

ALASKA LEGISLATURE COMMITTEE FILES 1993-1994 8672

8005 HOUSE RESOURCES

270



CHECKED AREAS ON THE MAP SHOW THE LOCATION OF THE MAJOR AGRICULTURAL ACTIVITIES IN THE STATE. THE NUMBERS DESIGNATE THE AGRICULTURAL STATISTICS DISTRICTS.

- | | | | |
|---|------------------|---|-----------|
| 1 | TANANA VALLEY | 4 | SOUTHEAST |
| 2 | MATANUSKA VALLEY | 5 | SOUTHWEST |
| 3 | KENAI PENINSULA | | |

ALASKA AGRICULTURAL STATISTICS

1992

COMPILED BY

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STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF AGRICULTURE

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May, 1992

Dear Friends of Alaskan Agriculture:

It is my pleasure to welcome you to the annual publication of Alaska Agricultural Statistics, a look at 1991 Alaskan agriculture through statistics. For the past 31 years, the Division of Agriculture has cooperated with the USDA National Agriculture Statistics Service, the Cooperative Extension Service, and the University of Alaska Agricultural & Forestry Experimental Station. With the input from these different agencies, we hope that this information is useful to the agriculture community.

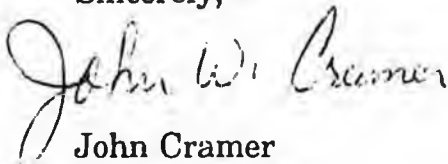
Some farm cash receipts have had significant growth, while others have decreased. One thing is certain; Alaska agriculture is healthy, and there is tremendous opportunity for expansion into different areas. Delon Brown and his assistant continue to do much needed reporting, and deserve our special thanks.

We would like to compliment you, the producers and consumers, for your commitment to supplying and purchasing the very best products that there are.

We would be very interested in hearing from you if you have any suggestions which might improve this publication.

All of us involved in this report wish each of you a successful 1992.

Sincerely,



John Cramer
Deputy Director

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PHOTO CREDITS:

Front Cover: Farm Hay Scene - Palmer by Alaska Agricultural Statistics Staff
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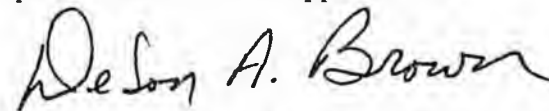
We, the Staff of Alaska Agricultural Statistics Service, are pleased to issue the 1992 "Alaska Agricultural Statistics" bulletin. This is the 31st in a series and shows the latest summary of crop and livestock data compiled by this office, the State and other Federal Agencies. State, as well as area estimates are presented for crops, dairy, livestock and poultry. Preliminary and any revisions made to prior years' data were based on new information available since the original estimates were prepared.

We are extremely appreciative of the support provided to the Alaska Agricultural Statistics program by our cooperators, the Alaska Division of Agriculture; the Agriculture and Forestry Experiment Station and Cooperative Extension Service of the University of Alaska and the National Agricultural Statistics Service of United States Department of Agriculture. These agencies provide the funding for these detailed collection of agriculture information.

A special "thank you" to all farmers, ranchers, and agri-business people who voluntarily report the essential data for making these estimates. Our office pledges confidentiality to all who provide us with individual farm, ranch, or firm data. We also pledge service to all who need assistance with numbers that measure agriculture in some way.

This year, we are featuring the Hay industry on our front cover. Hay is made in all reporting districts with the Tanana Valley leading in production during 1991. This is only the fourth time since our records began in 1960, that the Tanana Valley produced more hay than the Matanuska Valley. Value of the 1991 hay crop was 3.4 million dollars.

Your suggestions for improvement of future publications will be appreciated.



DELON A. BROWN, State Statistician



OTHER REPORTS AVAILABLE

ALASKA "FARM REPORTER" - Monthly
"Crop Weather - Weekly (May to October)
Call us at (907) 745-4272 or write for an order form to:
Alaska Agricultural Statistics Service
P. O. Box 799
Palmer, AK 99645

ALASKA CASH RECEIPTS FROM FARM MARKETINGS 1/ SELECTED YEARS

Item	1961	1971	1981	1989	1990	1991
	----- (000 Dollars) -----					
TOTAL ALL COMMODITIES	4,369	3,694	14,210	28,651	26,794	26,620
Total Livestock Products	3,179	2,683	5,088	8,836	7,555	6,474
All Meat Animals	190	371	571	1,389	1,120	732
Cattle & Calves	116	273	287	1,320	992	578
Sheep and Lambs	7	10	9	32	25	30
Hogs and Pigs	67	88	275	37	103	124
All Dairy Products	2,504	1,838	2,465	4,550	3,254	2,582
Milk Wholesale	2,182	1,671	2,400	4,485	3,187	2,517
Milk Retail	322	167	65	65	67	65
All Poultry & Eggs	434	417	695	84	86	77
Poultry	24	13	25	30	33	25
Eggs	410	404	670	54	53	52
All Miscellaneous Livestock	51	57	1,357	2,813	3,095	3,083
Wool	51	43	8	19	19	16
Other Livestock 2/	-	14	1,349	2,794	3,076	3,067
Total All Crops	1,190	1,011	9,122	19,815	19,239	20,146
All Feed Crops	326	197	2,684	2,018	1,708	2,472
Barley	105	67	869	636	264	643
Hay	205	120	1,776	1,275	1,354	1,715
Oats	16	10	39	107	50	114
All Vegetables	847	810	2,148	3,020	2,790	2,430
Potatoes	651	507	1,502	2,226	1,910	1,547
Miscellaneous Vegetables	196	303	646	794	880	883
All Other Crops	17	4	4,290	14,777	14,741	15,244
Greenhouse & Nursery	-	-	4,020	14,458	14,570	15,080
Other Crops 3/	17	4	270	319	171	164

1/ Includes cash receipts from all crop and livestock commodities in Alaska. 2/ Includes equine, fox, goats, honey, musk ox, reindeer, and other livestock and poultry. 3/ Includes forest products, berries, grass seed and other field crops not mentioned above. Dash indicates not available.

ALASKA VALUE OF ON FARM PRODUCTION BY BY AREA 1/ -- SELECTED YEARS

Year	Tanana Valley	Matanuska Valley	Kenai Peninsula	South-East	South-West	State Total
------	---------------	------------------	-----------------	------------	------------	-------------

----- Dollars -----

CROPS

1961	465,800	1,665,100	154,200	31,800	27,100	2,344,000
1971	399,400	1,575,600	135,000	2/	8,000	2,118,000
1981	2,608,600	4,435,400	438,000	2/	16,000	7,498,000
1989	3,438,300	4,328,700	385,000	2/	20,000	8,172,000
1990	1,585,700	5,046,300	495,000	2/	24,000	7,151,000
1991	2,955,900	4,490,600	490,500	2/	40,000	7,977,000

LIVESTOCK AND POULTRY

1961	388,800	2,431,000	190,200	233,300	120,700	3,364,000
1971	248,200	2,355,900	51,300	16,200	174,400	2,846,000
1981	634,100	3,258,800	399,300	19,300	351,500	4,663,000
1989	1,040,400	5,632,800	218,400	17,000	204,400	7,113,000
1990	1,138,800	3,712,200	204,000	20,000	182,000	5,257,000
1991	902,500	2,956,700	143,900	13,000	133,900	4,150,000

TOTAL

1961	854,600	4,096,100	344,400	265,100	147,800	5,708,000
1971	647,600	3,931,500	186,300	16,200	182,400	4,964,000
1981	3,242,700	7,694,200	837,300	19,300	367,500	12,161,000
1989	4,478,700	9,961,500	603,400	17,000	224,400	15,285,000
1990	2,724,500	8,758,500	699,000	20,000	206,000	12,408,000
1991	3,858,400	7,447,300	634,400	13,000	173,900	12,127,000

1/ Includes total value of crop and livestock production from farm commodities in this bulletin except reindeer. Excludes other livestock and all other crops as shown on Page 3. 2/ Included with Southwest.



ALASKA AND U.S. PRICES RECEIVED FOR CROPS AND LIVESTOCK PRODUCTS – SELECTED YEARS

Year	Barley (Bu.)	Oats (Bu.)	All Hay (Ton)	Silage (Ton)	Potatoes (Cwt.)	Eggs (Doz)	All Milk (Cwt.)
----- Dollars -----							
ALASKA							
1961	2.35	1.55	66.00	21.00	6.30	0.78	11.79
1971	1.85	1.40	80.00	18.00	7.00	0.83	11.21
1981	4.10	3.00	160.00	39.00	21.00	1.20	19.41
1989	3.40	2.40	150.00	43.00	18.10	1.55	20.31
1990	3.30	2.35	170.00	42.00	19.90	1.51	20.47
1991	3.35	2.40	175.00	48.00	17.00	1.49	20.49
UNITED STATES							
1961	0.99	0.64	20.70	NA	1.36	0.36	4.22
1971	0.96	0.60	28.20	NA	2.00	0.31	5.87
1981	2.45	1.86	66.90	NA	5.40	0.63	13.80
1989	2.42	1.49	85.40	NA	7.36	0.69	13.56
1990	2.14	1.14	80.60	NA	6.08	0.71	13.81
1991	2.10	1.15	70.70	NA	5.05	0.67	12.34

NA—Not Available.

ALASKA AND U.S. PRICES RECEIVED FOR LIVESTOCK AND POULTRY – SELECTED YEARS

Year	All Hogs (Cwt.)	Beef Cattle (Cwt.)	All Cows (Cwt.)	Steers & Heifers (Cwt.)	Milk Cows (Head)	Calves (Cwt.)	All Sheep (Cwt.)	All Chickens (Head)
----- Dollars -----								
ALASKA								
1961	26.00	22.00	NA	NA	NA	NA	26.00	2.31
1971	47.60	27.00	24.00	30.50	425.00	33.40	24.00	2.64
1981	75.00	66.00	47.00	74.00	840.00	65.00	35.00	5.05
1989	62.00	60.00	47.00	70.00	960.00	74.00	30.00	4.50
1990	78.00	62.00	52.00	70.00	980.00	76.00	30.00	4.60
1991	60.00	68.00	55.00	73.00	945.00	81.00	35.00	4.30
UNITED STATES								
1961	16.60	21.41	21.00	28.50	208.00	23.12	5.20	0.76
1971	17.50	29.00	20.70	31.10	358.00	36.30	6.58	1.23
1981	43.90	58.60	41.30	62.40	1200.00	64.00	21.20	1.89
1989	42.50	69.50	48.00	74.30	1030.00	90.80	24.40	2.16
1990	53.70	74.60	51.50	78.80	1160.00	95.60	23.20	2.29
1991	49.10	72.70	49.80	76.60	1100.00	98.00	19.70	2.30

NA—Not Available.

ALASKA FARM BALANCE SHEET 1985-1990 1/

Item	1985	1986	1987	1988	1989	1990
----- Million Dollars -----						
TOTAL FARM ASSETS	727.6	607.2	581.0	547.7	551.9	592.9
Real Estate	534.0	374.1	328.6	260.9	237.4	235.1
Livestock/Poultry	6.5	6.5	6.7	6.0	5.5	5.1
Machinery/Motor vehicles	22.6	22.9	23.3	23.3	23.7	23.6
Crops	0.0	0.2	0.2	0.0	0.0	0.0
Financial Assets	164.5	203.5	222.2	257.5	285.3	329.1
 TOTAL FARM DEBT 2/	 41.6	 36.4	 30.6	 33.2	 33.1	 27.1
Real estate debt	32.4	25.5	20.7	22.2	23.6	20.7
Nonreal estate debt	9.2	10.9	9.9	11.0	9.6	6.4
 EQUITY	 686.1	 570.6	 550.4	 514.5	 518.8	 565.7
DEBT/ASSETS RATIO	5.7	6.0	5.3	6.1	6.0	4.6

1/ Data are for farms with annual sales of \$1,000 or more. 2/ Excludes Alaska Agriculture Revolving Loan.
SOURCE: ERS ECIF 10-2

ALASKA FARM GROSS AND NET INCOME -1985-1990

ITEM	1985	1986	1987	1988	1989	1990
----- Million Dollars -----						
REALIZED GROSS FARM INCOME						
Cash Receipts/farm marketings	25.0	28.0	29.3	30.4	28.6	26.5
Government payments	0.3	0.8	2.4	1.8	1.1	1.1
Nonmoney income	3.3	5.0	3.9	3.2	2.8	2.6
Other farm income	1.3	1.5	1.7	1.6	1.9	2.0
Net inventory Change	-2.9	-1.7	-0.5	-0.6	-0.6	0.0
 TOTAL GROSS FARM INCOME	 27.0	 33.6	 36.8	 36.4	 33.8	 32.2
 FARM PRODUCTION EXPENSES	 22.1	 25.9	 25.8	 25.1	 25.0	 24.7
 REALIZED NET FARM INCOME	 4.9	 7.7	 10.9	 11.3	 8.9	 7.5

SOURCE: ERS ECIF 10-2

ALASKA AGRICULTURAL COMMODITIES PRODUCED – SELECTED YEARS

Commodity	1961	1971	1981	1989	1990	1991
-----------	------	------	------	------	------	------

----- (000) Units -----

CROP PRODUCTION

Oats for Grain (Bu.)	45.9	11.8	21.7	55.7	23.7	59.4
Barley for Grain (Bu.)	73.0	45.0	251.0	249.0	138.0	250.0
Grain Silage (Tons)	15.5	13.3	6.1	3.4	1.2	3.0
Grass Silage (Tons)	6.6	6.2	6.7	5.3	5.0	3.7
All Silage (Tons)	22.1	19.5	12.8	8.7	6.2	6.7
Grain Hay (Tons)	2.5	2.6	5.5	0.8	0.3	0.9
Grass Hay (Tons)	7.4	4.6	14.7	15.7	15.9	18.6
All Hay (Tons)	9.9	7.2	20.2	16.5	16.2	19.5
Potatoes (Cwt.)	146.3	110.3	95.0	196.0	138.0	140.0
Cabbage (Cwt.) 1/	3.4	2.7	4.6	4.2	5.6	5.4
Lettuce (Cwt.) 1/ 2/	6.8	9.5	10.5	11.2	10.3	14.1
Carrots (Cwt.)	5.2	1.5	3.7	5.9	7.4	4.9
Other Vegetables (Cwt.)	2.1	2.4	4.7	8.6	9.0	8.7

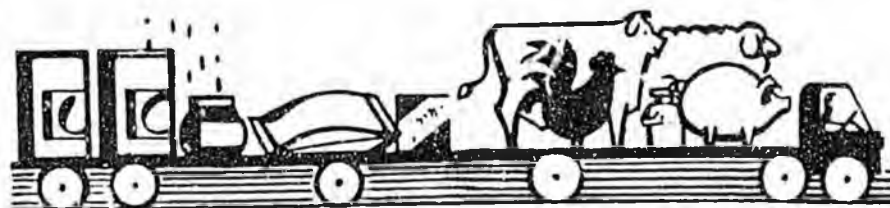
LIVESTOCK AND POULTRY PRODUCTION

Eggs (Doz.)	541.7	483.0	558.0	58.0	58.0	59.4
Poultry (Lbs.)	61.0	58.0	231.0	63.0	63.0	70.0
Beef (Lbs.)	353.0	624.0	749.0	1734.0	1183.0	738.0
Pork (Lbs.)	175.0	150.0	293.0	180.0	180.0	304.0
Mutton (Lbs.)	18.0	34.0	18.0	29.0	29.0	37.0
Wool (Lbs.)	128.0	225.0	16.0	16.0	15.0	16.0
Reindeer (Lbs.)	485.0	456.0	-	452.0	411.0	440.0

----- Million Units -----

Milk (Lbs.)	22.8	17.1	13.4	23.3	16.8	13.3
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1/ Production unit changed to cartons in 1981. 2/ Head lettuce only beginning 1981; prior years included all lettuce. Dash indicates data not available.



