-1.9
Indeno[1,2,3,-c,d]pyrene	ND		
Dibenzo[a,h]anthracene	3 J	3.2	0
Benzo[g,h,i]perylene	4.1 J	4.4	0

Total PAH 12000

d8-Naphthalene	105
d10-Acenaphthene	102
d10-Phenanthrene	98
d12-Benzo[a]pyrene	108

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude				Cook Inlet Crude			
Lab ID	BI86				BI86			
SDG	SDGS007				SDGS008			
File	DZ2140.D				DZ2175.D			
Sample Type	CIC				CIC			
Matrix	Oil				Oil			
Sample Size	5.09 mg				5.09 mg			
Weight Basis	OIL				OIL			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	8/29/1997				8/31/1997			
Min Reporting Limit	4.9				4.9			
Units	ug/g	T	%D	Q	ug/g	T	%D	Q
PAH								
Naphthalene	580	607	3.8		570	607	-1.2	
C1-Naphthalenes	1500	1500	0		1400	1500	-6.7	
C2-Naphthalenes	2300	2270	1.3		2100	2270	-7.5	
C3-Naphthalenes	1900	1930	-1.6		1600	1930	-17	
C4-Naphthalenes	950	987	-1.7		920	987	-4.8	
Acenaphthylene	1.8 J	1.8	0		1.2 J	1.8	-33	
Acenaphthene	53	52	3.8		52	52	1.9	
Biphenyl	97	98	1		97	98	1	
Fluorene	140	133	5.3		140	133	5.3	
C1-Fluorenes	310	280	14		290	280	7.1	
C2-Fluorenes	370	363	4.7		360	363	1.9	
C3-Fluorenes	360	370	0		350	370	-2.7	
Anthracene	12	11	9.1		19	11	73	
Phenanthrene	300	303	-1		310	303	2.3	
C1-Phenanthrenes/anthracenes	700	690	2.9		700	690	2.9	
C2-Phenanthrenes/anthracenes	790	743	7.7		810	743	10	
C3-Phenanthrenes/anthracenes	520	483	9.7		500	483	3.5	
C4-Phenanthrenes/anthracenes	300	263	14		320	263	22	
Dibenzothiophene	20	19	5.3		22	19	16	
C1-Dibenzothiophenes	67	61	11		69	61	15	
C2-Dibenzothiophenes	99	89	12		94	89	6.7	
C3-Dibenzothiophenes	76	70	10		69	70	0	
Fluoranthene	7.7	7.3	6.8		6.9	7.3	-4.1	
Pyrene	19	19	0		20	19	5.3	
C1-Fluoranthenes/pyrenes	130	120	8.3		140	120	17	
C2-Fluoranthenes/pyrenes	180	173	4		200	173	16	
C3-Fluoranthenes/pyrenes	200	190	5.3		230	190	21	
Benzo[a]anthracene	17	20	-15		22	20	10	
Chrysene	42	43	0		44	43	4.6	
C1-Chrysenes	110	107	2.8		120	107	12	
C2-Chrysenes	150	137	9.5		170	137	24	
C3-Chrysenes	120	100	20		110	100	10	
C4-Chrysenes	90	86	5.8		96	86	13	
Benzo[b]fluoranthene	7.3	7.3	1.4		7.6	7.3	5.5	
Benzo[k]fluoranthene	ND				ND			
Benzo[e]pyrene	12	12	8.3		14	12	17	
Benzo[a]pyrene	2.8 J	3	0		2.3 J	3	-20	
Perylene	4.2 J	5.3	-13		6.5	5.3	26	
Indeno[1,2,3,-c,d]pyrene	ND				ND			
Dibenzo[a,h]anthracene	3.8 J	3.2	28		2.9 J	3.2	-6.3	
Benzo[g,h,i]perylene	5.2	4.4	27		5	4.4	16	
Total PAH	13000				12000			
d8-Naphthalene	109				106			
d10-Acenaphthene	102				102			
d10-Phenanthrene	101				101			
d12-Benzo[a]pyrene	108				103			

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude
Lab ID	BI86
SDG	SDGSOD
File	DY7190.D
Sample Type	CIC
Matrix	Oil
Sample Size	5.09 mg
Weight Basis	OIL
Associated Blank	NA
Field Date	NA
Extract Date	NA
Analysis Date	1/3/1998
Min Reporting Limit	4.9
Units	ug/g
	T %D Q

