HISTORICAL AND PROJECTED OIL AND GAS CONSUMPTION

APRIL 1997

Alaska Department of
NATURAL RESOURCES
DIVISION OF OIL & GAS

Cover Photo

BP Exploration (Alaska) Inc.
Sourdough No.3 Exploratory Well
Approximately One Mile West of ANWR
North Slope, Alaska

Photo By: Bruce Webb
AK Division of Oil and Gas

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STATE OF ALASKA

HISTORICAL AND PROJECTED OIL AND GAS CONSUMPTION

Tony Knowles
Governor

John T. Shively
Commissioner
Department of Natural Resources

April 1997

Prepared for the First Session
Twentieth Alaska Legislature

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ALASKA OIL AND GAS RESOURCE MANAGEMENT

Alaska's oil and gas resources are owned and administered by three state agencies, two federal agencies and, in a very few cases, by private landowners.

STATE OF ALASKA

Department of Natural Resources, Division of Oil & Gas (DO&G)

- leases or licenses state land for oil and gas exploration and development
- sets the conditions under which state oil and gas leases may be developed
- monitors lease development for consistency with regulations and lease terms
- collects and audits oil and gas royalty revenue
- negotiates and administers oil and gas royalty-in-kind contracts
- estimates the volume and value of oil and gas reserves within proposed lease sale areas
- approves and administers oil and gas unit agreements to insure greatest ultimate recovery and prevent waste

Department of Revenue, Oil and Gas Audit Division (DOR)

- collects oil and gas severance taxes, property taxes and corporate income taxes
- audits oil and gas royalty and tax payments
- estimates how much tax and royalty revenue the state will receive. This projection is used to prepare the state's annual budget.

Alaska Oil and Gas Conservation Commission (AOGCC)

- insures the greatest ultimate recovery of oil and gas on private, state and federal leases.
- protects correlative rights of lease holders and land owners
- monitors production meters at each field
- reviews plans of development to verify efficient production and minimize waste of oil and gas
- regulates well drilling, well treatment, well spacing, waste disposal, ground water protection, and production rate.

FEDERAL GOVERNMENT

Department of Interior, Bureau of Land Management (BLM)

- leases and administers onshore federal oil and gas resources.

Department of Interior, Minerals Management Service (MMS)

- leases and administers offshore federal oil and gas resources.

PRIVATE LANDOWNERS

- the only known oil and gas reserves in private ownership belong to Arctic Slope Region Corporation and Cook Inlet Region Inc. Both are Alaska Native corporations formed under the Alaska Native Claims Settlement Act of 1971.

1 OIL AND GAS RESERVES

PROVEN RESERVES

Only a fraction of the original oil or gas in any reservoir can be extracted, and that fraction depends on available technology and the economics of producing the oil or gas. A producer's decision whether or not to develop a new reservoir, or to continue producing a developed field, depends in part on the difference between the cost of extracting the oil or gas and the value of the oil or gas.

Reserves are an estimate of how much oil and gas can be economically extracted from a reservoir. Though reserves can be calculated by many methods, there often is no consensus on which method is best to apply to each reservoir. Each of the three state agencies that regulate oil and gas production, DO&G, AOGCC and DOR, calculate reserves by different methods for their different requirements; DO&G and AOGCC calculations emphasize geologic and engineering factors, whereas DOR calculations emphasize oil and gas economics and prices.

Reserve estimates of large oil fields typically increase through their development years and ultimate recoveries are often greater than early predictions. In the early 1980's Prudhoe Bay reserves were estimated to be between seven and nine billion barrels. By January 1986 Prudhoe Bay's projected ultimate recovery was 10.2 billion barrels, 4.4 billion produced and 5.8 billion reserves, and by January 1997 the estimate is 12.9 billion barrels, 9.5 billion produced and 3.4 billion reserves. A large portion of these increases in projected ultimate recovery are due to investments in improved technology such as horizontal drilling, coiled tubing workovers, gas cycling and enhanced oil recovery. Further improvements in technology, expansion of enhanced recovery operations and additional infill drilling may further increase future reserve estimates, but the main variables affecting future oil recovery are future oil prices and development costs.

DO&G's estimates of North Slope reserves are derived from Table 2A. Table 2A tabulates how much oil each field likely will produce each year to 2020. Each field's reserves are equal to its cumulative production during the next 24 years. Reserves of each of the Cook Inlet fields were calculated by whichever method was most appropriate for that field. The Cook Inlet gas estimates took into consideration Marathon's and Phillips' recent comprehensive analysis of Cook Inlet reserves. Reserves of undeveloped North Slope and Cook Inlet oil and gas pools are more speculative, primarily because their economics are uncertain and because some are still incompletely delineated.

ROYALTY RESERVES

The state's royalty reserves are calculated by multiplying each field's reserves times the state interest in the field. All North Slope reserves are on state land except the gas reserves of East Barrow, South Barrow and Walakpa fields and some of the oil reserves in the Alpine pool. All Cook Inlet reserves are on state land except Swanson River, Beaver Creek and Birch Hill fields and parts of Beluga River, Kenai and Cannery Loop fields

TABLE 1 - OIL AND GAS RESERVES AND ROYALTY SHARE, ESTIMATED AS OF 1/1/97

OIL: MILLIONS OF BARRELS. INCLUDES OIL , CONDENSATE AND NGL
GAS: BILLIONS OF CUBIC FEET

	Reserves				Royalty Share		
	Oil		Gas		Royalty Percent	Oil	Gas
NORTH SLOPE							
Developed or Under Development							
Alpine	290	[7]	60	[7]	8.0% [1	23	5
East Barrow	-		5	[6]	[9]	-	-
Endicott [1]	258	[7]	868	[6]	14.4%	37	125
Greater Point McIntyre Area							
Lisburne	57	[7]	320	[6]	12.5%	7	40
Niakuk	90	[7]	42	[6]	12.5%	11	5
Point McIntyre	312	[7]	620	[6]	12.2%	38	76
Other [2]	1	[7]	[9]		12.5%	<1	-
Kuparuk River Unit							
Kuparuk	1,275	[7]	627	[6]	12.5%	159	78
West Sak [3]	279	[7]	[9]		12.5%	35	-
Milne Point Unit							
Milne Point	210	[7]	20	[6]	14.6%	31	3
Sag River	19	[7]	[9]		14.6%	3	-
Schrader Bluff	281	[7]	[9]		14.6%	41	-
Northstar	144	[7]	450	[7]	16.0%	23	72
Prudhoe Bay Unit							
Prudhoe Bay	3,443	[7]	23,000	[7]	12.5%	430	2,875
Satellites [4]	241	[7]	[9]		12.5%	-	-
South Barrow	-		4	[6]	[9]	-	-
Walakpa	-		27	[6]	[9]	-	-
Undeveloped							
Pt. Thomson/Flaxman Island	200	[7]	3,500	[7]	12.5%	25	438
Other Onshore [5]	95	[7]	[9]		12.5% [1	12	<1
TOTAL	7,195		29,543			876	3,716
COOK INLET							
Developed or Under Development							
Beaver Creek	1	[6]	109	[7]	[9]	-	-
Beluga River	-		704	[7]	7.5%	-	53
Cannery Loop	-		36	[7]	4.0%	-	1
Granite Point	13	[7]	27	[7]	12.5%	2	3
Ivan River, Lewis River, Pretty Creek, Stump Lake	-		54	[7]	12.5%	-	7
Kenai	-		296	[7]	2.1%	-	6
McArthur River	38	[7]	592	[7]	12.5%	5	74
Middle Ground Shoal	18	[7]	14	[6]	12.5%	2	2
North Cook Inlet	-		1,075	[7]	12.5%	-	134
North Trading Bay	-		20	[7]	12.5%	-	3
Sterling	-		23	[7]	12.4%	-	3
Swanson River	13	[6]	211	[7]	[9]	-	-
Trading Bay	4	[7]	29	[6]	12.5%	<1	4
West Fork	-		3	[7]	[9]	-	<1
West McArthur River	8	[7]	[8]		12.5%	<1	-
Undeveloped							
Birch Hill	-		11	[6]	[9]	-	-
Falls Creek	-		13	[6]	12.5%	-	2
Nicolai Creek	-		2	[6]	12.5%	-	<1
North Fork	-		12	[6]	12.5%	-	<1
Sunfish	25	[7]	30	[7]	12.5%	3	4
West Foreland	-		20	[6]	12.5%	-	3
TOTAL	120		3,281			12	297
STATE TOTAL	7,315		32,824			888	4,014

[1] Endicott reserves include Endicott and Sag Delta reserves.
[2] Other reserves include Larch, North Prudhoe Bay State and West Beach reserves.
[3] West Sak reserves include K-10, Tabasco and West Sak reserves.
[4] Satellite reserves include wells penetrating several smaller, unnamed reservoirs.
[5] One of several known discoveries which probably will be developed.
[6] Alaska Oil and Gas Conservation Commission.
[7] William VanDyke, Division of Oil and Gas.
[8] No estimate is available.
[9] No State leases.
[10 Estimated.
Revised 4/25/97

2 OIL PRODUCTION FORECAST

NORTH SLOPE

North Slope production of combined oil, condensate and natural gas liquids (NGLs), which peaked at 2.0 million barrels per day in 1988, has declined to about 1.5 million barrels per day in 1996 and will decline to probably 292 thousand barrels per day in 2020. Cumulative production for the 24 year period will be 7.0 billion barrels. This estimate is a projection of production histories of existing fields and the expected production from to-be-developed fields, and it includes planned and probable field developments.

Some developments are in final stages and some are imminent. BP is continuing development at Milne Point unit and Niakuk and also is actively exploring for oil and gas east of Prudhoe Bay. The Prudhoe Bay owners have completed the second phase of the Gas Handling Expansion (GHX-II) project. Kuparuk River unit owners have implemented a large scale enhanced oil recovery project using a miscible injectant and Endicott and Point McIntyre operators are studying miscible injectants at those fields.

COOK INLET

Cook Inlet fields probably will continue to produce well into the next century, but DO&G projects output only to 2006 because regional production depends on economic factors which can not be reasonably estimated beyond then. The projection does not include oil production from Swanson River and Beaver Creek, because the state holds no leases in these fields. A production forecast for Sunfish is not included because of its uncertain development potential.

Cook Inlet oil production peaked at 230 thousand barrels per day in 1970 and has declined to about 42 thousand barrels per day in 1996 and will probably decline to 10 thousand barrels by 2006. Cumulative production in the ten year period between 1997 and 2006 will be 71.2 million barrels.

AVAILABLE ROYALTY OIL

The state takes Cook Inlet oil in-value whereas it takes North Slope royalty oil both in-value and in-kind. The state currently sells its in-kind royalty oil through two contracts that will expire in 1998 and 2003. Forty one percent of the available royalty oil production for 1997 is allocated to these contracts. The estimated cumulative royalty share through the 24 year projection period will be 891 million barrels.

PRODUCERS SHARE OF NORTH SLOPE PRODUCTION

North Slope producers allocate monthly production among themselves by offtake percentage that vary from month to month and are somewhat different from their ownership interests. The five producing North Slope centers, Endicott, Greater Point McIntyre Area, Kuparuk Unit, Milne Point Unit and Prudhoe Bay Unit, are projected to produce 6.4 billion barrels between 1997 and 2020. At the recent average offtake percentages, producers will recover:

Arco	2.0 billion barrels	31%
BP	2.9 billion barrels	44%
Exxon	1.2 billion barrels	20%
Other	.3 billion barrels	5%

TABLE 2A - OIL PRODUCTION FORECAST AND AVAILABLE ROYALTY OIL

THOUSANDS OF BARRELS PER DAY. INCLUDES OIL, CONDENSATE AND NGL

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
PRODUCTION FORECAST											
NORTH SLOPE											
Alpine		-	-	-	60	60	60	60	60	58	53
Endicott [1]		69	64	58	54	49	45	40	37	33	30
Greater Point McIntyre Area		193	161	129	106	88	74	65	59	53	48
Lisburne		14	14	12	10	9	8	7	7	7	6
Niakuk		32	32	29	26	22	19	16	13	11	10
Point McIntyre		145	114	87	70	57	48	42	39	35	32
Other [2]		2	1	1	-	-	-	-	-	-	-
Kuparuk River Unit		260	264	267	267	269	253	239	228	217	208
Kuparuk		260	260	260	260	255	232	211	192	175	159
West Sak		-	4	7	7	14	21	28	36	42	49
Milne Point Unit		56	62	67	68	70	73	73	75	75	78
Milne Point		50	55	55	55	50	48	41	35	30	26
Sag River		2	3	5	6	6	5	4	4	3	3
Schrader Bluff		4	4	7	7	14	21	28	36	42	49
Northstar		-	-	13	40	40	40	38	34	31	28
Prudhoe Bay Unit		788	739	692	655	611	567	534	485	460	447
Prudhoe Bay		788	719	662	615	571	527	494	445	420	407
Satellites [3]		-	20	30	40	40	40	40	40	40	40
Other Onshore [4]		-	-	-	25	25	25	25	22	19	17
TOTAL		**1,366**	**1,290**	**1,225**	**1,274**	**1,211**	**1,137**	**1,073**	**998**	**944**	**907**
COOK INLET [5]											
Granite Point		6	6	5	5	4	4	3	3	2	2
McArthur River		15	14	13	12	10	9	8	8	7	6
Middle Ground Shoal		6	6	5	5	4	4	3	3	2	2
Trading Bay		1	1	1	1	1	-	-	-	-	-
West McArthur River		3	2	1	1	1	-	-	-	-	-
TOTAL		**31**	**29**	**25**	**24**	**20**	**17**	**14**	**14**	**11**	**10**
STATE											
TOTAL		**1,397**	**1,319**	**1,250**	**1,298**	**1,231**	**1,154**	**1,087**	**1,012**	**955**	**917**
AVAILABLE ROYALTY OIL											
	Royalty Percent										
NORTH SLOPE											
Alpine	8.0% [6]	-	-	-	5	5	5	5	5	5	4
Endicott [1]	14.4%	10	9	8	8	7	6	6	5	5	4
Greater Point McIntyre Area	12.5%	24	20	16	13	11	9	8	7	7	6
Lisburne	12.5%	2	2	2	1	1	1	1	1	1	1
Niakuk	12.5%	4	4	4	3	3	2	2	2	1	1
Point McIntyre	12.5%	18	14	11	9	7	6	5	5	4	4
Other [2]	12.5%	<.5	<.5	<.5	-	-	-	-	-	-	-
Kuparuk River Unit	12.5%	33	33	33	33	34	32	30	29	27	26
Kuparuk	12.5%	33	33	33	33	32	29	26	24	22	20
West Sak	12.5%		1	1	1	2	3	4	5	5	6
Milne Point Unit	14.6%	8	9	10	10	10	11	11	11	11	11
Milne Point	14.6%	7	8	8	8	7	7	6	5	4	4
Sag River	14.6%	<.5	<.5	1	1	1	1	1	1	<.5	<.5
Schrader Bluff	14.6%	1	1	1	1	2	3	4	5	6	7
Northstar	16.0% [7]			2	6	6	6	6	5	5	4
Prudhoe Bay Unit	12.5%	99	92	87	82	76	71	67	61	58	56
Prudhoe Bay	12.5%	99	90	83	77	71	66	62	56	53	51
Satellites [3]	12.5%		3	4	5	5	5	5	5	5	5
Other Onshore [4]	12.5%				3	3	3	3	3	2	2
TOTAL		**173**	**164**	**156**	**160**	**152**	**143**	**135**	**125**	**119**	**114**
COOK INLET [5]											
Granite Point	12.5%	1	1	1	1	1	1	<.5	<.5	<.5	<.5
McArthur River	12.5%	2	2	2	2	1	1	1	1	1	1
Middle Ground Shoal	12.5%	1	1	1	1	1	1	<.5	<.5	<.5	<.5
Trading Bay	12.5%	<.5	<.5	<.5	<.5	<.5	-	-	-	-	-
West McArthur River	12.5%	<.5	<.5	<.5	<.5	<.5	-	-	-	-	-
TOTAL		**4**	**4**	**3**	**3**	**3**	**2**	**2**	**2**	**1**	**1**
STATE											
TOTAL		**177**	**167**	**159**	**163**	**155**	**145**	**137**	**127**	**120**	**115**
IN-KIND ROYALTY OIL SALES											
Mapco [8]		35	35	35	35	35	35	35	-	-	-
Tesoro [9]		36	32	-	-	-	-	-	-	-	-
TOTAL		**71**	**67**	**35**	**35**	**35**	**35**	**35**	-	-	-
IN-VALUE ROYALTY OIL											
TOTAL		**106**	**100**	**124**	**128**	**120**	**110**	**102**	**127**	**120**	**115**

[1] Endicott includes Endicott and Sag Delta.
[2] Other includes Larch, North Prudhoe Bay State and West Beach.
[3] Satellite includes wells penetrating several smaller, unnamed reservoirs.
[4] Other On-Shore includes one of several known discoveries which likely will be developed.
[5] This projection is not extended beyond 2006 because production is very sensitive to short term economics. Beaver Creek and Swanson River fields are not included because the state has no leases in either field.
[6] This percentage is the state's share of the gross and does not include the royalty share attributable to Arctic Slope Regional Corporation.
[7] This is the estimated minimum state royalty share. It does not include Federal royalty or the sliding scale Supplemental Royalty.
[8] The Mapco contract is for 35,000 BPD of Prudhoe Bay Unit royalty production, it expires December 2003.
[9] The Tesoro contract is for 30% of Prudhoe Bay Unit royalty production, it expires December 1998.
Revised 5/1/97

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Cumulative Production (MBbl)
48	44	40	36	33	30	27	25	22	20	18	16	14	12	289,719
28	25	23	21	19	18	16	15	14	13	12	11	10	9	258,090
44	39	35	31	29	27	23	20	16	11	7	4	3	3	460,291
6	6	6	5	5	5	5	4	4	4	4	4	3	3	56,784
8	7	6	5	4	4	3	3	2	-	-	-	-	-	89,973
30	27	24	22	20	18	15	13	10	7	3	-	-	-	312,075
-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,460
201	188	179	168	154	142	128	118	109	100	89	81	72	64	1,554,386
145	132	123	115	105	96	86	79	73	67	61	56	51	46	1,274,927
56	56	56	53	49	46	42	39	36	33	28	25	21	18	279,459
80	77	75	69	63	57	52	48	44	39	32	28	23	19	509,993
22	19	17	14	12	10	9	8	7	5	4	3	2	2	209,912
2	2	2	2	2	1	1	1	1	1	-	-	-	-	19,163
56	56	56	53	49	46	42	39	36	33	28	25	21	18	280,919
25	22	19	17	15	13	12	11	-	-	-	-	-	-	143,628
426	402	379	356	338	317	299	282	260	240	225	211	198	186	3,684,399
386	362	343	323	307	288	273	258	241	226	213	200	188	177	3,442,943
40	40	36	33	31	29	26	24	19	14	12	11	10	10	241,456
16	14	13	11	10	9	8	8	7	6	3	-	-	-	94,718
866	**810**	**762**	**709**	**659**	**610**	**564**	**524**	**470**	**427**	**385**	**349**	**319**	**292**	**6,995,222**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,600
-	-	-	-	-	-	-	-	-	-	-	-	-	-	37,230
-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,600
-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,825
-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,920
-	-	-	-	-	-	-	-	-	-	-	-	-	-	**71,175**
866	**810**	**762**	**709**	**659**	**610**	**564**	**524**	**470**	**427**	**385**	**349**	**319**	**292**	**7,066,397**
4	4	3	3	3	2	2	2	2	2	1	1	1	1	23,178
4	4	3	3	3	3	2	2	2	2	2	2	1	1	37,268
5	5	4	4	4	3	3	2	2	1	1	<.5	<.5	<.5	57,536
1	1	1	1	1	1	1	1	1	1	1	<.5	<.5	<.5	7,098
1	1	1	1	1	<.5	<.5	<.5	<.5	-	-	-	-	-	11,247
4	3	3	3	2	2	2	2	1	1	<.5	-	-	-	39,009
-	-	-	-	-	-	-	-	-	-	-	-	-	-	183
25	23	22	21	19	18	16	15	14	12	11	10	9	8	194,298
18	16	15	14	13	12	11	10	9	8	8	7	6	6	159,366
7	7	7	7	6	6	5	5	5	4	4	3	3	2	34,932
12	11	11	10	9	8	7	7	6	6	5	4	3	3	74,204
3	3	2	2	2	1	1	1	1	1	1	<.5	<.5	<.5	30,542
<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-	-	-	-	2,788
8	8	8	8	7	7	6	6	5	5	4	4	3	3	40,874
4	3	3	3	2	2	2	2	-	-	-	-	-	-	22,980
53	50	47	44	42	40	37	35	32	30	28	26	25	23	460,550
48	45	43	40	38	36	34	32	30	28	27	25	24	22	430,368
5	5	5	4	4	4	3	3	2	2	2	1	1	1	30,182
2	2	2	1	1	1	1	1	1	1	<.5	-	-	-	11,840
109	**102**	**96**	**89**	**83**	**77**	**71**	**66**	**59**	**54**	**48**	**44**	**40**	**37**	**881,854**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,825
-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,654
-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,825
-	-	-	-	-	-	-	-	-	-	-	-	-	-	228
-	-	-	-	-	-	-	-	-	-	-	-	-	-	365
-	-	-	-	-	-	-	-	-	-	-	-	-	-	**8,897**
109	**102**	**96**	**89**	**83**	**77**	**71**	**66**	**59**	**54**	**48**	**44**	**40**	**37**	**890,751**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	89,425
-	-	-	-	-	-	-	-	-	-	-	-	-	-	24,802
-	-	-	-	-	-	-	-	-	-	-	-	-	-	**114,227**
109	**102**	**96**	**89**	**83**	**77**	**71**	**66**	**59**	**54**	**48**	**44**	**40**	**37**	**776,524**

TABLE 2B - OIL PRODUCTION FORECAST, BY LESSEE, AND AVAILABLE ROYALTY OIL FOR PRODUCING NORTH SLOPE FIELDS

THOUSANDS OF BARRELS PER DAY. INCLUDES OIL, CONDENSATE AND NGL

	Total Offtake [1]	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
PRODUCTION FORECAST											
Endicott [2]		69	64	58	54	49	45	40	37	33	30
Amoco	9.86%	7	6	6	5	5	4	4	4	3	3
Arco	0.02%	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
BP	59.36%	41	38	34	32	29	26	24	22	20	18
CIRI	0.62%	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Doyon	0.12%	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Exxon	19.75%	14	13	11	11	10	9	8	7	7	6
NANA	0.37%	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Unocal	9.88%	7	6	6	5	5	4	4	4	3	3
Greater Point McIntyre [3]		193	161	129	106	88	74	65	59	53	48
Arco	27.40%	53	44	35	29	24	20	18	16	14	13
BP	39.28%	76	63	50	41	35	29	25	23	21	19
Exxon	33.32%	64	53	43	35	29	25	21	19	17	16
Kuparuk River Unit [4]		260	264	267	267	269	253	239	228	217	208
Arco	55.19%	143	146	147	147	148	140	132	126	119	115
BP	39.15%	102	103	105	105	105	99	94	89	85	81
Chevron	0.11%	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Exxon	0.22%	1	1	1	1	1	1	1	1	<.5	<.5
Mobil	0.37%	1	1	1	1	1	1	1	1	1	1
Union	4.97%	13	13	13	13	13	13	12	11	11	10
Milne Point Unit [5]		56	62	67	68	70	73	73	75	75	78
BP	91.02%	51	56	61	62	63	66	66	68	68	71
Oxy	8.98%	5	6	6	6	6	7	7	7	7	7
Prudhoe Bay Unit [6]		788	739	692	655	611	567	534	485	460	447
Arco	27.98%	220	207	194	183	171	159	149	136	129	125
BP	40.12%	316	296	278	263	245	227	214	195	185	179
Chevron	0.62%	5	5	4	4	4	4	3	3	3	3
Exxon	28.03%	221	207	194	184	171	159	150	136	129	125
LL&E	0.03%	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Forcenergy [7]	0.04%	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Mobil	1.42%	11	10	10	9	9	8	8	7	7	6
Phillips	1.40%	11	10	10	9	9	8	7	7	6	6
Texaco	0.39%	3	3	3	3	2	2	2	2	2	2
TOTAL Amoco		**7**	**6**	**6**	**5**	**5**	**4**	**4**	**4**	**3**	**3**
TOTAL Arco		**417**	**396**	**376**	**360**	**343**	**319**	**299**	**278**	**263**	**253**
TOTAL BP		**585**	**557**	**528**	**502**	**477**	**448**	**423**	**396**	**378**	**368**
TOTAL Chevron		**5**	**5**	**5**	**4**	**4**	**4**	**4**	**3**	**3**	**3**
TOTAL CIRI		**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**
TOTAL Doyon		**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**
TOTAL Exxon		**299**	**274**	**249**	**230**	**211**	**193**	**180**	**163**	**153**	**147**
TOTAL LL&E		**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**
TOTAL Forcenergy [7]		**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**
TOTAL Mobil		**12**	**11**	**11**	**10**	**10**	**9**	**8**	**8**	**7**	**7**
TOTAL NANA		**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**
TOTAL Oxy		**5**	**6**	**6**	**6**	**6**	**7**	**7**	**7**	**7**	**7**
TOTAL Phillips		**11**	**10**	**10**	**9**	**9**	**8**	**7**	**7**	**6**	**6**
TOTAL Texaco		**3**	**3**	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**2**
TOTAL Unocal		**20**	**19**	**19**	**19**	**18**	**17**	**16**	**15**	**14**	**13**
TOTAL NORTH SLOPE		**1,366**	**1,290**	**1,213**	**1,149**	**1,086**	**1,012**	**951**	**883**	**837**	**810**
AVAILABLE ROYALTY OIL	**Royalty Percent**										
Endicott [2]	14.4%	10	9	8	8	7	6	6	5	5	4
Greater Point McIntyre [3]	12.5%	24	20	16	13	11	9	8	7	7	6
Kuparuk River [4]	12.5%	33	33	33	33	34	32	30	29	27	26
Milne Point [5]	14.6%	8	9	10	10	10	11	11	11	11	11
Prudhoe Bay [6]	12.5%	99	92	87	82	76	71	67	61	58	56
TOTAL		**173**	**164**	**154**	**146**	**138**	**129**	**121**	**113**	**107**	**103**
IN-KIND ROYALTY OIL SALES											
Mapco [8]		35	35	35	35	35	35	35	-	-	-
Tesoro [9]		36	32	-	-	-	-	-	-	-	-
TOTAL		**71**	**67**	**35**	**35**	**35**	**35**	**35**	**-**	**-**	**-**
IN-VALUE ROYALTY OIL											
TOTAL		**103**	**96**	**119**	**111**	**103**	**94**	**86**	**113**	**107**	**103**

[1] Average from operator royalty statements of January through September 1996.
[2] Endicott production includes Endicott and Sag Delta.
[3] Greater Point McIntyre production includes Larch, Lisburne, Niakuk, North Prudhoe Bay State, Point McIntyre and West Beach.
[4] Kuparuk River Unit includes West Sak.
[5] Milne Point production includes Milne Point, Schrader Bluff and Sag River.
[6] Prudhoe Bay Unit includes Satellites.
[7] Marathon has announced that it has sold its interest in its Prudhoe Bay properties to Forcenergy.
[8] The Mapco contract is for 35,000 BPD of Prudhoe Bay Unit royalty production. it expires December 2003.
[9] The Tesoro contract is for 30% of Prudhoe Bay Unit royalty production, it expires December 1998.
Revised 4/24/97