ALASKA LIVESTOCK AND POULTRY ON FARMS (By Class) – SELECTED YEARS

Class	Jan. 1 1962	Jan. 1 1972	Jan. 1 1982	Jan. 1 1990	Jan. 1 1991	Jan. 1 1992
----- (000 Head) -----						
ALL CATTLE AND CALVES	7.9	8.8	9.2	8.2	8.0	8.5
Beef Cows	1.4	2.6	3.0	2.6	2.5	2.7
Milk Cows	3.2	1.6	1.1	1.4	1.1	0.8
Heifers 500 Pounds+	1.1	1.3	1.5	1.0	1.1	1.2
Beef Cow Replacement	0.5	0.6	1.0	0.7	0.8	0.9
Milk Cows Replacement	0.6	0.7	0.5	0.3	0.3	0.3
Steers 500 Pounds+	0.7	0.8	0.7	0.5	0.5	0.5
Bulls 500 Pounds+	0.2	0.5	0.8	1.2	1.6	1.6
Calves under 500 pounds	1.3	2.0	2.1	1.5	1.5	1.7
ALL SHEEP AND LAMBS	15.0	19.0	3.9	2.5	2.5	2.4
Lambs	4.0	2.0	0.6	0.3	0.5	0.5
Ewes 1 Year+	7.0	9.0	1.9	1.5	1.4	1.3
Wethers and Rams 1 Year+	4.0	8.0	1.4	0.7	0.6	0.6
Class	Dec. 1 1961	Dec. 1 1971	Dec. 1 1981	Dec. 1 1989	Dec. 1 1990	Dec. 1 1991
----- (000 Head) -----						
ALL HOGS AND PIGS	1.0	1.5	2.8	0.7	1.2	1.4
Slaughter Hogs and Pigs	NA	1.1	0.7	0.4	0.9	1.0
Breeding Hogs	NA	0.4	2.1	0.3	0.3	0.4
ALL CHICKENS	42.0	36.0	37.0	5.0	5.0	4.0
HPLA	41.0	34.0	35.0	4.0	4.0	3.0
Other Chickens	1.0	2.0	2.0	1.0	1.0	1.0

NA—Not available.

ALASKA FARM NUMBER AND LAND IN FARMS — SELECTED YEARS

Year	Land in Farms (000 Acres)	Total All Farms	All Cattle	Beef Cow	Milk Cow	Chickens	Hogs	Sheep
1961	1,665	410	210	NA	140	NA	NA	NA
1971	1,710	320	160	NA	90	70	40	20
1981 1/	1,520	500	190	NA	60	100	70	20
1989	1,010	600	160	90	40	80	40	40
1990	1,000	580	150	80	40	80	40	30
1991	1,000	560	140	70	30	70	40	30

1./ Farm redefined to include farms and ranches with annual sales of \$1,000 or more. NA—Not Available.

ALASKA FERTILIZER CONSUMPTION 1/ - 1990 - 1991

Material	1990	1991
	-- Tons --	
NITROGEN:		
Ammonium Nitrate	470	40
Urea	6,000	6,040
Other Nitrogen	110	50
PHOSPHATE:		
Ammoniated Phosphate	660	510
Other Phosphate	-	60
POTASH:		
Muriate of Potash	40	10
TOTAL MATERIAL	7,280	6,710
COMPLETED FORMULAS:		
5.5-26-26	30	20
8-32-16	510	850
10-20-10	-	60
10-20-20	1 ^c	250
15-31-10-5	50	-

Material	1990	1991
	-- Tons --	
COMPLETED FORMULAS:		
16-16-16	420	390
17-17-17	-	50
18-18-18	150	50
20-2-5	60	-
20-10-10	90	-
20-20-10	210	130
20-20-10-3	-	260
20-20-10-10	-	170
22-4-4	160	160
22-11-11	550	540
24-12-10-5	20	-
25-3-5	40	20
Miscellaneous	540	1,340
TOTAL FORMULAS	3,020	4,340
TOTAL FERTILIZER	10,300	11,050
LIME	680	660

1/ Survey conducted by State Division of Agriculture.



ALASKA CONSUMPTION OF FERTILIZER PLANT NUTRIENTS - SELECTED YEARS 1/

Year ended June 30	1965	1971	1981	1989	1990	1991
Mixed Fertilizer (Tons)	3,033	2,812	5,005	4,280	3,020	4,340
Primary Nutrient Material (Tons)	1,339	1,738	4,055	6,150	7,280	6,710
Secondary and MicroNutrient	0	3	0	0	0	0
Total Fertilizer (Tons)	4,372	4,553	9,060	10,430	10,300	11,050

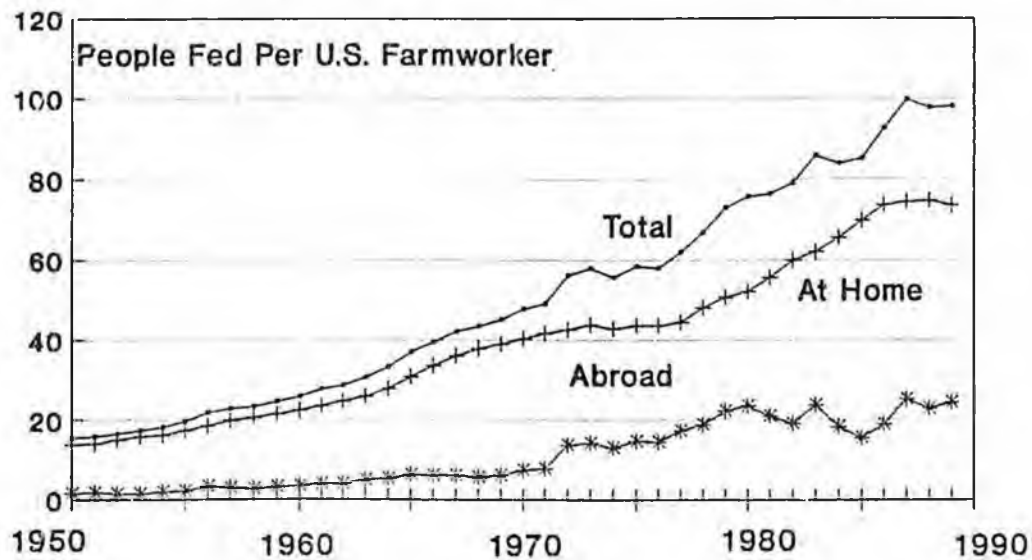
1/ Beginning 1987, Survey conducted by Alaska Division of Agriculture.

ALASKA FARM LABOR – SELECTED YEARS 1/

Item	1962	1965	1971	1975	1980	1991
Farm Wage Hourly Rate	2.00	2.15	2.65	3.50	5.20	6.65
Hired Workers	425	350	225	300	520	400
Family Workers	775	550	575	600	440	400
Total Workers	1,200	900	800	900	960	800

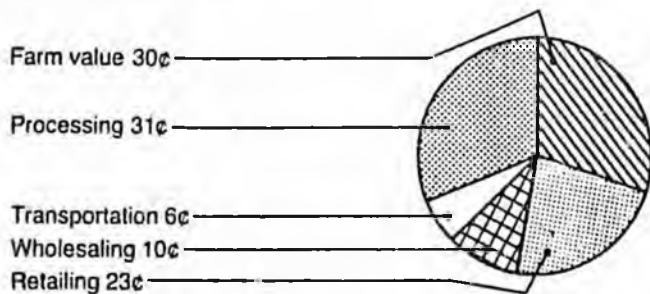
1/ Quarterly survey 1962–1975; Annual Survey 1980–1991.

HOW MANY PEOPLE DOES ONE FARMER FEED?

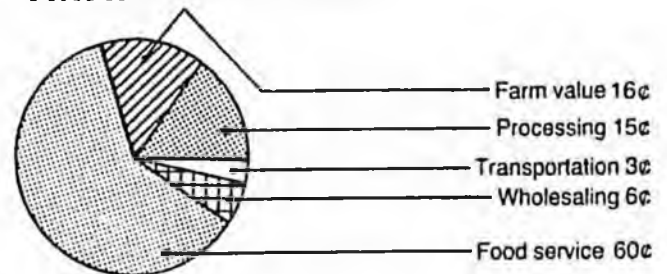


WHERE THE FOOD DOLLAR GOES AT HOME AND AWAY – 1990

AT HOME:



AWAY FROM HOME



U.S. PER CAPITA CONSUMPTION – SELECTED YEARS

Item	1970	1975	1980	1985	1988	1989
	----- Pounds -----					
Red Meats (Boneless)	132.0	125.3	126.4	124.9	119.5	115.9
Beef	79.6	83.0	72.1	74.6	68.6	65.4
Vcal	2.0	2.8	1.3	1.5	1.1	1.0
Pork	48.2	38.2	52.1	47.7	48.8	48.4
Lamb & Mutton	2.1	1.3	1.0	1.1	1.0	1.1
Poultry (Boneless)	34.1	34.2	42.6	49.4	57.4	60.8
Chicken	27.7	27.5	34.3	39.9	44.7	47.3
Turkey	6.4	6.7	8.3	9.6	12.6	13.5
Fish & Shellfish (Boneless)	11.7	12.1	12.8	14.4	15.2	15.8
Eggs	39.2	35.0	34.4	32.4	31.2	29.9
Dairy Products	563.9	539.4	543.5	594.1	583.5	567.6
Fluid Milk & Cream	275.1	261.4	245.6	241.0	234.6	231.8
Lowfat Milk (1-2% Fat)	29.8	53.2	70.1	83.3	89.9	94.2
Whole Milk	219.1	181.3	146.4	123.4	105.7	95.8
Cheese	11.4	14.3	17.5	22.5	23.7	23.8
Amer. (excl. cottage, full-skim)	7.0	8.2	9.6	12.2	11.5	11.0
Other	4.4	6.1	7.9	10.4	12.2	12.8
Ice Cream	17.8	18.6	17.5	18.1	17.3	16.1
Fats & Oils, Product Wt.	55.8	55.6	60.3	67.4	66.0	63.9
Butter	5.4	4.7	4.5	4.9	4.5	4.3
Margarine	10.8	11.0	11.3	10.8	10.3	10.2
Shortening	17.3	17.0	18.2	22.9	21.5	21.5
Salad & Cooking Oils	15.4	17.9	21.2	23.5	25.8	23.9
Fresh Fruit	76.7	82.0	86.9	86.1	95.1	93.9
Citrus	27.8	28.4	27.9	21.9	25.6	23.8
Noncitrus	48.9	53.6	59.0	64.2	69.5	70.1
Apples	16.3	18.7	18.5	16.8	19.2	20.9
Citrus Juice	31.8	45.7	44.6	45.9	46.9	44.2
Selected Fresh Vegetables	65.1	68.0	74.3	81.2	88.7	91.8
Processed Vegetables (Farm Wt.)	105.0	102.7	105.0	105.0	101.5	NA
Tomatoes for Processing	62.1	61.9	63.6	63.3	61.4	NA
Other Vegetables for Canning	23.6	20.8	21.4	18.7	16.9	16.0
Vegetables for Freezing	13.5	13.8	14.4	17.1	18.1	16.9
Fresh Potatoes	59.3	50.5	49.0	44.9	49.6	48.0
Frozen Potatoes	12.7	18.6	17.6	22.6	21.4	23.2
Flour & Cereal Products	135.1	138.8	145.5	158.0	172.9	169.3
Wheat Flour	110.9	114.5	116.9	124.7	130.0	123.4
Rice (Milled Basis)	6.7	7.6	9.5	9.1	14.4	15.6
Corn Products	11.1	10.8	12.9	17.8	20.7	21.8
Coffee (Gal.)	33.4	31.4	26.7	27.3	25.6	26.7
Refined Sugar	101.8	89.2	83.6	62.7	62.1	62.5
Comed Sweetners	19.3	27.4	39.1	65.9	69.7	70.3

SOURCE: ERS-USDA Statistical Bulletin No. 825. NA—Not available.

ALASKA'S 1991 CROP AND WEATHER REVIEW

The 1991 crop season started off with warmer than normal high temperatures and unusually low night time temperatures. After a heavy winter snow accumulation, many areas remained too wet, laden with unmelted snow to begin fieldwork until mid-May. Small grain seeding of barley and oats began the second week of May and was nearly complete by June 3rd. Early seeded fields had excellent emergence. Fresh market potato planting began the week of May 20th and was being wrapped up the first week in June, equal to 1990 progress. Planting for seed continued into mid-June. Vegetable growers in the Matanuska Valley began setting transplants about May 10th. Atypical, warm daytime temperatures and significantly drier than normal weather in May promoted mostly moderate to rapid emergence of small grains in the Delta-Clearwater area. However, by early June, barley and oats development lagged behind 1990's advancement due to cooler than normal nighttime temperatures.

Cool soil temperatures slowed potato vine development in most areas through much of June. Critically dry soil moisture and above normal hot weather prevailed during mid June to early July in most areas. Welcome rainfall, in varying amounts throughout the Railbelt, fell during first week of July alleviating drought conditions.

First crop hay making began around the 15th of June in the Tanana and Matanuska Valleys. Lack of growth early in the season and frequent showers during the normal harvest period delayed conclusion of first crop till late August except in the Fairbanks area. Hay harvest on the Kenai Peninsula began around July 20th, a month later than the previous year due to continual showers. Second cutting was

active in the Fairbanks region of the Tanana Valley the first week of August while farmers in the Matanuska Valley delayed harvest till late August, waiting for more growth. By October 1, Railbelt-wide, most of the second cutting had been made.