PAH			
Naphthalene	590	607	0.49
C1-Naphthalenes	1500	1500	0
C2-Naphthalenes	2300	2270	1.3
C3-Naphthalenes	1700	1930	-12
C4-Naphthalenes	850	987	-13
Acenaphthylene	2 J	1.8	11
Acenaphthene	51	52	0
Biphenyl	96	98	-1
Fluorene	140	133	5.3
C1-Fluorenes	300	280	7.1
C2-Fluorenes	340	363	-6.3
C3-Fluorenes	310	370	-16
Anthracene	13	11	18
Phenanthrene	310	303	2.3
C1-Phenanthrenes/anthracenes	710	690	2.9
C2-Phenanthrenes/anthracenes	780	743	5
C3-Phenanthrenes/anthracenes	430	483	-11
C4-Phenanthrenes/anthracenes	250	263	-5
Dibenzothiophene	23	19	21
C1-Dibenzothiophenes	62	61	1.6
C2-Dibenzothiophenes	86	89	-3.4
C3-Dibenzothiophenes	62	70	-12
Fluoranthene	8	7.3	9.6
Pyrene	22	19	16
C1-Fluoranthenes/pyrenes	120	120	0
C2-Fluoranthenes/pyrenes	180	173	4
C3-Fluoranthenes/pyrenes	170	190	-11
Benzo[a]anthracene	17	20	-15
Chrysene	42	43	-2.3
C1-Chrysenes	98	107	-8.4
C2-Chrysenes	120	137	-12
C3-Chrysenes	76	100	-24
C4-Chrysenes	64	86	-26
Benzo[b]fluoranthene	6.5	7.3	-11
Benzo[k]fluoranthene	1.6 J		
Benzo[e]pyrene	10	12	-8.3
Benzo[a]pyrene	2.2 J	3	-20
Perylene	3.8 J	5.3	-23
Indeno[1,2,3,-c,d]pyrene	NA		
Dibenzo[a,h]anthracene	NA		
Benzo[g,h,i]perylene	NA		

Total PAH 12000

d8-Naphthalene	103
d10-Acenaphthene	101
d10-Phenanthrene	100
d12-Benzo[a]pyrene	109

Arthur D. Little, Inc.

Environmental Monitoring and Analysis

Minerals Management Service - Shelikof Strait and Outermost Cook Inlet

1997 Final Data (Surrogate Corrected) - CIC - PAH

Field ID	Cook Inlet Crude				Cook Inlet Crude			
Lab ID	BI86				BI86			
SDG	SDGSOD				SDGW001			
File	DY7250.D				DZ2508.D			
Sample Type	CIC				CIC			
Matrix	Oil				Oil			
Sample Size	5.09 mg				5.09 mg			
Weight Basis	OIL				OIL			
Associated Blank	NA				NA			
Field Date	NA				NA			
Extract Date	NA				NA			
Analysis Date	1/14/1998				9/25/1997			
Min Reporting Limit	4.9				4.9			
Units	ug/g	T	%D	Q	ug/g	T	%D	Q
PAH								
Naphthalene	580	607	8.7		590	607	3.8	
C1-Naphthalenes	1500	1500	6.7		1400	1500	0	
C2-Naphthalenes	2100	2270	-3.1		2100	2270	-3.1	
C3-Naphthalenes	1500	1930	-17		1500	1930	-17	
C4-Naphthalenes	790	987	-15		910	987	-2.7	
Acenaphthylene	1.8 J	1.8	5.6		1.6 J	1.8	-5.6	
Acenaphthene	51	52	3.8		52	52	5.8	
Biphenyl	94	98	2		94	98	2	
Fluorene	130	133	5.3		130	133	5.3	
C1-Fluorenes	290	280	11		290	280	11	
C2-Fluorenes	350	363	1.9		380	363	10	
C3-Fluorenes	310	370	-11		370	370	5.4	
Anthracene	14	11	27		18	11	73	
Phenanthrene	300	303	-4.3		320	303	8.9	
C1-Phenanthrenes/anthracenes	670	690	-7.2		730	690	8.7	
C2-Phenanthrenes/anthracenes	780	743	0.94		830	743	16	
C3-Phenanthrenes/anthracenes	470	483	-6.8		540	483	16	
C4-Phenanthrenes/anthracenes	310	263	14		310	263	22	
Dibenzothiophene	21	19	5.3		21	19	16	
C1-Dibenzothiophenes	57	61	-9.8		71	61	20	
C2-Dibenzothiophenes	90	89	-3.4		110	89	24	
C3-Dibenzothiophenes	59	70	-19		82	70	20	
Fluoranthene	7	7.3	-8.2		8.8	7.3	25	
Pyrene	20	19	0		20	19	10	
C1-Fluoranthenes/pyrenes	130	120	0		150	120	25	
C2-Fluoranthenes/pyrenes	190	173	4		210	173	27	
C3-Fluoranthenes/pyrenes	180	190	-11		230	190	26	
Benzo[a]anthracene	21	20	0		20	20	5	
Chrysene	43	43	-4.7		44	43	4.6	
C1-Chrysenes	99	107	-11		120	107	12	
C2-Chrysenes	150	137	2.2		160	137	17	
C3-Chrysenes	96	100	-8		110	100	10	
C4-Chrysenes	75	86	-16		89	86	7	
Benzo[b]fluoranthene	6.5	7.3	-15		7.3	7.3	2.7	
Benzo[k]fluoranthene	2.4 J				ND			
Benzo[e]pyrene	10	12	-8.3		13	12	17	
Benzo[a]pyrene	2.4 J	3	-13		2.6 J	3	-10	
Perylene	4.2 J	5.3	-13		6.6	5.3	30	
Indeno[1,2,3,-c,d]pyrene	NA				NA			
Dibenzo[a,h]anthracene	NA				NA			
Benzo[g,h,i]perylene	NA				NA			
Total PAH	12000				12000			
d8-Naphthalene	114				107			
d10-Acenaphthene	106				106			
d10-Phenanthrene	96				103			
d12-Benzo[a]pyrene	108				104			