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Cumulative Production (MBbl)
28	25	23	21	19	18	16	15	14	13	12	11	10	9	258,090
3	2	2	2	2	2	2	1	1	1	1	1	1	1	25,448
<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	52
16	15	14	12	11	10	9	9	8	7	7	6	6	5	153,202
<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	1,600
<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	310
5	5	5	4	4	3	3	3	3	2	2	2	2	2	50,973
<.5	0	0	0	0	0	0	0	0	0	0	0	0	0	955
3	2	2	2	2	2	2	1	1	1	1	1	1	1	25,499
44	39	35	31	29	27	23	20	16	11	7	4	3	3	460,291
12	11	10	8	8	7	6	5	4	3	2	1	1	1	126,120
17	15	14	12	11	10	9	8	6	4	3	1	1	1	180,802
14	13	12	10	9	9	7	6	5	4	2	1	1	1	153,369
201	188	179	168	154	142	128	118	109	100	89	81	72	64	1,554,386
111	103	99	93	85	78	71	65	60	55	49	44	39	35	857,865
78	73	70	66	60	55	50	46	43	39	35	32	28	25	608,542
<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	1,710
<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	3,420
1	1	1	1	1	1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	5,751
10	9	9	8	8	7	6	6	5	5	4	4	4	3	77,253
80	77	75	69	63	57	52	48	44	39	32	28	23	19	509,993
73	70	68	63	57	52	47	43	40	35	29	25	21	18	464,195
7	7	7	6	6	5	5	4	4	3	3	2	2	2	45,797
426	402	379	356	338	317	299	282	260	240	225	211	198	186	3,684,399
119	112	106	99	94	89	84	79	73	67	63	59	55	52	1,030,711
171	161	152	143	135	127	120	113	104	96	90	84	79	75	1,478,181
3	2	2	2	2	2	2	2	2	1	1	1	1	1	22,843
119	113	106	100	95	89	84	79	73	67	63	59	55	52	1,032,553
<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	1,105
<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	1,474
6	6	5	5	5	4	4	4	4	3	3	3	3	3	52,318
6	6	5	5	5	4	4	4	4	3	3	3	3	3	51,582
2	2	1	1	1	1	1	1	1	1	1	1	1	1	14,369
3	**2**	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**25,448**
242	**227**	**214**	**201**	**187**	**174**	**160**	**149**	**137**	**125**	**114**	**104**	**96**	**88**	**2,014,747**
356	**335**	**317**	**296**	**275**	**255**	**235**	**219**	**201**	**182**	**163**	**149**	**135**	**123**	**2,884,922**
3	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**24,553**
<.5	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**1,600**
<.5	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**310**
140	**131**	**123**	**114**	**108**	**101**	**95**	**89**	**81**	**73**	**68**	**62**	**59**	**55**	**1,240,314**
<.5	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**1,105**
<.5	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**1,474**
7	**6**	**6**	**6**	**5**	**5**	**5**	**4**	**4**	**4**	**4**	**3**	**3**	**3**	**58,070**
<.5	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**<.5**	**955**
7	**7**	**7**	**6**	**6**	**5**	**5**	**4**	**4**	**3**	**3**	**2**	**2**	**2**	**45,797**
6	**6**	**5**	**5**	**5**	**4**	**4**	**4**	**4**	**3**	**3**	**3**	**3**	**3**	**51,582**
2	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**14,369**
13	**12**	**11**	**10**	**10**	**9**	**8**	**7**	**7**	**6**	**6**	**5**	**4**	**4**	**102,752**
778	**731**	**690**	**645**	**602**	**559**	**517**	**481**	**442**	**401**	**364**	**333**	**305**	**280**	**6,467,998**
4	4	3	3	3	3	2	2	2	2	2	2	1	1	37,268
5	5	4	4	4	3	3	2	2	1	1	<.5	<.5	<.5	57,536
25	23	22	21	19	18	16	15	14	12	11	10	9	8	194,298
12	11	11	10	9	8	7	7	6	6	5	4	3	3	74,204
53	50	47	44	42	40	37	35	32	30	28	26	25	23	460,550
99	**93**	**88**	**82**	**77**	**71**	**66**	**61**	**56**	**51**	**46**	**42**	**39**	**36**	**823,857**
-	-	-	-	-	-	-	-	-	-	-	-	-	-	89,425
-	-	-	-	-	-	-	-	-	-	-	-	-	-	24,802
-	-	-	-	-	-	-	-	-	-	-	-	-	-	**114,227**
99	**93**	**88**	**82**	**77**	**71**	**66**	**61**	**56**	**51**	**46**	**42**	**39**	**36**	**709,630**

TABLE 2C - OIL PRODUCTION FORECAST AND AVAILABLE ROYALTY OIL FOR PRODUCING COOK INLET FIELDS

THOUSANDS OF BARRELS PER DAY

	Total Offtake	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Cumulative Production (MBbl)
PRODUCTION FORECAST [1]												
Granite Point		6	6	5	5	4	4	3	3	2	2	14,600
Mobil	31.55%	2	2	2	2	1	1	1	1	1	1	4,606
Unocal	68.45%	4	4	3	3	3	3	2	2	1	1	9,994
McArthur River		15	14	13	12	10	9	8	8	7	6	37,230
Forcenergy [2]	45.75%	7	6	6	5	5	4	4	4	3	3	17,033
Unocal	54.25%	8	8	7	7	5	5	4	4	4	3	20,197
Middle Ground Shoal		6	6	5	5	4	4	3	3	2	2	14,600
Shell	81.12%	5	5	4	4	3	3	2	2	2	2	11,844
Unocal	18.88%	1	1	1	1	1	1	1	1	<.5	<.5	2,756
Trading Bay		1	1	1	1	1	-	-	-	-	-	1,825
Forcenergy [2]	50.00%	1	1	1	1	1	-	-	-	-	-	913
Unocal	50.00%	1	1	1	1	1	-	-	-	-	-	913
West McArthur River		3	2	1	1	1	-	-	-	-	-	2,920
Stewart et al.	100%	3	2	1	1	1	-	-	-	-	-	2,920
TOTAL FORCENERGY [2]		**7**	**7**	**6**	**6**	**5**	**4**	**4**	**4**	**3**	**3**	**17,945**
TOTAL MOBIL		**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**4,606**
TOTAL SHELL		**5**	**5**	**4**	**4**	**3**	**3**	**2**	**2**	**2**	**2**	**11,844**
TOTAL STEWART		**3**	**2**	**1**	**1**	**1**	-	-	-	-	-	**2,920**
TOTAL UNOCAL		**14**	**13**	**12**	**11**	**9**	**8**	**7**	**7**	**6**	**5**	**33,860**
TOTAL COOK INLET		**31**	**29**	**25**	**24**	**20**	**17**	**14**	**14**	**11**	**10**	**71,175**
AVAILABLE ROYALTY OIL	**Royalty Percent**											
Granite Point	12.5%	1	1	1	1	1	1	<.5	<.5	<.5	<.5	1,825
McArthur River	12.5%	2	2	2	2	1	1	1	1	1	1	4,654
Middle Ground Shoal	12.5%	1	1	1	1	1	1	<.5	<.5	<.5	<.5	1,825
Trading Bay	12.5%	<.5	<.5	<.5	<.5	<.5	-	-	-	-	-	228
West McArthur River	12.5%	<.5	<.5	<.5	<.5	<.5	-	-	-	-	-	365
TOTAL		**4**	**4**	**3**	**3**	**3**	**2**	**2**	**2**	**1**	**1**	**8,897**

[1] Projection is not extended beyond 2006 because production is very sensitive to short term economics.
Beaver Creek and Swanson River fields are not included because the state has no leases in either field.

[2] Marathon recently announced that it sold its interests in its Cook Inlet oil producing properties to Forcenergy but retained its interests in its gas producing properties.

Revised 4/21/97

FIGURE 2A-1 - OIL PRODUCTION FORECAST FOR NORTH SLOPE, BY AREA

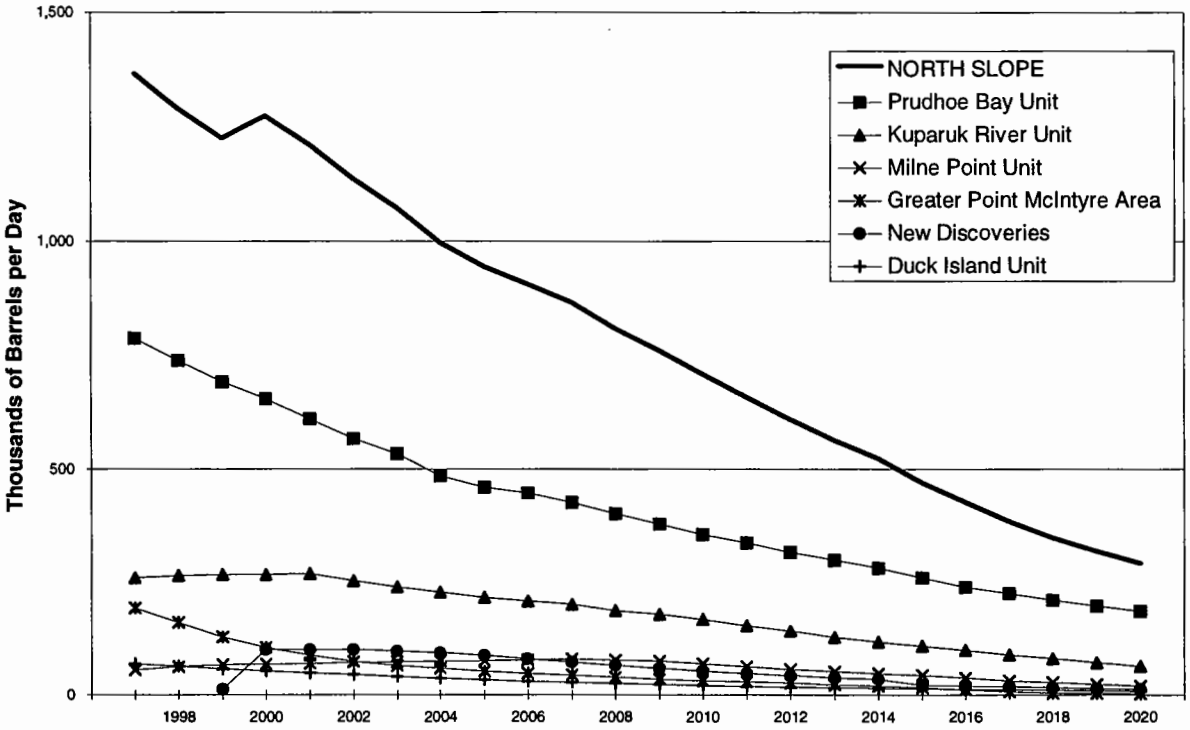


FIGURE 2A-2 - OIL PRODUCTION FORECAST FOR GREATER POINT McINTYRE AREA

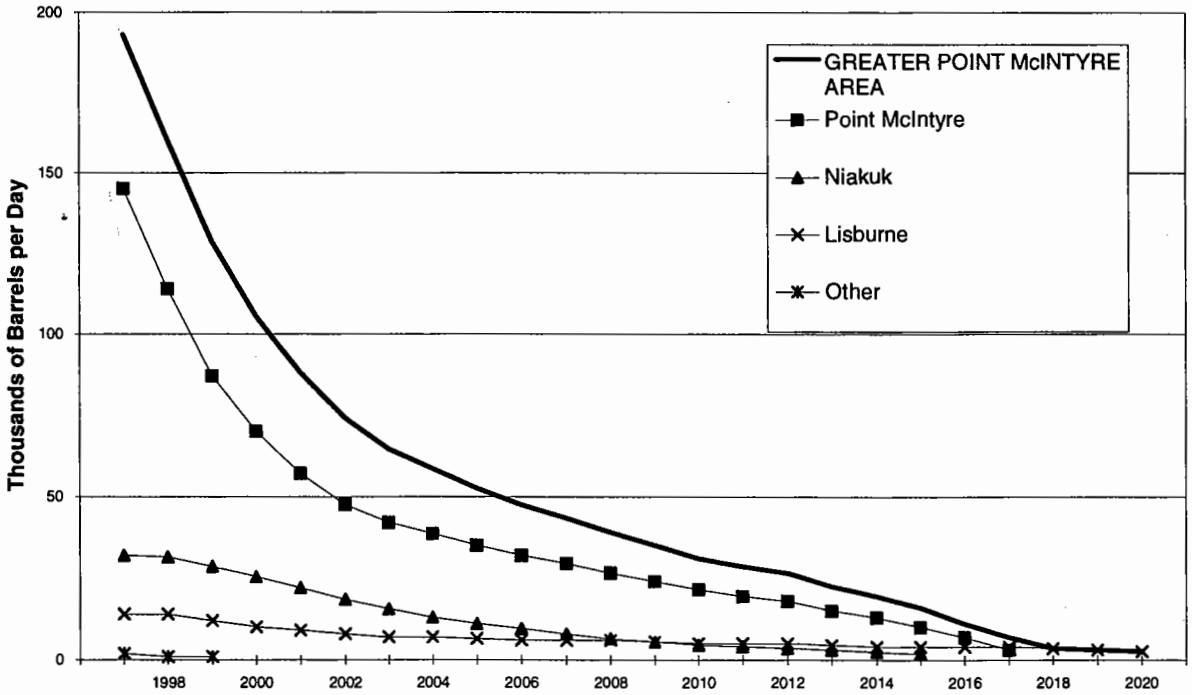


FIGURE 2A-3 - OIL PRODUCTION FORECAST FOR NEW DISCOVERIES

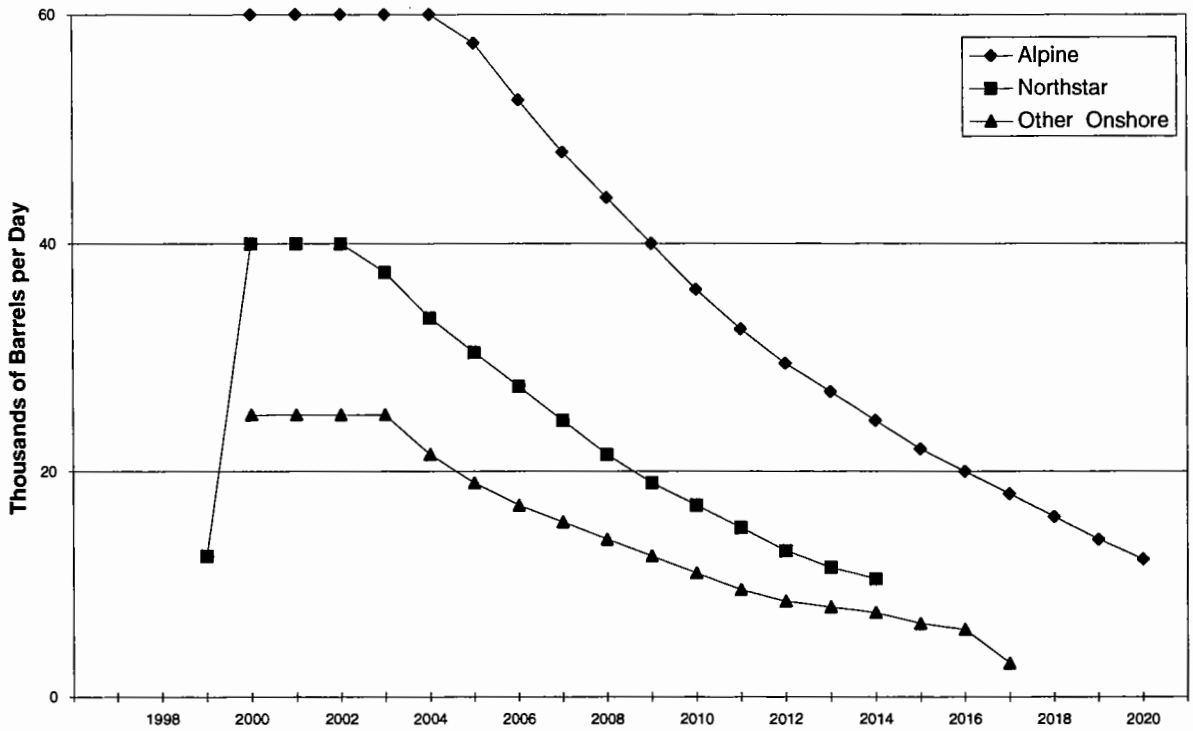


FIGURE 2A-4 - OIL PRODUCTION FORECAST FOR COOK INLET

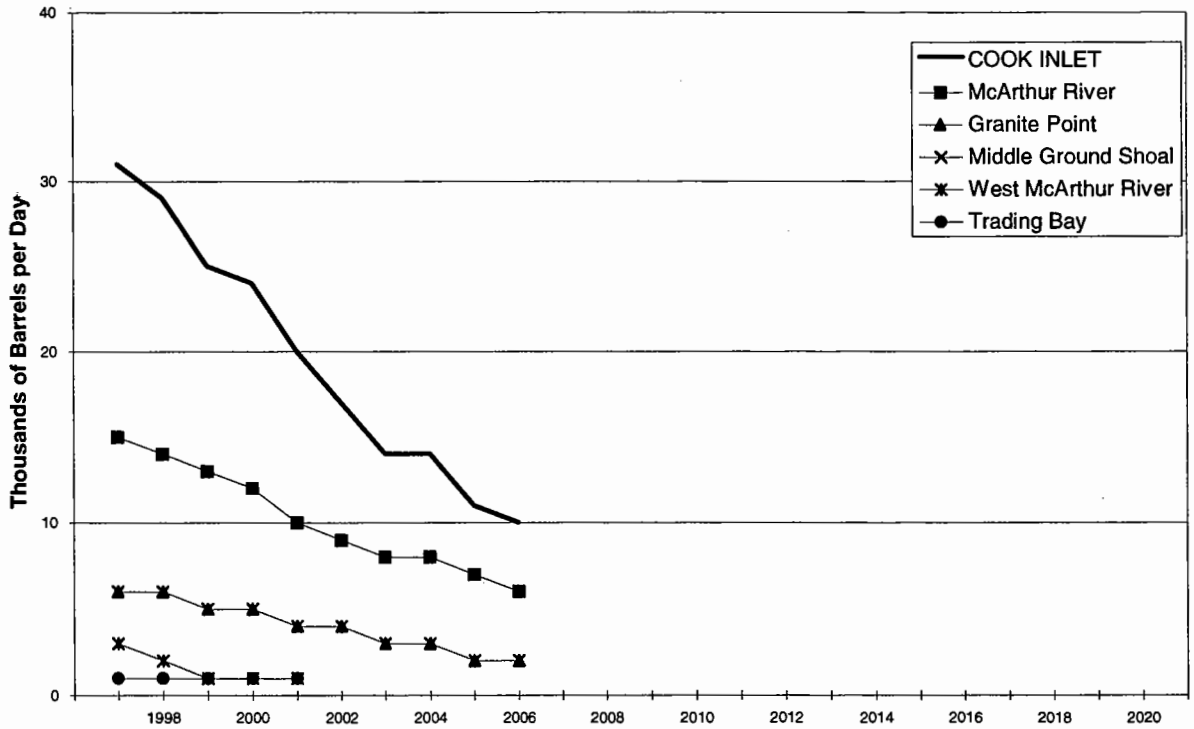
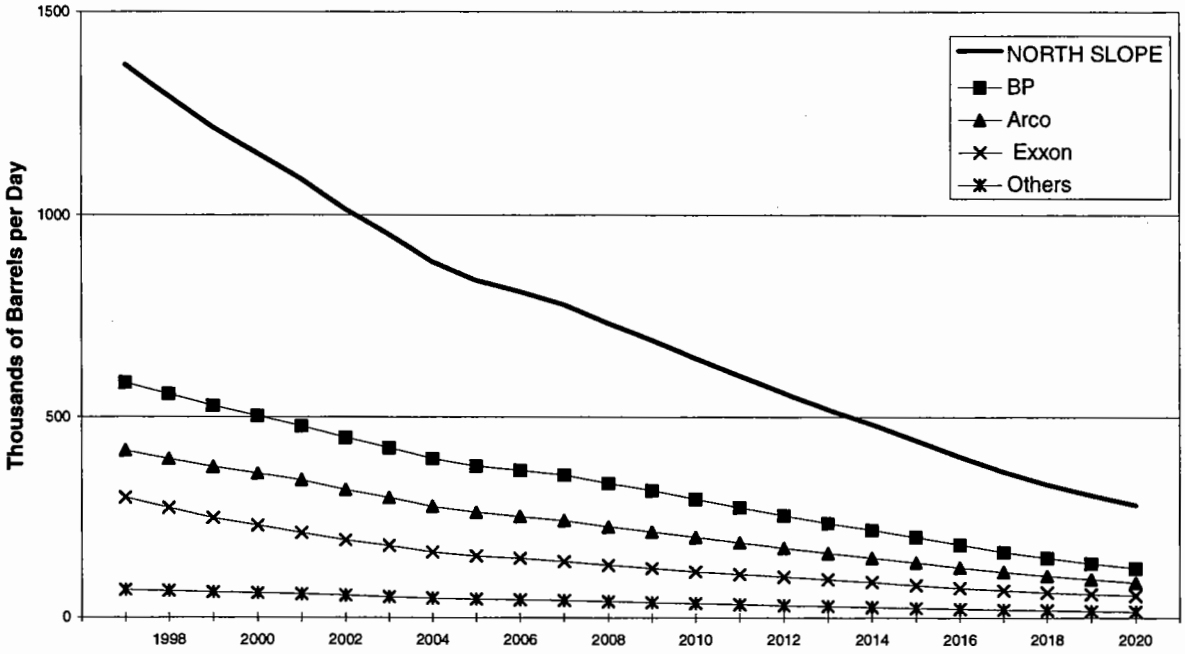


FIGURE 2B - OIL PRODUCTION FORECAST FOR NORTH SLOPE, BY PRODUCER



3 OIL PRODUCTION HISTORY

PRE-1950'S PRODUCTION

Dozens of wildcat oil wells were drilled in Alaska in the late 1800's and early 1900's, mostly along the coasts of the Gulf of Alaska, Cook Inlet and the National Petroleum Reserve, Alaska (NPRA). Only Katalla field, near Cordova, produced commercial quantities of oil.

COOK INLET

Alaska's first significant oil field, Swanson River, was discovered in 1957 and began production in 1959. Five other fields were discovered nearby and brought to production between 1965 and 1972. Two fields, Sunfish and West McArthur River, were discovered in 1991 and, though Sunfish development remains uncertain, West McArthur River began production in 1993.

Oil from fields on the west side of Cook Inlet is transported by pipeline to the Drift River Terminal. At present all west side oil is shipped to West Coast refineries, though up to the mid-80's some west side oil was shipped to Nikiski to the former Chevron refinery and the Tesoro refinery. The state also sold some west side royalty oil to the Chinese Petroleum Company (Taiwan) between 1987 and 1991. Oil from fields on the east side of Cook Inlet flows to Nikiski where most of it is refined at the Tesoro refinery and the balance is shipped to West Coast refineries.

Regional production peaked at 83 million barrels per year in 1970 and has declined to 15.2 million barrels in 1996. By the end of 1996 Cook Inlet fields have produced 1.2 billion barrels of oil, 48% from McArthur River, 18% from Swanson River and 34% from the combined other fields.

NORTH SLOPE

Atlantic Richfield discovered the first commercial North Slope oil field at Prudhoe Bay in 1968. At that time the only land transport system of any kind north of the Brooks Range was a few miles of road at Barrow. During the next several years the field was delineated and partially developed and simultaneously a transport system was designed and built. Construction of the Trans Alaska Pipeline System (TAPS) began in 1975 and was completed in 1977. While waiting for pipeline completion Prudhoe Bay field produced small amounts of oil and gas to fuel the field operations and surplus crude and residual oil was injected back into the reservoir. Kuparuk, Lisburne and Milne Point fields were subsequently developed including direct pipelines to TAPS. Endicott field, like Prudhoe Bay field, was developed before its causeway connection to TAPS was completed and in the interim, like Prudhoe Bay, it produced and injected a small volume of oil.

From the beginning of Prudhoe Bay production, the dissolved gas and water have been separated from the crude oil and, augmented with sea water, injected back into the reservoir. Inevitably, the reservoir's proportion of both gas-and-water to oil increased and eventually, oil production was constricted by the rate at which the separating plants could extract gas and water. To alleviate this constraint the gas and water handling facilities were expanded in 1986, 1991 and 1993-1994.

North Slope production, including oil, condensate and NGLs, peaked at 744 million barrels per year (2.0 million barrels per day) in 1988 and has steadily declined to 529 million barrels per year (1.4 million barrels per day) in 1996. The combined fields have produced 11.6 billion barrels by end of 1996, 82% of it from Prudhoe Bay, 12% from Kuparuk and 6% from the combined other pools.

Recent additions from Point McIntyre, North Prudhoe Bay State, West Beach and Niakuk pools and an increase in Milne Point productionhave somewhat offset the regional decline

NATURAL GAS LIQUIDS

Most North Slope fields and the largest Cook inlet fields have produced NGLs at some time in their histories. Most of the North Slope NGLs are blended with the TAPS oil stream and transported to West Coast refineries and, beginning in 1996, the balance is piped to the Kuparuk River Unit and injected as miscible injectant.