Barley for grain harvest began the third week of August in the Tanana Valley. Harvest was generally completed by October 1.

Potato digging for seed began about August 20th with fresh market harvest starting a week later and behind progress in 1990, due to small tubers. Tanana Valley commercial potato harvest began approximately September 1st. Harvest was generally complete by October 1 throughout the Railbelt. Excellent quality supplies of head lettuce, carrots, cabbage and squash were harvested during the season.

A hard killing frost ended the growing season in much of the Tanana Valley on August 26th. Clearwater had a low of 21 degrees the morning of August 28th.

In the Matanuska Valley, on September 22, a low temperature of 31 degrees was reported at the Palmer AES station. Kenny Lake recorded a low of 26 on August 19th. However, most areas didn't have a killing frost until October, after most perishables had been harvested.

Detailed summaries are shown on the next four pages for temperatures, precipitation and growing degree days. Data for these summaries are taken from the monthly Climatological Data Publications, NOAA, Environmental Data Service and may vary somewhat from the Annual Climatological data publication when it becomes available.



ALASKA PRECIPITATION DATA (Inches)

Station	1991 Precipitation							1991 Snow	Average Precipitation 1/						
	Apr	May	Jun	Jul	Aug	Sep	Year		Apr	May	Jun	Jul	Aug	Sep	Year
TANANA VALLEY															
Fairbanks Ap	.00	.10	.36	.81	1.18	1.16	9.40	95	.26	.63	1.40	1.80	1.63	1.02	10.62
University Exp. Sta.	.00	.13	1.25	1.40	2.12	1.40	12.48	88	.18	.56	1.71	2.10	1.89	1.15	12.22
Eielson Field	.00	.17	1.05	2.67	2.12	1.40	10.64	99	.23	.65	1.66	2.34	2.06	1.26	11.72
Big Delta Ap	.04	.20	2.80	2.40	1.43	.77	12.31	73	.21	.83	2.65	2.86	1.96	1.07	12.18
Clearwater	.12	.20	2.89	1.46	1.43	1.05	13.95	65	.49	1.00	2.62	2.71	1.95	1.43	15.98
MATANUSKA VALLEY															
Anchorage Ap	.23	.12	.18	2.82	3.54	3.41	17.31	83	.63	.63	1.03	1.77	2.72	2.91	16.30
PMC-Butte	1.02	1.05	.49	3.89	3.19	3.47	18.05	59	.51	.50	.97	1.73	1.41	1.77	12.89
Palmer AES	.07	.06	.55	3.79	1.64	1.97	14.11	76	.54	.59	1.35	2.19	2.18	2.64	15.60
Matanuska Exp. Sta.	.05	.19	.34	3.47	.82	1.97	11.81	72	.52	.66	1.37	2.34	2.22	2.55	15.19
Wasilla 3S	.12	.20	.19	3.64	1.27	2.71	13.42	69	.53	.75	1.64	2.37	2.45	2.98	16.98
Point McKenzie	*	.01	.82	1.64	2.68	4.63	*	*	*	.01	.82	1.64	2.69	3.64	*
Talkeetna Ap	1.02	1.05	.49	3.89	3.19	3.47	25.85	190	1.30	1.59	2.65	3.54	4.39	4.54	29.13
KENAI PENINSULA															
Homer Ap	.81	1.54	1.30	1.50	2.20	3.40	24.02	77	1.39	1.15	.97	1.47	2.24	3.34	26.32
Kenai Ap	.27	.07	.55	2.02	2.77	3.75	20.94	100	.73	.99	1.09	1.57	2.48	3.26	18.63
Kasilof 3 NW	.20	.07	.66	1.17	2.14	2.92	12.17	83	.69	.74	1.04	1.60	2.60	3.19	18.09
OTHER AREAS															
Kodiak Ap	8.02	9.74	8.65	2.29	4.77	10.19	90.27	98	4.53	6.28	5.41	4.01	4.80	7.05	72.11
Nome Ap	.64	.35	2.28	2.44	.75	2.69	14.17	43	.64	.64	1.30	2.23	2.71	2.52	15.55
McGrath Ap	.59	.26	.57	2.73	2.96	1.25	15.53	90	.72	1.01	1.45	2.20	2.53	2.25	17.45
Juneau Ap	4.73	4.72	3.41	4.85	9.60	15.14	85.15	120	2.84	3.40	3.18	3.81	5.51	7.05	54.96
Haines Ap	1.76	1.44	.51	.42	4.36	7.12	45.51	260	2.42	1.95	1.38	1.44	2.70	4.83	47.56
Kenny Lake	.25	.13	.84	2.74	1.65	.89	11.99	74	.19	.54	1.46	1.99	1.49	1.23	11.13

1/ Averages based on Historical records from 1970-1991 when data available.

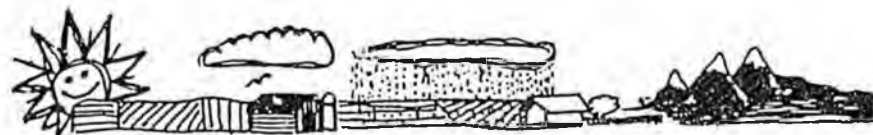
* Data not available.



ALASKA 1991 TEMPERATURE DATA

Station	High/Low For					Average for					Date of Last Spring Minimum of		Date of First Fall Minimum of		Days Between <32°
	Year	Jan	Apr	Jul	Sep	Year	Jan	Apr	Jul	Sep	<32°	<40°	<40°	<32°	
TANANA VALLEY															
Fairbanks Ap	94/-45	45/-45	58/3	83/39	72/26	29	-5	35	61	48	5/12	5/23	7/10	8/29	109
Univ Exp Sta	93/-42	44/-42	58/3	87/37	71/28	28	-4	35	60	48	5/14	6/10	7/10	8/28	106
Eielson Field	92/-45	43/-44	59/0	82/43	72/28	29	-5	35	60	50	5/13	5/23	8/3	8/28	108
Big Delta Ap	90/-53	44/-53	58/-1	83/38	70/20	29	-1	35	58	48	5/15	6/13	7/9	8/26	103
Clearwater	90/-57	42/-57	59/-10	82/34	71/17	27	-4	32	58	46	5/24	6/17	7/9	8/21	89
MATANUSKA VALLEY															
Anchorage Ap	75/-14	46/-14	50/15	72/44	66/35	37	16	38	58	51	5/8	5/21	8/29	10/8	153
PMC-Butte	81/-31	46/-27	53/23	76/38	67/28	36	12	40	56	50	5/21	5/26	7/25	8/28	99
Palmer AES	80/-19	43/-13	57/22	74/42	65/31	37	13	40	56	50	4/23	6/8	8/3	9/22	152
Matanuska Exp. Sta.	80/-21	46/-15	57/21	75/42	68/31	36	13	40	57	50	5/17	6/10	8/28	9/22	128
Wasilla 3S	79/-22	46/-20	60/19	74/40	69/30	37	13	41	58	52	5/14	6/10	8/3	9/22	131
Pt. McKenzie	*	*	54/15	76/43	70/36	*	*	38	57	51	5/8	5/26	8/31	10/8	153
Talkeetna Ap	83/-36	40/-21	53/05	78/40	69/29	35	12	36	58	49	5/20	6/16	8/3	9/22	124
KENAI PENINSULA															
Homer Ap	71/0	44/1	49/24	67/42	63/37	39	24	39	54	50	5/12	6/23	8/3	10/6	147
Kenai Ap	74/-26	42/-18	51/11	72/37	65/35	35	15	37	54	50	5/12	6/23	7/25	10/5	146
Casilof 3 NW	72/-21	40/-18	54/10	69/38	66/31	35	16	36	54	49	5/22	6/23	7/21	8/29	99
OTHER AREAS															
Kodiak Ap	73/-2	45/4	48/26	68/43	63/34	41	30	39	54	50	4/20	5/31	9/18	10/7	170
Nome Ap	80/-37	34/-37	47/-13	80/39	69/30	28	7	25	55	48	5/19	6/23	8/3	8/28	101
McGrath Ap	88/-60	38/-60	55/-6	82/35	72/31	28	-3	32	58	49	5/11	6/5	8/20	9/22	134
Juneau Ap	84/-4	46/-4	60/26	73/46	61/40	42	25	42	55	50	4/16	6/4	8/6	10/15	182
Haines Ap	90/-15	39/-15	58/21	70/53	59/44	39	13	38	56	48	6/4	6/14	10/9	10/17	135
Kenny Lake	90/-45	44/-45	57/02	76/30	66/21	29	-2	35	55	46	5/25	6/15	7/2	7/25	61

*Data not available.



ALASKA HISTORICAL TEMPERATURE DATA 1/

Station	High/Low For					Average for					Growing Season Average No. Frost Free Days 32°	Eleva- tion in Feet
	Year	Jan	Apr	Jul	Sep	Year	Jan	Apr	Jul	Sep		
TANANA VALLEY												
Fairbanks Ap	96/-66	50/-66	74/-49	93/34	84/10	28	-8	31	63	45	118	436
University Exp. Sta.	99/-65	47/-65	76/-32	99/29	85/6	28	-6	31	61	45	95	475
Eielson Field	93/-64	49/-64	74/-23	89/36	75/5	26	-10	29	61	44	113	547
Big Delta Ap	92/-63	48/-63	76/-37	91/35	79/2	28	-3	30	60	44	101	1268
Clearwater	93/-72	48/-72	74/-33	90/28	74/13	25	-9	29	59	42	55	1100
MATANUSKA VALLEY												
Anchorage Ap	86/-38	56/-35	65/-21	83/35	73/19	36	16	36	58	48	136	114
PMC-Butte	85/-45	51/-45	72/-15	85/36	71/17	35	11	27	43	35	101	67
Palmer AES	90/-36	51/-36	69/-17	85/37	72/17	36	14	35	58	48	124	225
Matanuska Exp. Sta.	91/-41	51/-40	68/-16	85/31	75/16	36	14	36	58	47	107	150
Wasilla 3S	90/-40	52/-40	68/-8	87/37	76/17	37	15	37	59	49	103	50
Pt. McKenzie	84/-45	45/-45	57/12	82/41	68/34	34	8	28	47	40	132	145
Talkeetna Ap	91/-48	45/-48	69/-37	90/26	78/11	34	10	33	58	46	104	345
KENAI PENINSULA												
Homer Ap	81/-24	49/-24	60/-7	78/37	66/24	38	23	35	54	48	123	89
Kenai Ap	86/-44	48/-44	62/-15	84/29	71/22	34	14	34	55	47	122	86
Kasilof 3 NW	87/-45	48/-45	63/-17	83/27	72/15	34	14	33	53	46	121	70
OTHER AREAS												
Kodiak Ap	86/-16	54/-16	62/-7	81/38	73/26	41	31	37	55	50	144	111
Nome Ap	86/-54	46/-54	60/-30	86/31	67/15	27	6	17	52	42	81	13
McGrath Ap	90/-75	54/-75	67/-40	89/33	76/6	26	-8	26	59	44	100	344
Juneau Ap	90/-22	57/-20	71/6	90/36	72/26	41	25	40	56	50	143	12
Haines Ap	98/-17	53/-15	74/16	98/35	76/24	41	24	41	58	50	157	31
Kenny Lake	88/-57	44/-57	68/-26	88/30	77/-1	28	-3	32	57	44	56	1320

1/ Averages based on Historical records from 1970-1991 when data available, Pt. MacKenzie, based on four years.

* Data not available.



ALASKA SEASON GROWING DEGREE DAYS (Base 40° F.) 1/

Station	May		Jun		Jul		Aug		Sep		Total	
	1991	Avg	1991	Avg	1991	Avg	1991	Avg	1991	Avg	1991	Avg
TANANA VALLEY												
Fairbanks Ap	347	306	714	604	639	710	446	532	240	161	2386	2313
University Exp. Sta.	295	270	624	555	617	666	403	501	240	146	2178	2138
Eielson Field	332	266	681	559	617	657	459	505	306	142	2394	2129
Big Delta Ap	155	239	690	514	567	630	403	483	249	135	2064	2001
Clearwater	248	191	504	463	527	577	344	415	177	62	1800	1708
MATANUSKA VALLEY												
Anchorage Ap	205	213	471	431	543	569	481	507	330	242	2029	1962
PMC-Butte	260	243	495	449	496	557	440	484	288	230	1980	1964
Palmer AES	264	224	498	433	508	546	453	496	300	237	2023	1938
Matanuska Exp. Sta.	245	220	504	423	530	547	462	487	312	225	2053	1902
Wasilla 3S	260	241	516	452	555	589	481	522	348	264	2160	2068
Pt. McKenzie	236	*	493	*	534	*	495	*	333	*	2091	*
Talkeetna Ap	171	170	540	437	555	572	462	479	264	184	1991	1843
KENAI PENINSULA												
Homer Ap	121	98	309	283	437	422	394	419	309	233	1570	1456
Kenai Ap	155	127	327	311	419	451	384	425	288	204	1573	1520
Kasilof 3 NW	102	63	309	262	425	404	353	382	258	173	1447	1283
OTHER AREAS												
Kodiak Ap	152	116	291	291	428	446	443	468	309	305	1623	1626
Nome Ap	0	0	333	199	468	383	360	333	240	79	1364	993
McGrath Ap	217	168	582	469	555	593	422	460	267	126	2043	1815
Juneau Ap	254	231	450	398	471	503	465	476	309	291	1949	1899
Haines Ap	177	267	441	454	508	560	434	523	246	307	1806	2110
Kenny Lake	189	140	474	396	456	525	357	415	177	116	1652	1592

1/ Averages based on Historical records from 1970-1991 when data available.

* Not enough data for average.



ALASKA CROP SUMMARY - 1991

BARLEY was planted on 5,200 acres in 1991, 500 acres less than in 1990 but 100 acres above 1989. Growers harvested 5,000 acres for grain, down 400 acres from 1990. Production of **BARLEY FOR GRAIN** was 250,000 bushels, 112,000 bushels above 1990. A yield of 50.0 bushels per acre was up 24.5 bushels from 25.5 per acre in 1990. The 1991 crop value, at \$838,000 was \$383,000 above the 1990 level.

OAT growers planted 2,200 acres of oats, 900 acres above a year ago. Growers harvested 2,100 an increase of 1,100 from last year. Most of the oat acreage was harvested for grain in 1991.

OATS FOR GRAIN was harvested from 1,100 acres, up 500 acres from 1990. Production was 59,400 bushels, 35,700 bushels above the 1990 production. The State's yield averaged 54.0 bushels per acre compared with 39.5 in 1990. Value of the 1991 crop at \$143,000 compares with \$56,000 in 1990.

ALL HAY production of 19,500 tons was 3,300 above the 1990 production. The State's average yield at 1.17 tons per acre compares with 1.07 tons per acre in 1990. The 1991 crop was harvested from a record 16,700 acres, up 1,600 acres from a year earlier and up 4,000 acres from 1989. At \$3,413,000, value of production of all hay increased \$659,000 from the previous year.

GRASS HAY was harvested from a record 16,000 acres, 1,200 acres more than in 1990. Production of 18,600 tons of grass hay was 2,700 tons above the 1990 level. Seeded grass hay, brome, and timothy, are harvested mostly in the Tanana and Matanuska Valleys. Native grasses still make up part of the Kenai Peninsula hay production.

GRAIN HAY, mostly oat hay was harvested from 700 acres, 400 acres more than 1990. Production totaled 900 tons compared with 300 acres in 1990.

ALL SILAGE production totaled 6,700 tons, up from 6,200 tons the previous year. A total of 1,700 acres of silage was harvested, up 300 acres from 1990. **GRASS SILAGE** was harvested from 1,300 acres and produced 3,700 tons. **GRAIN SILAGE** produced 3,000 tons from 400 acres. Silage is produced mainly by Grade A Dairies included in the Palmer and Pt. MacKenzie areas. Production value of all silage at \$320,000 was \$60,000 more than a year ago.

POTATO production of 140,000 cwt. was harvested from 650 acres, compared with 138,000 cwt. from 590 in 1990. At \$2,380,000, value of production was \$366,000 below the 1990 crop.

VEGETABLES were harvested from 248 acres, down 16 acres from 1990. Value of all vegetables produced, excluding greenhouse vegetables was \$883,000 compared with \$880,000 in 1990. **HEAD LETTUCE** production of 23,700 cartons was harvested from 65 acres in 1991. Other types of lettuce are included in other vegetables. An annual average carton weight for head lettuce in Alaska was 45 pounds in 1991 same as in 1990. **CABBAGE** production of 10,700 cartons was harvested from 38 acres in 1991. An annual average carton weight for cabbage in Alaska was 50 pounds in 1991 and 55 pounds in 1990.

CARROT production totaled 4,900 cwt., 2,500 cwt. below 1990. Acres harvested at 37 was slightly above year ago. **OTHER VEGETABLES** were harvested from 108 acres, 12 acres below the previous year.

ALASKA CROPLAND UTILIZATION – 1991

Crops	Tanana Valley	Matanuska Valley	Kenai Peninsula	South- West 1/	State Total
----- Acres -----					
PLANTED AREA					
COMMERCIAL VEGETABLES					
Potatoes	110	540	10	-	660
Lettuce	23	54	-	-	77
Cabbage	10	30	-	-	40
Carrots	11	32	-	-	43
Other Vegetables	24	109	-	-	133
FEED CROPS					
All Oats	1,700	500	-	-	2,200
All Barley	4,850	350	-	-	5,200
GRASSLAND HARVESTED					
Grass	7,100	7,700	2,300	200	17,300
TOTAL LAND IN CROPS	13,828	9,315	2,310	200	25,653
Percent of State Total	54%	36%	9%	1%	100%
HARVESTED AREA					
COMMERCIAL VEGETABLES					
Potatoes	110	530	10	-	650
Lettuce	22	43	-	-	65
Cabbage	10	28	-	-	38
Carrots	8	29	-	-	37
Other Vegetables	23	85	-	-	108
FEED CROPS					
Oats—All Purposes	1,600	500	-	-	2,100
Barley—All Purposes	4,750	350	-	-	5,100
Grass	7,100	7,700	2,300	200	17,300
GRAIN					
Oats	1,000	100	-	-	1,100
Barley	4,700	300	-	-	5,000
HAY					
Grain	450	250	-	-	700
Grass	6,700	6,800	2,300	200	16,000
SILAGE					
Grain	200	200	-	-	400
Grass	400	900	-	-	1,300

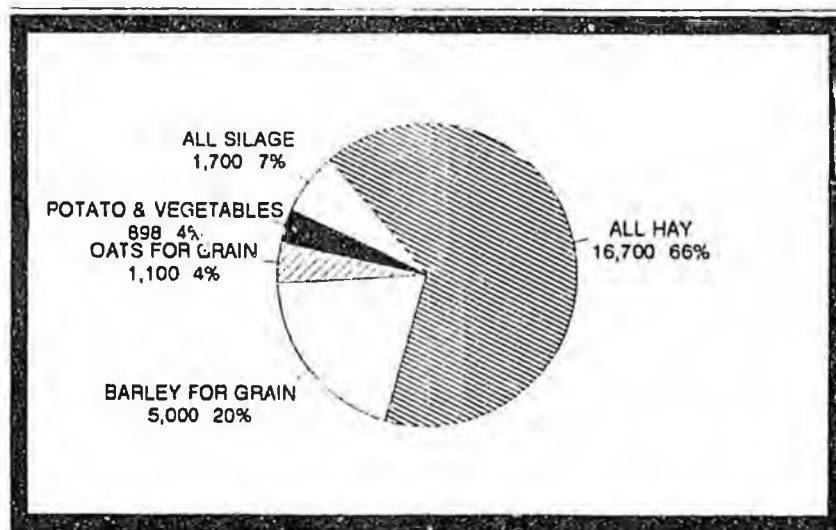
1/ Includes Southeast. Dash indicates no crop produced or combined with other areas.

ALASKA BARLEY -- SELECTED YEARS

District	Year	Area Planted Acres	AREA HARVESTED FOR GRAIN			
			Acres	Yield Bu.	Production	
					Bu. (000)	\$ Value (000)
Tanana Valley	1961	700	410	23.9	9.8	23.7
	1971	3,000	2,600	11.7	30.4	56.8
	1981	15,600	7,800	28.7	224.0	899.0
	1989	4,800	4,500	54.0	243.0	826.0
	1990	5,400	5,100	24.3	121.0	403.0
	1991	4,850	4,700	50.0	236.0	785.0
Matanuska Valley 1/	1961	1,900	1,590	39.7	63.2	148.3
	1971	1,100	500	29.2	14.6	26.2
	1981	900	700	38.6	27.0	130.0
	1989	300	200	30.0	6.0	21.0
	1990	300	300	46.7	14.0	52.0
	1991	350	300	46.5	14.0	53.0
State Total	1961	2,600	2,000	36.5	73.0	172.0
	1971	4,100	3,100	14.5	45.0	83.0
	1981	16,500	8,500	29.5	251.0	1029.0
	1989	5,100	4,700	53.0	249.0	847.0
	1990	5,700	5,400	25.5	138.0	455.0
	1991	5,200	5,000	50.0	250.0	838.0

1/ Includes Kenai Peninsula.

ALASKA CROPS- 1991 HARVESTED ACRES/PERCENTAGE



ALASKA OATS – SELECTED YEARS

District	Year	Area Planted Acres	AREA HARVESTED FOR GRAIN			
			Acres	Yield Bu.	Production	
					Bu. (000)	\$ Value (000)
Tanana Valley	1961	570	130	56.2	7.3	11.7
	1971	450	100	59.0	5.9	8.6
	1981	5,100	300	47.7	14.3	39.0
	1989	1,000	600	88.5	53.1	127.0
	1990	1,000	500	38.8	19.4	44.0
	1991	1,700	1,000	54.5	54.5	130.0
Matanuska Valley 1/	1961	2,430	770	50.1	38.6	59.3
	1971	1,650	100	59.0	5.9	8.4
	1981	900	200	37.0	7.4	26.0
	1989	400	100	26.0	2.6	7.0
	1990	300	100	43.0	4.3	12.0
	1991	500	100	49.0	4.9	13.0
State Total	1961	3,000	900	51.0	45.9	71.0
	1971	2,100	200	59.0	11.8	17.0
	1981	6,000	500	43.5	21.7	65.0
	1989	1,400	700	79.5	55.7	134.0
	1990	1,300	600	39.5	23.7	56.0
	1991	2,200	1,100	54.0	59.4	143.0

1/ Includes Kenai Peninsula and Southwest.

ALASKA GRAIN STOCKS – SELECTED YEARS

Year	On Farm				Off Farm				Total			
	Jan. 1	Apr. 1	Jul. 1	Sep. 1	Jan. 1	Apr. 1	Jul. 1	Sep. 1	Jan. 1	Apr. 1	Jul. 1	Sep. 1
----- Tons -----												
OATS												
1989	420	360	190	110	350	250	230	170	770	610	420	28
1990	620	530	380	280	240	230	150	110	860	760	530	39
1991	490	410	270	200	60	20	40	30	550	430	310	230
1992	880	680	NA	NA	140	110	NA	NA	1020	790	NA	NA
BARLEY												
1989	3070	2250	1090	330	1510	1200	810	670	4580	3450	1900	1000
1990	3510	2270	1640	1150	2000	1590	1430	1110	5510	3860	2870	2260
1991	2290	1820	820	590	1590	930	500	480	3880	2750	1320	1070
1992	3610	2680	NA	NA	2040	1600	NA	NA	5650	4280	NA	NA

NA – not available

ALASKA GRAIN AND GRASS HAY – SELECTED YEARS

District	Year	Area Harv. Acres	Production		Area Harv. Acres	Production	
			Tons	\$ Value (000)		Tons	\$ Value (000)
			GRAIN HAY 1/			GRASS HAY	
Tanana Valley	1961	450	600	33.0	750	850	62.0
	1971	400	500	35.0	1,000	800	65.0
	1981	2,600	4,900	733.0	3,600	3,700	584.0
	1989	300	500	59.0	5,100	6,200	932.0
	1990	200	200	31.0	5,900	4,200	673.0
	1991	450	600	95.0	6,700	8,200	1,391.0
Matanuska Valley	1961	1,220	1,550	86.0	3,730	5,650	387.0
	1971	1,050	1,650	130.0	2,650	2,600	208.0
	1981	300	300	46.0	5,900	9,300	1,549.0
	1989	100	300	45.0	5,200	7,200	1,045.0
	1990	100	100	14.0	6,500	8,700	1,538.0
	1991	250	300	51.0	6,800	7,600	1,372.0
Kenai Peninsula	1961	170	280	18.2	730	650	45.5
	1971	450	450	36.0	1,300	1,100	94.0
	1981	300	300	47.0	1,600	1,600	257.0
	1989	—	—	—	1,900	2,200	374.0
	1990	—	—	—	2,300	2,900	478.0
	1991	—	—	—	2,300	2,600	464.0
Southwest 2/	1961	60	70	4.8	290	250	16.5
	1971	—	—	—	150	100	8.0
	1981	—	—	—	100	100	16.0
	1989	—	—	—	100	100	20.0
	1990	—	—	—	100	100	20.0
	1991	—	—	—	200	200	40.0
State Total	1961	1,900	2,500	142.0	5,500	7,400	511.0
	1971	1,900	2,600	201.0	5,100	4,600	375.0
	1981	3,200	5,500	826.0	11,200	14,700	2,406.0
	1989	400	800	104.0	12,300	15,700	2,371.0
	1990	300	300	45.0	14,800	15,900	2,709.0
	1991	700	900	146.0	16,000	18,600	3,257.0

1/ Includes oats and barley. 2/ Includes Southeast. Dash indicates no crop produced or combined with other areas.

ALASKA ALL HAY – SELECTED YEARS

District	Year	Area Harv. Acres	Production		
			Yield Tons	Tons	\$ Value (000)
Tanana Valley	1961	1,200	1.21	1,450	95.0
	1971	1,400	0.93	1,300	100.0
	1981	6,200	1.39	8,600	1,317.0
	1989	5,400	1.24	6,700	993.0
	1990	6,100	0.72	4,400	704.0
	1991	7,150	1.23	8,800	1,486.0
	Matanuska Valley	1961	4,950	1.45	7,200
1971		3,700	1.15	4,250	338.0
1981		6,200	1.55	9,600	1,595.0
1989		5,300	1.42	7,500	1,088.0
1990		6,600	1.33	8,800	1,552.0
1991		7,050	1.12	7,900	1,423.0
Kenai Peninsula		1961	900	1.03	930
	1971	1,750	0.89	1,550	130.0
	1981	1,900	1.00	1,900	304.0
	1989	1,900	1.16	2,200	374.0
	1990	2,300	1.26	2,900	478.0
	1991	2,300	1.13	2,600	464.0
	Southwest 1/	1961	350	0.91	320
1971		150	0.67	100	8.0
1981		100	1.00	100	16.0
1989		100	1.00	100	20.0
1990		100	1.00	100	20.0
1991		200	1.00	200	40.0
State Total		1961	7,400	1.34	9,900
	1971	7,000	1.03	7,200	576.0
	1981	14,400	1.40	20,200	3,232.0
	1989	12,700	1.30	16,500	2,475.0
	1990	15,100	1.07	16,200	2,754.0
	1991	16,700	1.17	19,500	3,413.0

1/ Includes Southeast.



ALASKA GRAIN AND GRASS SILAGE – SELECTED YEARS

District	Year	Area Harv. Acres	Production		Area Harv. Acres	Production	
			Tons	\$ Value (000)		Tons	\$ Value (000)

		GRAIN SILAGE 1/			GRASS SILAGE		
Tanana Valley	1961	320	1,250	27.5	290	1,000	22.0
	1971	100	300	5.5	150	700	12.0
	1981	600	1,400	48.0	300	500	20.0
	1989	200	1,000	43.0	300	600	26.0
	1990	50	200	9.0	600	1,200	50.0
	1991	200	1,300	55.0	400	700	36.0
Matanuska Valley	1961	2,470	12,900	271.8	930	4,400	94.7
	1971	2,100	13,000	234.5	1,350	5,500	99.0
	1981	750	4,500	171.0	1,250	6,000	246.0
	1989	300	2,400	103.0	1,600	4,700	202.0
	1990	100	900	37.0	600	3,800	160.0
	1991	200	1,700	80.0	900	3,000	149.0
Kenai Peninsula 2/	1961	310	1,350	25.7	380	1,200	22.3
	1971	-	-	-	-	-	-
	1981	50	200	7.0	50	200	7.0
	1989	-	-	-	-	-	-
	1990	50	100	4.0	-	-	-
	1991	-	-	-	-	-	-
State Total	1961	3,100	15,500	325.0	1,600	6,600	139.0
	1971	2,200	13,300	240.0	2,000	6,200	111.0
	1981	1,400	6,100	226.0	1,600	6,700	273.0
	1989	500	3,400	146.0	1,900	5,300	228.0
	1990	200	1,200	50.0	1,200	5,000	210.0
	1991	400	3,000	135.0	1,300	3,700	185.0

1/ Includes oats and barley. 2/ Includes Southwest. Dash indicates no crop produced or combined with other areas.