TABLE 3 - OIL PRODUCTION HISTORY
MILLIONS OF BARRELS PER YEAR

	Type[1]	1958	1959	1960	1961	1962	1963	1964	1965	1966
NORTH SLOPE										
Endicott	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Greater Point McIntyre Area										
Lisburne	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Niakuk [2]	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Point McIntyre	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Other										
North Prudhoe Bay State	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
West Beach	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Kuparuk River Unit										
Kuparuk	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
West Sak	oil	-	-	-	-	-	-	-	-	-
Milne Point Unit										
Milne Point	oil	-	-	-	-	-	-	-	-	-
Sag River	oil	-	-	-	-	-	-	-	-	-
Schrader Bluff	oil	-	-	-	-	-	-	-	-	-
Prudhoe Bay Unit	oil [3]	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Sag Delta	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
TOTAL OIL [3]		-	-	-	-	-	-	-	-	-
TOTAL NGL		-	-	-	-	-	-	-	-	-
TOTAL INJECTION		-	-	-	-	-	-	-	-	-
TOTAL NET		-	-	-	-	-	-	-	-	-
COOK INLET										
Beaver Creek	oil	-	-	-	-	-	-	-	-	-
Cannery Loop [4]	NGL	-	-	-	-	-	-	-	-	-
Granite Point	oil	-	-	-	-	-	-	-	0.002	-
Kenai [4]	NGL	-	-	-	-	-	-	-	-	-
McArthur River	oil	-	-	-	-	-	-	-	0.001	0.003
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	0.001	0.003
Middle Ground Shoal	oil	-	-	-	-	-	-	-	0.027	2.649
Redoubt Shoal	oil	-	-	-	-	-	-	-	-	-
Swanson River	oil	0.036	0.187	0.558	6.327	10.259	10.740	11.054	11.099	11.712
	NGL	-	-	-	-	-	-	-	-	-
	net	0.036	0.187	0.558	6.327	10.259	10.740	11.054	11.099	11.712
Trading Bay	oil	-	-	-	-	-	-	-	0.002	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	0.002	-
West McArthur River	oil	-	-	-	-	-	-	-	-	-
TOTAL OIL		**0.036**	**0.187**	**0.558**	**6.327**	**10.259**	**10.740**	**11.054**	**11.131**	**14.364**
TOTAL NGL		-	-	-	-	-	-	-	-	-
TOTAL NET		**0.036**	**0.187**	**0.558**	**6.327**	**10.259**	**10.740**	**11.054**	**11.131**	**14.364**
STATE										
TOTAL OIL [3]		**0.036**	**0.187**	**0.558**	**6.327**	**10.259**	**10.740**	**11.054**	**11.131**	**14.364**
TOTAL NGL		-	-	-	-	-	-	-	-	-
TOTAL INJECTION		-	-	-	-	-	-	-	-	-
TOTAL NET		**0.036**	**0.187**	**0.558**	**6.327**	**10.259**	**10.740**	**11.054**	**11.131**	**14.364**

Source: Alaska Oil and Gas Conservation Commission (AOGCC), "Alaska Production Summary by Field and Pool", monthly report.
[1] oil = crude oil, NGL = natural gas liquids, liq = liquids: oil + NGL, inj = injection, net = oil+NGL-inj.
[2] Niakuk production and reserves include Niakuk and West Niakuk.
[3] Prudhoe Bay production includes oil and condensates.
[4] Gas field temporarily produced NGL.
[5] Endicott reserves includes Endicott and Sag Delta North.
[6] North Prudhoe Bay State reserves includes North Prudhoe Bay State and West Beach.
[7] West Sak reserves includes K-10, Tabasco and West Sak.
[8] Milne Point reserves includes Milne Point, Sag River and Schrader Bluff.
Revised 4/24/97

1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	0.006	-	-	-	-	-	-	-	-	-
-	-	-		-	-	-	-	-	-	-	-	-
-	-	-	0.006	-	-	-	-	-	-	-	-	-
-	-	-		-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	0.277	1.193	1.157	0.922	0.944	2.170	2.870	4.604	115.258	397.679	468.412
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	0.217	0.879	0.833	0.792	0.817	1.640	2.147	3.611	2.075	-	-
-	-	0.060	0.314	0.324	0.130	0.127	0.530	0.723	0.993	113.183	397.679	468.412
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	**-**	**0.277**	**1.199**	**1.157**	**0.922**	**0.944**	**2.170**	**2.870**	**4.604**	**115.258**	**397.679**	**468.412**
-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
-	**-**	**0.217**	**0.879**	**0.833**	**0.792**	**0.817**	**1.640**	**2.147**	**3.611**	**2.075**	**-**	**-**
-	**-**	**0.060**	**0.320**	**0.324**	**0.130**	**0.127**	**0.530**	**0.723**	**0.993**	**113.183**	**397.679**	**468.412**
-	-	-	-	-	0.002	0.416	0.375	0.322	0.302	0.276	0.223	0.211
-	-	-	-	-	-	-	-	-	-	-	-	-
7.052	13.131	9.183	7.522	5.577	4.663	4.767	4.237	4.361	4.471	4.711	4.867	4.613
-	-	0.002	0.002	0.001	0.002	0.001	<.001	0.001	0.001	<.001	0.001	<.001
0.749	21.782	31.301	40.165	40.537	40.774	38.884	39.145	40.876	35.810	33.235	30.223	25.440
-	-	-	0.426	0.593	0.570	0.661	0.654	0.644	0.653	0.733	0.730	0.541
0.749	21.782	31.301	40.591	41.130	41.344	39.545	39.798	41.520	36.464	33.968	30.953	25.981
7.404	14.134	10.467	12.719	11.304	9.719	10.239	9.001	8.670	8.864	7.617	6.382	5.545
-	0.002	-	-	-	-	-	-	-	-	-	-	-
12.980	13.619	13.151	12.408	11.466	8.896	10.064	9.765	8.754	7.591	5.981	4.870	4.344
-	0.004	0.070	0.063	0.077	0.012	0.098	0.096	0.089	0.090	0.086	0.065	0.080
12.980	13.624	13.221	12.471	11.543	8.908	10.163	9.861	8.843	7.681	6.066	4.935	4.424
0.729	3.477	9.936	9.600	8.744	8.585	7.825	7.552	6.128	5.366	4.276	3.567	2.892
-	-	-	0.039	0.039	0.025	0.051	0.043	0.031	0.026	0.044	0.019	0.014
0.729	3.477	9.936	9.639	8.782	8.610	7.877	7.594	6.158	5.392	4.320	3.587	2.906
-	-	-	-	-	-	-	-	-	-	-	-	-
28.913	**66.146**	**74.038**	**82.415**	**77.628**	**72.640**	**72.196**	**70.074**	**69.111**	**62.404**	**56.095**	**50.132**	**43.045**
-	**0.004**	**0.073**	**0.530**	**0.710**	**0.608**	**0.812**	**0.793**	**0.765**	**0.770**	**0.863**	**0.815**	**0.635**
28.913	**66.150**	**74.111**	**82.945**	**78.338**	**73.248**	**73.007**	**70.867**	**69.876**	**63.175**	**56.958**	**50.946**	**43.680**
28.913	**66.146**	**74.315**	**83.614**	**78.785**	**73.562**	**73.139**	**72.244**	**71.980**	**67.009**	**171.353**	**447.810**	**511.457**
-	**0.004**	**0.073**	**0.530**	**0.710**	**0.608**	**0.812**	**0.793**	**0.765**	**0.770**	**0.863**	**0.815**	**0.635**
-	**-**	**0.217**	**0.879**	**0.833**	**0.792**	**0.817**	**1.640**	**2.147**	**3.611**	**2.075**	**-**	**-**
28.913	**66.150**	**74.171**	**83.265**	**78.661**	**73.378**	**73.134**	**71.397**	**70.598**	**64.168**	**170.141**	**448.625**	**512.092**

TABLE 3 - OIL PRODUCTION HISTORY, Continued

MILLIONS OF BARRELS PER YEAR

	Type[1]	1980	1981	1982	1983	1984	1985	1986	1987	1988
NORTH SLOPE										
Endicott	oil	-	-	-	-	-	-	0.011	8.796	37.441
	NGL	-	-	-	-	-	-	-	0.003	0.492
	inj	-	-	-	-	-	-	0.007	0.014	-
	net	-	-	-	-	-	-	0.004	8.785	37.933
Greater Point McIntyre Area										
Lisburne	oil	-	0.002	0.208	0.087	0.294	1.123	3.594	16.199	15.095
	NGL	-	-	-	-	-	-	-	0.458	1.008
	net	-	0.002	0.208	0.087	0.294	1.123	3.594	16.657	16.103
Niakuk [2]	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Point McIntyre	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Other										
North Prudhoe Bay State	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
West Beach	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Kuparuk River Unit										
Kuparuk	oil	-	1.092	32.406	39.876	46.084	78.926	93.900	102.448	110.891
	NGL	-	-	-	-	-	0.761	1.072	1.257	0.256
	net	-	1.092	32.406	39.876	46.084	79.687	94.972	103.705	111.146
West Sak	oil	-	-	-	0.006	0.124	0.326	0.300	-	-
Milne Point Unit										
Milne Point	oil	-	-	-	-	-	0.704	4.709	0.040	-
Sag River	oil	-	-	-	-	-	-	-	-	-
Schrader Bluff	oil	-	-	-	-	-	-	-	-	-
Prudhoe Bay Unit	oil [3]	555.394	555.170	558.889	560.837	561.952	568.534	561.538	572.045	559.412
	NGL	0.254	0.450	0.500	0.311	0.317	0.056	0.230	14.610	19.274
	inj	-	-	-	-	-	-	-	-	-
	net	555.648	555.620	559.389	561.148	562.269	568.590	561.767	586.655	578.686
Sag Delta	oil	-	-	-	-	-	-	-	-	-
	NGL	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	0.000
TOTAL OIL [3]		**555.394**	**556.264**	**591.503**	**600.806**	**608.454**	**649.613**	**664.052**	**699.527**	**722.840**
TOTAL NGL		**0.254**	**0.450**	**0.500**	**0.311**	**0.317**	**0.817**	**1.302**	**16.328**	**21.029**
TOTAL INJECTION		**-**	**-**	**-**	**-**	**-**	**-**	**0.007**	**0.014**	**-**
TOTAL NET		**555.648**	**556.714**	**592.003**	**601.117**	**608.771**	**650.430**	**665.347**	**715.841**	**743.869**
COOK INLET										
Beaver Creek	oil	0.214	0.180	0.182	0.170	0.159	0.146	0.158	0.185	0.141
Cannery Loop [4]	NGL	-	-	-	-	-	-	-	-	-
Granite Point	oil	4.394	3.975	3.467	3.550	3.287	3.052	3.169	2.803	2.677
Kenai [4]	NGL	-	-	-	-	-	-	-	-	-
McArthur River	oil	20.894	18.022	15.806	13.564	11.707	7.454	7.942	7.375	7.143
	NGL	0.412	0.484	0.449	0.332	0.317	0.194	0.228	0.196	0.162
	net	21.306	18.506	16.255	13.896	12.024	7.648	8.170	7.571	7.305
Middle Ground Shoal	oil	4.854	4.291	3.573	3.381	3.238	3.098	3.211	2.834	2.742
Redoubt Shoal	oil	-	-	-	-	-	-	-	-	-
Swanson River	oil	3.724	2.938	2.999	3.017	2.517	2.165	2.055	2.059	2.127
	NGL	0.064	0.048	0.048	0.045	0.039	0.026	0.054	0.030	0.033
	net	3.787	2.986	3.047	3.062	2.556	2.191	2.109	2.089	2.159
Trading Bay	oil	2.167	1.669	1.384	1.081	1.075	1.029	1.046	0.935	0.886
	NGL	0.006	0.005	0.002	0.004	0.005	0.004	0.002	0.001	<.001
	net	2.173	1.675	1.386	1.085	1.080	1.032	1.048	0.936	0.887
West McArthur River	oil	-	-	-	-	-	-	-	-	-
TOTAL OIL		**36.247**	**31.075**	**27.411**	**24.763**	**21.984**	**16.944**	**17.580**	**16.191**	**15.716**
TOTAL NGL		**0.481**	**0.538**	**0.499**	**0.381**	**0.361**	**0.223**	**0.284**	**0.227**	**0.195**
TOTAL NET		**36.728**	**31.613**	**27.910**	**25.144**	**22.344**	**17.167**	**17.865**	**16.418**	**15.911**
STATE										
TOTAL OIL [3]		**591.641**	**587.339**	**618.914**	**625.569**	**630.437**	**666.557**	**681.632**	**715.718**	**738.555**
TOTAL NGL		**0.735**	**0.988**	**0.999**	**0.692**	**0.678**	**1.040**	**1.586**	**16.555**	**21.224**
TOTAL INJECTION		**-**	**-**	**-**	**-**	**-**	**-**	**0.007**	**0.014**	**-**
TOTAL NET		**592.376**	**588.327**	**619.913**	**626.261**	**631.115**	**667.597**	**683.211**	**732.259**	**759.780**

Source: Alaska Oil and Gas Conservation Commission (AOGCC), "Alaska Production Summary by Field and Pool", monthly report.
[1] oil = crude oil, NGL = natural gas liquids, liq = liquids: oil + NGL, inj = injection, net = oil+NGL-inj.
[2] Niakuk production and reserves include Niakuk and West Niakuk.
[3] Prudhoe Bay production includes oil and condensates.
[4] Gas field temporarily produced NGL.
[5] Endicott reserves includes Endicott and Sag Delta North.
[6] North Prudhoe Bay State reserves includes North Prudhoe Bay State and West Beach.
[7] West Sak reserves includes K-10, Tabasco and West Sak.
[8] Milne Point reserves includes Milne Point, Sag River and Schrader Bluff.
Revised 4/21/97

1989	1990	1991	1992	1993	1994	1995	1996	Cumulative Production (MMBBL)	Reserves (MMBBL)	Field Depletion
35.746	36.181	38.996	40.603	38.433	33.916	32.998	26.450	329.571		
0.839	0.845	1.170	1.468	1.551	1.481	1.203	1.013	10.066		
-	-	-	-	-	-	-	-	0.021		
36.584	37.027	40.165	42.071	39.985	35.397	34.201	27.463	339.616	258 [5]	
13.737	14.669	13.316	12.517	8.500	6.957	5.482	4.465	116.245		
1.093	1.204	1.337	1.464	1.277	0.939	0.823	0.674	10.276		
14.830	15.873	14.653	13.981	9.777	7.896	6.305	5.139	126.521	57	69%
-	-	-	-	-	3.373	7.035	10.937	21.344		
-	-	-	-	-	0.028	0.077	0.108	0.213		
-	-	-	-	-	3.400	7.112	11.045	21.557	90	19%
-	-	-	-	7.519	37.545	50.154	57.926	153.144		
-	-	-	-	0.090	0.548	0.679	0.825	2.142		
-	-	-	-	7.609	38.093	50.833	58.751	155.286	310	33%
-	-	-	-	0.420	0.769	0.754	0.126	2.069		
-	-	-	-	0.015	0.031	0.034	0.003	0.083		
-	-	-	-	0.435	0.801	0.788	0.129	2.152	1 [6]	68%
-	-	-	-	0.720	0.511	0.163	0.474	1.869		
-	-	-	-	0.009	0.012	0.005	0.025	0.051		
-	-	-	-	0.729	0.523	0.168	0.499	1.920	[6]	
109.770	107.206	113.571	118.506	115.166	111.795	106.999	99.459	1,388.101		
-	-	-	-	-	-	-	-	3.346		
109.770	107.206	113.571	118.506	115.166	111.795	106.999	99.459	1,391.447	1,275	52%
-	-	-	-	-	-	-	-	0.755	279 [7]	0%
3.715	6.624	6.701	5.812	5.704	5.648	7.383	12.686	59.726	210 [8]	22%
-	-	-	-	-	-	0.142	0.346	0.488	[8]	
<.001	0.004	0.756	1.135	1.060	1.030	1.167	1.068	6.219	281 [8]	2%
505.940	470.140	465.399	432.587	385.811	351.493	313.629	282.060	9,256.317		
16.928	16.094	21.307	23.902	23.879	22.825	26.810	30.549	218.297		
-	-	-	-	-	-	-	-	13.013		
522.869	486.235	486.706	456.490	409.690	374.318	340.439	312.609	9,461.601	3,443	73%
0.349	1.542	2.309	1.002	0.761	0.368	0.235	0.199	6.764		
0.005	0.028	0.048	0.011	0.007	0.003	0.001	0.001	0.103		
0.354	1.569	2.356	1.013	0.768	0.372	0.236	0.200	6.867	[5]	
669.258	**636.366**	**641.048**	**612.162**	**564.093**	**553.406**	**526.141**	**496.196**	**11,342.612**		
18.864	**18.171**	**23.861**	**26.845**	**26.830**	**25.867**	**29.632**	**33.198**	**244.577**		
-	-	-	-	-	-	-	-	**13.034**		
688.123	**654.538**	**664.909**	**639.008**	**590.923**	**579.273**	**555.773**	**529.394**	**11,574.155**		
0.227	0.212	0.179	0.175	0.153	0.140	0.132	0.125	5.004	1	83%
-	-	-	-	-	<.001	<.001	<.001	<.001		
2.275	1.462	2.064	2.522	2.488	2.209	2.580	2.556	127.688	13	91%
-	-	-	-	-	-	-	-	0.012		
6.955	4.265	7.247	7.397	6.636	7.091	6.622	6.102	581.148		
0.000	-	-	-	-	-	-	-	8.979		
6.955	4.265	7.247	7.397	6.636	7.091	6.622	6.102	590.127	38	94%
2.769	2.688	2.670	2.423	2.160	2.785	2.823	2.396	176.679	18	91%
-	-	-	-	-	-	-	-	0.002	[8]	
1.875	1.878	1.962	1.773	1.576	1.672	1.712	1.521	223.432		
0.024	0.019	0.023	0.019	0.018	0.023	0.017	0.019	1.379		
1.899	1.897	1.985	1.792	1.593	1.696	1.729	1.540	224.811	13	95%
1.264	0.643	1.216	0.886	0.742	0.743	0.722	0.589	96.757		
-	-	-	-	-	-	-	-	0.360		
1.264	0.643	1.216	0.886	0.742	0.743	0.722	0.589	97.117	4	96%
-	-	0.002	0.002	0.098	0.921	0.922	1.296	3.240	8	29%
15.366	**11.147**	**15.340**	**15.179**	**13.853**	**15.561**	**15.513**	**14.585**	**1,213.950**		
0.024	**0.019**	**0.023**	**0.019**	**0.018**	**0.023**	**0.017**	**0.019**	**10.730**		
15.390	**11.167**	**15.363**	**15.198**	**13.871**	**15.585**	**15.530**	**14.604**	**1,224.680**		
684.625	**647.514**	**656.388**	**627.341**	**577.946**	**568.967**	**541.654**	**510.781**	**12,556.562**		
18.888	**18.191**	**23.884**	**26.864**	**26.848**	**25.891**	**29.649**	**33.217**	**255.307**		
-	-	-	-	-	-	-	-	**13.034**		
703.513	**665.705**	**680.272**	**654.206**	**604.794**	**594.858**	**571.303**	**543.998**	**12,798.835**		

FIGURE 3-1 - OIL PRODUCTION HISTORY OF NORTH SLOPE, BY AREA

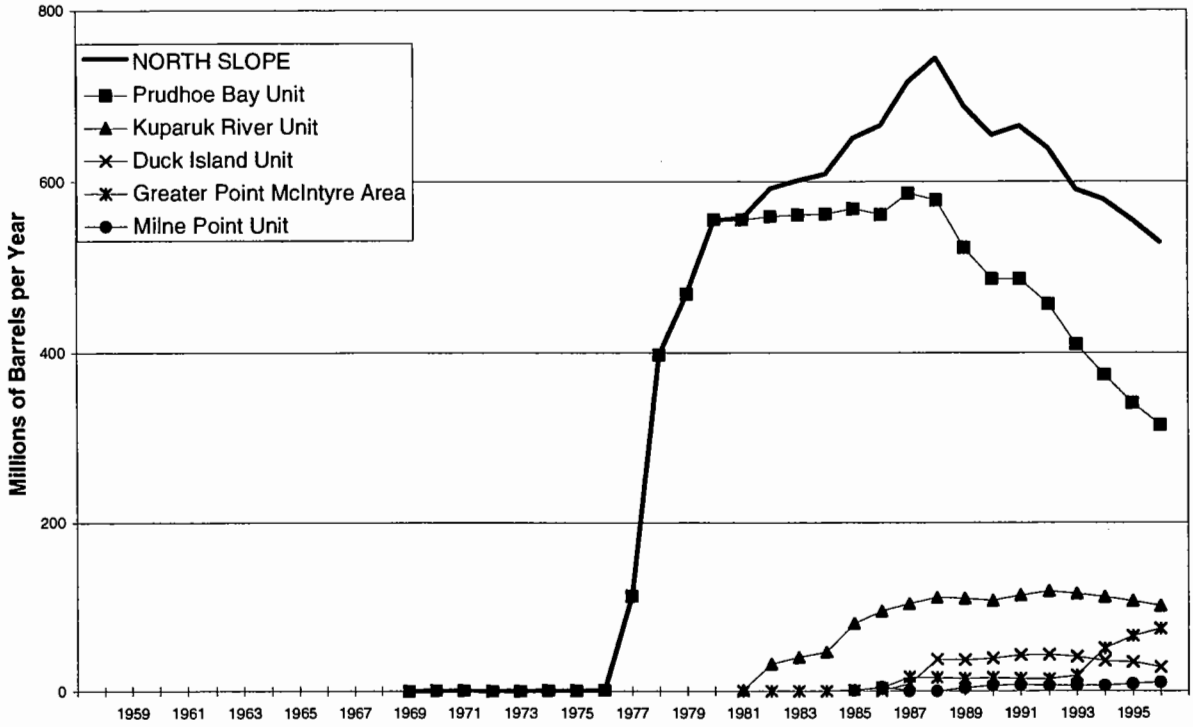
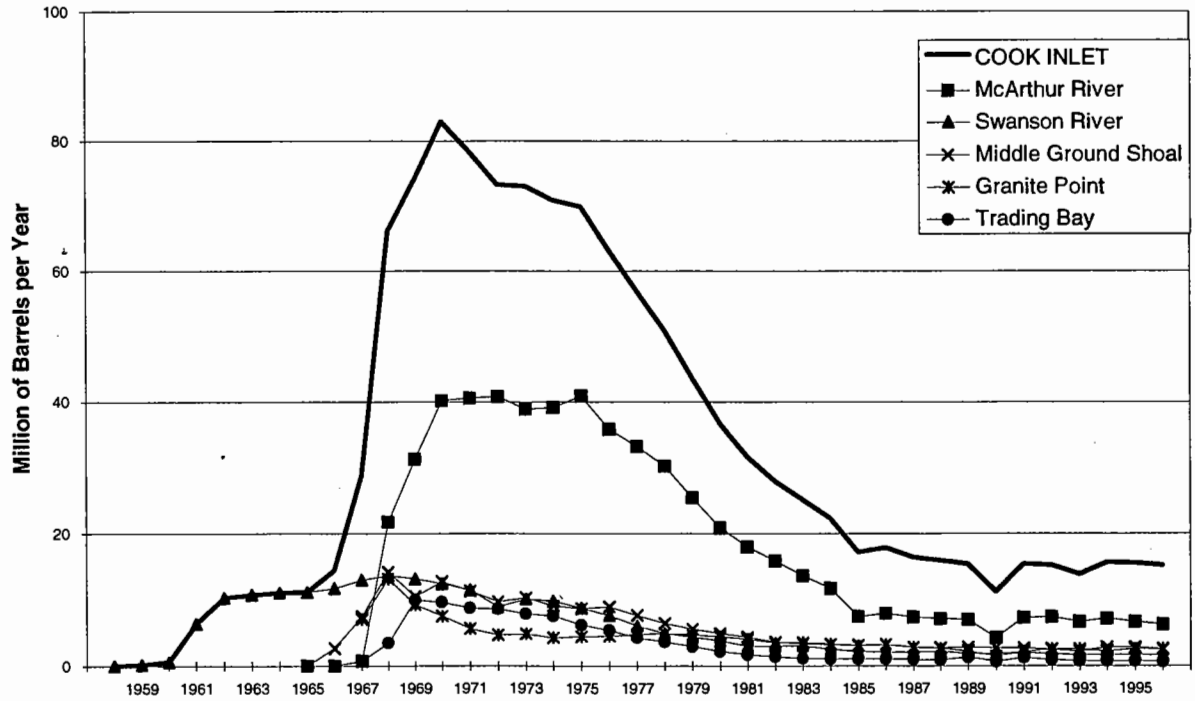


FIGURE 3-2 - OIL PRODUCTION HISTORY OF COOK INLET, FIVE LARGEST FIELDS



4 GAS PRODUCTION HISTORY

NORTH SLOPE AT BARROW

A small amount of gas has been produced near Barrow since the mid 1940's, though records are available only from 1949, to fuel a nearby military base. Gas service was extended to the village after World War II and two other fields, East Barrow and Walakpa, have been developed since 1980.

COOK INLET

Cook Inlet gas production began in 1959 as a by-product of Swanson River oil development. As more oil and gas fields were discovered nearby Anchorage and Kenai markets sprouted and grew. In 1969 a ammonia-urea plant and a liquid natural gas (LNG) plant were constructed at Nikiski. Production remained low until 1966 but quickly increased from that year's 12 billion cubic feet to 1970's 145 billion cubic feet. Production then rose gradually to 217 billion cubic feet per year in 1985, fell in 1986-1987 and has since rebounded to 221 billion cubic feet per year in 1996. Cook Inlet fields have produced a cumulative net 5.1 trillion cubic feet by the end of 1996.

Swanson River's gas production history differs from those of other Cook Inlet fields. Whereas the other fields used their own gas to fuel production, Swanson River imported gas from other fields and injected it into its oil reservoir. The field operator revised this program in 1992 and no gas is now imported from other fields. Of the gas extracted from the oil, some is injected back into the reservoir and some is sold.

NORTH SLOPE AT PRUDHOE BAY

North Slope fields are so isolated that the only current economic use for their gas is to fuel the region's oil field equipment and operations. During field development a small amount of oil and gas was produced for fuel. Since then a large amount of dissolved and free gas has been produced with the oil, separated from the oil, then injected back into the reservoir. Through seventeen years of production, as oil and gas have been withdrawn and the gas returned to the reservoir, gas has become an increasingly greater proportion of field production.

Gross gas production in 1996 was 3.1 trillion cubic feet, but 92% of this was injected. The net production of 261 billion cubic feet, which fueled oil operations and transportation, is nearly equal to the total gas production of Cook Inlet. The 1996 net was a little less than in 1995 but is expected to increase for the next several years. North Slope fields have produced a cumulative net 3.0 trillion cubic feet by the end of 1996.

TABLE 4 - GAS PRODUCTION HISTORY

BILLIONS OF CUBIC FEET PER YEAR

	Type [1]	1949	1950	1951	1952	1953	1954	1955	1956	1957
NORTH SLOPE										
East Barrow	dry	-	-	-	-	-	-	-	-	-
Endicott	csg	-	-	-	-	-	-	-	-	-
	dry [2]	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Greater Point McIntyre Area		-	-	-	-	-	-	-	-	-
Lisburne [3]	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Niakuk [3] [4]	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Point McIntyre [3]	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
N. Prudhoe Bay State [3]	csg	-	-	-	-	-	-	-	-	-
West Beach [3]	csg	-	-	-	-	-	-	-	-	-
Kuparuk River Unit		-	-	-	-	-	-	-	-	-
Kuparuk	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
West Sak	csg	-	-	-	-	-	-	-	-	-
Milne Point Unit		-	-	-	-	-	-	-	-	-
Milne Point	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Sag River	csg	-	-	-	-	-	-	-	-	-
Schrader Bluff	csg	-	-	-	-	-	-	-	-	-
Prudhoe Bay	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Sag Delta	csg	-	-	-	-	-	-	-	-	-
South Barrow	dry	0.033	0.091	0.135	0.137	0.075	0.027	0.115	0.103	0.114
Walakpa	dry	-	-	-	-	-	-	-	-	-
TOTAL GROSS		**0.033**	**0.091**	**0.135**	**0.137**	**0.075**	**0.027**	**0.115**	**0.103**	**0.114**
TOTAL INJECTED		-	-	-	-	-	-	-	-	-
TOTAL NET		**0.033**	**0.091**	**0.135**	**0.137**	**0.075**	**0.027**	**0.115**	**0.103**	**0.114**
COOK INLET										
Albert Kaloa	dry	-	-	-	-	-	-	-	-	-
Beaver Creek	csg	-	-	-	-	-	-	-	-	-
	dry	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Beluga River	dry	-	-	-	-	-	-	-	-	-
Birch Hill	dry	-	-	-	-	-	-	-	-	-
Cannery Loop	dry	-	-	-	-	-	-	-	-	-
Falls Creek	dry	-	-	-	-	-	-	-	-	-
Granite Point	csg	-	-	-	-	-	-	-	-	-
	dry	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Ivan River	dry	-	-	-	-	-	-	-	-	-
Kenai	dry	-	-	-	-	-	-	-	-	-
Lewis River	dry	-	-	-	-	-	-	-	-	-
McArthur River	csg	-	-	-	-	-	-	-	-	-
	dry	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Middle Ground Shoal	csg	-	-	-	-	-	-	-	-	-
	dry	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Moquawkie	dry	-	-	-	-	-	-	-	-	-
Nicolai Creek	dry	-	-	-	-	-	-	-	-	-
North Cook Inlet	dry	-	-	-	-	-	-	-	-	-
North Fork	dry	-	-	-	-	-	-	-	-	-
Pretty Creek	dry	-	-	-	-	-	-	-	-	-
Redoubt Shoal	csg	-	-	-	-	-	-	-	-	-
Sterling	dry	-	-	-	-	-	-	-	-	-
Stump Lake	dry	-	-	-	-	-	-	-	-	-
Swanson River [5] [6]	csg	-	-	-	-	-	-	-	-	-
	dry	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Trading Bay	csg	-	-	-	-	-	-	-	-	-
	dry	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
West Fork	dry	-	-	-	-	-	-	-	-	-
W. McArthur River	csg	-	-	-	-	-	-	-	-	-
TOTAL GROSS		-	-	-	-	-	-	-	-	-
TOTAL INJECTED		-	-	-	-	-	-	-	-	-
TOTAL NET		-	-	-	-	-	-	-	-	-
STATE										
TOTAL GROSS		**0.033**	**0.091**	**0.135**	**0.137**	**0.075**	**0.027**	**0.115**	**0.103**	**0.114**
TOTAL INJECTED		-	-	-	-	-	-	-	-	-
TOTAL NET		**0.033**	**0.091**	**0.135**	**0.137**	**0.075**	**0.027**	**0.115**	**0.103**	**0.114**

1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	0.243	1.037
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	0.243	1.037
-	-	-	-	-	-	-	-	-	-	-	-	-
0.119	0.132	0.172	0.172	0.197	0.211	0.249	0.389	0.438	0.475	0.504	0.582	0.619
-	-	-	-	-	-	-	-	-	-	-	-	-
0.119	**0.132**	**0.172**	**0.172**	**0.197**	**0.211**	**0.249**	**0.389**	**0.438**	**0.475**	**0.504**	**0.825**	**1.655**
-	-	-	-	-	-	-	-	-	-	-	-	-
0.119	**0.132**	**0.172**	**0.172**	**0.197**	**0.211**	**0.249**	**0.389**	**0.438**	**0.475**	**0.504**	**0.825**	**1.655**

1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
-	-	-	-	-	-	-	-	-	-	-	-	0.095
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.014	0.137	-	-	0.168	2.018	3.038	3.571
-	-	-	-	-	-	-	0.065	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	0.019	-	-	-	-
-	-	-	-	-	-	-	-	-	4.890	10.036	8.043	9.211
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	0.000	4.890	10.036	8.043	9.211
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	0.215	1.460	3.106	4.493	5.985	33.375	39.624	46.014	59.340	80.612
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	0.220	6.124	9.565	14.989
-	-	-	-	-	-	-	-	-		0.032	4.629	4.699
-	-	-	-	-	-	-	-	-	0.220	6.155	14.194	19.688
-	-	-	-	-	-	-	0.010	1.200	3.215	6.654	6.006	6.137
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	1.200	3.215	6.654	6.006	6.137
-	-	-	-	-	-	-	-	-	0.034	0.353	0.514	0.083
-	-	-	-	-	-	-	-	-	-	0.026	0.387	0.202
-	-	-	-	-	-	-	-	-	-	-	7.881	40.947
-	-	-	-	-	-	-	-	0.105	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	<.001	-	-
-	-	-	-	0.025	0.046	0.058	0.120	0.157	0.180	0.198	0.265	0.265
-	-	-	-	-	-	-	-	-	-	-	-	-
0.006	0.027	0.099	1.293	1.914	2.808	3.233	3.831	5.622	13.541	25.434	40.756	50.396
-	-	0.020	-	0.157	4.838	3.943	2.141	0.740	-	-	-	-
-	-	46.482	-	0.259	6.478	5.620	4.843	28.770	37.944	58.316	67.215	73.139
0.006	0.027	(46.363)	1.293	1.813	1.168	1.556	1.129	(22.407)	(24.403)	(32.882)	(26.459)	(22.743)
-	-	-	-	-	-	-	0.001	0.315	0.722	2.961	7.119	7.156
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	0.001	0.315	0.722	2.961	7.119	7.156
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
0.006	**0.027**	**0.137**	**1.508**	**3.557**	**10.810**	**11.865**	**12.155**	**41.534**	**62.593**	**99.852**	**147.543**	**218.363**
-	-	**46.482**	**0.000**	**0.259**	**6.478**	**5.620**	**4.843**	**28.770**	**37.944**	**58.316**	**67.215**	**73.139**
0.006	**0.027**	**(46.345)**	**1.508**	**3.298**	**4.333**	**6.245**	**7.311**	**12.764**	**24.649**	**41.535**	**80.328**	**145.224**

1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
0.124	**0.159**	**0.309**	**1.680**	**3.753**	**11.021**	**12.114**	**12.543**	**41.971**	**63.069**	**100.355**	**148.368**	**220.019**
-	-	**46.482**	-	**0.259**	**6.478**	**5.620**	**4.843**	**28.770**	**37.944**	**58.316**	**67.215**	**73.139**
0.124	**0.159**	**(46.173)**	**1.680**	**3.495**	**4.543**	**6.494**	**7.700**	**13.201**	**25.124**	**42.039**	**81.153**	**146.879**

TABLE 4 - GAS PRODUCTION HISTORY, Continued

BILLIONS OF CUBIC FEET PER YEAR

	Type [1]	1971	1972	1973	1974	1975	1976	1977	1978	1979
NORTH SLOPE										
East Barrow	dry	-	-	-	-	-	-	-	-	-
Endicott	csg	-	-	-	-	-	-	-	-	-
	dry [2]	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Greater Point McIntyre Area		-	-	-	-	-	-	-	-	-
Lisburne [3]	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Niakuk [3] [4]	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Point McIntyre [3]	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-	-
N. Prudhoe Bay State [3]	csg	-	-	-	-	-	-	-	-	-
West Beach [3]	csg	-	-	-	-	-	-	-	-	-
Kuparuk River Unit		-	-	-	-	-	-	-	-	-
Kuparuk	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
West Sak	csg	-	-	-	-	-	-	-	-	-
Milne Point Unit		-	-	-	-	-	-	-	-	-
Milne Point	csg	-	-	-	-	-	-	-	-	-
	inj	-	-	-	-	-	-	-	-	-
	net	-	-	-	-	-	-	-	-	-
Sag River	csg	-	-	-	-	-	-	-	-	-
Schrader Bluff	csg	-	-	-	-	-	-	-	-	-
Prudhoe Bay	csg	0.889	0.658	0.699	2.022	3.046	5.077	94.936	307.966	432.475
	inj	-	-	-	-	-	-	68.118	271.854	390.136
	net	0.889	0.658	0.699	2.022	3.046	5.077	26.818	36.111	42.339
Sag Delta	csg	-	-	-	-	-	-	-	-	-
South Barrow	dry	0.627	0.675	0.707	0.765	0.799	0.832	0.879	0.893	0.913
Walakpa	dry	-	-	-	-	-	-	-	-	-
TOTAL GROSS		**1.516**	**1.333**	**1.406**	**2.787**	**3.845**	**5.909**	**95.814**	**308.859**	**433.388**
TOTAL INJECTED		**-**	**-**	**-**	**-**	**-**	**0.000**	**68.118**	**271.854**	**390.136**
TOTAL NET		**1.516**	**1.333**	**1.406**	**2.787**	**3.845**	**5.909**	**27.696**	**37.004**	**43.252**
COOK INLET										
Albert Kaloa	dry	0.024	-	-	-	-	-	-	-	-
Beaver Creek	csg	-	<.001	0.153	0.130	0.104	0.095	0.090	0.092	0.094
	dry	-	-	0.054	0.020	0.218	0.166	0.113	0.237	0.088
	inj	-	-	-	0.019	-	0.091	0.100	0.144	0.079
	net	-	-	0.207	0.131	0.322	0.170	0.103	0.185	0.103
Beluga River	dry	4.055	4.142	4.929	5.596	6.980	11.211	13.353	14.253	16.994
Birch Hill	dry	-	-	-	-	-	-	-	-	-
Cannery Loop	dry	-	-	-	-	-	-	-	-	-
Falls Creek	dry	-	-	-	-	-	-	-	-	-
Granite Point	csg	7.753	5.773	4.518	3.265	3.390	3.205	3.634	3.860	3.287
	dry	-	-	-	-	-	-	-	-	-
	net	7.753	5.773	4.518	3.265	3.390	3.205	3.634	3.860	3.287
Ivan River	dry	-	-	-	-	-	-	-	-	-
Kenai	dry	72.184	76.007	71.345	68.485	77.175	79.467	81.886	97.290	97.029
Lewis River	dry	-	-	-	-	-	-	-	-	-
McArthur River	csg	15.732	15.477	14.178	12.739	13.474	12.202	11.969	10.923	8.849
	dry	3.572	4.245	4.885	6.861	7.997	6.825	7.737	7.662	7.756
	net	19.304	19.722	19.063	19.599	21.471	19.027	19.706	18.585	16.605
Middle Ground Shoal	csg	5.147	4.075	4.826	4.260	4.199	4.347	4.108	3.290	2.744
	dry	-	-	-	-	-	-	-	-	-
	net	5.147	4.075	4.826	4.260	4.199	4.347	4.108	3.290	2.744
Moquawkie	dry	-	-	-	-	-	-	-	-	-
Nicolai Creek	dry	0.141	0.066	0.006	0.011	0.083	0.108	0.032	-	-
North Cook Inlet	dry	45.024	41.580	42.709	44.238	45.622	45.091	47.201	46.757	49.448
North Fork	dry	-	-	-	-	-	-	-	-	-
Pretty Creek	dry	-	-	-	-	-	-	-	-	-
Redoubt Shoal	csg	-	-	-	-	-	-	-	-	-
Sterling	dry	0.267	0.172	0.027	0.032	0.035	0.035	0.029	0.024	0.025
Stump Lake	dry	-	-	-	-	-	-	-	-	-
Swanson River [5] [6]	csg	66.569	67.441	74.067	80.869	90.665	101.427	106.911	106.934	116.068
	dry	-	-	-	-	-	-	-	-	0.198
	inj	73.892	76.133	87.482	86.793	97.976	113.279	118.279	114.557	120.268
	net	(7.323)	(8.692)	(13.415)	(5.924)	(7.311)	(11.852)	(11.368)	(7.623)	(4.002)
Trading Bay	csg	9.097	5.668	3.539	3.312	2.613	2.473	2.890	2.427	1.713
	dry	-	-	-	-	-	-	-	-	-
	net	9.097	5.668	3.539	3.312	2.613	2.473	2.890	2.427	1.713
West Fork	dry	-	-	-	-	-	-	-	0.052	0.770
W. McArthur River	csg	-	-	-	-	-	-	-	-	-
TOTAL GROSS		**229.566**	**224.647**	**225.236**	**229.817**	**252.554**	**266.651**	**279.955**	**293.800**	**305.063**
TOTAL INJECTED		**73.892**	**76.133**	**87.482**	**86.812**	**97.976**	**113.370**	**118.379**	**114.701**	**120.347**
TOTAL NET		**155.674**	**148.514**	**137.754**	**143.005**	**154.578**	**153.281**	**161.575**	**179.099**	**184.716**
STATE										
TOTAL GROSS		**231.081**	**225.980**	**226.642**	**232.604**	**256.399**	**272.560**	**375.769**	**602.659**	**738.451**
TOTAL INJECTED		**73.892**	**76.133**	**87.482**	**86.812**	**97.976**	**113.370**	**186.497**	**386.555**	**510.482**
TOTAL NET		**157.189**	**149.847**	**139.160**	**145.792**	**158.423**	**159.190**	**189.272**	**216.104**	**227.969**

1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
-	0.037	0.717	0.689	0.693	0.632	0.589	0.590	0.661	0.475
-	-	-	-	-	-	0.195	8.237	34.834	41.194
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	5.615	28.023	33.033
-	-	-	-	-	-	0.195	2.622	6.812	8.161
-									
-	0.003	0.374	0.154	0.343	1.902	8.677	64.906	94.670	104.746
-	-	-	-	-	-	-	56.741	87.815	102.248
-	0.003	0.374	0.154	0.343	1.902	8.677	8.164	6.855	2.498
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-									
-	0.615	22.989	44.391	57.389	104.279	114.889	125.089	119.883	107.519
-	0.000	17.822	38.277	47.930	85.909	90.449	89.191	87.906	83.323
-	0.615	5.166	6.114	9.459	18.370	24.440	35.898	31.977	24.196
-	-	-	0.005	0.079	0.134	0.108	-	-	-
-									
-	-	-	-	-	0.253	1.644	0.011	-	0.978
-	-	-	-	-	-	0.197	-	-	0.320
-	-	-	-	-	0.253	1.447	0.011	-	0.658
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
597.148	647.768	756.884	818.993	846.674	936.613	970.290	1,228.527	1,404.992	1,412.853
546.510	595.106	697.812	754.044	768.899	846.786	882.882	1,105.023	1,248.094	1,244.284
50.638	52.662	59.071	64.950	77.776	89.827	87.407	123.503	156.898	168.568
-	-	-	-	-	-	-	-	-	0.236
1.027	1.009	0.532	0.541	0.650	0.678	0.589	0.622	0.598	0.758
-	-	-	-	-	-	-	-	-	-
598.175	**649.431**	**781.496**	**864.775**	**905.828**	**1,044.491**	**1,096.981**	**1,427.982**	**1,655.639**	**1,668.758**
546.510	**595.106**	**715.635**	**792.321**	**816.829**	**932.695**	**973.528**	**1,256.570**	**1,451.837**	**1,463.208**
51.665	**54.325**	**65.861**	**72.454**	**89.000**	**111.796**	**123.453**	**171.411**	**203.801**	**205.550**
-	-	-	-	-	-	-	-	-	-
0.091	0.080	0.082	0.092	0.101	0.094	0.078	0.053	0.039	0.064
0.090	0.137	0.314	8.252	9.234	10.833	17.694	15.475	14.307	12.257
0.029	0.020	0.037	0.031	-	-	-	-	-	-
0.151	0.197	0.359	8.313	9.335	10.927	17.773	15.528	14.346	12.321
17.002	17.248	18.653	18.084	19.833	22.571	25.357	23.971	25.586	30.126
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	9.400	11.255
-	-	-	-	-	-	-	-	-	-
3.233	3.509	2.780	2.578	2.340	2.147	2.415	2.431	2.543	2.251
-	-	-	-	-	-	-	-	-	-
3.233	3.509	2.780	2.578	2.340	2.147	2.415	2.431	2.543	2.251
-	-	-	-	-	-	-	-	-	-
98.846	105.800	115.913	112.978	110.109	115.842	82.470	90.014	76.299	65.706
-	-	-	-	0.696	1.644	1.338	0.345	0.045	0.095
8.043	7.651	7.521	6.444	5.834	4.073	4.397	3.393	4.120	4.317
7.547	7.555	8.719	7.931	9.242	6.603	9.163	9.884	12.603	26.683
15.590	15.206	16.240	14.375	15.076	10.676	13.560	13.277	16.722	31.000
2.628	2.502	2.277	2.293	2.212	2.129	1.199	1.274	1.223	1.250
-	-	0.097	0.371	0.514	0.493	0.394	0.312	0.411	0.715
2.628	2.502	2.374	2.663	2.726	2.622	1.593	1.586	1.635	1.965
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
41.540	49.486	45.368	47.877	46.981	45.819	43.838	42.889	44.989	45.287
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	0.067	0.776	0.871	0.641
-	-	-	-	-	-	-	-	-	-
0.026	0.023	0.024	0.022	0.018	0.012	0.002	-	-	-
-	-	-	-	-	-	-	-	-	-
118.787	103.592	105.654	97.507	96.710	92.104	95.083	83.508	101.685	102.910
0.068	-	-	-	-	-	-	0.555	0.915	1.184
120.636	106.137	113.023	95.353	93.687	89.025	93.602	87.013	99.734	107.802
(1.781)	(2.545)	(7.369)	2.154	3.023	3.079	1.481	(2.949)	2.866	(3.709)
1.448	1.232	1.221	0.925	0.934	1.115	0.994	0.991	1.120	1.291
0.104	0.192	0.411	0.631	0.626	0.417	0.385	0.443	0.191	0.141
1.551	1.424	1.632	1.556	1.560	1.532	1.379	1.434	1.311	1.432
0.476	0.030	0.086	0.067	0.037	0.022	-	-	-	-
-	-	-	-	-	-	-	-	-	-
299.929	**299.038**	**309.121**	**306.051**	**305.421**	**305.919**	**284.874**	**276.314**	**296.347**	**306.173**
120.665	**106.157**	**113.060**	**95.384**	**93.687**	**89.025**	**93.602**	**87.013**	**99.734**	**107.802**
179.264	**192.881**	**196.062**	**210.667**	**211.733**	**216.893**	**191.272**	**189.302**	**196.614**	**198.370**
898.104	**948.469**	**1,090.617**	**1,170.826**	**1,211.249**	**1,350.410**	**1,381.855**	**1,704.296**	**1,951.986**	**1,974.931**
667.175	**701.263**	**828.695**	**887.705**	**910.516**	**1,021.720**	**1,067.130**	**1,343.583**	**1,551.571**	**1,571.011**
230.929	**247.206**	**261.922**	**283.121**	**300.733**	**328.690**	**314.725**	**360.713**	**400.415**	**403.920**

TABLE 4 - GAS PRODUCTION HISTORY, Continued

BILLIONS OF CUBIC FEET PER YEAR

	Type [1]	1990	1991	1992	1993	1994	1995	1996
NORTH SLOPE								
East Barrow	dry	0.488	0.583	0.439	0.259	0.223	0.099	0.064
Endicott	csg	42.490	60.246	97.047	120.116	116.810	127.191	123.934
	dry [2]	-	-	-	-	-	-	0.034
	inj	35.523	51.136	85.082	100.682	102.534	113.839	111.638
	net	6.967	9.110	11.964	19.434	14.276	13.352	12.330
Greater Point McIntyre Area								
Lisburne [3]	csg	107.592	124.360	154.468	130.882	101.260	80.866	67.013
	inj	101.542	112.457	141.598	122.991	99.748	104.272	93.000
	net	6.049	11.903	12.870	7.891	1.512	(23.406)	(25.987)
Niakuk [3] [4]	csg	-	-	-	-	2.471	7.241	8.757
	inj	-	-	-	-	-	7.802	0.000
	net	-	-	-	-	2.471	(0.561)	(0.561)
Point McIntyre [3]	csg	-	-	-	5.392	38.795	46.637	56.584
	inj	-	-	-	3.979	34.461	21.687	30.444
	net	-	-	-	1.413	4.334	24.950	26.140
Other								
N. Prudhoe Bay State [3]	csg	-	-	-	1.103	2.646	2.482	0.206
West Beach [3]	csg	-	-	-	0.592	1.119	0.446	2.720
Kuparuk River Unit								
Kuparuk	csg	116.579	123.207	122.767	120.599	120.273	112.418	107.805
	inj	91.273	95.982	96.625	94.339	93.288	84.317	83.632
	net	25.306	27.225	26.141	26.260	26.986	28.101	24.173
West Sak	csg	-	-	-	-	-	-	-
Milne Point Unit								
Milne Point	csg	2.718	3.515	3.015	2.967	3.524	4.354	6.132
	inj	1.401	1.704	1.632	1.836	2.305	3.399	4.307
	net	1.318	1.811	1.383	1.131	1.219	0.955	1.825
Sag River	csg	-	-	-	-	-	0.098	0.299
Schrader Bluff	csg	-	0.244	0.536	0.518	0.515	0.656	0.453
Prudhoe Bay	csg	1,481.462	1,768.837	1,951.156	2,116.808	2,402.584	2,716.959	2,750.907
	inj	1,317.106	1,583.472	1,764.648	1,921.633	2,204.235	2,497.702	2,535.603
	net	164.356	185.365	186.508	195.175	198.349	219.257	215.304
Sag Delta	csg	1.416	2.347	0.703	0.529	0.259	0.152	0.099
South Barrow	dry	0.733	0.662	0.628	0.441	0.261	0.052	0.051
Walakpa	dry	-		0.252	0.585	0.858	1.109	1.160
TOTAL GROSS		**1,753.478**	**2,084.001**	**2,331.009**	**2,500.789**	**2,791.599**	**3,100.760**	**3,126.218**
TOTAL INJECTED		**1,546.845**	**1,844.751**	**2,089.585**	**2,245.459**	**2,536.571**	**2,833.018**	**2,858.624**
TOTAL NET		**206.633**	**239.250**	**241.424**	**255.330**	**255.028**	**267.742**	**267.594**
COOK INLET								
Albert Kaloa	dry	-	-	-	-	-	-	-
Beaver Creek	csg	0.058	0.049	0.048	0.042	0.038	0.035	0.034
	dry	12.416	10.354	7.320	6.294	1.266	1.880	3.008
	inj	-	-	-	-	-	-	-
	net	12.474	10.403	7.368	6.336	1.304	1.915	3.042
Beluga River	dry	39.512	38.494	36.534	31.739	34.212	35.645	36.930
Birch Hill	dry	-	-	-	-	-	-	-
Cannery Loop	dry	12.502	12.318	10.635	9.516	6.361	5.535	2.072
Falls Creek	dry	-	-	-	-	-	-	-
Granite Point	csg	1.431	1.586	2.246	2.435	2.077	1.894	2.121
	dry	-	-	-	0.009	-	0.048	0.130
	net	1.431	1.586	2.246	2.444	2.077	1.942	2.251
Ivan River	dry	0.676	2.132	1.774	8.238	15.996	12.027	6.605
Kenai	dry	38.393	25.581	24.187	23.826	18.853	16.484	13.294
Lewis River	dry	1.485	1.420	0.706	0.383	0.244	0.126	0.114
McArthur River	csg	2.559	5.121	5.175	4.107	4.205	4.403	3.763
	dry	48.897	56.075	64.895	58.406	45.821	50.511	63.512
	net	51.456	61.196	70.070	62.512	50.027	54.914	67.275
Middle Ground Shoal	csg	1.334	1.074	1.015	0.937	1.188	0.901	0.846
	dry	1.246	0.513	1.362	2.004	1.837	1.237	0.006
	net	2.579	1.587	2.377	2.941	3.025	2.138	0.852
Moquawkie	dry	-	-	-	-	-	-	-
Nicolai Creek	dry	-	-	-	-	-	-	-
North Cook Inlet	dry	45.014	44.695	44.411	45.529	52.689	53.541	55.976
North Fork	dry	-	-	-	-	-	-	-
Pretty Creek	dry	0.607	0.742	0.762	0.333	0.203	0.256	0.301
Redoubt Shoal	csg	-	-	-	-	-	-	-
Sterling	dry	-	-	-	0.007	0.224	0.184	0.037
Stump Lake	dry	0.528	1.608	1.504	0.778	0.454	0.288	0.185
Swanson River [5] [6]	csg	101.685	102.113	101.619	96.013	123.016	100.368	74.910
	dry	2.710	2.944	2.915	2.206	1.919	1.413	1.249
	inj	106.031	105.157	104.724	93.052	97.148	73.086	42.820
	net	(1.636)	(0.100)	(0.191)	5.167	27.787	28.695	33.339
Trading Bay	csg	0.465	0.944	0.705	0.619	0.641	0.541	0.363
	dry	0.003	-	-	-	-	-	0.022
	net	0.467	0.944	0.705	0.619	0.641	0.541	0.385
West Fork	dry	-	0.460	1.364	0.625	0.206	0.016	-
W. McArthur River	csg	-	-	<.001	0.031	0.216	0.231	0.309
TOTAL GROSS		**311.519**	**308.224**	**309.176**	**294.075**	**311.668**	**287.564**	**265.787**
TOTAL INJECTED		**106.031**	**105.157**	**104.724**	**93.052**	**97.148**	**73.086**	**42.820**
TOTAL NET		**205.488**	**203.067**	**204.452**	**201.024**	**214.521**	**214.478**	**222.967**
STATE								
TOTAL GROSS		**2,064.996**	**2,392.225**	**2,640.185**	**2,794.864**	**3,103.267**	**3,388.324**	**3,392.005**
TOTAL INJECTED		**1,652.875**	**1,949.908**	**2,194.309**	**2,338.511**	**2,633.719**	**2,906.104**	**2,901.444**
TOTAL NET		**412.121**	**442.317**	**445.876**	**456.353**	**469.548**	**482.220**	**490.561**

Cumulative Productiomn (BCF)	Reserves (BCF)		Field Depletion
7.238	5		59%
772.296			
0.034			
667.106			
105.224	868.000	[7]	11%
1,042.215			
1,022.412			
19.803	320.000		6%
18.469			
-			
(0.561)	42.000		0%
147.408			
90.571			
56.837	620.000		8%
6.436	[8]		
4.876	[8]		
1,520.692			
1,180.262			
340.430	627.000		35%
0.326	[8]		
29.111			
17.101			
12.010	20.000		38%
0.397	[8]		
2.922	[8]		
25,658.502			
23,240.695			
2,417.807	23,000.000		10%
5.741		[7]	
22.008	4.000		85%
3.964	27.000		13%
29,242.635			
26,218.147			
3,024.488			
0.119	[8]		
1.838			
132.027			
0.551			
133.314	109.000		55%
561.956	704.000		44%
0.065	11.000		1%
79.539	36.000		69%
0.019	13.000		0%
110.881			
0.187			
111.068	27.000		80%
47.449	54.000	[9]	47%
2,129.758	296.000		88%
8.641		[9]	
231.566			
561.485			
793.051	592.000		57%
86.522			
11.513			
98.035	14.000		88%
0.985	[8]		
1.062	2.000		35%
1,252.427	1,075.000		54%
0.105	12.000		1%
5.560		[9]	
0.000	[8]		
2.540	23.000		10%
5.345		[9]	
2,655.363			
30.112			
2,845.753			
(160.278)	211.000	[6]	0%
67.202			
3.565			
70.767	29.000		71%
4.212	3.000		58%
0.789	[8]		
7,992.832			
2,846.304			
5,146.528			
37,235.467			
29,064.451			
8,171.016			

Source: Alaska Oil and Gas Conservation Commission, "Alaska Production Summary by Field and Pool."

[1] dry = dry gas, csg = casinghead gas, inj = injected, net = dry + csg - inj.
[2] The small Endicott dry gas value for 1996 was an injection of processed gas into Endicott when it resumed operation.
[3] Oil from Lisburne, Point McIntyre, Niakuk, Niakuk 27, North Prudhoe Bay State and West Beach flow to the Lisburne Production Center. Gas from these oil streams is extracted at the Center. Some of the extracted gas is returned to Point McIntyre field for injection, but gas from the other fields is injected into Lisburne and Point McIntyre only. Consequently, production, injection and reserves values may appear anomalous.
[4] Niakuk includes Niakuk, Niakuk 27 and West Niakuk.
[5] The very high gas injection figure for 1960 was an accounting adjustment.
[6] Gas from other fields was injected into Swanson River field to maintain reservoir pressure. Consequently, production, injection and reserve figures may appear anomalous.
[7] Endicott reserves include Endicott and Sag Delta reserves.
[8] Not calculated.
[9] Ivan River,Lewis River, Pretty Creek and Stump Lake, reserves are computed as a single reservoir. Reserves and Depletion of that reservoir are assigned to Ivan River.

Revised 4/24/97

FIGURE 4-1 - GAS PRODUCTION HISTORY OF NORTH SLOPE , BY AREA

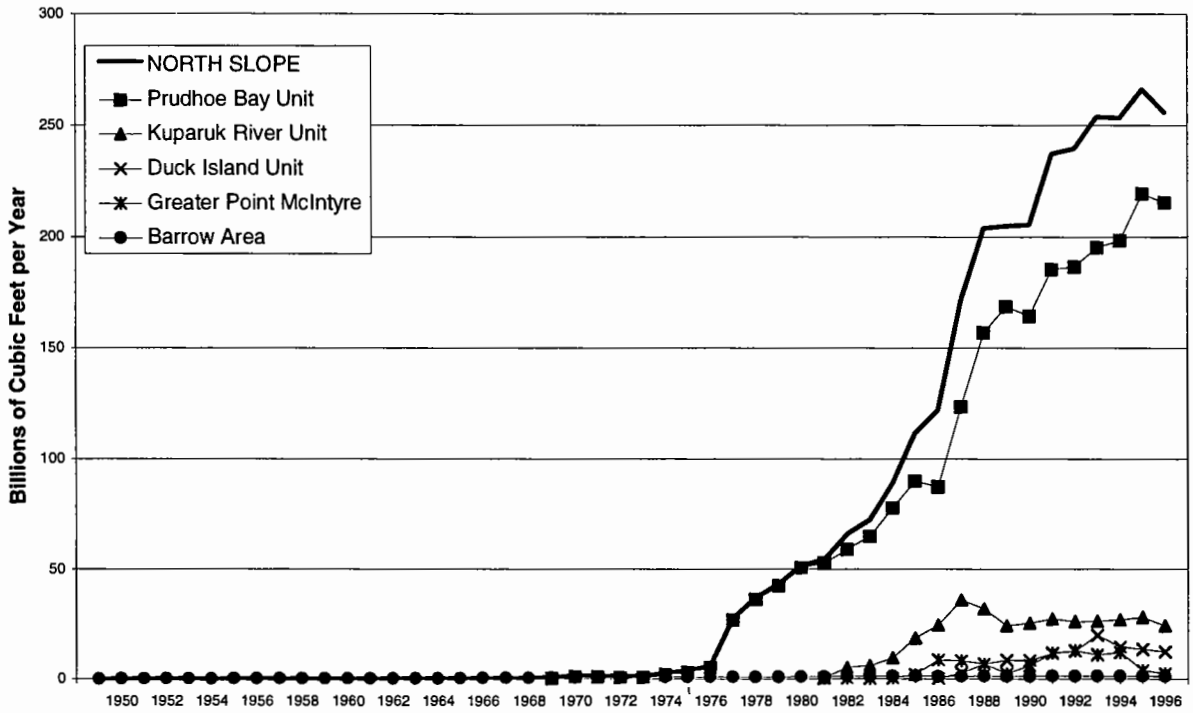
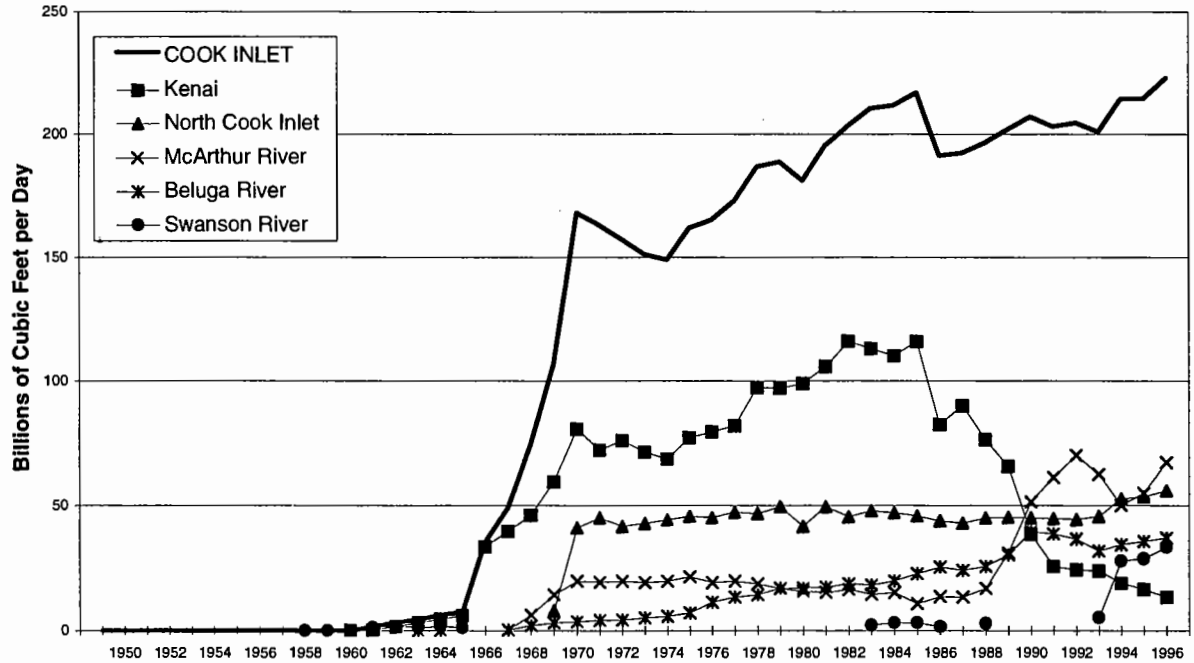


FIGURE 4-2 - GAS PRODUCTION HISTORY OF COOK INLET, FIVE LARGEST FIELDS



5 OIL CONSUMPTION HISTORY

REFINED FUEL CONSUMPTION

As in other areas, refined fuels are the only oil consumed in Alaska. No significant amount of crude oil has ever been consumed directly for manufacturing or commercial use other than refining. Much of Alaska's fuel demand is supplied by four in-state refineries and two small distillation plants at Prudhoe Bay and Kuparuk River. The balance is imported from West Coast refineries. The proportion of fuels refined in-state and out-of-state can not be calculated from public data.