ALASKA ALL SILAGE – SELECTED YEARS

District	Year	Area Harv. Acres	Production		
			Yield Tons	Tons	\$ Value (000)
Tanana Valley	1961	610	3.69	2,250	49.5
	1971	250	4.00	1,000	17.5
	1981	900	2.11	1,900	68.0
	1989	500	3.20	1,600	69.0
	1990	650	2.15	1,400	59.0
	1991	600	3.33	2,000	91.0
Matanuska Valley	1961	3,400	5.09	17,300	366.5
	1971	3,950	4.68	18,500	333.5
	1981	2,000	5.25	10,500	417.0
	1989	1,900	3.74	7,100	305.0
	1990	700	6.71	4,700	197.0
	1991	1,100	4.27	4,700	229.0
Kenai Peninsula 1/	1961	690	3.70	2,550	48.0
	1971	—	—	—	—
	1981	100	4.00	400	14.0
	1989	—	—	—	—
	1990	50	2.00	100	4.0
	1991	—	—	—	—
State Total	1961	4,700	4.70	22,100	464.0
	1971	4,200	4.64	19,500	351.0
	1981	3,000	4.27	12,800	499.0
	1989	2,400	3.63	8,700	374.0
	1990	1,400	4.43	6,200	260.0
	1991	1,700	3.94	6,700	320.0

1/ Includes Southwest. Dash indicates no crop produced or combined with other areas.

ALASKA POTATOES – SELECTED YEARS

District	Year	Area Harv. Acres	Production		
			Yield Cwt.	Cwt.	\$ Value (000)
Tanana Valley	1961	335	146	49,000	263.0
	1971	185	139	25,700	179.0
	1981	80	110	8,800	194.0
	1989	360	192	69,100	1,282.0
	1990	90	134	12,100	237.0
	1991	110	129	14,200	242.0
Matanuska Valley	1961	380	225	85,400	454.0
	1971	430	195	84,000	588.0
	1981	395	204	80,500	1,681.0
	1989	470	269	126,300	2,255.0
	1990	490	255	125,000	2,492.0
	1991	530	236	125,100	2,123.0
Kenai Peninsula 1/	1961	55	216	11,900	66.0
	1971	15	40	600	5.0
	1981	25	228	5,700	120.0
	1989	10	60	600	11.0
	1990	10	90	900	17.0
	1991	10	70	700	15.0
State Total	1961	770	190	146,300	783.0
	1971	630	175	110,300	772.0
	1981	500	190	95,000	1,995.0
	1989	840	233	196,000	3,548.0
	1990	590	234	138,000	2,746.0
	1991	650	215	140,000	2,380.0

1/ Includes Southeast and Southwest.



ALASKA POTATO STOCKS – SELECTED YEARS

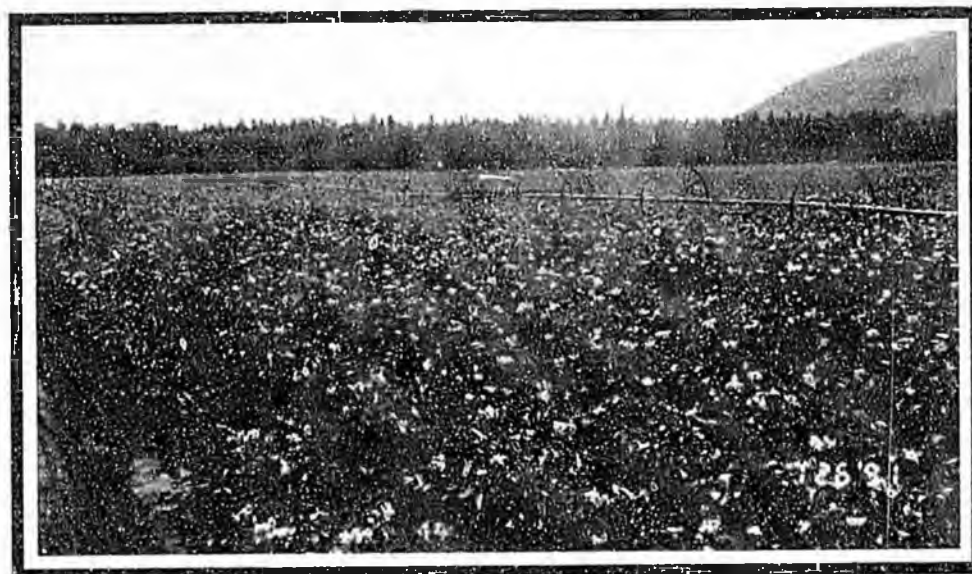
Year	Total Production	STOCKS ON HAND AS OF							
		Oct. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	Jun. 1
----- (000) Hundredweight -----									
1961	146.3	NA	90.0	77.0	64.0	58.0	47.7	32.2	18.7
1971	110.3	100.6	83.2	72.0	63.1	54.8	43.3	31.5	17.7
1981	95.0	88.5	67.5	57.0	50.5	40.0	33.5	24.0	11.5
1989	196.0	184.0	151.0	134.0	119.0	103.0	84.0	58.0	24.0
1990	138.0	124.5	101.0	87.5	72.0	54.5	45.0	34.0	13.4
1991	140.0	125.5	105.5	90.5	77.0	66.5	48.5	34.5	NA

NA—Data Not Available.

ALASKA POTATO PRODUCTION, DISPOSITION AND AVERAGE PRICE – SELECTED YEARS

Year	Production	Total Seed	Farm Food Seed 1/	Lost and Shrinkage	Sold	\$ Price Per Cwt.
----- Hundredweight -----						
1960	131,400	8,000	9,000	26,400	96,000	6.40
1970	106,800	7,400	8,400	25,600	72,800	6.60
1980	77,000	8,400	10,500	10,500	56,000	20.30
1988	202,000	13,600	23,000	51,000	128,000	16.70
1989	196,000	13,800	24,000	49,000	123,000	18.10
1990	138,000	12,000	28,000	14,000	96,000	19.90

1/ Household use, livestock feed, and seed used on farm where grown.



ALASKA HEAD LETTUCE AND CABBAGE – SELECTED YEARS

District	Year	Area Harv. Acres	Production		
			Ctn.	Cwt.	\$ Value (000)
HEAD LETTUCE 1/					
Tanana Valley	1961	6		760	9.9
	1971	8		400	10.0
	1981	14	2,500		39.0
	1989	27	3,700		52.0
	1990	18	2,000		28.0
	1991	22	6,700		118.0
	Matanuska Valley 2/	1961	44		6,040
1971		67		9,100	218.0
1981		86	20,900		235.0
1989		62	21,100		228.0
1990		53	20,800		239.0
1991		43	17,000		196.0
State Total		1961	50		6,800
	1971	75		9,500	228.0
	1981	100	23,400		274.0
	1989	89	24,800		280.0
	1990	71	22,800		267.0
	1991	65	23,700		314.0
	CABBAGE				
Tanana Valley	1961	4		360	2.8
	1971	10		850	12.8
	1981	7	1,400		17.6
	1989	9	800		11.3
	1990	9	1,000		14.7
	1991	10	1,500		21.2
	Matanuska Valley 2/	1961	21		3,040
1971		15		1,850	22.2
1981		34	7,700		84.4
1989		23	7,600		69.7
1990		29	9,200		96.3
1991		28	9,200		97.8
State Total		1961	25		3,400
	1971	25		2,700	35.0
	1981	41	9,100		102.0
	1989	32	8,400		81.0
	1990	38	10,200		111.0
	1991	38	10,700		119.0

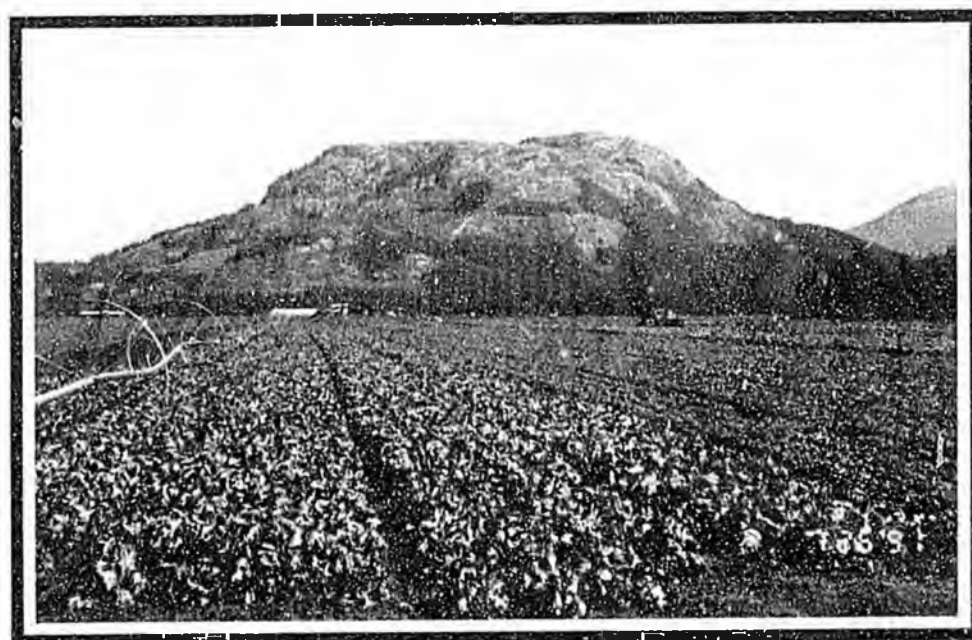


1/ Prior to 1986, included all lettuce. 2/ Includes Kenai Peninsula.

ALASKA CARROTS AND OTHER VEGETABLES – SELECTED YEARS

District	Year	Area Harv. Acres	Production		Area Harv. Acres	Production	
			Tons	\$ Value (000)		Tons	\$ Value (000)
			CARROTS		OTHER VEGETABLES 1/		
Tanana Valley	1961	6	960	8.0	5	160	2.2
	1971	5	300	5.1	20	600	9.6
	1981	6	700	25.0	13	200	10.0
	1989	10	900	28.0	17	1,200	50.0
	1990	10	1,000	33.0	21	1,500	63.0
	1991	8	700	24.0	23	1,500	59.0
Matanuska Valley 2/	1961	34	4,240	49.0	30	1,940	26.8
	1971	10	1,200	15.9	70	1,800	25.4
	1981	21	3,000	96.0	92	4,500	171.0
	1989	21	5,000	130.0	85	7,400	225.0
	1990	25	6,400	148.0	99	7,500	258.0
	1991	29	4200	95.0	85	7200	272.0
State Total	1961	40	5,200	57.0	35	2,100	29.0
	1971	15	1,500	21.0	90	2,400	35.0
	1981	27	3,700	121.0	105	4,700	181.0
	1989	31	5,900	158.0	102	8,600	275.0
	1990	35	7,400	181.0	120	9,000	321.0
	1991	37	4,900	119.0	108	8,700	331.0

1/ Excludes greenhouse grown vegetables. 2/ Includes Kenai Peninsula.



ALASKA LIVESTOCK AND POULTRY - 1991

CATTLE AND CALVES: There were 8,500 head of cattle and calves on Alaska farms and ranches January 1, 1992, up 500 head from last year. Inventory value of all cattle on January 1, 1992 totaled \$5,185,000.

DAIRY: Milk cows that have calved numbered 800 on January 1, 1992, down 300 head from the a year ago and the lowest on record. There were 300 head of dairy replacement heifers.

The number of Grade A dairies in the State on January 1, 1992 totaled 9. Six from the Palmer and Pt. MacKenzie areas are included with the Matanuska Valley; 3 in the Tanana Valley near Delta Junction.

MILK PRODUCTION in 1991 totaled 13.3 million pounds, 3,500,000 pounds less than in 1990. The value of milk produced at \$2,726,000 was \$712,000 less than a year ago. The 1991 value per hundredweight of \$20.49 compares with 1990.

BEEF: Beef cattle (all cattle and calves less milk cows and dairy replacement heifers) numbered 7,400 head, 800 head more than the January 1, 1991 number. Beef cow numbers at 2,700 head, up 200 head from the previous year. Beef heifers are estimated at 800 head.

Marketing and transportation problems continue to be main obstacles of the rancher. Beef are generally sold off the range at the end of the grazing season. During the past year, several head of beef

cattle have been force fed in feed lots before being slaughtered.

HOGS: There were 1,400 hogs and pigs on farms on December 1, 1991, up 200 head from the previous year. Total value of hogs on December 1, 1991 was \$224,000 compared with \$198,000 on December 1, 1990.

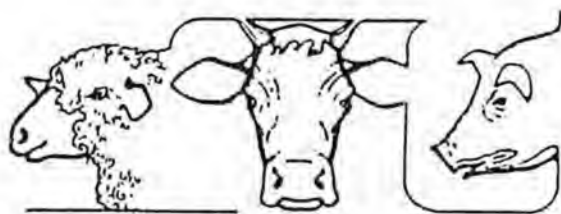
SHEEP: Stock sheep and lambs on January 1, 1992 totaled 2,400 head, down 100 head from year earlier. Inventory value of sheep was estimated at \$170,000 unchanged from a year earlier.

WOOL PRODUCTION of 16,000 pounds was up 1,000 pounds from 1991. The 1,800 head shorn compares with 1,700 head shorn in 1990. At 8.9 pounds, fleece weight was up from 8.8 pounds the previous year. The 1991 wool crop was valued at \$16,000.

POULTRY: All chickens on farms totaled 4,000 on December 1, 1991. Value of all chickens totaled \$17,000, down \$6,000 from a year earlier.

EGG PRODUCTION totaled 58,000 dozen in 1991, unchanged from 1990. Value of eggs produced in 1991 was \$87,000, down \$1,000 from the previous year.

REINDEER: There were an estimated 41,000 head of reindeer during 1991, up 4,000 head from 1990. Value of sales from meat and by-products totaled \$2,168,000, up \$226,000 from 1990.