The DOR compiles the only publicly available data on state fuel consumption. For tax purposes, the department collects data from distributors on how much fuel they have sold within the state. DOR's fuel categories, reflecting Alaska's economic dependence on transportation, differentiate fuels by type; aviation, diesel and gasoline and by transport mode; aviation, highway and marine. Tax exempt end-uses are sub-categorized. The DOR records do not include fuel consumed in Alaska but purchased outside the state, including most military fuel, and does not include fuel shipped into the Free Trade Zone at the Port of Anchorage and the Anchorage International Airport.

In 1996 distributors sold 1.6 billion gallons of fuel, of which 1.5 billion gallons were consumed in-state and 112 million gallons were shipped out-of-state. An impressive conclusion from the data is that close to half - 48% (732 million gallons) - of all the fuel sold in Alaska is Aviation Jet. Diesel accounts for 29% (453 million gallons) and gasoline accounts for 23% (358 million gallons).

REFINERY THROUGHPUT OF CRUDE OIL

Alaska's four industrial refineries do not report how much fuel they produce. Public data in Table 5 does report, however, how much crude oil flows into and, for three cases, how much residual oil flows out of the refineries. These data give some measure of in-state refining activity.

TABLE 5A - FUEL CONSUMPTION HISTORY

MILLIONS OF GALLONS PER YEAR

							1983	1984	1985
Exempt [1]									
Foreign Flights	-	-	-	-	-	-	163.100	230.044	141.862
Heating Fuel	-	-	-	-	-	-	93.269	99.191	105.469
Bulk Sales (Jet Fuel)	-	-	-	-	-	-	3.624	-	-
Gasohol	-	-	-	-	-	-	-	-	-
Public Utilities	-	-	-	-	-	-	92.894	96.311	102.425
State and Local Government	-	-	-	-	-	-	29.891	28.624	44.207
Federal Government	-	-	-	-	-	-	23.730	21.773	24.820
Exported as Cargo	-	-	-	-	-	-	20.571	21.776	100.840
Exempt Power Plants	-	-	-	-	-	-	.847	6.691	14.098
Domestic - Non-Alaska Air Miles [2]	-	-	-	-	-	-	-	-	-
Foreign Trade Zone [3]	-	-	-	-	-	-	-	-	-
Oil and Gas Operations [4]	-	-	-	-	-	-	-	-	-
Charitable Institutions	-	-	-	-	-	-	.137	.105	.116
Consigned to Foreign Countries	-	-	-	-	-	-	78.280	59.722	84.655
Losses	-	-	-	-	-	-	.001	.605	.225
Other	-	-	-	-	-	-	1.796	.466	.042
Taxable									
Aviation Gas	-	-	-	-	-	-	14.746	16.825	17.482
Aviation Jet	-	-	-	-	-	-	274.760	299.494	294.457
Highway Diesel	-	-	-	-	-	-	241.785	245.113	274.151
Highway Gas	-	-	-	-	-	-	187.081	212.150	219.728
Marine Diesel	-	-	-	-	-	-	72.174	73.542	88.851
Marine Gas	-	-	-	-	-	-	8.516	8.835	14.413
Total Fuel Sales [1]	-	-	-	-	-	-	**1,307.203**	**1,421.266**	**1,527.840**
Total Fuel Sales, net of "Exported as Cargo" and "Consigned to Foreign countries"	-	-	-	-	-	-	**1,208.352**	**1,339.768**	**1,342.345**

Source: Department of Revenue, "Motor Fuel Activity Report." Data from 1977 to 1982 are available but are somewhat incompatible with recent data. Data for 1983 to 1995 are summations of monthly reports but the 1995 and 1996 data are fiscal year summaries which DOR edited and believes to be more reliable than the annual summations.
[1] Bonded category is not included.
[2] Fuel claimed by taxpayers under their interpretation of the foreign flight exemption. These claims are under dispute with the department.
[3] Fuel voluntarily reported on tax returns.
[4] Fuel used in conjunction with oil and gas drilling operations.
Revised 4/23/97

TABLE 5B - REFINERY THROUGHPUT HISTORY

MILLIONS OF BARRELS PER YEAR

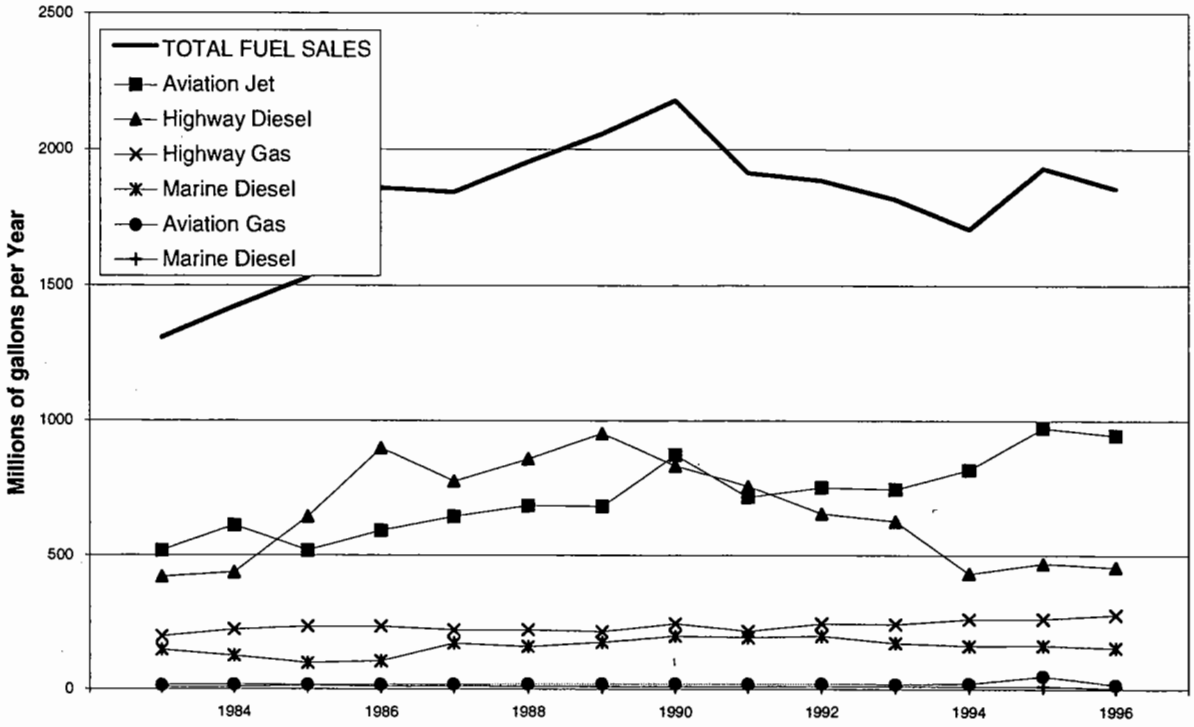
	1977	1978	1979	1980	1981	1982	1983	1984	1985
TAPS FLOW [1]									
Throughput at PS #1	112.315	397.149	467.939	554.934	556.067	591.142	600.859	608.836	649.887
Liftings at Valdez	96.669	394.080	464.394	548.895	547.026	583.370	592.319	596.588	643.512
Net	**15.646**	**3.069**	**3.545**	**6.039**	**9.041**	**7.772**	**8.540**	**12.248**	**6.375**
Golden Valley Pipeline [1]									
Deliveries	-	-	-	-	-	-	-	-	-
Receipts	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Petrostar Refinery [1]									
Deliveries	-	-	-	-	-	-	-	-	-
Receipts	-	-	-	-	-	-	-	-	-
Net	-	-	-	-	-	-	-	-	-
Tesoro Refinery [2]									
Thruput	-	-	-	-	-	-	-	-	-

[1] 1977-1981: Alaska Oil and Gas Conservation Commission, "Statistical Report."
1982-1996: Alyeska Pipeline Company.
[2] Tesoro Alaska Petroleum Company.
Revised 4/23/97

1986	1987	1988	1989	1990	1991	1992	1993	FY 1994	FY 1995	FY 1996
192.596	225.607	242.202	258.757	303.044	257.623	236.556	198.916	338.188	407.515	346.505
114.318	97.277	103.136	113.602	113.159	110.922	128.800	144.387	159.170	164.061	151.795
-	-	-	-	-	-	-	87.422	-	-	-
.171	.416	.215	.022	6.045	-	17.118	17.157	-	30.296	79.327
111.157	109.167	95.960	69.472	157.955	104.764	116.262	69.026	33.208	28.365	28.265
44.054	24.361	24.971	24.576	21.293	28.937	28.317	30.859	27.625	24.032	23.272
24.281	25.852	50.587	29.813	36.242	24.057	25.397	25.976	98.653	64.180	69.014
372.853	458.016	436.760	457.604	358.678	298.407	194.442	221.140	82.205	81.854	112.151
12.968	18.718	14.426	11.637	12.104	9.714	5.260	5.790	4.321	4.236	1.893
-	-	-	-	-	-	-	-	-	-	17.038
-	-	-	-	-	-	-	-	-	-	8.451
-	-	-	-	-	-	-	-	2.357	1.945	2.731
.115	.175	.120	.196	.195	1.153	.254	.360	.632	.659	.838
.021	42.960	.035	62.835	.001	-	.800	6.092	-	.378	-
.338	.335	.345	.003	.000	.003	.001	.000	-	-	.032
-	-	-	-	-	1.559	28.011	16.092	.205	18.325	.236
16.957	18.108	18.571	18.493	19.788	18.887	19.481	18.463	20.657	21.165	20.951
311.966	326.128	351.207	370.434	449.753	374.475	379.448	346.049	242.930	251.603	225.375
338.557	259.740	282.097	281.435	273.083	285.625	272.294	230.301	197.813	200.591	219.650
212.924	203.718	207.122	200.017	235.157	209.228	232.386	225.960	225.327	219.220	166.742
95.121	88.650	115.199	147.725	182.600	178.342	188.041	162.226	155.424	144.293	160.742
10.173	11.327	10.479	10.008	10.238	9.662	12.938	10.535	10.416	10.262	10.771
1,858.570	**1,910.554**	**1,953.432**	**2,056.630**	**2,179.338**	**1,913.356**	**1,885.805**	**1,816.750**	**1,599.131**	**1,672.980**	**1,645.779**
1,485.696	**1,409.578**	**1,516.638**	**1,536.191**	**1,820.658**	**1,614.949**	**1,690.563**	**1,589.519**	**1,516.926**	**1,590.748**	**1,533.628**

1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
665.435	716.662	744.108	688.062	654.551	665.175	639.390	591.220	579.320	555.939	512.725
653.028	700.878	731.663	672.461	636.199	647.345	623.217	570.707	559.082	535.790	486.774
12.407	**15.784**	**12.445**	**15.601**	**18.352**	**17.830**	**16.173**	**20.513**	**20.238**	**20.149**	**25.951**
-	-	-	-	-	-	-	48.430	48.267	50.874	52.901
-	-	-	-	-	-	-	33.970	33.705	34.563	35.124
-	-	-	-	-	-	-	**14.460**	**14.562**	**16.311**	**17.777**
-	-	-	-	-	-	-	9.204	10.597	11.949	14.062
-	-	-	-	-	-	-	6.821	8.021	9.038	10.514
-	-	-	-	-	-	-	**2.383**	**2.576**	**2.911**	**3.548**
-	-	-	-	-	-	-	18.176	16.848	18.608	17.693

FIGURE 5 - REFINED FUEL CONSUMPTION HISTORY OF STATE



Cook Inlet Oil & Gas Map

ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
APRIL 1997

Pool Boundaries
Unit Boundaries
Oil Field / Accumulation
Gas Field / Accumulation
Platform
Pipelines
Production Facility

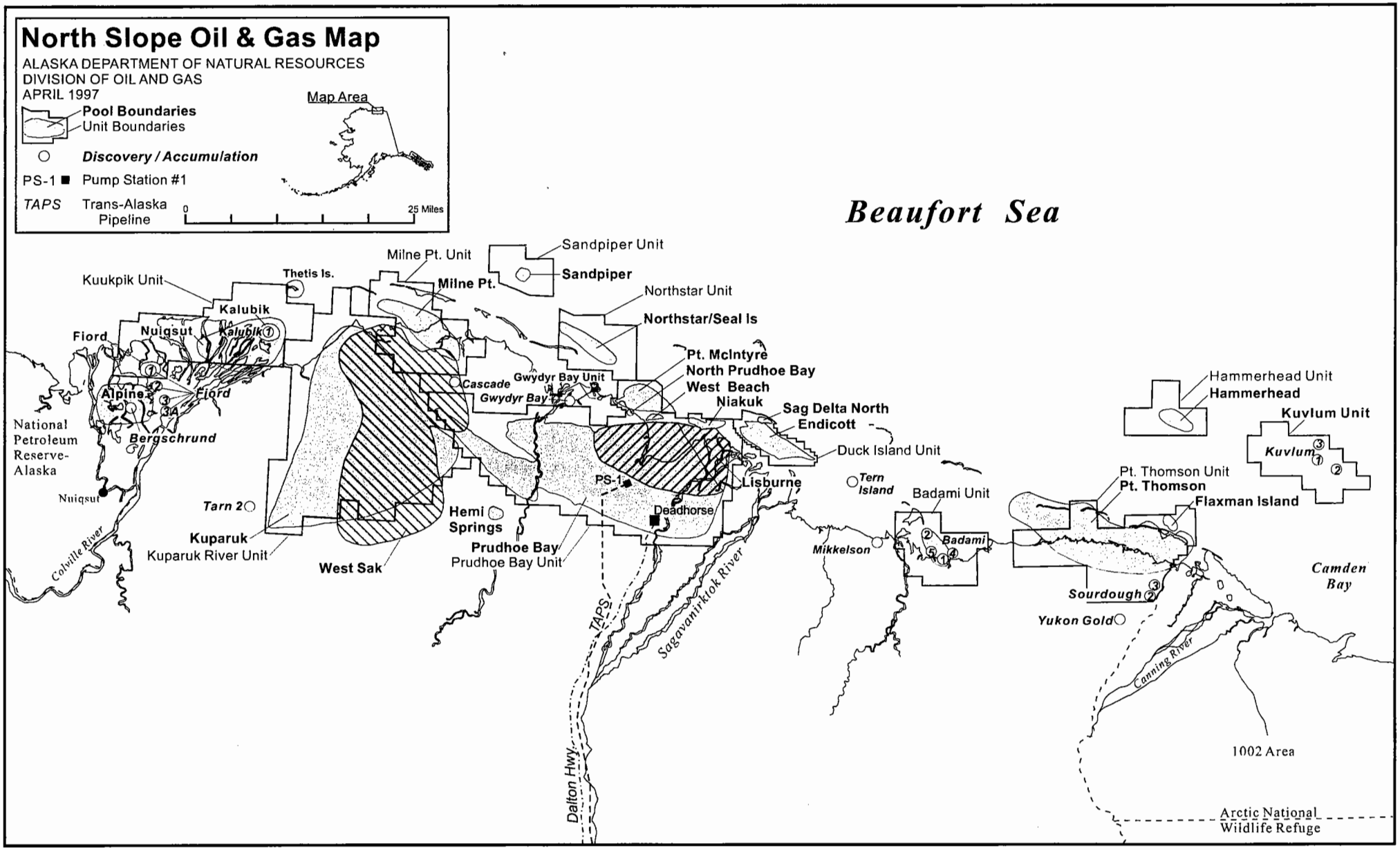
Map Area

0 5 10 15 20 25 Miles

PARKS HWY
Wasilla
Palmer
HWY
Knik Arm
GLENN
ANCHORAGE
Fire Is.
Turnagain Arm
Chickaloon Bay
SEWARD HWY
Girdwood
Hope

Lewis River
Lewis River Unit
Stump Lake
Stump Lake Unit
Pretty Creek
Pretty Creek Unit
Ivan River
Ivan River Unit
Beluga River
Beluga River Unit
North Cook Inlet
North Cook Inlet Unit
Moquawkie
Nicolai Creek
Nicolai Creek Unit
Albert Kaloa
Granite Point
Trading Bay
North Trading Bay Unit
McArthur River
Trading Bay Unit
North Middle Ground Shoal
Birch Hill
Birch Hill Unit
W. McArthur River
W. McArthur River Unit
Middle Ground Shoal
South Middle Ground Shoal Unit
Swanson River Unit
Swanson River
Soldotna Creek Unit
West Forelands
Redoubt Shoal
Nikiski
Beaver Creek
Beaver Creek Unit
West Fork
Drift River Terminal
Kenai
Cannery Loop
Cannery Loop Unit
Sterling
Sterling Unit
STERLING HWY
Kenai
Kenai Unit
Soldotna
Kalgin Island
Falls Creek
Falls Creek Unit
HWY
STERLING
SEWARD HWY
Seward
Cook Inlet
North Fork
North Fork Unit
Homer
Kachemak Bay
Gulf of Alaska

DETAIL MAP: PORT NIKISKI
0 1000 ft.
Chevron Refinery (Closed)
Pipeline Terminal
Port Nikiski
Rig Tenders Inc.
Tesoro Petroleum Refinery
Nikiski Wharf
Liquified Natural Gas Plant
L.N.G. Dock
COOK INLET
Dock
Ammonia Urea Plant


North Slope Oil & Gas Map
ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
APRIL 1997
Pool Boundaries
Unit Boundaries
Discovery / Accumulation
PS-1 Pump Station #1
TAPS Trans-Alaska Pipeline
0
25 Miles
Map Area
Beaufort Sea
Sandpiper Unit
Sandpiper
Milne Pt. Unit
Milne Pt.
Thetis Is.
Kuukpik Unit
Kalubik
Nuiqsut
Fiord
Alpine
Bergschrund
National Petroleum Reserve-Alaska
Nuiqsut
Colville River
Tarn 2
Kuparuk
Kuparuk River Unit
West Sak
Hemi Springs
Prudhoe Bay
Prudhoe Bay Unit
Cascade
Gwydyr Bay Unit
Gwydyr Bay
Northstar Unit
Northstar/Seal Is
Pt. McIntyre
North Prudhoe Bay
West Beach
Niakuk
Sag Delta North
Endicott
Duck Island Unit
PS-1
Deadhorse
Lisburne
TAPS
Dalton Hwy
Sagavanirktok River
Tern Island
Mikkelson
Badami Unit
Badami
Hammerhead Unit
Hammerhead
Kuvlum Unit
Kuvlum
Pt. Thomson Unit
Pt. Thomson
Flaxman Island
Sourdough
Yukon Gold
Canning River
Camden Bay
1002 Area
Arctic National Wildlife Refuge

6 GAS CONSUMPTION HISTORY

NORTH SLOPE

The only present market for the North Slope gas reserves near Prudhoe Bay is as fuel for oil production facilities and oil field related activities. Consequently, 92% of the extracted gas is injected back into the fields to maintain reservoir pressure, to conserve the gas resources, and to produce incremental oil. Of the estimated 270 billion cubic feet that were consumed in 1996, 80% went to field related activities of which the largest consumers were the gas handling and gas injection systems. A further 14% was reported as NGLs, 4% was sold to TAPS for fuel and 2% went to all other uses, including heat and electricity generaton at Barrow. The volume of gas consumed on the North Slope to produce oil is larger than the combined Anchorage and Kenai domestic, commercial and industrial markets.

COOK INLET

Anchorage and Kenai markets, field operations and exports consume all the gas extracted from Cook Inlet fields except for a decreasing amount injected each year into Swanson River field. Of the 225 billion cubic feet consumed in 1996, 36% went to Phillips-Marathon's LNG plant for combined fuel use and product, 24% went to Union's ammonia-urea plant for both energy and feed stock, 16% to power generation, 14% to utility gas, 8% to field operations and 1% to other uses.

TABLE 6 - GAS CONSUMPTION HISTORY

BILLIONS OF CUBIC FEET PER YEAR

	1971	1972	1973	1974	1975	1976	1977	1978
NORTH SLOPE								
Field Operations [1]	ND	ND	ND	2.650	2.808	3.856	24.444	29.231
Vented and Flared	ND	ND	ND	1.076	1.061	1.254	10.882	2.313
Used on Lease	ND	ND	ND	1.574	1.747	2.602	13.562	26.918
Sold [1]	ND	ND	ND	0.136	1.037	2.054	3.347	7.802
Power generation [3]	ND	ND	ND	ND	ND	ND	ND	0.219
Gas Utilities [2]	ND	ND	ND	ND	ND	ND	ND	0.291
TAPS [3]	-	-	-	-	-	-	1.754	6.949
NGL [4]	-	-	-	-	-	-	-	-
Unaccounted [5]	-	-	-	-	-	-	-	-
TOTAL	**-**	**-**	**-**	**2.786**	**3.845**	**5.910**	**27.791**	**37.033**
COOK INLET								
Field Operations [1]	45.250	36.560	20.900	49.834	28.830	24.467	24.416	25.949
Vented and Flared	33.180	20.980	6.930	7.978	9.496	5.421	4.848	3.870
Used on Lease	12.070	15.580	13.970	41.856	19.334	19.046	19.568	22.079
Sold [1]	121.717	123.717	130.937	130.509	140.717	143.710	152.437	164.300
Power generation	16.529	19.253	21.752	22.801	25.461	27.628	28.717	29.883
Public [6]	9.980	12.780	15.683	17.117	19.619	22.204	23.717	24.757
Military [7]	6.549	6.473	6.069	5.684	5.842	5.424	5.000	5.126
Gas Utilities [7]	10.238	13.099	14.757	15.128	12.092	12.551	12.683	13.454
Residential	5.440	6.027	6.519	6.717	5.548	5.916	6.010	6.536
Commercial	4.798	7.072	8.238	8.411	6.544	6.635	6.673	6.918
LNG [8]	63.240	57.133	60.570	61.656	63.904	62.090	65.449	60.102
Ammonia-Urea [8]	19.490	20.580	20.640	22.100	23.888	24.257	28.620	48.879
Rental Gas [10]	ND	13.400	12.590	10.410	12.477	11.588	6.703	10.523
Unaccounted [5]	12.220	0.252	0.628	-1.586	2.895	5.596	10.265	1.459
TOTAL	**166.967**	**160.277**	**151.837**	**180.343**	**169.547**	**168.177**	**176.853**	**190.249**
STATE								
Field Operations [1]	45.250	36.560	20.900	52.484	31.638	28.323	48.860	55.180
Vented and Flared	33.180	20.980	6.930	9.054	10.557	6.675	15.730	6.183
Used on Lease	12.070	15.580	13.970	43.430	21.081	21.648	33.130	48.997
Sold [1]	121.717	123.717	130.937	130.645	141.754	145.764	155.784	172.102
Power generation	16.529	19.253	21.752	22.801	25.461	27.628	28.717	30.102
Public [2][6]	9.980	12.780	15.683	17.117	19.619	22.204	23.717	24.976
Military [7]	6.549	6.473	6.069	5.684	5.842	5.424	5.000	5.126
Gas Utilities	10.238	13.099	14.757	15.128	12.092	12.551	12.683	13.454
Residential [2][7]	5.440	6.027	6.519	6.717	5.548	5.916	6.010	6.536
Commercial [7]	4.798	7.072	8.238	8.411	6.544	6.635	6.673	6.918
LNG [8]	63.240	57.133	60.570	61.656	63.904	62.090	65.449	60.102
Ammonia-Urea [9]	19.490	20.580	20.640	22.100	23.888	24.257	28.620	48.879
Rental Gas [10]	ND	13.400	12.590	10.410	12.477	11.588	6.703	10.523
TAPS [3]	-	-	-	-	-	-	1.754	6.949
NGL [4]	-	-	-	-	-	-	-	-
Unaccounted [5]	12.220	0.252	0.628	-1.586	2.895	5.596	10.265	1.459
TOTAL [11]	**166.967**	**160.277**	**151.837**	**183.129**	**173.392**	**174.087**	**204.644**	**227.282**

ND: appropriate data is not available.
Estimated from part-yearly reports.
[1] Alaska Oil and Gas Conservation Commission (AOGCC), "Report of Gas Disposition." AOGCC modified its consumption classification in 1994 but the classes in this table are equivalent throughout the time series.
[2] Barrow Utilities and Electric Cooperative Inc..
[3] Royalty reports from Arco to Division of Oil and Gas, sales to TAPS from Prudhoe Bay field.
[4] Alaska Oil and Gas Conservation Commission, "Alaska Production Summary by Field and Pool", monthly reports. NGLs volumes are reported in barrels, here converted to billions of cubic feet by: 1 Bbl=1.2 Mcf.
[5] Calculated difference between "Sold" and sum of listed "Sold" items.
[6] 1971-91: Alaska Energy Authority, "Alaska Electric Power Statistics, 1960-1991"
1992-96: Chugach Electric and Municipal Light & Power.
[7] 1971-82: Annual reports from Alaska Pipeline Co., Enstar and Kenai Utility Service Co. to Alaska Public Utilities Commission
1983-96: Enstar Natural Gas Co..
[8] Phillips Petroleum Co.
[9] 1971-74: Stanford Research Institute, "Natural Gas Demand and Supply to the Year 2000 in the Cook Inlet Basin of South Central Alaska," Nov 1977.
1975-79: Sum of
1) sales from Kenai and Beaver Creek gas fields to Collier Chemical in: Alaska Oil and Gas Conservation Commission, "Kenai Gas Sales" and
2) sales from McArthur River gas field in: Alaska Oil and Gas Conservation Commission, "Monthly Report of Gas Disposition."
1980-85: Royalty reports from producers to Division of Oil and Gas.
1986-96: Unocal Corp.
[10] Gas produced and sold from other fields and injected into Swanson River field to maintain reservoir pressure.
1972-90: Royalty reports from Unocal to Division of Oil and Gas, item: Swanson River Rental Gas.
1991-96: Unocal Corp.
[11] AOGCC tabulates gas produced, reported in Table 4, and gas consumed, reported in this table. The two tabulations differ slightly.
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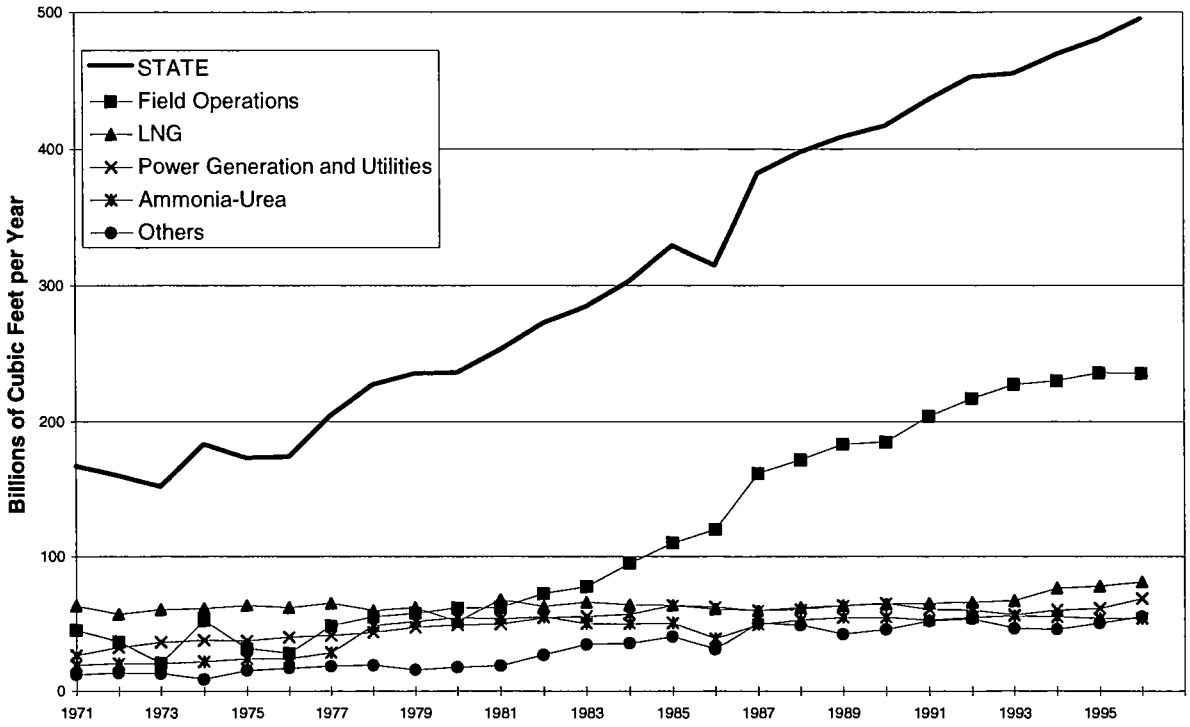
1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
33.763	39.697	41.607	51.921	58.210	74.732	91.388	101.722	143.272	152.558	163.955
1.840	1.801	2.485	3.490	2.524	5.814	3.437	5.802	12.952	5.747	6.792
31.923	37.896	39.122	48.431	55.686	68.918	87.951	95.920	130.320	146.811	157.163
9.512	12.007	12.791	14.000	14.589	15.088	20.089	20.001	42.719	48.287	39.546
0.235	0.235	0.315	0.404	0.482	0.480	0.486	0.559	0.544	0.620	0.620
0.317	0.400	0.435	0.539	0.407	0.508	0.453	0.486	0.493	0.519	0.484
8.648	10.686	11.106	11.952	13.277	12.856	14.381	15.166	16.624	17.855	16.147
-	0.305	0.540	0.600	0.373	0.380	0.980	1.562	19.594	25.235	22.637
0.312	0.381	0.395	0.505	0.050	0.864	3.789	2.228	5.464	4.058	-0.342
43.275	**51.704**	**54.398**	**65.921**	**72.799**	**89.820**	**111.477**	**121.723**	**185.991**	**200.845**	**203.501**
24.101	22.304	20.559	20.957	19.380	20.516	18.637	18.408	18.529	19.142	19.433
2.710	3.045	3.175	3.494	2.560	3.260	2.893	3.095	2.746	3.244	2.940
21.391	19.259	17.384	17.463	16.820	17.256	15.744	15.313	15.783	15.898	16.493
168.106	162.201	178.082	185.913	192.578	192.752	199.311	174.563	177.660	177.471	185.767
33.166	33.526	33.632	34.943	36.143	35.909	38.724	38.774	36.240	36.854	37.933
28.180	28.763	29.071	30.113	31.547	31.571	34.194	34.243	31.583	32.038	32.917
4.986	4.763	4.561	4.830	4.596	4.338	4.530	4.531	4.657	4.816	5.016
14.045	15.521	15.778	19.025	19.111	20.903	24.419	23.235	23.063	23.249	25.238
6.911	7.773	7.950	9.981	10.202	10.999	12.445	11.935	12.027	12.292	13.564
7.134	7.748	7.828	9.044	8.909	9.904	11.974	11.300	11.036	10.957	11.674
62.231	51.915	67.943	62.853	66.042	64.229	63.926	61.062	60.111	62.168	63.836
51.657	54.699	53.836	55.220	50.338	50.083	50.688	39.240	49.450	53.140	54.770
6.958	5.190	5.601	11.383	12.698	18.362	21.532	14.785	16.733	8.722	6.705
0.049	1.350	1.292	2.489	8.246	3.266	0.022	-2.533	-7.937	-6.662	-2.715
192.207	**184.505**	**198.641**	**206.870**	**211.958**	**213.268**	**217.948**	**192.971**	**196.189**	**196.613**	**205.120**
57.864	62.001	62.166	72.878	77.590	95.248	110.025	120.130	161.801	171.700	183.388
4.550	4.846	5.660	6.984	5.084	9.074	6.330	8.897	15.698	8.991	9.732
53.314	57.155	56.506	65.894	72.506	86.174	103.695	111.233	146.103	162.709	173.656
177.618	174.208	190.873	199.913	207.167	207.840	219.400	194.564	220.379	225.758	225.313
33.401	33.761	33.947	35.347	36.625	36.389	39.210	39.333	36.784	37.474	38.553
28.415	28.998	29.386	30.517	32.029	32.051	34.680	34.802	32.127	32.658	33.537
4.986	4.763	4.561	4.830	4.596	4.338	4.530	4.531	4.657	4.816	5.016
14.045	15.521	15.778	19.025	19.111	20.903	24.419	23.235	23.063	23.249	25.238
6.911	7.773	7.950	9.981	10.202	10.999	12.445	11.935	12.027	12.292	13.564
7.134	7.748	7.828	9.044	8.909	9.904	11.974	11.300	11.036	10.957	11.674
62.231	51.915	67.943	62.853	66.042	64.229	63.926	61.062	60.111	62.168	63.836
51.657	54.699	53.836	55.220	50.338	50.083	50.688	39.240	49.450	53.140	54.770
6.958	5.190	5.601	11.383	12.698	18.362	21.532	14.785	16.733	8.722	6.705
8.648	10.686	11.106	11.952	13.277	12.856	14.381	15.166	16.624	17.855	16.147
-	0.305	0.540	0.600	0.373	0.380	0.980	1.562	19.594	25.235	22.637
0.361	1.731	1.687	2.994	8.296	4.130	3.811	-0.305	-2.473	-2.604	-3.057
235.482	**236.209**	**253.039**	**272.791**	**284.757**	**303.088**	**329.425**	**314.694**	**382.180**	**397.458**	**408.621**

TABLE 6 - GAS CONSUMPTION HISTORY, Continued

BILLIONS OF CUBIC FEET PER YEAR

	1990	1991	1992	1993	1994	1995	1996
NORTH SLOPE							
Field Operations [1]	169.343	183.711	196.055	208.539	211.020	218.056	216.395
Vented and Flared	8.753	6.795	10.092	19.081	10.585	6.968	5.616
Used on Lease	160.590	176.916	185.963	189.458	200.435	211.088	210.779
Sold [1]	37.067	45.475	48.402	46.202	44.190	47.870	53.407
Power generation [3]	0.644	0.667	0.721	0.676	0.680	0.680	0.661
Gas Utilities [2]	0.495	0.486	0.530	0.508	0.541	0.522	0.519
TAPS [3]	14.543	15.349	14.583	12.342	12.017	11.426	10.609
NGL [4]	21.805	28.633	32.276	32.209	31.098	35.558	38.359
Unaccounted [5]	-0.420	0.340	0.292	0.467	-0.146	-0.316	3.259
TOTAL	**206.410**	**229.186**	**244.457**	**254.741**	**255.210**	**265.926**	**269.802**
COOK INLET							
Field Operations [1]	15.570	20.256	21.014	18.964	19.122	17.839	19.029
Vented and Flared	2.214	3.900	4.088	3.419	2.727	1.815	1.493
Used on Lease	13.356	16.356	16.926	15.545	16.395	16.024	17.536
Sold [1]	194.877	186.366	187.233	181.542	194.880	196.627	206.373
Power generation	38.858	35.329	33.504	32.045	33.045	33.965	36.192
Public [6]	33.918	30.629	28.549	27.361	28.360	29.255	31.102
Military [7]	4.940	4.700	4.955	4.684	4.685	4.710	5.090
Gas Utilities [7]	25.892	24.700	25.946	24.242	26.607	26.709	31.891
Residential	13.968	13.440	14.333	13.413	14.769	14.847	16.220
Commercial	11.924	11.260	11.613	10.829	11.838	11.862	15.671
LNG [8]	65.135	65.429	66.219	67.328	76.651	78.144	81.407
Ammonia-Urea [8]	54.770	53.110	55.000	56.210	55.400	54.000	53.970
Rental Gas [10]	3.182	3.683	3.719	-	-	-	-
Unaccounted [5]	7.040	4.115	2.845	1.717	3.177	3.809	2.972
TOTAL	**210.447**	**206.622**	**208.247**	**200.506**	**214.002**	**214.466**	**225.402**
STATE							
Field Operations [1]	184.913	203.967	217.069	227.503	230.142	235.895	235.424
Vented and Flared	10.967	10.695	14.180	22.500	13.312	8.783	7.109
Used on Lease	173.946	193.272	202.889	205.003	216.830	227.112	228.315
Sold [1]	231.944	231.841	235.635	227.744	239.070	244.497	259.780
Power generation	39.502	35.996	34.225	32.721	33.725	34.645	36.853
Public [2][6]	34.562	31.296	29.270	28.037	29.040	29.935	31.763
Military [7]	4.940	4.700	4.955	4.684	4.685	4.710	5.090
Gas Utilities	25.892	24.700	25.946	24.242	26.607	26.709	31.891
Residential [2][7]	13.968	13.440	14.333	13.413	14.769	14.847	16.220
Commercial [7]	11.924	11.260	11.613	10.829	11.838	11.862	15.671
LNG [8]	65.135	65.429	66.219	67.328	76.651	78.144	81.407
Ammonia-Urea [9]	54.770	53.110	55.000	56.210	55.400	54.000	53.970
Rental Gas [10]	3.182	3.683	3.719	-	-	-	-
TAPS [3]	14.543	15.349	14.583	12.342	12.017	11.426	10.609
NGL [4]	21.805	28.633	32.276	32.209	31.098	35.558	38.359
Unaccounted [5]	6.620	4.455	3.137	2.184	3.031	3.493	6.172
TOTAL [11]	**416.857**	**435.808**	**452.704**	**455.247**	**469.212**	**480.392**	**495.204**

FIGURE 6 - GAS CONSUMPTION HISTORY OF STATE



7 OIL AND GAS CONSUMPTION FORECAST

Forecasts of oil and gas consumption in this issue have departed from previous methods dating back to 1987 in that the Energy Demand Model (ENDMOD) developed by the Institute of Social and Economic Research was not used. A comprehensive rewrite of the forecasting equations is planned for next year. For this publication each major element of oil and gas consumption was reviewed and appropriate trend lines were developed in consultation with experienced oil and gas analysts. The DO&G encourages users of these data to comment to DO&G on any desired format or category on which they would like more information.

OIL CONSUMPTION

The major areas of oil consumption are listed by three categories, highway, aviation, or marine, and with two fuel types in each category (either gasoline and diesel or gasoline and jet fuel). Selected uses of these products may incorporate multiple fuel types, for example, motor fuel that is reported as being exported in fiscal year 1996, includes every fuel type except marine diesel. Heating fuel, which is predominately reported as highway diesel, also includes some highway gasoline and aviation jet fuel.

Crude oil used as feedstock in the state's four active refineries and two North Slope topping plants is not included in this forecast, however, current estimates are listed in Chapter 5.

Oil consumption in Alaska, across all fuel types, rose steadily during the mid-seventies and all through the eighties to peak at over 2 billion gallons in 1990, counting export of residual oil. The effect of reporting this exported cargo as highway diesel when combined with consumption of aviation jet fuel, briefly drove growth. When residual exports declined, the reported highway diesel consumption dropped nearly in half by 1994 and total fuel sold declined accordingly.

The aggregate trend for the last three years is slightly downward, mostly due to declines in aviation jet and highway diesel fuels. However, these fuel types typically fluctuate more than others and their effects may balance over a longer period of time. Therefore, in the absence of large events, total oil consumption may be expected to have slight increase during the forecast period.

GAS CONSUMPTION

Statewide consumption of gas has grown steadily for over twenty years predominately due to increased usage on oil leases on the North Slope. Other primary uses include electrical power generation and gas utilities, and the two plants on the Kenai Peninsula which export LNGs and ammonia - urea.

Natural gas usage has remained stable over the last twenty years with the exception of gas used in field operations on the north slope and the export of LNG which has grown by 20% in the last three years. The use of natural gas for North Slope operations is forecasted to continue as before or even increase due to planned technological changes and enhanced oil recovery efforts. Exports of LNGs will level off.

TABLE 7A - OIL DEMAND PROJECTION

MILLIONS OF GALLONS PER YEAR

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
Fuel Sale Category														
Aviation Gas	22	22	22	23	23	23	23	24	24	24	25	25	25	25
Aviation Jet	766	767	768	770	771	772	773	774	775	777	778	779	780	781
Marine Gas	12	12	12	12	12	12	13	13	13	13	13	13	13	13
Marine Diesel	163	164	164	165	165	165	166	166	167	167	168	168	169	169
Highway Gas	267	271	275	279	283	287	291	295	299	303	308	312	316	320
Highway Diesel	451	455	460	464	469	474	478	483	488	493	498	503	508	513
Total Fuel Sales	**1,680**	**1,691**	**1,702**	**1,712**	**1,723**	**1,734**	**1,745**	**1,755**	**1,766**	**1,777**	**1,788**	**1,799**	**1,811**	**1,822**
Selected Uses														
Heating Fuel	158	160	162	163	165	166	168	170	171	173	175	177	178	180
Exported	110	118	125	133	141	149	156	164	172	180	187	195	203	211
Public Utilities	28	28	28	28	28	28	28	27	27	27	27	27	27	27

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TABLE 7B - GAS DEMAND PROJECTION

Billions of Cubic Feet per Year

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Field Operations	246	250	292	302	312	315	315	315	315	315	315	315	315	315
Railbelt Utilities	62	62	62	63	63	63	63	64	64	64	65	65	65	66
LNG/Ammonia	133	134	134	134	134	134	134	134	134	134	134	134	134	134
Miscellaneous	44	45	46	46	45	47	47	46	46	46	45	45	45	44
Total	**485**	**491**	**534**	**544**	**554**	**559**	**559**	**559**	**559**	**559**	**559**	**559**	**559**	**559**

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APPENDIX A OIL AND GAS FIELDS

OIL AND GAS FIELDS

Field	Type	Location	Operator	Production
ALBERT KALOA	Gas	Cook Inlet, west side, onshore	CIRI	shut-in 1971
ALPINE	Oil	North Slope, Colville Delta, onshore	Arco	undeveloped
BADAMI	Oil&Gas	North Slope, Canning R., onshore	BP	undeveloped
BEAVER CREEK	Oil&Gas	Cook Inlet, east side, onshore	Unocal	began 1973
BELUGA RIVER	Gas	Cook Inlet, west side, onshore	Arco	began 1968
BIRCH HILL	Gas	Cook Inlet, east side, onshore	Arco	shut-in 1965
BURGER	Oil&Gas	Beaufort Sea, offshore	Shell	undeveloped
CANNERY LOOP	Gas	Cook Inlet, east side, onshore	Marathon	began 1988
CASCADE	Oil	North Slope, central, onshore	BP	began 8/1996
COLVILLE DELTA	Oil	North Slope, Colville Delta, onshore	Arco	undeveloped
EAST BARROW	Gas	North Slope, west, onshore	NS Borough	began 1981
EAST UMIAT	Gas	North Slope, foothills, onshore	UMC Pet	shut-in, no prod.
ENDICOTT	Oil	North Slope, central, onshore	BP	began 1987
FALLS CREEK	Gas	Cook Inlet, east side, onshore	Arco	shut-in 1961
FIORD	Oil	North Slope, Colville Delta, onshore	Arco	undeveloped
FISH CREEK	Oil	North Slope, NPRA, onshore		undeveloped
FLAXMAN ISLAND	Oil	North Slope, Canning R., onshore	Exxon	undeveloped
GRANITE POINT	Oil&Gas	Cook Inlet, west side, offshore	Unocal	began 1967
GUBIK	Gas	North Slope, foothills, onshore		undeveloped
GWYDYR BAY	Oil	North Slope, central, on- & offshore		undeveloped
HAMMERHEAD	Oil	Beaufort Sea, offshore	Shell	undeveloped
HEMI SPRINGS	Oil	North Slope, central, onshore		undeveloped
IVAN RIVER	Gas	Cook Inlet, west side, onshore	Unocal	began 1990
KALUBIK	Oil	North Slope, Colville Delta, onshore	Arco	undeveloped
KATALLA	Oil	Gulf of Alaska, onshore		aband. 1933
KAVIK	Gas	North Slope, foothills, onshore	Arco	undeveloped
KEMIK	Gas	North Slope, foothills, onshore	BP	undeveloped
KENAI	Gas	Cook Inlet, east side, onshore	Marathon	began 1961
KUPARUK RIVER	Oil&Gas	North Slope, central, onshore	Arco	began 1981
KUVLUM	Oil	Beaufort Sea, offshore	Union Texas	undeveloped
LEWIS RIVER	Gas	Cook Inlet, west side, onshore	Unocal	began 1984
LISBURNE	Oil&Gas	North Slope, central, on- & offshore	Arco	began 1986
McARTHUR RIVER	Oil&Gas	Cook Inlet, west side, offshore	Unocal	began 1967
MEADE	Gas	North Slope, NPRA, onshore		undeveloped
MIDDLE GROUND SHOAL	Oil&Gas	Cook Inlet, east side, offshore	Unocal/Shell	began 1967
MIKKELSEN	Oil	North Slope, central, on- & offshore	Exxon/Arco	undeveloped
MILNE POINT	Oil	North Slope, central, on- & offshore	BP	began 1985
MOQUAWKIE	Gas	Cook Inlet, west side, onshore	CIRI	shut-in 1975
N. MIDDLE GROUND SHOAL	Gas	Cook Inlet, west side, offshore	Unocal/Shell	undeveloped
NIAKUK	Oil	North Slope, central, offshore	BP/Arco	began 1994
NICOLAI CREEK	Gas	Cook Inlet, west side, on- & offshore	Unocal	shut-in 1977
NORTH COOK INLET	Gas	Cook Inlet, mid channel, offshore	Phillips	began 1970
NORTH FORK	Gas	Cook Inlet, east side, onshore	Unocal	shut-in 1965
NORTH PRUDHOE	Oil&Gas	North Slope, central, onshore	Arco	began 11/1993
NORTHSTAR	Oil&Gas	North Slope, central, offshore	BP	development proposed
POINT McINTYRE	Oil&Gas	North Slope, central, offshore	Arco	began 1993
POINT THOMSON	Oil&Gas	North Slope, Canning R., onshore	Exxon	undeveloped
PRETTY CREEK	Gas	Cook Inlet, west side, onshore	Unocal	began 1986
PRUDHOE BAY	Oil&Gas	North Slope, central, onshore	BP/Arco	began 1977
REDOUBT SHOAL	Oil	Cook Inlet, west side, offshore	Forcenergy	undeveloped
SAG DELTA NORTH	Oil	North Slope, central, offshore	BP	began 1989
SAG RIVER	Oil	North Slope, central, onshore	BP	began 1994
SANDPIPER	Oil	Beaufort Sea, offshore	Murphy	undeveloped
SCHRADER BLUFF	Oil	North Slope, central, onshore	BP	began 1991
SIKULIK	Gas	North Slope, west, onshore	NS Borough	undeveloped
SIMPSON	Oil	North Slope, NPRA, onshore		undeveloped
SOURDOUGH	Oil	North Slope, Canning R., onshore	BP	undeveloped
SOUTH BARROW	Gas	North Slope, west, onshore	NS Borough	began 1950
SQUARE LAKE	Gas	North Slope, NPRA, onshore		undeveloped
STERLING	Gas	Cook Inlet, east side, onshore	Marathon	began 1962
STUMP LAKE	Gas	Cook Inlet, west side, onshore	Unocal	began 1990

SWANSON RIVER	Oil&Gas	Cook Inlet, east side, onshore	Unocal	began 1958
TERN ISLAND	Oil	Beaufort Sea, offshore	BP	undeveloped
TRADING BAY	Oil&Gas	Cook Inlet, west side, offshore	Unocal	began 1967
TYONIC DEEP	Oil&Gas	Cook Inlet, mid channel, offshore	Phillips	undeveloped
UGNU	Oil	North Slope, central, onshore		undeveloped
UMIAT	Oil	North Slope, foothills, onshore	USDI	undeveloped
WALAKPA	Gas	North Slope, west, onshore	NS Borough	began 1992
WEST BEACH	Oil&Gas	North Slope, central, onshore	Arco	began 4/1994
WEST FORELAND	Gas	Cook Inlet, west side, on- & offshore	Phillips	shut-in 1962
WEST FORK	Gas	Cook Inlet, east side, onshore	CIRI	began 1978
WEST McARTHUR RIVER	Oil&Gas	Cook Inlet, west side, onshore	Stewart	began 1994
WEST SAK	Oil	North Slope, central, onshore	Arco/BP	undeveloped
WOLF CREEK	Gas	North Slope, NPRA, onshore		undeveloped

APPENDIX B PRODUCING STATE OIL AND GAS LEASES

PRODUCING STATE OIL AND GAS LEASES

NOTE: This table lists only those state leases that have produced oil or gas, as of June 25, 1996. It does not list the many leases that have never produced oil or gas.