ALASKA CATTLE ON FARMS (January 1) – SELECTED YEARS

District	1962	1972	1982	1990	1991	1992
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BEEF COWS THAT HAVE CALVED 1/

Tanana Valley	30	20	480	450	290	330
Matanuska Valley	40	50	170	210	180	190
Kenai Peninsula	60	300	330	300	180	250
Southwest 2/	1,270	2,230	2,020	1,640	1,850	1,930
STATE TOTAL	1,400	2,600	3,000	2,600	2,500	2,700
Value (000) Dollars	329.0	701.0	1650.0	1669.0	1650.0	1766.0

MILK COWS THAT HAVE CALVED 1/

Tanana Valley	410	85	180	200	190	170
Matanuska Valley	2,430	1,485	880	1,170	880	610
Kenai Peninsula	100	20	30	20	20	10
Southwest 2/	260	10	10	10	10	10
STATE TOTAL	3,200	1,600	1,100	1,400	1,100	800
Value (000) Dollars	1376.0	759.0	924.0	1347.0	1078.0	755.0

BEEF REPLACEMENT AND OTHER HEIFERS 3/

Tanana Valley	20	10	120	180	140	220
Matanuska Valley	70	40	70	100	120	150
Kenai Peninsula	30	80	120	110	130	100
Southwest 2/	380	470	690	310	410	430
STATE TOTAL	500	600	1,000	700	800	900
Value (000) Dollars	92.0	164.0	562.0	402.0	437.0	514.0

DAIRY REPLACEMENT HEIFERS 3/

Tanana Valley	70	30	50	50	80	70
Matanuska Valley	460	660	440	250	220	230
Kenai Peninsula	30	10	10	-	-	-
Southwest 2/	40	-	-	-	-	-
STATE TOTAL	600	700	500	300	300	300
Value (000) Dollars	150.0	191.0	290.0	246.0	240.0	245.0

1/ Prior to January 1, 1970, definition was cows 2 years and older. 2/ Includes Southeast.

3/ Over 500 pounds. Dash indicates combined with other areas.

ALASKA CATTLE ON FARMS (January 1) – SELECTED YEARS

District	1962	1972	1982	1990	1991	1992
STEERS 1/						
Tanana Valley	20	–	60	160	150	130
Matanuska Valley	40	40	110	110	90	70
Kenai Peninsula	20	50	30	80	30	40
Southwest 2/	620	710	500	150	230	260
STATE TOTAL	700	800	700	500	500	500
Value (000) Dollars	119.0	199.0	406.0	300.0	293.0	296.0
BULLS 1/						
Tanana Valley	20	10	50	60	40	40
Matanuska Valley	50	40	40	50	30	30
Kenai Peninsula	20	30	40	30	20	10
Southwest 2/	110	420	670	1,060	1,110	1,520
STATE TOTAL	200	500	800	1,200	1,200	1,600
Value (000) Dollars	67.0	187.0	544.0	818.0	814.0	1014.0
CALVES 3/						
Tanana Valley	120	50	370	320	260	230
Matanuska Valley	470	570	570	380	470	350
Kenai Peninsula	70	150	170	130	120	150
Southwest 2/	640	1,230	990	670	750	970
STATE TOTAL	1,300	2,000	2,100	1,500	1,600	1,700
Value (000) Dollars	103.0	219.0	546.0	425.0	488.0	595.0
ALL CATTLE						
Tanana Valley	690	205	1,310	1,420	1,150	1,190
Matanuska Valley	3,560	2,885	2,280	2,270	1,990	1,630
Kenai Peninsula	330	640	730	670	500	560
Southwest 2/	3,320	5,070	4,880	3,840	4,360	5,120
STATE TOTAL	7,900	8,800	9,200	8,200	8,000	8,500
Value (000) Dollars	2236.0	2420.0	4922.0	5207.0	5000.0	5185.0

1/ Over 500 pounds. 2/ Includes Southeast. 3/ Under 500 pounds

ALASKA CALF CROP – SELECTED YEARS

Item	1961	1971	1981	1989	1990	1991
Cows & Heifers that have Calved January 1	4,200	4,200	4,100	4,000	3,600	3,500
Calf Crop	3,500	3,600	3,200	3,400	2,800	2,800
Calving Percentage	83%	86%	78%	85%	78%	80%

ALASKA FARROWINGS AND PIG CROP – SELECTED YEARS

Item	1961	1971	1981	1989	1990	1991
------	------	------	------	------	------	------

SPRING FARROWINGS

Sows Farrowed	130	110	280	100	110	150
Pigs Saved	900	730	1,600	800	900	1,200
Pigs Per Litter	6.9	6.6	5.7	8.0	8.2	8.0

FALL FARROWINGS

Sows Farrowed	120	140	350	110	130	180
Pigs Saved	820	1,370	2,000	1,000	1,000	1,400
Pigs Per Litter	6.8	9.8	5.7	9.1	7.7	7.8



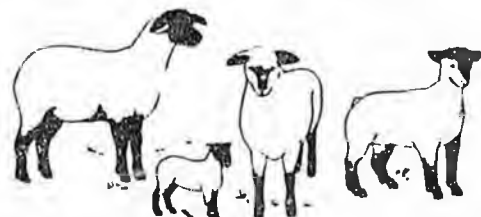
ALASKA ALL HOGS (December 1) – SELECTED YEARS

District	1961	1971	1981	1989	1990	1991
Tanana Valley	110	1,070	1,550	300	670	800
Matanuska Valley	770	320	1,140	310	390	440
Kenai Peninsula	60	50	60	50	40	50
Southeast 1/	60	60	50	40	100	110
State Total	1,000	1,500	2,800	700	1,200	1,400
Value (000) Dollars	61.0	103.0	392.0	130.0	198.0	224.0

1/ Includes Southwest

ALASKA SHEEP AND LAMBS (January 1) – SELECTED YEARS

As of January 1	1962	1972	1982	1990	1991	1992
Ewes 1 Year +	7,000	9,000	1,900	1,500	1,400	1,300
Value (000) Dollars	210.0	315.0	190.0	114.0	97.0	96.0
Wethers & Rams 1 Year +	4,000	8,000	1,400	700	600	600
Value (000) Dollars	100.0	215.0	126.0	42.0	33.0	36.0
All Lambs	4,000	2,000	600	300	500	500
Value (000) Dollars	76.0	59.0	53.0	22.0	40.0	38.0
All Sheep & Lambs	15,000	19,000	3,900	2,500	2,500	2,400
Value (000) Dollars	386.0	589.0	369.0	178.0	170.0	170.0



ALASKA LAMB CROP – SELECTED YEARS

As of January 1	1961	1971	1981	1989	1990	1991
Ewes 1 Year+	6,000	10,000	2,000	1,400	1,500	1,400
Lambs Saved	5,000	3,000	800	700	800	700
Lambing Percentage	83%	30%	40%	50%	53%	50%

ALASKA, WOOL, LAMB AND MUTTON PRODUCTION – SELECTED YEARS

Item	1961	1971	1981	1989	1990	1991
------	------	------	------	------	------	------

WOOL PRODUCTION

Pounds	128,000	225,000	16,000	16,000	15,000	16,000
Dollar Value	51,000	43,000	8,000	19,000	19,000	16,000

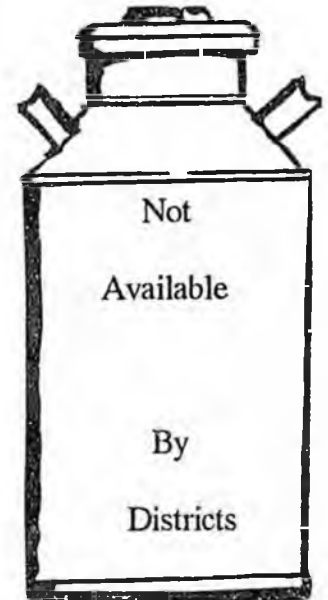


LAMB AND MUTTON PRODUCTION

Pounds (Dr. Wt.)	18,000	34,000	18,000	29,000	29,000	37,000
Dollar Value	10,000	16,000	18,000	39,000	32,000	35,000

ALASKA MILK PRODUCTION AND VALUE – SELECTED YEARS

District	Year	Production		\$ Value Per Cwt.	Percent Milkfat
		Pounds	\$ Value		
----- (000) -----					
Tanana Valley 1/	1961	4,708	547		
	1971	1,000	110		
	1981	1,500	320		
	1989	2,400	460		
	1990	2,500	484		
	1991	2,400	462		
Matanuska Valley	1961	18,092	2,073		
	1971	16,100	1,807		
	1981	11,900	2,281		
	1989	20,900	4,272		
	1990	14,300	2,954		
	1991	10,900	2,264		
State Total	1961	22,800	2,620	11.49	3.75
	1971	17,100	1,917	11.21	3.69
	1981	13,400	2,601	19.41	3.58
	1989	23,300	4,732	20.31	3.36
	1990	16,800	3,438	20.47	3.43
	1991	13,300	2,726	20.49	3.37



1/ Includes Kenai Peninsula.

ALASKA DAIRY PRODUCTS PRODUCTION 1987–1991

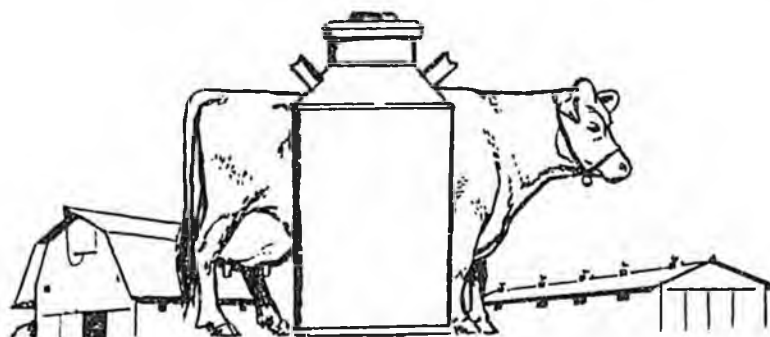
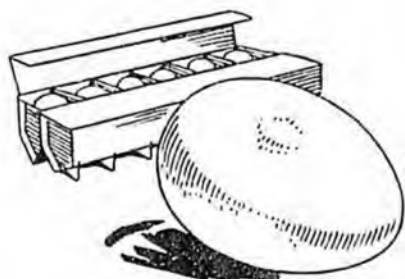
Item	1987	1988	1989	1990	1991
----- Thousand Gallons -----					
Ice Cream Mix	30	40	49	44	24
Ice Cream Product	48	61	90	86	46
Ice Milk Mix	412	391	419	439	289
Ice Milk Product	535	508	545	577	376



ALASKA MILK PRODUCTION BY MONTHS – 1981 AND 1991

Month	Milk Cows in Herd 1/		Milk Per Cow		Milk Production	
	1981	1991	1981	1991	1981	1991
			-- -- Pounds -- --		-- -- (000) Pounds -- --	
January	1,100	1,100	1,025	1,090	1,130	1,200
February	1,100	1,100	925	1,030	1,030	1,130
March	1,100	1,100	1,000	1,200	1,100	1,320
April	1,100	1,000	1,025	1,290	1,130	1,290
May	1,100	1,000	1,045	1,280	1,150	1,280
June	1,100	900	1,010	1,270	1,110	1,140
July	1,100	900	990	1,210	1,090	1,090
August	1,100	900	1,025	1,140	1,130	1,030
September	1,100	800	1,035	1,240	1,140	990
October	1,100	800	1,055	1,240	1,160	990
November	1,100	800	1,020	1,180	1,120	940
December	1,100	800	1,010	1,130	1,110	900
Annual	1,100	1,000	12,182	13,300	13,400	13,300

1/ Includes all fresh and dry cows.








ALASKA EGG PRODUCTION (Quarterly) – SELECTED YEARS

Period	Average No. of Layers			Total Egg Production		
	1981	1990	1991	1981	1990	1991
Dec. 1/–Feb.	26,000	4,000	4,000	1,400,000	200,000	200,000
Mar.–May	27,000	3,000	3,000	1,500,000	100,000	100,000
June–Aug.	27,000	4,000	4,000	1,600,000	200,000	200,000
Sep.–Nov.	34,000	4,000	4,000	2,200,000	200,000	200,000

1/ December preceding year.

ALASKA EGGS – SELECTED YEARS

District	Year	Average Number of layers	Production		Sales (Dozen)
			Dozen	\$ Value	
Tanana Valley 	1961		60,100	51,500	56,600
	1971		90,000	78,000	88,000
	1981		65,000	97,500	58,000
	1989	Not	25,000	40,000	14,000
	1990		28,000	43,000	13,000
	1991		18,000	27,000	11,000
Matanuska Valley 	1961		249,400	193,500	244,000
	1971		384,000	325,000	381,500
	1981		420,000	470,000	412,000
	1989	Available	25,000	38,000	16,000
	1990		22,000	33,000	17,000
	1991		32,000	47,000	19,000
Kenai Peninsula 	1961		155,800	120,000	151,500
	1971		3,000	3,000	1,000
	1981		67,000	93,500	60,000
	1989	By	4,000	6,000	3,000
	1990		4,000	6,000	3,000
	1991		4,000	6,000	3,000
Southeast 1/ 	1961		76,400	57,000	73,900
	1971		6,000	5,000	4,500
	1981		6,000	9,000	3,000
	1989	Districts	4,000	6,000	2,000
	1990		4,000	6,000	2,000
	1991		4,000	6,000	2,000
State Total 	1961	41,000	541,700	422,000	526,000
	1971	34,000	483,000	411,000	475,000
	1981	26,000	558,000	670,000	533,000
	1989	4,000	58,000	90,000	35,000
	1990	4,000	58,000	88,000	35,000
	1991	3,000	58,000	86,000	35,000


1/ Includes Southwest.