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
BADAMI (Oil)							
367011		100.0000000	100.0000000			BP	100.0000000
BELUGA RIVER (Gas)							
17592		-	8.0024000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
17599		-	5.0210000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
17658		-	12.7251000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
21126		-	0.7855000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
21127		-	9.4019000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
21128		-	14.5560000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
21129		-	0.5803000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
58815	28	-	0.0162000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
58820	29	-	1.5889000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
58831	30	-	7.7629000	12.5		ARCO	33.3333333
						CHEVRON	33.3333333
						SHELL	33.3333334
CANNERY LOOP (Gas)							
BELUGA							
2397	5A	-	5.1844565	12.5		MARATHON	100.0000000
324602	4A	-	16.3008805	12.5		MARATHON	100.0000000
324604	5B	-	0.1470714	12.5		MARATHON	100.0000000
359153	7	-	6.3585128	12.5		MARATHON	100.0000000
364395	7C	-	1.8936392	12.5		MARATHON	100.0000000
365454	12	-	0.4381660	16.7		MARATHON	100.0000000
373302	14	-	3.9605254	12.5		MARATHON	100.0000000
373302	19	-	0.1905070	12.5		MARATHON	100.0000000
373302	20	-	0.4271166	12.5		MARATHON	100.0000000
TYONEK DEEP							
002397	5A	-	5.4125000	12.5		MARATHON	100.0000000
324602	4A	-	29.2068900	12.5		MARATHON	100.0000000
359153	7	-	13.5137500	12.5		MARATHON	100.0000000
UPPER TYONEK							
2397	5A	7.3449200	7.3449200	12.5		MARATHON	100.0000000
324602	4A	29.8726200	29.8726200	12.5		MARATHON	100.0000000
359153	7	13.5705700	13.5705700	12.5		MARATHON	100.0000000
365454	12	1.3091500	1.3091500	16.7		MARATHON	100.0000000
OTHER		47.9027356				OTHER	100.0000000
DUCK ISLAND UNIT (Oil and Gas)							
ENDICOTT PARTICIPATING AREA							
34633	13	26.7609000	26.7609000	12.5		BP	100.0000000
34634	12	0.0675000	0.0675000	12.5		BP	100.0000000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
34636	14	5.2911000	5.2911000	12.5		BP	100.0000000
47502	1	22.3357000	22.3357000	12.5		AMOCO	25.0000000
						EXXON	50.0000000
						UNION	25.0000000
47503	2	19.6233000	19.6233000	12.5		AMOCO	25.0000000
						EXXON	50.0000000
						UNION	25.0000000
47504	3	0.0036000	0.0036000	12.5		EXXON	100.0000000
47505	4	0.0140000	0.0140000	12.5		EXXON	100.0000000
47506	5	0.0084000	0.0084000	12.5		AMOCO	50.0000000
						UNION	50.0000000
312828	15	25.8252000	25.8252000	20.0	79.5935000	BP	95.5000000
						CIRI	2.5000000
						DOYON	0.5000000
						NANA	1.5000000
312834	16	0.0703000	0.0703000	20.0	48.8703100	ARCO	33.3400000
						EXXON	33.3300000
						UNION	33.3300000
SAG DELTA PARTICIPATING AREA							
34633	13	6.3656000	6.6356000	12.5		BP	100.0000000
312828	15	93.3644000	93.3644000	20.0		BP	95.5000000
						CIRI	2.5000000
						DOYON	0.5000000
GRANITE POINT (Oil and Gas)							
GRANITE POINT 1							
18761		100.0000000	100.0000000	12.5		MOBIL	75.0000000
GRANITE POINT 2						UNION	25.0000000
17586		100.0000000	100.0000000	12.5		UNION	100.0000000
17587		100.0000000	100.0000000	12.5		UNION	100.0000000
18742		100.0000000	100.0000000	12.5		UNION	100.0000000
IVAN RIVER (Gas)							
17600	1	-	6.5064900	12.5		UNION	100.0000000
17600	1A	-	5.8516900	12.5		UNION	100.0000000
302282	6	-	3.4922500	12.5		UNION	100.0000000
302284	5	-	18.7468100	12.5		UNION	100.0000000
326058	7	-	10.4767400	62.2		UNION	100.0000000
32930	2	-	25.8426100	12.5		UNION	100.0000000
32930	2A	-	7.9348200	12.5		UNION	100.0000000
32930	2B	-	13.1103200	12.5		UNION	100.0000000
33637	3	-	8.4686900	12.5		UNION	100.0000000
KENAI (Gas)							
588	175	-	6.7607000	12.5		MARATHON	50.0000000
						UNION	50.0000000
593	176	-	7.4430000	12.5		MARATHON	50.0000000
						UNION	50.0000000
594	177	-	0.6717000	12.5		MARATHON	50.0000000
						UNION	50.0000000
2411	178	-	0.7608000	12.5		MARATHON	50.0000000
						UNION	50.0000000
308223	166	-	0.0083000	12.5		MARATHON	50.0000000
						UNION	50.0000000
324598	014	-	0.9065000	12.5		MARATHON	50.0000000
						UNION	50.0000000
KUPARUK (Oil and Gas)							
25512	2	1.4735860	1.4735860	12.5		ARCO	50.0000000
						BP	50.0000000
25513	3	1.5236360	1.5264080	12.5		ARCO	50.0000000
						BP	50.0000000
25519	4	1.9116500	1.1938260	12.5		ARCO	50.0000000
						BP	50.0000000
25520	5	1.4607080	1.4633820	12.5		ARCO	50.0000000
						BP	50.0000000
25521	6	1.3352840	1.3377160	12.5		ARCO	50.0000000
						BP	50.0000000
25522	1	0.4698620	0.4707200	12.5		ARCO	50.0000000
						BP	50.0000000
25523	7	1.2821780	1.2845220	12.5		ARCO	50.0000000
						BP	50.0000000
25524	8	0.6061440	0.6073260	12.5		ARCO	50.0000000
						BP	50.0000000
25531	11	1.3929870	1.4118300	12.5		ARCO	33.3300000
						BP	33.3400000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
						UNION	33.3300000
25532	10	0.3695580	0.3745770	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25546	25	0.0096480	0.0097770	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25547	24	1.1384040	1.1537730	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25548	29	0.6795600	0.6886410	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25549	28	0.0217470	0.0220380	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25568	45	0.5314530	0.5386140	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25569	44	1.3048920	1.3224420	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25570	50	2.3393670	2.3709780	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25571	49	1.0792860	1.1120730	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25585	69	0.1280070	0.1297290	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25586	68	1.2058890	1.2221160	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25587	67	1.4199780	1.4390430	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25588	76	1.0910610	1.1056650	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25589	75	0.9073680	0.9195330	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25590	74	0.3004800	0.3045000	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25603	90	0.0594180	0.0602130	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25604	89	0.3232440	0.3275640	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25605	88	0.3342240	0.3386940	12.5		ARCO	33.3300000
						BP	33.3400000
						UNION	33.3300000
25607	96	0.2166180	0.2166180	12.5		ARCO	50.0000000
						BP	33.3333330
						UNION	16.6666670
25608	95	0.1778400	0.1778400	12.5		ARCO	50.0000000
						BP	33.3333330
						UNION	16.6666670
25627	16	0.1184060	0.1186420	12.5		ARCO	50.0000000
						BP	50.0000000
25628	15	0.8091100	0.8106060	12.5		ARCO	50.0000000
						BP	50.0000000
25629	14	1.4903880	1.4931320	12.5		ARCO	50.0000000
						BP	50.0000000
25630	13	1.6485780	1.6516080	12.5		ARCO	50.0000000
						BP	50.0000000
25631	12	1.2009180	1.2031160	12.5		ARCO	50.0000000
						BP	50.0000000
25632	23	2.7594980	2.7649440	12.5		ARCO	50.0000000
						BP	50.0000000
25633	22	1.9153360	1.9189380	12.5		ARCO	50.0000000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
						BP	50.0000000
25634	21	1.7157940	1.7190340	12.5		ARCO	50.0000000
						BP	50.0000000
25635	20	1.6856780	1.6889100	12.5		ARCO	50.0000000
						BP	50.0000000
25636	19	0.3644340	0.3651640	12.5		ARCO	50.0000000
						BP	50.0000000
25637	18	0.0000080	0.0000080	12.5		ARCO	50.0000000
						BP	50.0000000
25638	35	0.2902760	0.2915260	12.5		ARCO	100.0000000
25639	34	1.1359980	1.1407940	12.5		ARCO	100.0000000
25640	33	2.9568520	2.9628780	12.5		ARCO	50.0000000
						BP	50.0000000
25641	32	3.1257620	3.1319620	12.5		ARCO	50.0000000
						BP	50.0000000
25642	31	3.5743240	3.5814540	12.5		ARCO	50.0000000
						BP	50.0000000
25643	30	3.0342260	3.0403020	12.5		ARCO	50.0000000
						BP	50.0000000
25644	43	2.8728060	2.8784420	12.5		ARCO	50.0000000
						BP	50.0000000
25645	42	4.3588520	4.3676360	12.5		ARCO	50.0000000
						BP	50.0000000
25646	41	3.8375640	3.8452920	12.5		ARCO	50.0000000
						BP	50.0000000
25647	40	2.4399560	2.4501690	12.5		ARCO	100.0000000
25648	39	1.5166970	1.5230730	12.5		ARCO	100.0000000
25649	38	1.1124560	1.1172230	12.5		ARCO	100.0000000
25650	56	1.3828370	1.3887620	12.5		ARCO	100.0000000
25651	55	2.3755260	2.3854910	12.5		ARCO	100.0000000
25652	54	2.8477940	2.8533180	12.5		ARCO	50.0000000
						BP	50.0000000
25653	53	2.8243460	2.8298240	12.5		ARCO	50.0000000
						BP	50.0000000
25654	52	2.2380640	2.2423640	12.5		ARCO	50.0000000
						BP	50.0000000
25655	51	2.9259080	2.9315920	12.5		ARCO	50.0000000
						BP	50.0000000
25656	66	1.7669080	1.7701820	12.5		ARCO	50.0000000
						BP	50.0000000
25657	65	1.9730720	1.9766800	12.5		ARCO	50.0000000
						BP	50.0000000
25658	64	1.7151400	1.7182860	12.5		ARCO	50.0000000
						BP	50.0000000
25659	63	2.0741840	2.0512600	12.5		ARCO	50.0000000
						BP	50.0000000
25660	62	1.6401410	1.6471110	12.5		ARCO	100.0000000
25661	61	0.9257080	0.9296650	12.5		ARCO	100.0000000
25662	82	0.0341340	0.0341360	12.5		ARCO	50.0000000
						EXXON	50.0000000
25663	81	0.6849940	0.6877920	12.5		ARCO	100.0000000
25664	80	1.1201700	1.1249040	12.5		ARCO	100.0000000
25665	79	0.8569900	0.8587160	12.5		ARCO	50.0000000
						BP	50.0000000
25666	78	0.6524580	0.6536860	12.5		ARCO	50.0000000
						BP	50.0000000
25667	77	1.1007180	1.1027280	12.5		ARCO	50.0000000
						BP	50.0000000
25668	87	0.1838680	0.1842180	12.5		ARCO	50.0000000
						BP	50.0000000
25670	85	0.1036620	0.1036620	12.5		ARCO	50.0000000
						EXXON	50.0000000
25671	84	0.1425000	0.1424920	12.5		ARCO	50.0000000
						EXXON	50.0000000
28242	37	0.1226720	0.1226760	12.5		ARCO	50.0000000
						BP	50.0000000
28243	57	0.5124000	0.5124000	12.5		ARCO	32.9672400
						BP	17.0327600
						MOBIL	50.0000000
28244	58	0.0316320	0.0316340	12.5		ARCO	50.0000000
						EXXON	50.0000000
28248	60	0.1377010	0.1382940	12.5		ARCO	100.0000000
355023	122	0.5238680	0.5259540	12.5	30.0000000	ARCO	100.0000000
355024	123	0.0720740	0.0723610	12.5	30.0000000	ARCO	100.0000000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
355030	124	0.0007270	0.0007300	12.5	30.0000000	ARCO	100.0000000
355032	125	0.1747880	0.1755130	12.5	30.0000000	ARCO	100.0000000
355501	126	0.0235130	0.0236150	12.5		ARCO	100.0000000
373301	122	0.2854090	0.2859290	12.5		ARCO	59.2286800
						BP	40.7713200
47449	36	0.2172000	0.2172000	12.5		CHEVRON	50.0000000
						MOBIL	50.0000000
LEWIS RIVER (Gas)							
PARTICIPATING AREA 1							
58798		-	16.6670000	12.5		UNION	100.0000000
58801		-	61.1110000	12.5		UNION	100.0000000
58802		-	22.2220000	12.5		UNION	100.0000000
PARTICIPATING AREA 2							
58798		-	76.1905000	12.5		UNION	100.0000000
58801		-	14.2857000	12.5		UNION	100.0000000
58802		-	9.5238000	12.5		UNION	100.0000000
McARTHUR RIVER (Oil and Gas)							
HEMLOCK OIL POOL PARTICIPATING AREA							
17579		12.9480000	12.9480000	12.5		UNOCAL	100.0000000
17594		28.6480000	28.6480000	12.5		MARATHON	50.0000000
						UNION	50.0000000
17602		3.7000000	3.7000000	12.5		UNOCAL	100.0000000
18716		2.6730000	2.6730000	12.5		UNOCAL	100.0000000
18729		17.8330000	17.8330000	12.5		MARATHON	50.0000000
						UNION	50.0000000
18730		16.6480000	16.6480000	12.5		MARATHON	50.0000000
						UNION	50.0000000
18758		2.7750000	2.7750000	12.5		UNOCAL	100.0000000
18772		9.2490000	9.2490000	12.5		UNOCAL	100.0000000
18777		4.6010000	4.6010000	12.5		UNOCAL	100.0000000
21068		0.9250000	0.9250000	12.5		UNOCAL	100.0000000
HEMLOCK K-26 WELL TRACT OPERATION							
17579		12.9480000	12.9480000	12.5		UNION	100.0000000
17594		28.6480000	28.6480000	12.5		UNION	100.0000000
17602		3.7000000	3.7000000	12.5		UNION	100.0000000
18716		2.6730000	2.6730000	12.5		UNION	100.0000000
18729		17.8330000	17.8330000	12.5		UNION	100.0000000
18730		16.6480000	16.6480000	12.5		UNION	100.0000000
18758		2.7750000	2.7750000	12.5		UNION	100.0000000
18772		9.2490000	9.2490000	12.5		UNION	100.0000000
18777		4.6010000	4.6010000	12.5		UNION	100.0000000
21068		0.9250000	0.9250000	12.5		UNION	100.0000000
MIDDLE KENAI							
17594		26.6700000	26.6700000	12.5		MARATHON	51.0000000
						UNION	49.0000000
18729		34.8100000	34.8100000	12.5		MARATHON	51.0000000
						UNION	49.0000000
18730		32.5900000	32.5900000	12.5		MARATHON	51.0000000
						UNION	49.0000000
18772		5.9300000	5.9300000	12.5		MARATHON	51.0000000
						UNION	49.0000000
GRAYLING							
17594	3	-	38.5542200	12.5		MARATHON	50.0000000
						UNION	50.0000000
18729	10	-	27.7108400	12.5		MARATHON	50.0000000
						UNION	50.0000000
18730	11	-	33.7349400	12.5		MARATHON	50.0000000
						UNION	50.0000000
STEELHEAD JURASSIC							
18730	11	100.0000000	100.0000000	12.5		MARATHON	50.0000000
						UNION	50.0000000
WEST FORELAND							
17594		30.2500000	30.2500000	12.5		MARATHON	51.0000000
						UNION	49.0000000
18729		29.4100000	29.4100000	12.5		MARATHON	51.0000000
						UNION	49.0000000
18730		33.6200000	33.6200000	12.5		MARATHON	51.0000000
						UNION	49.0000000
18772		6.7200000	6.7200000	12.5		MARATHON	51.0000000
						UNION	49.0000000
MIDDLE GROUND SHOAL (Oil and Gas)							
MIDDLE GROUND SHOAL 1							

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
17595		100.0000000	100.0000000	12.5		UNION	100.0000000
MIDDLE GROUND SHOAL 2							
18754		100.0000000	100.0000000	12.5		SHELL	100.0000000
MIDDLE GROUND SHOAL 3							
18756		100.0000000	100.0000000	12.5		SHELL	100.0000000
SOUTH MIDDLE GROUND SHOAL UNIT							
18744	1	6.8965520	6.8965520	12.5		UNION	100.0000000
18746		93.1034480	93.1034480	12.5		UNION	100.0000000
MILNE POINT (Oil and Gas)							
KUPARUK PARTICIPATING AREA							
25509	10	7.9081900	7.9081900	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
25515	12	0.0131500	0.0131500	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
25516	4	0.9062000	0.9062000	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
25518	9	0.4260300	0.4260300	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
28231	8	1.9054500	1.9054500	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
315848	4A	0.0643500	0.0643500	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
355017	15	15.6552600	15.6552600	12.5	40.0000000	BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
355018	16	38.9730300	38.9730300	12.5	30.0000000	BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
355021	18	4.0954700	4.0954700	12.5	30.0000000	BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
47433	2	2.8695800	2.8695800	20.0		BPXA	26.8100030
						BPXO	73.1899970
47433	2A	0.2772300	0.2772300	12.5		OXY	100.0000000
47434	3	12.8337200	12.8337200	20.0		BPXA	26.8100030
						BPXO	73.1899970
47434	3A	1.2398900	1.2398900	12.5		OXY	100.0000000
47437	5	9.1447200	9.1447200	20.0		BPXA	26.8100030
						BPXO	73.1899970
47437	5A	0.8834900	0.8834900	12.5		OXY	100.0000000
47438	6	2.5571900	2.5571900	20.0		BPXA	26.8100030
						BPXO	73.1899970
47438	6A	0.2470500	0.2470500	12.5		OXY	100.0000000
E-9 TRACT OPERATION							
28231	8	100.0000000	100.0000000	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
E-20 TRACT OPERATION							
25518	9	100.0000000	100.0000000	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
E-22 TRACT OPERATION							
28231	8	100.0000000	100.0000000	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
H-05 TRACT OPERATION							
380109		100.0000000	100.0000000	12.5		BPXA	91.1900000
						OXY	8.8100000
J-6 TRACT OPERATION							
315848	4A	100.0000000	100.0000000	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
J-10 TRACT OPERATION							
25906	14	100.0000000	100.0000000	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
L-12 TRACT OPERATION							

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
25509	10	14.6741200	14.6741200	12.5		BPXO	91.1900000
						OXY	8.8100000
25515	12	0.0244000	0.0244000	12.5		BPXO	91.1900000
						OXY	8.8100000
25516	4	1.6815000	1.6815000	12.5		BPXO	91.1900000
						OXY	8.8100000
25518	9	0.7905300	0.7905300	12.5		BPXO	91.1900000
						OXY	8.8100000
28231	8	3.5356800	3.5356800	12.5		BPXO	91.1900000
						OXY	8.8100000
315848	4A	0.1194100	0.1194100	12.5		BPXO	91.1900000
						OXY	8.8100000
355017	15	10.0328700	10.0328700	12.5		BPXO	91.1900000
						OXY	8.8100000
47433	2	5.3246700	5.3246700	20.0		BPXO	100.0000000
47433	2A	0.5142200	0.5142200	12.5		OXY	100.0000000
47434	3	23.8137600	23.8137600	20.0		BPXO	100.0000000
47434	3A	2.3006800	2.3006800	12.5		OXY	100.0000000
47437	5	16.9686000	16.9686000	20.0		BPXO	100.0000000
47437	5A	1.6393600	1.6393600	12.5		OXY	100.0000000
47438	6	4.7450200	4.7450200	20.0		BPXO	100.0000000
47438	6A	0.4584200	0.4584200	12.5		OXY	100.0000000
L-13 TRACT OPERATION							
25509	10	19.1591700	19.1591700	12.5		BPXA	23.5828400
						BPXO	64.3800000
						OXY	12.0371600
25515	12	0.0318600	0.0318600	12.5		BPXA	23.5828400
						BPXO	64.3800000
						OXY	12.0371600
25516	4	2.1954400	2.1954400	12.5		BPXA	23.5828400
						BPXO	64.3800000
						OXY	12.0371600
25518	9	1.0321500	1.0321500	12.5		BPXA	23.5828400
						BPXO	64.3800000
						OXY	12.0371600
28231	8	4.6163400	4.6163400	12.5		BPXA	23.5828400
						BPXO	64.3800000
						OXY	12.0371600
315848	4A	0.1559100	0.1559100	12.5		BPXA	23.5828400
						BPXO	64.3800000
						OXY	12.0371600
47433	2	6.7060846	6.7060846	20.0		BPXA	26.8100030
						BPXO	73.1899970
47433	2A	0.9176854	0.9176854	12.5		OXY	100.0000000
47434	3	29.9919507	29.9919507	20.0		BPXA	26.8100030
						BPXO	73.1899970
47434	3A	4.1042093	4.1042093	12.5		OXY	100.0000000
47437	5	21.3708886	21.3708886	20.0		BPXA	26.8100030
						BPXO	73.1899970
47437	5A	2.9244714	2.9244714	12.5		OXY	100.0000000
47438	6	5.9760546	5.9760546	20.0		BPXA	26.8100030
						BPXO	73.1899970
47438	6A	0.8177854	0.8177854	12.5		OXY	100.0000000
SCHRADER BLUFF PARTICIPATING AREA							
25509	10	1.0053900	1.0053900	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
25514	11	4.9181500	4.9181500	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
25515	12	10.3360400	10.3360400	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
25516	4	6.3159600	6.3159600	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
25518	9	19.0431900	19.0431900	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
25906	14	25.6086200	25.6086200	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
28231	8	5.0879600	5.0879600	12.5		BPXA	26.8100000
						BPXO	64.3800000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
						OXY	8.8100000
315848	4A	6.3159600	6.3159600	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
47432	1	0.0090363	0.0090363	20.0		BPXA	29.4001535
						BPXO	70.5998465
47432	1A	0.0008737	0.0008737	12.5		OXY	100.0000000
47433	2	1.3448800	1.3448800	20.0		BPXA	29.4001535
						BPXO	70.5998465
47433	2A	0.1184839	0.1184839	12.5		OXY	100.0000000
47434	3	3.2386800	3.2386800	20.0		BPXA	29.4001535
						BPXO	70.5998465
47434	3A	0.2853277	0.2853277	12.5		OXY	100.0000000
47437	5	13.3041900	13.3041900	20.0		BPXA	29.4001535
						BPXO	70.5998465
47437	5A	1.1720991	1.1720991	12.5		OXY	100.0000000
47438	6	3.4210700	3.4210700	20.0		BPXA	29.4001535
						BPXO	70.5998465
47438	6A	0.3013963	0.3013963	12.5		OXY	100.0000000
E-13 TRACT OPERATION							
25516	4	5.2631600	5.2631600	12.5		BPXA	26.8100000
						BPXO	64.3800000
						OXY	8.8100000
47437	5	86.3905200	86.3905200	12.5		BPXA	29.4002000
						BPXO	70.5998000
47437	5A	8.3463200	8.3463200	12.5		OXY	100.0000000
NORTH TRADING BAY and NORTH TRADING BAY UNIT (Oil and Gas)							
17597		50.0000000	50.0000000	12.5		MARATHON	50.0000000
						UNION	50.0000000
18776		28.5700000	28.5700000	12.5		MARATHON	100.0000000
35431		21.4300000	21.4300000	12.5		MARATHON	100.0000000
NORTH COOK INLET (Gas)							
17589	2	-	44.7324000	12.5		PHILLIPS	100.0000000
17590	3	-	6.5430000	12.5		PHILLIPS	100.0000000
18740	7	-	8.1787000	12.5		PHILLIPS	100.0000000
18741	8	-	6.5429000	12.5		PHILLIPS	100.0000000
37831	11	-	34.0030000	12.5		PHILLIPS	100.0000000
NORTH FORELAND							
17589		100.0000000	100.0000000	12.5		ARCO	60.0000000
						PHILLIPS	40.0000000
PRETTY CREEK (Gas)							
58810	2	-	23.8984800	12.5		UNION	100.0000000
58813	4	-	20.8695700	12.5		UNION	100.0000000
58814	5	-	10.4347800	12.5		UNION	100.0000000
63047	10	-	6.0869600	16.7		UNION	100.0000000
63048	11	-	27.8260800	16.7		UNION	100.0000000
63049	12	-	10.4347800	16.7		UNION	100.0000000
Other			0.4493500			UNION	100.0000000
PRUDHOE BAY (Oil and Gas)							
NIAKUK PARTICIPATING AREA							
34625	4	5.0700000	5.0700000	12.5		BPX	100.0000000
34630	31	40.5700000	40.5700000	12.5		BPX	100.0000000
34634	33	5.4600000	5.4600000	12.5		BPX	100.0000000
34635	32	48.9000000	48.9000000	12.5		BPX	100.0000000
NIAKUK WELL NK 14 LEASE OPERATION							
34625	4	100.0000000	100.0000000	12.5		BPX	100.0000000
NIAKUK WELL NK27 TRACT OPERATION							
34629	30	100.0000000	100.0000000	12.5		ARCO	50.0000000
						EXXON	50.0000000
OIL RIM PARTICIPATING AREA							
25637	16	0.0046309	0.0046309	12.5		ARCO	50.0000000
						BP	50.0000000
28238	19	0.0163822	0.0163822	12.5		ARCO	50.0000000
						EXXON	50.0000000
28239	18	0.0614364	0.0614364	12.5		ARCO	50.0000000
						EXXON	50.0000000
28240	50	0.0913318	0.0913318	12.5		ARCO	50.0000000
						EXXON	50.0000000
28241	51	0.0486990	0.0486990	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28244	52	0.0000124	0.0000124	12.5		ARCO	50.0000000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
						EXXON	50.0000000
28245	53	0.1486696	0.1486696	12.5		ARCO	50.0000000
						EXXON	50.0000000
28246	82	0.0007026	0.0007026	12.5		ARCO	50.0000000
						EXXON	50.0000000
28257	22	1.7767068	1.7767068	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28258	21	0.4599204	0.4599204	12.5		ARCO	50.0000000
						EXXON	50.0000000
28259	20	0.0076616	0.0076616	12.5		ARCO	50.0000000
						EXXON	50.0000000
28260	47	1.4815529	1.4815529	12.5		BP	100.0000000
28261	48	0.0888936	0.0888936	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28262	54	0.2968897	0.2968897	12.5		CHEVRON	100.0000000
28262	54A	0.0772452	0.0772452	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
28263	55	0.1338160	0.1338160	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28263	55A	0.2071833	0.2071833	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
28264	79	0.1174944	0.1174944	12.5		ARCO	50.0000000
						EXXON	50.0000000
28265	84	0.0364292	0.0364292	12.5		ARCO	50.0000000
						EXXON	50.0000000
28275	112	0.0133022	0.0133022	12.5		ARCO	50.0000000
						EXXON	50.0000000
28276	113	0.0000864	0.0000864	12.5		ARCO	50.0000000
						EXXON	50.0000000
28277	25	0.8421396	0.8421396	12.5		BP	100.0000000
28278	24	1.0400165	1.0400165	12.5		BP	100.0000000
28279	23	1.2989359	1.2989359	12.5		BP	100.0000000
28280	44	3.8981682	3.8981682	12.5		BP	100.0000000
28281	45	3.3705436	3.3705436	12.5		BP	100.0000000
28282	46	3.0429668	3.0429668	12.5		BP	100.0000000
28283	57	1.5634829	1.5634829	12.5		BP	100.0000000
28284	58	3.3026290	3.3026290	12.5		BP	100.0000000
28285	59	3.9964449	3.9964449	12.5		BP	100.0000000
28286	76	2.6691922	2.6691922	12.5		BP	100.0000000
28287	77	1.2578240	1.2578240	12.5		BP	100.0000000
28288	78	0.3601455	0.3601455	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28289	85	0.1312435	0.1312435	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28290	105	0.0024590	0.0024590	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28299	26	0.9307902	0.9307902	12.5		ARCO	50.0000000
						EXXON	50.0000000
28300	27	1.0365258	1.0365258	12.5		ARCO	50.0000000
						EXXON	50.0000000
28302	41	0.3106250	0.3106250	12.5		ARCO	50.0000000
						EXXON	50.0000000
28303	42	1.9447402	1.9447402	12.5		ARCO	50.0000000
						EXXON	50.0000000
28304	43	3.2449752	3.2449752	12.5		ARCO	50.0000000
						EXXON	50.0000000
28305	60	3.6765194	3.6765194	12.5		BP	100.0000000
28306	61	2.9343182	2.9343182	12.5		ARCO	50.0000000
						EXXON	50.0000000
28307	62	1.8596860	1.8596860	12.5		ARCO	50.0000000
						EXXON	50.0000000
28308	73	3.9394274	3.9394274	12.5		ARCO	50.0000000
						EXXON	50.0000000
28309	74	3.8650657	3.8650657	12.5		BP	100.0000000
28310	75	3.9334322	3.9334322	12.5		BP	100.0000000
28311	90	3.6619111	3.6619111	12.5		BP	100.0000000
28312	89	2.8963363	2.8963363	12.5		BP	100.0000000
28313	8B	1.5538656	1.5538656	12.5		ARCO	50.0000000
						EXXON	50.0000000
28314	102	0.4588814	0.4588814	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28315	101	1.2192336	1.2192336	12.5		BP	100.0000000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
28316	07A	0.0565330	0.0565330	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
28316	107	0.0088125	0.0088125	12.5		CHEVRON	100.0000000
28320	38	0.3566616	0.3566616	12.5		BP	100.0000000
28321	63	1.1125780	1.1125780	12.5		ARCO	50.0000000
						EXXON	50.0000000
28322	64	1.0995790	1.0995790	12.5		ARCO	50.0000000
						EXXON	50.0000000
28323	65	0.7714806	0.7714806	12.5		ARCO	50.0000000
						EXXON	50.0000000
28324	70	2.0837850	2.0837850	12.5		ARCO	50.0000000
						EXXON	50.0000000
28325	71	2.7773702	2.7773702	12.5		ARCO	50.0000000
						EXXON	50.0000000
28326	72	3.1133992	3.1133992	12.5		ARCO	50.0000000
						EXXON	50.0000000
28327	93	2.7730980	2.7730980	12.5		ARCO	50.0000000
						EXXON	50.0000000
28328	92	4.0900128	4.0900128	12.5		ARCO	50.0000000
						EXXON	50.0000000
28329	91	4.1555298	4.1555298	12.5		ARCO	50.0000000
						EXXON	50.0000000
28330	100	1.4812197	1.4812197	12.5		BP	100.0000000
28331	99	1.5486835	1.5486835	12.5		BP	100.0000000
28332	98	1.6240684	1.6240684	12.5		ARCO	50.0000000
						EXXON	50.0000000
28333	110	0.0691187	0.0691187	12.5		BP	100.0000000
28334	O9A	0.1303563	0.1303563	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
28334	109	0.0179622	0.0179622	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28335	108	0.0667905	0.0667905	12.5		BP	100.0000000
28339	66	0.0001956	0.0001956	12.5		BP	100.0000000
28343	69	0.1342393	0.1342393	12.5		BP	100.0000000
28345	94	0.5812244	0.5812244	12.5		ARCO	50.0000000
						EXXON	50.0000000
28346	97	0.2982834	0.2982834	12.5		ARCO	50.0000000
						EXXON	50.0000000
28349	111	0.0092138	0.0092138	12.5		BP	100.0000000
34631	39	0.2490770	0.2490770	12.5		ARCO	50.0000000
						EXXON	50.0000000
34632	40	0.1146214	0.1146214	12.5		ARCO	50.0000000
						EXXON	50.0000000
47446	15	0.0099777	0.0099777	12.5		CHEVRON	50.0000000
						MOBIL	50.0000000
47447	14	0.0049708	0.0049708	12.5		CHEVRON	50.0000000
						MOBIL	50.0000000
47448	10	0.0010848	0.0010848	12.5		MOBIL	66.6666667
						PHILLIPS	33.3333333
47449	17	0.0064355	0.0064355	12.5		CHEVRON	50.0000000
						MOBIL	50.0000000
47450	49	0.0468606	0.0468606	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47451	56	0.1902328	0.1902328	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47452	80	0.2232645	0.2232645	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47453	81	0.1144260	0.1144260	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47454	83	0.0200389	0.0200389	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47469	9	0.0307565	0.0307565	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
47471	86	0.3000685	0.3000685	12.5		BP	27.0000000
						L L & E	13.2500000
						SHELL	29.2500000
						TEXACO	30.5000000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
47472	87	0.8139925	0.8139925	12.5		BP	50.0000000
						TEXACO	50.0000000
47475	103	0.1996175	0.1996175	12.5		BP	25.0000000
						MARATHON	25.0000000
						SHELL	25.0000000
						TEXACO	25.0000000
47476	104	0.0028061	0.0028061	12.5		ARCO	50.0000000
						EXXON	50.0000000
80595	106	0.0000019	0.0000019	12.5		ARCO	50.0000000
						EXXON	50.0000000
GAS CAP PARTICIPATING AREA							
25637	16	0.0046309	0.0003024	12.5		ARCO	50.0000000
						BP	50.0000000
28238	19	0.0163822	0.0061712	12.5		ARCO	50.0000000
						EXXON	50.0000000
28239	18	0.0614364	0.0913424	12.5		ARCO	50.0000000
						EXXON	50.0000000
28240	50	0.0913318	0.0496376	12.5		ARCO	50.0000000
						EXXON	50.0000000
28241	51	0.0486990	0.0399457	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28244	52	0.0000124	0.0000110	12.5		ARCO	50.0000000
						EXXON	50.0000000
28245	53	0.1486696	0.1805920	12.5		ARCO	50.0000000
						EXXON	50.0000000
28246	82	0.0007026	0.0003490	12.5		ARCO	50.0000000
						EXXON	50.0000000
28257	22	1.7767068	0.1101259	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28258	21	0.4599204	0.0000012	12.5		ARCO	50.0000000
						EXXON	50.0000000
28259	20	0.0076616	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28260	47	1.4815529	0.0777251	12.5		BP	100.0000000
28261	48	0.0888936	0.0005248	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28262	54	0.2968897	0.2995913	12.5		CHEVRON	100.0000000
28262	54A	0.0772452	0.1111367	12.5		CHEVRON	33.3333334
						MOBIL	33.3333333
						PHILLIPS	33.3333333
28263	55	0.1338160	0.0511793	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28263	55A	0.2071833	0.1539450	12.5		CHEVRON	33.3333334
						MOBIL	33.3333333
						PHILLIPS	33.3333333
28264	79	0.1174944	0.0120620	12.5		ARCO	50.0000000
						EXXON	50.0000000
28265	84	0.0364292	0.0003882	12.5		ARCO	50.0000000
						EXXON	50.0000000
28275	112	0.0133022	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28276	113	0.0000864	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28277	25	0.8421396	0.1111558	12.5		BP	100.0000000
28278	24	1.0400165	0.0331538	12.5		BP	100.0000000
28279	23	1.2989359	0.0190207	12.5		BP	100.0000000
28280	44	3.8981682	1.7631780	12.5		BP	100.0000000
28281	45	3.3705436	1.1061331	12.5		BP	100.0000000
28282	46	3.0429668	0.4341463	12.5		BP	100.0000000
28283	57	1.5634829	0.1013091	12.5		BP	100.0000000
28284	58	3.3026290	0.6687738	12.5		BP	100.0000000
28285	59	3.9964449	1.8633126	12.5		BP	100.0000000
28286	76	2.6691922	0.2432039	12.5		BP	100.0000000
28287	77	1.2578240	0.0132529	12.5		BP	100.0000000
28288	78	0.3601455	-	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28289	85	0.1312435	-	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28290	105	0.0024590	-	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28299	26	0.9307902	0.0668830	12.5		ARCO	50.0000000
						EXXON	50.0000000
28300	27	1.0365258	2.7462020	12.5		ARCO	50.0000000
						EXXON	50.0000000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
28301	28	-	5.4070880	12.5		ARCO	50.0000000
						EXXON	50.0000000
28302	41	0.3106250	8.5730840	12.5		ARCO	50.0000000
						EXXON	50.0000000
28303	42	1.9447402	6.1308134	12.5		ARCO	50.0000000
						EXXON	50.0000000
28304	43	3.2449752	2.9898184	12.5		ARCO	50.0000000
						EXXON	50.0000000
28305	60	3.6765194	3.1854789	12.5		BP	100.0000000
28306	61	2.9343182	5.4649446	12.5		ARCO	50.0000000
						EXXON	50.0000000
28307	62	1.8596860	7.4776622	12.5		ARCO	50.0000000
						EXXON	50.0000000
28308	73	3.9394274	4.1071874	12.5		ARCO	50.0000000
						EXXON	50.0000000
28309	74	3.8650657	2.2068838	12.5		BP	100.0000000
28310	75	3.9334322	1.1675071	12.5		BP	100.0000000
28311	90	3.6619111	0.3709048	12.5		BP	100.0000000
28312	89	2.8963363	0.1007911	12.5		BP	100.0000000
28313	88	1.5538656	0.0066790	12.5		ARCO	50.0000000
						EXXON	50.0000000
28314	102	0.4588814	-	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28315	101	1.2192336	-	12.5		BP	100.0000000
28316	07A	0.0565330	-	12.5		CHEVRON	33.3333334
						MOBIL	33.3333333
						PHILLIPS	33.3333333
28316	107	0.0088125	-	12.5		CHEVRON	100.0000000
28320	38	0.3566616	0.3216998	12.5		BP	100.0000000
28321	63	1.1125780	7.2610510	12.5		ARCO	50.0000000
						EXXON	50.0000000
28322	64	1.0995790	4.2486128	12.5		ARCO	50.0000000
						EXXON	50.0000000
28323	65	0.7714806	0.4529448	12.5		ARCO	50.0000000
						EXXON	50.0000000
28324	70	2.0837850	0.3609044	12.5		ARCO	50.0000000
						EXXON	50.0000000
28325	71	2.7773702	3.3036918	12.5		ARCO	50.0000000
						EXXON	50.0000000
28326	72	3.1133992	5.0566434	12.5		ARCO	50.0000000
						EXXON	50.0000000
28327	93	2.7730980	0.0132526	12.5		ARCO	50.0000000
						EXXON	50.0000000
28328	92	4.0900128	0.7489948	12.5		ARCO	50.0000000
						EXXON	50.0000000
28329	91	4.1555298	0.7143628	12.5		ARCO	50.0000000
						EXXON	50.0000000
28330	100	1.4812197	-	12.5		BP	100.0000000
28331	99	1.5486835	-	12.5		BP	100.0000000
28332	98	1.6240684	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28333	110	0.0691187	-	12.5		BP	100.0000000
28334	O9A	0.1303563	-	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
28334	109	0.0179622	-	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
28335	108	0.0667905	-	12.5		BP	100.0000000
28339	66	0.0001956	-	12.5		BP	100.0000000
28343	69	0.1342393	-	12.5		BP	100.0000000
28345	94	0.5812244	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28346	97	0.2982834	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28349	111	0.0092138	-	12.5		BP	100.0000000
34628	29	-	4.9026960	12.5		ARCO	50.0000000
						EXXON	50.0000000
34629	30	-	2.3763262	12.5		ARCO	50.0000000
						EXXON	50.0000000
34630	31	-	0.0521132	12.5		BP	100.0000000
34631	39	0.2490770	4.4211250	12.5		ARCO	50.0000000
						EXXON	50.0000000
34632	40	0.1146214	7.9580580	12.5		ARCO	50.0000000
						EXXON	50.0000000