ALASKA POULTRY ON FARMS (December 1) – SELECTED YEARS

District	1961	1971	1981	1989	1990	1991
----------	------	------	------	------	------	------

HENS AND PULLETS OF LAYING AGE

Tanana Valley		5,000	7,600	2,900	2,100	2,800	1,200
Matanuska Valley		16,900	25,500	27,700	1,500	800	1,300
Kenai Peninsula		12,700	400	4,100	200	200	300
Southeast 1/		6,400	500	300	200	200	200
STATE TOTAL		41,000	34,000	5,000	4,000	4,000	3,000
Value (000) Dollars		96.0	90.0	179.0	19.0	19.0	14.0

ALL CHICKENS


Tanana Valley		5,000	8,300	3,400	2,400	3,100	1,500
Matanuska Valley		17,500	26,400	28,500	2,000	1,300	1,800
Kenai Peninsula		13,000	600	4,600	300	300	400
Southeast 1/		6,500	700	500	300	300	300
STATE TOTAL		42,000	36,000	37,000	5,000	5,000	4,000
Value (000) Dollars		97.0	95.0	187.0	23.0	23.0	17.0

1/ Includes Southwest


ALASKA POULTRY PRODUCTION – SELECTED YEARS

District	1961	1971	1981	1989	1990	1991
----------	------	------	------	------	------	------

PRODUCTION – POUNDS

Tanana Valley		4,800	7,500	66,400	18,000	21,000	25,000
Matanuska Valley		33,300	47,500	104,600	24,000	21,000	24,000
Kenai Peninsula		17,800	1,000	55,700	15,000	15,000	14,000
Southeast 1/		5,100	2,000	4,300	6,000	6,000	7,000
STATE TOTAL		61,000	58,000	231,000	63,000	63,000	70,000

PRODUCTION VALUE – DOLLARS

Tanana Valley		2,100	2,200	36,500	20,000	24,000	25,000
Matanuska Valley		17,000	12,900	54,500	26,000	24,000	24,000
Kenai Peninsula		7,600	300	30,600	17,000	17,000	14,000
Southeast 1/		2,300	600	2,400	7,000	7,000	7,000
STATE TOTAL		29,000	16,000	124,000	70,000	72,000	70,000

1/ Includes Southwest

ALASKA MEAT PRODUCTION – SELECTED YEARS

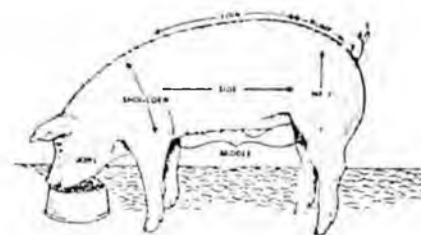
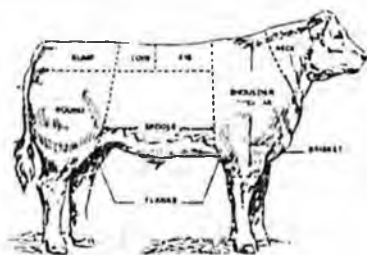
District	Year	Production		Production	
		Pounds	\$ Value	Pounds	\$ Value

BEEF AND VEAL

PORK

Tanana Valley	1961	31,000	14,900	23,000	10,300
	1971	29,000	16,000	62,000	40,000
	1981	130,000	162,000	137,000	137,000
	1989	376,000	452,000	69,000	57,000
	1990	413,000	475,000	101,000	104,000
	1991	199,000	265,000	145,000	116,000
Matanuska Valley	1961	206,000	92,500	138,000	55,000
	1971	302,000	173,000	62,000	41,000
	1981	274,000	320,000	134,000	131,000
	1989	1,087,000	1,217,000	74,000	61,000
	1990	527,000	627,000	59,000	58,000
	1991	386,000	504,000	131,000	101,000
Kenai Peninsula	1961	14,000	6,300	11,000	4,400
	1971	81,000	44,000	7,000	4,000
	1981	104,000	142,000	11,000	12,000
	1989	137,000	171,000	21,000	17,000
	1990	128,000	165,000	7,000	8,000
	1991	80,000	106,000	10,000	9,000
Southeast 1/	1961	102,000	47,300	3,000	1,300
	1971	212,000	114,000	19,000	11,000
	1981	241,000	325,000	11,000	13,000
	1989	134,000	174,000	16,000	14,000
	1990	115,000	154,000	14,000	17,000
	1991	73,000	99,000	18,000	17,000
State Total	1961	353,000	161,000	175,000	71,000
	1971	624,000	347,000	150,000	96,000
	1981	749,000	949,000	293,000	293,000
	1989	1,734,000	2,014,000	180,000	149,000
	1990	1,183,000	1,421,000	181,000	187,000
	1991	738,000	974,000	304,000	243,000

1/ Includes Southwest.

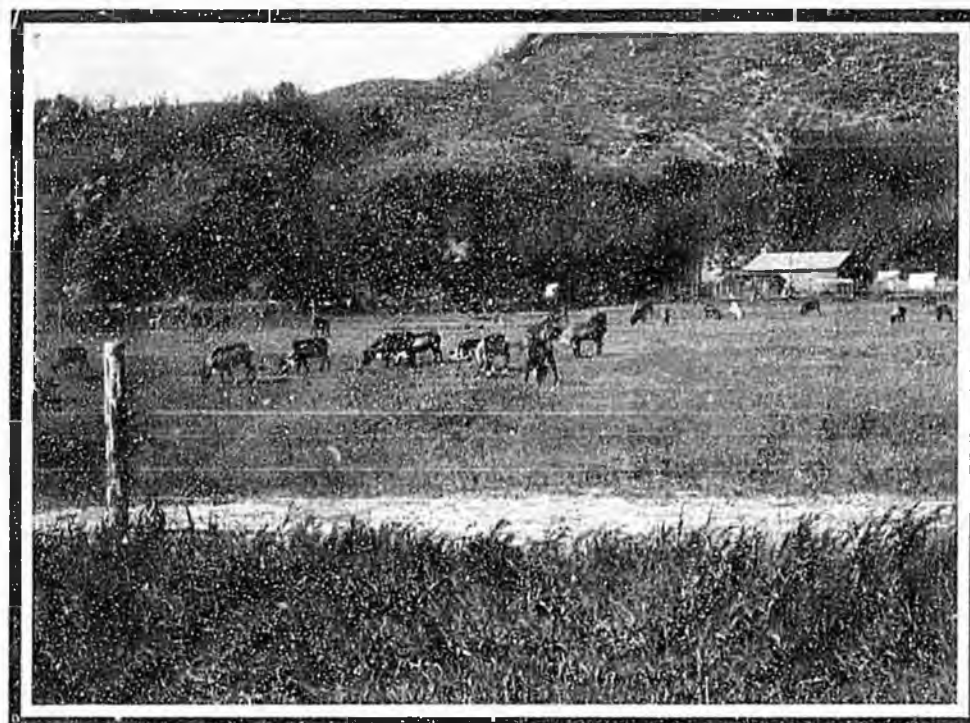


ALASKA REINDEER – SELECTED YEARS

Reindeer: Most reindeer are located on the Seward Peninsula and Nunivak and Umnak Islands. There are also village herds located on the Bering Sea Islands and also small herds in Palmer, Homer, and Kenai. Revenue is mainly from sale of meat and by-products.

ALASKA REINDEER NUMBERS 1/

Type	1987	1988	1989	1990	1991
Males	11,000	14,000	13,000	14,000	14,000
Females	16,000	19,000	21,000	23,000	27,000
Total 2/	27,000	33,000	34,000	37,000	41,000



ALASKA REINDEER MEAT AND BY-PRODUCTS 1/

Year	Meat Production		Meat Sales		Other Sales 3/ \$ Value
	Pounds Dr. Wt.	\$ Value	Pounds Dr. Wt.	\$ Value	
1961	485,000	181,000	330,000	132,000	4/
1971	456,000	235,000	365,000	188,000	4/
1982	273,000	423,000	240,000	408,000	454,000
1989	452,000	848,000	372,000	763,000	943,000
1990	411,000	857,000	363,000	825,000	1,117,000
1991	440,000	988,000	415,000	978,000	1,190,000

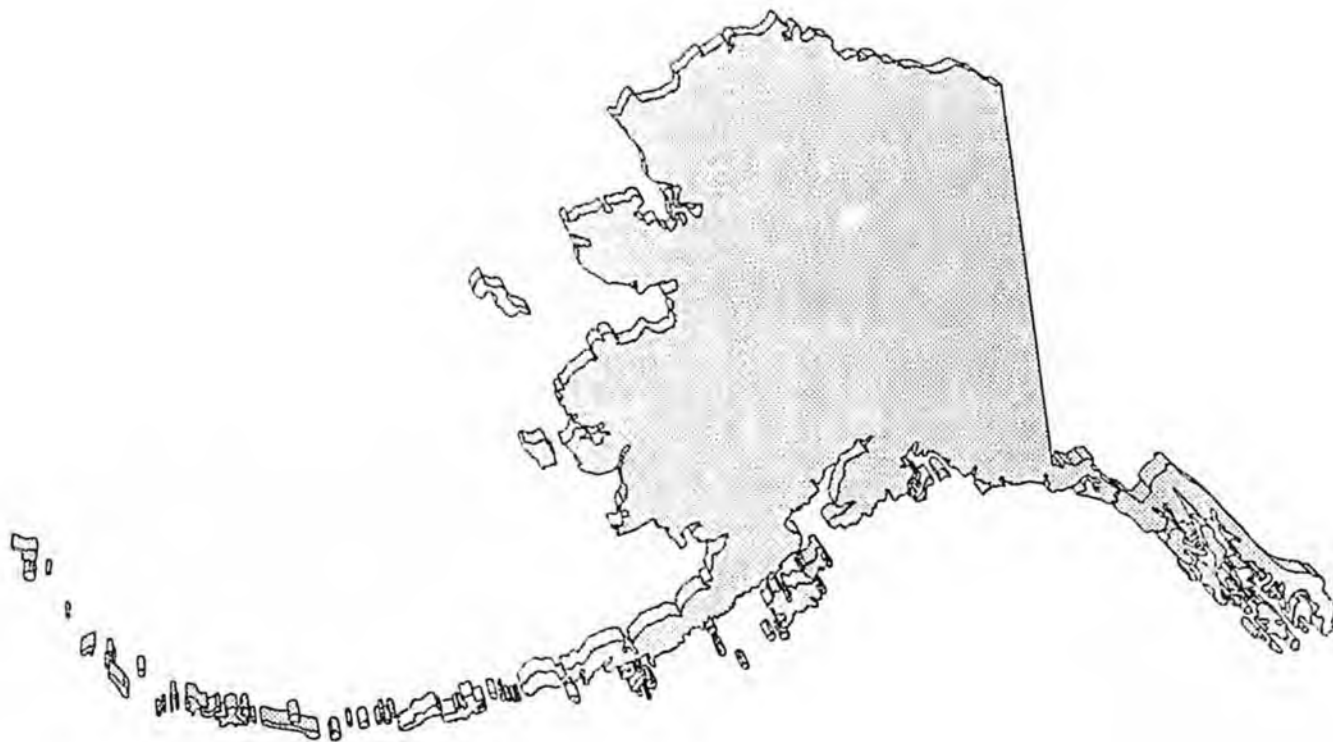
1/ Based on information supplied by BIA, CES, and Native Corps. 2/ Includes bulls, steers, cows, and fawns. 3/ Antlers, hides and other by-products. 4/ Data not available.



State of Alaska
Department of Natural Resources

Division of Geological
and Geophysical Surveys

Briefing Paper



1992 - 1993



TRANSITION BRIEFING PAPER

Division of Geological and Geophysical Surveys
794 University Avenue, Suite 200
Fairbanks, Alaska 99709-3645

HISTORY

The organizational evolution of DGGS is outlined below:

Territorial Department of Mines, 1959
Division of Mines and Minerals, 1959-66
Division of Mines and Geology, 1966-70
Division of Geological Survey 1970-72
Division of Geological and Geophysical Surveys, 1972-Present

Six professionally qualified geoscientists have served as Director and State Geologist, including the following:

Jim Williams, 1959-71	Ross G. Schaff, 1975-86
William Fackler, 1971-73	Robert B. Forbes, 1987-1990
Donald Hartman, 1973-75	Thomas E. Smith, 1991-Present

The qualifications and responsibilities of the State Geologist and the mission of DGGS are defined by statute.

Sec. 41.08.010. Division of geological and geophysical surveys. There is established in the Department of Natural Resources a division of geological and geophysical surveys under the direction of the state geologist. (1 ch 93 SLA 1972)

Sec. 41.08.015. State geologist. The commissioner of natural resources shall appoint the state geologist, who must be qualified by education and experience to direct the activities of the division. (1 ch 93 SLA 1972)

Sec. 41.08.020. Powers and duties. (a) The state geologist shall conduct geological and geophysical surveys to determine the potential of Alaskan land for production of metals, minerals, fuels, and geothermal resources; the locations and supplies of groundwater and construction materials; the potential geologic hazards to buildings, roads, bridges and other installations and structures; and shall conduct such other surveys and investigations as will advance knowledge of the geology of Alaska. With the approval of the commissioner, the state geologists may acquire, by gift or purchase, geological and geophysical reports, surveys and similar information.

The administrative headquarters is located in Fairbanks. The current DGGS staff strength totals 39 professional and support personnel, plus 11 part-time student interns in the following locations:

Fairbanks	32 + 10 interns
Eagle River	1 + 2 interns
Juneau	1

The Eagle River compound includes the DGGS Geological Materials Center.

A DGGS organizational chart is included in this report.

DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS

The **Division of Geological and Geophysical Surveys (DGGS)** collects, analyzes, interprets, and publishes data on Alaska's geologic resources as a stimulus to private-sector exploration and to facilitate effective management of Alaska's lands. The State Geologist serves as Director of the Division.

The *Mineral and Energy Resources Section* collects, analyzes, and makes available information on the geologic framework of Alaska and on the mineral and energy resources of the state. Geological maps and reports illustrate the location, quality, and quantity of the state's mineral, coal, and geothermal resources. Probabilistic estimates of the mineral resource potential of Alaskan lands are produced in cooperation with federal agencies and the University of Alaska.

The *Engineering Geology Section* collects, analyzes, and makes available geologic data useful for engineering purposes. Surficial-geologic maps portray the distribution of sediment types and provide information on their engineering properties and usefulness as construction materials. Studies of major hazards like earthquakes, volcanoes, and landslides result in publications discussing the areas affected, frequency of occurrence, and potential effects.

The *Resource Information Section* prepares and publishes technical reports and maps on Alaska's geological resources. The published reports, including color and black-and-white geologic maps, are distributed to the public and private sectors, and are available for distribution to interested persons and organizations through DGGS and selected USGS offices in Alaska. The section also responds each year to an estimated 30,000 public inquiries about geologic resources in the state of Alaska, and provides cartographic and technical report editing services for other state agencies.

The *Administrative Services Section*, which includes the Director's Office, manages the Division's fiscal affairs and provides personnel and clerical services. The section acts as a liaison between the Division and local, state, federal, and private agencies, assists in contract negotiation, and provides contract administration. The section also ensures adherence to pertinent statutes and regulations in all areas of operation, coordinates purchasing for the Division, and submits the annual budget.

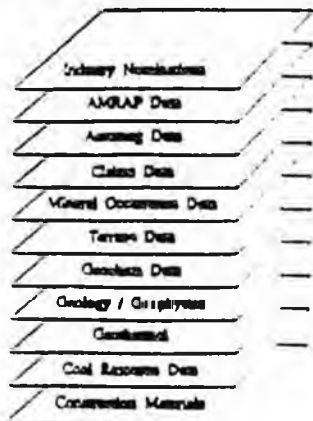
ALASKA DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS
LAND SELECTION PROJECT

In January 1991, the Alaska Division of Geological and Geophysical Surveys (ADGGS) began an assessment of the mineral, coal, and construction material resources contained within 68 million acres of land still available for state selection. The mineral resource evaluation is scheduled for completion in March, 1993. The candidate lands available for selection include thirty-six evaluation tracts distributed throughout the state from Haines northward. To date, compilation of existing data is progressing well in thirty-four of the tracts. During the summer of 1991, sixteen of the tracts were visited by geologic field teams to gather critical data needed to establish mineral deposit types for the final endowment estimates. The remaining tracts not visited in 1991 are scheduled for examination in the summer of 1992. All area-specific mineral resource endowment estimates are scheduled for completion by March 1993. The project is on track at this time.