Lease	Tract	Participating Area % Oil	Gas	Royalty %	NPSL %	Owner	Ownership %
47446	15	0.0099777	0.0211926	12.5		CHEVRON	50.0000000
						MOBIL	50.0000000
47447	14	0.0049708	0.0011970	12.5		CHEVRON	50.0000000
						MOBIL	50.0000000
47448	10	0.0010848	-	12.5		MOBIL	66.6666667
						PHILLIPS	33.3333333
47449	17	0.0064355	0.0204696	12.5		CHEVRON	50.0000000
						MOBIL	50.0000000
47450	49	0.0468606	0.0193851	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47451	56	0.1902328	0.0042712	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47452	80	0.2232645	0.1575467	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47453	81	0.1144260	0.0384943	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47454	83	0.0200389	0.0013684	12.5		CHEVRON	33.3333333
						MOBIL	33.3333334
						PHILLIPS	33.3333333
47469	9	0.0307565	-	12.5		MOBIL	50.0000000
						PHILLIPS	50.0000000
47471	86	0.3000685	-	12.5		AMERADA	27.0000000
						L L & E	13.2500000
						SHELL	29.2500000
						TEXACO	30.5000000
47472	87	0.8139925	-	12.5		AMERADA	50.0000000
						TEXACO	50.0000000
47475	103	0.1996175	-	12.5		AMERADA	25.0000000
						MARATHON	25.0000000
						SHELL	25.0000000
						TEXACO	25.0000000
47476	104	0.0028061	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
80595	106	0.0000019	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
LISBURNE PARTICIPATING AREA							
28277	25	0.0170000	-	12.5		BP	100.0000000
28280	44	0.0380000	-	12.5		BP	100.0000000
28285	59	0.0300000	-	12.5		BP	100.0000000
28299	26	0.1870000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28300	27	1.7170000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28301	28	2.4440000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28302	41	5.4180000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28303	42	2.2490000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28304	43	0.5380000	-	12.5		ARCO	50.0000000
28305	60	0.1450000	-	12.5		BP	100.0000000
28306	61	0.9190000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28307	62	3.5270000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28308	73	0.2460000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28309	74	0.0890000	-	12.5		BP	100.0000000
28320	38	6.7190000	-	12.5		BP	100.0000000
28321	63	8.5540000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28322	64	10.0680000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28323	65	11.0800000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28324	70	4.3250000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28325	71	3.7180000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28326	72	1.9750000	-	12.5		ARCO	50.0000000

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
						EXXON	50.0000000
28327	93	0.0400000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28328	92	0.0260000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28329	91	0.0190000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28337	36	0.6590000	-	12.5		BP	100.0000000
28338	37	0.8960000	-	12.5		BP	100.0000000
28339	66	3.1550000	-	12.5		BP	100.0000000
28339	66A	1.0830000	-	12.5		BP	100.0000000
28340	67	0.0300000	-	12.5		BP	100.0000000
28340	67A	0.2000000	-	12.5		BP	100.0000000
28342	114	0.5690000	-	12.5		BP	100.0000000
28343	69	2.4130000	-	12.5		BP	100.0000000
28343	69A	1.1160000	-	12.5		BP	100.0000000
28344	95	0.0250000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
28345	94	0.1170000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
34628	29	3.3300000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
34629	30	3.5260000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
34630	31	1.3770000	-	12.5		BP	100.0000000
34631	39	8.6100000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
34632	40	7.3420000	-	12.5		ARCO	50.0000000
						EXXON	50.0000000
34634	33	0.6490000	-	12.5		BP	100.0000000
34635	32	0.8150000	-	12.5		BP	100.0000000
NORTH PRUDHOE BAY STATE PARTICIPATING AREA							
28297		100.0000000	100.0000000	5.0		ARCO	50.0000000
						EXXON	50.0000000
POINT McINTYRE PARTICIPATING AREA							
28297	8	21.4790000	21.4790000	5.0		ARCO	50.0000000
						EXXON	50.0000000
28297	8A	0.4210000	0.4210000	5.0		ARCO	50.0000000
						EXXON	50.0000000
28298	115	0.1000000	0.1000000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34622	116	7.6000000	7.6000000	12.5		EXXON	100.0000000
34624	7	28.8590000	28.8590000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34624	7A	2.3410000	2.3410000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34627	6	3.8460000	3.8460000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34627	6A	3.1540000	3.1540000	12.5		ARCO	50.0000000
						EXXON	50.0000000
365548	117	32.2000000	32.2000000	16.6		BP	100.0000000
WEST BEACH PARTICIPATING AREA							
28301	28	19.1460000	19.1460000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34624	7	12.7640000	12.7640000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34626	5	6.3820000	6.3820000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34627	6	24.4520000	24.4520000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34628	29	24.4920000	24.4920000	12.5		ARCO	50.0000000
						EXXON	50.0000000
34629	30	12.7640000	12.7640000	12.5		ARCO	50.0000000
						EXXON	50.0000000
STERLING (Gas)							
2497	134	-	3.6282900	12.5		MARATHON	100.0000000
320912	155	-	2.3611800	12.5		MARATHON	100.0000000
324599	152	-	6.4473700	12.5		MARATHON	100.0000000
OTHER		-	87.5631600			MARATHON	100.0000000
STUMP LAKE (Gas)							

Lease	Tract	Participating Area % Oil	Participating Area % Gas	Royalty %	NPSL %	Owner	Ownership %
17600	1	-	2.4424100	12.5		UNION	100.0000000
326059	17A	-	8.1967200	64.4		UNION	100.0000000
326060	17B	-	15.5737800	64.1		UNION	100.0000000
58789	11	-	11.4754100	12.5		UNION	100.0000000
58789	11A	-	9.8360700	12.5		UNION	100.0000000
58790	12	-	22.6442700	12.5		UNION	100.0000000
58791	13	-	18.8524600	12.5		UNION	100.0000000
58792	14	-	3.2786800	12.5		UNION	100.0000000
58794	15	-	4.0983600	12.5		UNION	100.0000000
58795	16	-	3.6018400	12.5		UNION	100.0000000
TRADING BAY (Oil and Gas)							
MONOPOD A-15							
18731		100.0000000	100.0000000	12.5		MARATHON	50.0000000
						UNION	50.0000000
MONOPOD A-6							
18731		100.0000000	100.0000000	12.5		MARATHON	50.0000000
						UNION	50.0000000
MONOPOD NON-POOL							
18731		100.0000000	100.0000000	12.5		MARATHON	50.0000000
WEST McARTHUR RIVER (Oil)							
359111		100.0000000	100.0000000			STEWART	100.0000000

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APPENDIX C NORTH SLOPE CRUDE OIL COMPONENTS

NORTH SLOPE CRUDE OIL COMPONENTS

YIELD (VOLUME %), Average for October, November and December 1996.

	Milne Point	Kuparuk	Lisburne	Prudhoe West	Prudhoe East	Endicott	GVEA [1] Return	PSVR [2] Return
Propane	0.2	0.1	0.4	0.5	0.5	0.5	0.5	0.3
IsoButane	0.2	0.1	0.4	0.8	1.1	0.5	0.7	0.6
Normal Butane	0.5	0.5	1.4	2.8	3.6	1.6	1.9	2.4
LSR	2.1	2.7	4.5	7.6	9.7	3.3	4.9	7.9
Naptha	10.0	7.5	13.1	18.5	20.0	10.8	7.4	13.0
Light°Distillate (350 - 450 °F)	8.1	8.3	7.7	8.9	8.8	6.3	1.7	1.7
Heavy Distillate (450 - 650 °F)	21.2	21.7	21.3	18.9	18.1	19.3	13.9	10.9
Gas Oil (650 - 1000 °F)	28.8	28.3	30.6	23.8	21.7	33.1	38.0	34.8
Fuel Oil (1000 - 1050 °F)	4.2	4.1	3.6	3.1	2.8	4.4	5.0	4.4
Resid (1050 °F and over)	24.7	23.0	17.1	15.1	13.8	20.3	26.0	24.0

[1] GoldenValley Electric Authority.
[2] Petrostar Valdez Refinery.
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APPENDIX D OIL REFINERIES AND GAS PROCESSING PLANTS

OIL REFINERIES AND GAS PROCESSING PLANTS

Production Unit	Nameplate Capacity		Products	Product Market Area
REFINERIES				
Alyeska				
TAPS Pump Station 6 distills a small amount of fuel for its operation.				
Arco, Kuparuk				
Distillaton	12,000	Bbl/d	Arctic Heating Fuel/Diesel #2	Kuparuk
Arco, Prudhoe Bay				
Distillaton	15,000	Bbl/d	Arctic Heating Fuel/Diesel #2	Prudhoe Bay
			Jet A	
Mapco, North Pole 1977				
Two crude units	132,000	Bbl/d	Gasoline	Alaska
		total	JP 4	Alaska
			Jet A	Alaska
			Diesel #1	Alaska
			Diesel #2	Alaska
			Diesel #4	Alaska
			Asphalt	Alaska
Tesoro, Nikiski 1969				
Crude	80,000	Bbl/d	Propane	Alaska
Hydrocracker	9,000	Bbl/d	Gasoline	Alaska
PowerFormer	12,000	Bbl/d	Gasoline, premium	Alaska
PRIP	4,000	Bbl/d	Jet A	
LPG	2,800	Bbl/d	Diesel #1	Alaska
Hydrogen	13	MMcf/d	Diesel #2	Alaska
Sulfur	15	T/d	Fuel Oil #6	export
			Sulfur	lower 48
Petrostar, Valdez 1992				
Crude	39,000	Bbl/d	Jet A	Alaska
			Marine Diesel	Alaska
			Heating/Diesel #1	Alaska
			Heating/Diesel #2	Alaska
Petrostar, North Pole 1985				
Crude	10,500	Bbl/d	Kerosene	Alaska
			Heating/Diesel #1	Alaska
			Heating/Diesel #2	Alaska
			Jet A	Alaska
GAS PROCESSING PLANTS				
Phillips-Marathon LNG Plant, Nikiski 1969				
LNG	235,000	Mcf/d	LNG	Japan:
Unocal Chemical Plant, Nikiski 1969				
Two ammonia units	1,300,000	T/yr	Anhydrous Ammonia	Pacific Rim
			(half of ammonia production is used to produce urea, the other half is exported as ammonia.)	
Urea	1,200,000	T/yr	Urea prills and granules	Pacific Rim

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OPERATING REFINERIES IN THE U.S.

THOUSANDS OF BARRELS PER CALENDAR DAY

	No. Plants	Charge Capacity								Production Capacity					
		Crude	Vac. Dist.	Therm. Ops.	Cat Crack -	Cat Reform	Cat Hydro Crack	Cat Hydro Refin	Cat Hydro Treat	Alk.	Pol/ Dim	Lubes	Hydro. (MMcf)	Coke (t)	Asph.
Alabama	3	134	48	-	-	26	0	27	73	-	-	-	13	500	21
Alaska	**6**	**283**	**23**	-	-	**12**	**9**	-	**12**	-	-	-	**13**	-	-
Arco, Kuparuk		**12**	-	-	-	-	-	-	-	-	-	-	-	-	-
Arco, Prudhoe Bay		**15**	-	-	-	-	-	-	-	-	-	-	-	-	-
Mapco, North Pole		**130**	-	-	-	-	-	-	-	-	-	-	-	-	-
Petrostar, North Pole		**14**	-	-	-	-	-	-	-	-	-	-	-	-	-
Petrostar, Valdez		**40**	-	-	-	-	-	-	-	-	-	-	-	-	-
Tesoro, Kenai		**72**	**16**	-	-	**12**	**9**	-	**12**	-	-	-	**13**	-	-
Arkansas	3	65	25	-	19	12	-	21	35	5	-	-	2	-	0
California	23	1,899	1,085	10	608	428	373	355	1,204	142	8	29	1,015	17,369	56
Colorado	2	86	29	-	27	19	-	-	42	3	3	-	14	-	8
Delaware	1	140	85	-	63	46	17	-	123	8	5	-	40	1,800	-
Georga	2	34	-	-	-	-	-	-	-	8	-	2	-	-	23
Hawaii	2	149	70	13	21	13	18	-	3	4	1	-	17	-	1
Illinois	6	910	362	5	322	337	58	-	577	88	-	5	90	6,653	60
Indiana	3	436	235	-	157	92	-	89	209	32	-	6	33	1,550	60
Kansas	3	283	112	-	79	60	9	40	182	24	-	-	8	1,412	-
Kentucky	2	225	89	4	97	43	-	39	173	12	1	8	-	-	29
Louisiana	19	2,417	1,098	22	886	463	185	146	1,116	178	21	63	310	15,795	48
Michigan	3	121	37	-	46	28	-	-	88	9	1	-	7	-	18
Minnesota	2	355	191	-	108	76	-	22	346	17	5	-	99	3,000	39
Mississippi	4	337	257	-	63	71	58	84	146	17	-	6	216	3,447	8
Montana	4	144	62	-	53	32	4	34	113	13	<1	-	81	960	16
Nevada	1	7	6	-	-	-	-	-	-	13	-	-	-	-	1
New Jersey	6	674	269	10	283	118	-	105	104	30	4	12	22	1,289	100
New Mexico	3	98	19	-	32	32	-	26	38	11	2	-	-	-	6
North Dakota	1	58	-	-	25	12	-	-	17	11	1	-	-	-	-
Ohio	4	500	163	-	174	153	75	63	174	26	4	-	87	1,650	12
Oklahoma	5	403	160	-	110	88	4	25	217	25	2	8	61	1,310	17
Oregon	1	-	15	-	-	-	-	-	-	25	-	-	-	-	8
Pennsylvania	6	574	222	-	122	129	30	-	299	36	1	7	50	-	47
Tennessee	1	105	0	-	50	16	-	-	61	36	4	-	-	-	-
Texas	28	4,020	1,817	21	1,588	1,134	451	579	2,731	34	12	78	916	20,012	68
Utah	5	160	41	-	43	31	-	-	67	13	-	-	1	281	4
Virginia	1	57	32	-	26	11	-	-	29	3	-	-	-	870	-
Washington	7	584	269	-	118	126	50	20	269	26	3	-	81	2,550	17
West Virginia	1	10	5	-	-	3	4	-	4	-	-	4	1	-	-
Wisconsin	1	36	20	-	10	8	-	6	8	2	2	-	-	-	7
Wyoming	4	127	61	-	49	29	-	24	67	8	1	-	6	-	15

Source: Oil & Gas Journal, "1996 Worldwide Refining Survey," December 23, 1996, p. 49.
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APPENDIX E CONVERSION FACTORS

ABBREVIATIONS

acre	ac
barrel	bbl
British thermal unit	btu
calorie	cal
cubic foot	cf
thousand cubic feet	Mcf
million cubic feet	MMcf
billion cubic feet	Bcf
trillion cubic feet	Tcf
day	d
calendar day	cd
stream day	sd
foot	ft
gallon, US	gal US
gallon, UK	gal UK
hectar	ha
inch	in
kilogram	kg
kilolitre	kl
kilometer	km
litre	l
meter	m
mile	mi
nautical mile	naut mi
pound	lb
ton, long (UK)	t UK
ton, short (US)	t US
tonne (metric)	tn

LENGTH

		ft	mi	naut mi	m	km
1 ft	=	1	0.0001894	0.000164	0.3048	0.003048
1 mi	=	5,280	1	0.8684	1,609	1.60934
1 naut mi	=	6,076	1.1516	1	1,852	1.852
1 m	=	3.2808	0.000621	0.000539	1	1,000
1 km	=	3,281	0.621371	0.5396	0.001	1

AREA

		ft^2	m^2	ac	ha	km^2	mi^2
1 ft^2	=	1	0.092903	0.000023			
1 m^2	=	10.7639	1	0.000247	0.0001	1,000,000	
1 ac	=	43,560	4,047	1	0.404686	0.004047	0.0016
1 ha	=	107,636	10,000	2.47105	1	0.01	0.003861
1 km^2	=	10,763,649	1,000,000	247.105	100	1	0.386102
1 mi^2	=	27,878,400	2,589,990	640	258.999	2.58999	1

VOLUME

		ft^3	gal US	gal UK	bbl	m^3
1 ft^3	=	1	7.48052	6.22883	0.17811	0.028317
1 gal US	=	0.133681	1	0.832674	0.02381	0.00378541
1 gal UK	=	0.160544	1.20095	1	0.028594	0.00454609
1 bbl	=	5.6146	42	34.9726	1	0.158987
1 m^3	=	35.3147	264.172	219.969	6.28981	1

WEIGHT

		lb	t US	t UK	kg	tn
1 lb	=	1	0.0005	0.000367	0.453592	0.000453
1 t US	=	2000	1	0.892867	907.1848	0.907185
1 t UK	=	2240	1.12	1	1016.05	1.01605
1 kg	=	2.20462	0.001102	0.000984	1	0.001
1 tn	=	2204.62	1.10231	0.984207	1000	1

CRUDE OIL WEIGHT

Based on average Arabian Light, 33.5 API.

		gal US	gal UK	t UK	tn	bbl
1 gal US	=	1	0.833	0.00319	0.00325	0.0238
1 gal UK	=	1.201	1	0.00383	0.00391	0.0286
1 t UK	=	313	261	1	1.016	7.45
1 tn	=	308	256		1	7.31
1 bbl	=	42	35	0.134	0.136	1

VOLUME CONVERSION: LIQUIFIED NATURAL GAS TO NATURAL GAS

LNG @ -260 °F		Natural Gas ft^3
1 lb	=	21.082
1 gal	=	79.814
1 ft^3	=	597
1 bbl	=	3,352
1 m^3	=	21,085
1 tn	=	46,477

WEIGHT EQIVALENTS OF PETROLEUM AND PETROLEUM PRODUCTS

	Avg Gravity @60 °F	gal US/lb	lb/gal US	lb/bbl	bbl/T us	bbl/T uk	bbl/TN
crude oil, foreign	25.6	0.13333	7.500	315	6.349	7.111	6.998
crude oil, domestic	36.0	0.14217	7.034	295	6.77	7.582	7.463
gasoline and naptha	59.5	0.16215	6.167	259	7.721	8.648	8.511
kerosene	43.0	0.14812	6.751	284	7.053	7.9	7.775
fuel oil, distillate	31.3	0.13817	7.237	304	6.58	7.369	7.253
fuel oil, residual	18.0	0.12687	7.882	331	6.041	6.766	6.66
asphalt	5.6	0.11634	8.596	361	5.54	6.205	6.106
liquified petroleum gas	-	0.22104	4.524	190	10.526	11.789	11.603

APPROXIMATE HEAT CONTENTS OF FUELS AND PETROLEUM PRODUCTS

	Million BTU per Barrel	Thousand BTU per Gallon
asphalt	6.6	
aviation gasoline	5.0	120
butane	4.3	102
crude oil	5.8	138
ethane	3.1	74
fuel oil, distillate	5.8	138
fuel oil, residual	6.3	150
jet fuel, kerosene type	5.7	136
jet fuel, naptha type	5.4	129
kerosene	5.7	136
pentanes plus	4.6	110
propane	3.8	90

ACRONYMS

AOGCC	Alaska Oil and Gas Conservation Commission
API	American Petroleum Institute
DNR	Alaska Department of Natural Resources
DO&G	Division of Oil and Gas
DOR	Alaska Department of Revenue
ISER	Institute of Social and Economic Research
LNG	liquified natural gas
LPG	liquified petroleum gas
NGL	natural gas liquids
TAPS	Trans Alaska Pipeline System

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APPENDIX F DEFINITION OF "OIL" AND "GAS"

"OIL" AND "GAS"

Crude oil and natural gas are fluids produced from naturally occurring petroleum deposits. Typical crude oil contains several hundred chemical compounds. The lightest of these are gases at normal temperatures and pressure, described as "natural gas." The light fractions of the crude oil stream include both hydrocarbon and non-hydrocarbon gases, such as water, carbon dioxide, hydrogen sulfide, helium, or nitrogen. The principal light hydrocarbons are methane (CH_4), ethane (C_2H_6), propane (C_3H_8), butanes (C_4H_{10}), and pentanes (C_5H_{12}). In these representations the letter C represents a carbon atom and the letter H represents a hydrogen atom. The gaseous component found most often and in largest volumes is, typically, methane. Heavier fractions of the crude stream are usually liquids. If a given hydrocarbon fraction is gaseous at reservoir temperatures and pressures, but is recoverable by condensation (cooling and pressure reduction), absorption, or other means, it is classified by the American Gas Association (AGA) as a natural gas liquid. NGLs. NGLs also include ethane if ethane is recovered from the gas stream as a liquid. A related term is liquefied petroleum gas (LPG), composed of hydrocarbons which liquefy under moderate pressure under normal temperatures. LPG usually refers to propane and butane. A second related term is condensate, which refers to LPG plus heavier NGLs components, often referred to as natural gasoline. The lightest hydrocarbon fraction is methane, which is almost never recovered as a liquid, and which makes up the bulk of pipeline gas. If a natural gas stream contains few hydrocarbons which are commercially recoverable as liquids, it is considered "dry gas" or "lean gas." The distinction between "wet" and "dry" is usually a legal one, which varies from state to state. "Crude oil" usually means the non-gaseous portion of the crude oil stream.

Natural gas may occur in reservoirs which are predominately gas-bearing or in reservoirs in which the gas is in contact with petroleum liquids. Non-associated gas is natural gas from a reservoir where the gas is neither in contact with nor dissolved in crude oil. Associated gas occurs in contact with crude oil, but is not dissolved in it. A gas cap on a crude oil reservoir is a typical example of associated gas. Dissolved gas is gas dissolved in petroleum liquids and is produced along with them. Dissolved and associated gases are usually good sources of NGLs while non-associated gases are often "dry."

The distinction between natural gas and its NGLs components is important to a study of the supply and demand of royalty oil and gas because natural gas liquids have a multitude of uses when separated from the gas stream. For example, propane is produced in Alaska and sold in Alaska as bottled gas for residential, commercial, and limited transportation uses, while butane is used for blending in gasoline and military jet fuel and as a refinery fuel. Potential uses for NGLs also include the enriching ("spiking") of pipeline gas and crop drying. Several years ago the Dow-Shell Petrochemical Group and Exxon studied the feasibility of utilizing the NGLs contained in Prudhoe Bay natural gas as the basis for an Alaska petrochemicals industry. Since the state has the option of considering NGLs separately from the gas stream, two definitions of natural gas consumption and reserves are possible. One of these would consider natural gas liquids as part of the gas stream. The second definition would treat the markets for LPG and ethane separately from those for gas. This requires a separate estimate of LPG consumption and gas liquids reserves. In this report, demand for LPG and ethane is estimated separately from that for gas; however, no separate estimate is made of gas liquids reserves.

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