ADGGS is also working closely with the Division of Oil and Gas on hydrocarbon potential of basins included within the candidate lands, and with the State Pipeline Coordinator's Office on construction materials near potential corridor routes.

ECONOMIC RESOURCE VALUATION SEQUENCE

PHASE 1 - Compilation of Existing Resource Data

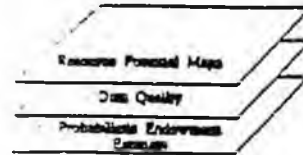


PHASE 2 - Resource Data Modeling

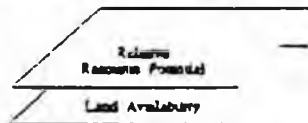
- * Delineation of mineral belts, deposits types, and terranes
- * Construction materials
- * Outline of geothermal fields
- * Delineation of coal resources

PHASE 3 - Field Verification

PHASE 4 - Quantitative Resource Evaluation



PHASE 5 - Selection Policy Panel

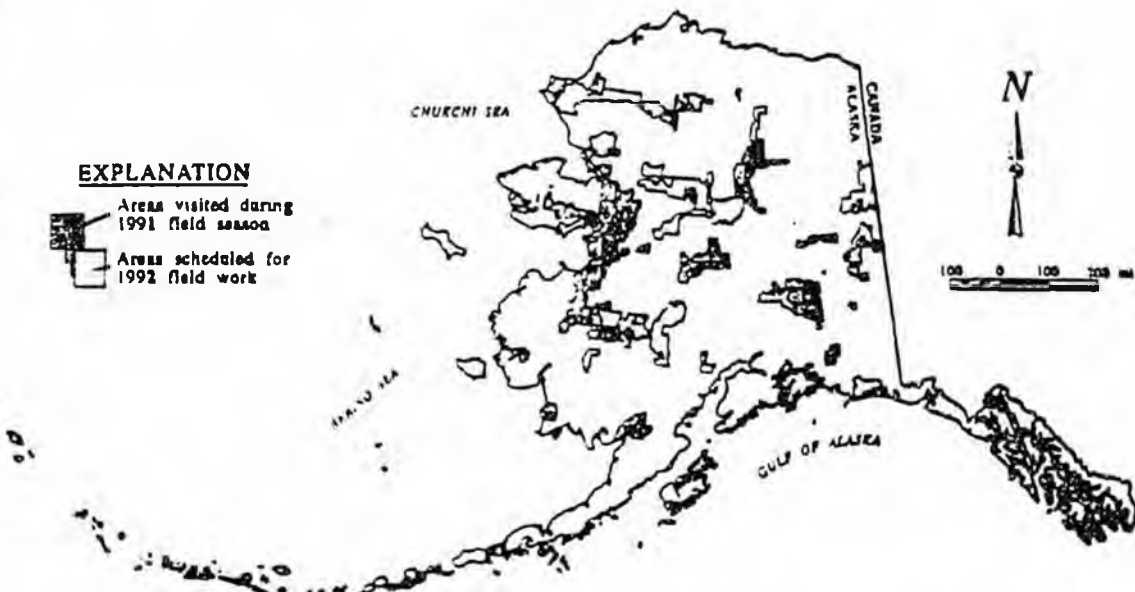


SELECTION - STRATEGY DECISIONS

PROGRESS MAP GEOLOGIC FIELD EVALUATION LAND SELECTION PROJECT

EXPLANATION

- Area visited during 1991 field season
- Areas scheduled for 1992 field work



FY93 BUDGET REQUEST

Division of Geological and Geophysical Surveys

General Fund	\$	Total
Statewide Mineral Resource Appraisal	\$742.5	
Energy Resource Appraisal	461.3	
Geologic Materials Center	85.7	
Earthquakes, Volcanoes, and Engineering	295.2	
Construction Materials Resources	140.6	
Resource Information	320.5	
Administrative Services	<u>511.1</u>	
		\$2,556.9*
Anticipated Receipts		
Federal Receipts	\$258.9	
Interagency Receipts	101.8	
Program Receipts	<u>61.6</u>	
		<u>422.3</u>
Division Total		\$2,979.2*
Positions (including vacancies)		
35 Permanent Full-time		
4 Permanent Part-time/seasonal		
22 Non-permanent (mainly student interns)		

*Note: The 1992 legislature reduced the GF request by \$136,400.

DIVISION OF GEOLOGICAL AND GEOPHYSICAL SURVEYS
Summary of Budget History
FY85 - FY93
General Fund

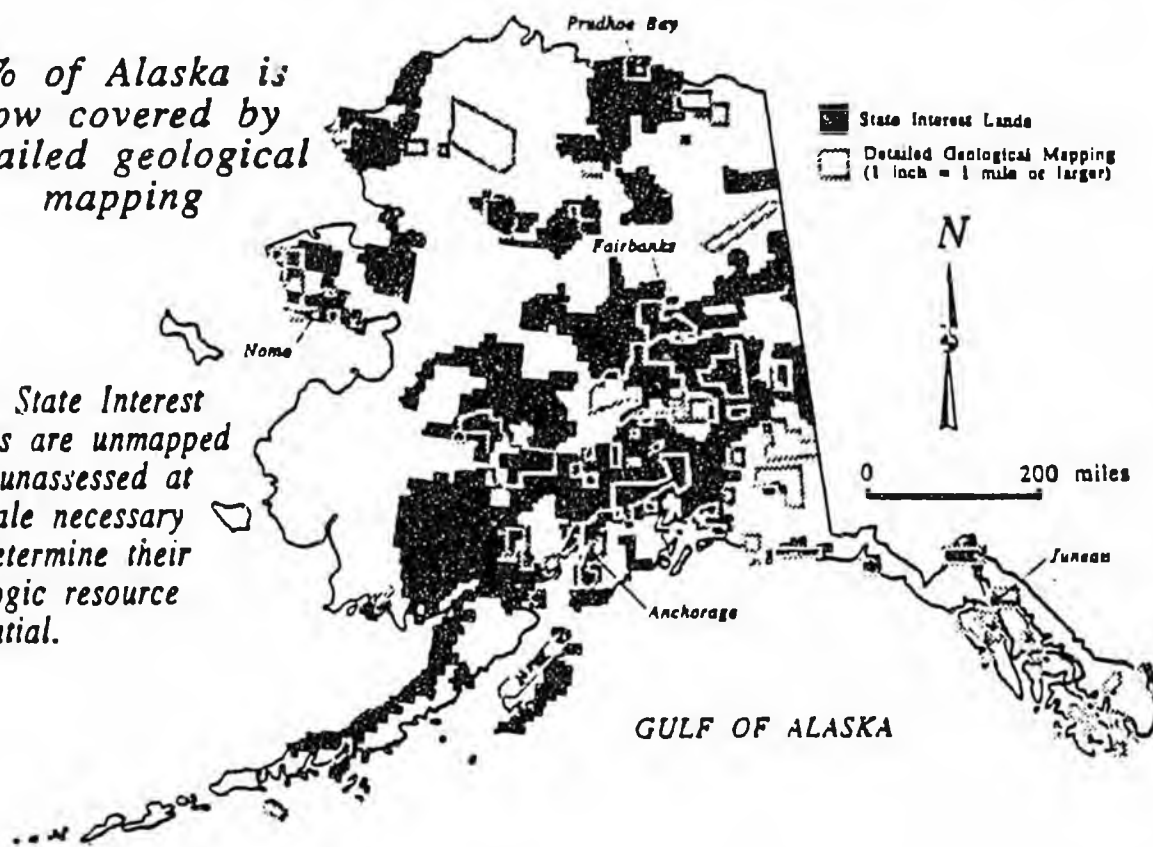
	<u>FY85</u>	<u>FY86</u>	<u>FY87</u> <u>Auth</u>	<u>FY87</u> <u>Revised</u>	<u>FY88</u>	<u>FY89</u>	<u>FY90</u>	<u>FY91</u>	<u>FY92</u>	<u>FY93</u> <u>Request</u>
REMAINING DGGS ALLOCATIONS										
Mineral Resource Appraisal	2039.9	1687.6	1202.4	1022.0	808.2	808.2	715.3	853.0	768.7	742.5
Energy Resource Appraisal	-----	-----	-----	-----	421.0	421.0	599.6	535.8	507.8	547.0
Resource Information/Earthquakes, Volcanoes & Engineering	1940.3	1158.0	1006.3	878.6	775.5	775.5	678.3	665.7	698.3	756.3
Water Resources	1254.6	1120.5	959.1	815.2	599.7	599.7	611.1	763.2		
Administrative Services	<u>1532.2</u>	<u>1201.6</u>	<u>902.2</u>	<u>766.9</u>	<u>466.2</u>	<u>575.7</u>	<u>543.1</u>	<u>535.7</u>	<u>514.2</u>	<u>511.1</u>
TOTAL	6767.2	5167.7	4070.0	3482.7	3070.6	3180.1	3147.4	3353.4	2489.0	2556.9*
TRANSFERRED PROJECTS AND APPROPRIATIONS										
Water Resources (to Division of Water)									739.4	0.0
Cadastral Survey (to Land and Water)	644.3	574.1	431.7	337.7	0.0	0.0	0.0	0.0	0.0	0.0
Archaeological Survey (to Parks)	188.2	205.8	250.0	212.5	0.0	0.0	0.0	0.0	0.0	0.0
Energy Resources (to Oil and Gas)	1708.1	1790.8	1699.4	1444.5	0.0	0.0	0.0	0.0	0.0	0.0
Seismic Engineering (to Oil and Gas)	<u>408.2</u>	<u>258.5</u>	<u>182.1</u>	<u>131.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
TOTAL	9716.2	7996.9	6633.2	5608.9	3070.6	3180.1	3147.4	3353.4	3190.5	2556.9*
DGGS CHART	9.7	8.0	6.6	5.6	3.1	3.2	3.1	3.35	3.2	2.56
ADJUSTED TOTAL	6.8	5.2	4.1	3.5	3.1	3.2	3.1	3.35	3.2	2.56*

*1992 Legislature reduced by \$136,400

STATUS OF DETAILED GEOLOGICAL MAPPING IN ALASKA

7% of Alaska is now covered by detailed geological mapping

Most State Interest Lands are unmapped and unassessed at a scale necessary to determine their geologic resource potential.



Major Accomplishments FY91-92

- Initiated a statewide project to inventory and evaluate mineral and coal resources on lands available for Alaska's final statehood land selections. Half the selection areas were visited in 1991.
- In cooperation with the Division of Oil and Gas, initiated a program to inventory and evaluate the oil and gas potential on lands available for Alaska's final statehood land selections.
- Prepared and published the 1990 edition of *Alaska's Mineral Industry*, an annual report on statewide mining activity, in cooperation with the Division of Mining and the Department of Commerce and Economic Development. This year's report was completely redesigned for easier comprehension.
- Completed the first year of a two-year project to evaluate the construction materials and geologic hazards of proposed access corridors throughout Alaska for use in final State land selections.
- Initiated a two-year project to map construction materials in mineral-potential areas that may be proposed for State land selections.
- Expanded operation of the Geologic Data Modeling System to provide computerized mapping and analysis capabilities for the land selection project.
- Completed a joint Federal/DGGS mineral assessment of the Iditarod Quadrangle.
- Completed the final phase of a joint Federal/Russian Academy of Sciences/DGGS project to unify the description and classification of 540 lode mineral deposits and 68 placer mining districts distributed from the Russian Far East, through Alaska, and into western Canada.
- Completed an evaluation of the mineral deposits in the Russian Mission/Aniak areas of Alaska.
- Completed field studies in the Horn Mountains Federal COGEOMAP grant program.
- Completed borehole drilling and sample analyses for the second phase of a cooperative Federal program to determine the frequency of major earthquakes in southcentral Alaska during the past 5,000 years.
- Completed geologic studies of Redoubt Volcano, including eruptive history during the past several thousand years and composition of the 1989-1990 eruptions. These studies will increase our knowledge of past volcanism and will allow us to better anticipate future activity.
- Initiated geologic studies of Mt. Douglas, the least known Cook Inlet volcano.
- Delineated the advance-retreat cycle of the Taku Glacier during the past 3,000 years, documenting evidence for the periodic glacier damming of the Taku River. Published an information circular explaining our current understanding of the Taku Glacier advance.
- Assisted Division of Water in studying potential impact of reopening the Alaska-Juneau Gold Mine on Juneau's domestic water

supply derived from Last Chance Basin.

- Assisted Division of Water and City and Borough of Juneau in searching for additional ground-water sources in the Juneau area.
- Brought on-line a computer database for 102,000 processed micro samples of oil and gas well materials in the DGGGS Alaska Geologic Materials Center at Eagle River.
- Acquired 9,000 feet of exploration drill core representing 11 Alaska mineral prospects for use as reference material by private sector companies and State and Federal agencies.
- Acquired 500 new micro samples of oil and gas well materials to expand the coverage of reference materials available to Alaska's petroleum industry.
- Examined regional distribution of potential oil reservoir rocks in the Pre-Mississippian strata of the northeastern North Slope Basin to acquire data for use in future State on-shore and off-shore lease sales.
- Initiated sequence stratigraphic study of Pre-Mississippian Katakaturuk Dolomite in ANWR in order to establish correlations between surface and subsurface data that will be needed for future State lease sales west of ANWR.
- Completed a Federal Minerals Management Service grant to establish chronological variations along the pre-Echooka unconformity which provides better information on the regional extent of the Prudhoe Bay Lisburne group oil reservoir rocks.
- Expanded compilation of coal resources information of interior Alaska and entered the data into the National Coal Resource Database System of the Federal government. Non-proprietary data is available to all Alaskans on a national computer network.
- Completed a summary report and map of part of the Chugach Mountains.
- Converted to desktop publishing for all reports to speed dissemination of State geologic resource information.
- By spring of 1992, DGGGS will have published 26 new reports and 4 new full-color geologic maps.

Anticipated Activities FY92-93

The principal focus of the Division of Geological and Geophysical Surveys team will be on identifying candidate land tracts offering high potential revenue return--in preparation for Alaska's last major land selection effort.

The geological hazards team will continue studies to determine earthquake potential in the Cook Inlet Basin--with an aim to predictive models and early mitigation procedure, necessary to minimize human casualties and expensive remediation after the events. They will also continue to participate with the Alaska Volcano Observatory (AVO) program in monitoring and assessing the hazards associated with volcanic eruptions in the Cook Inlet Basin.

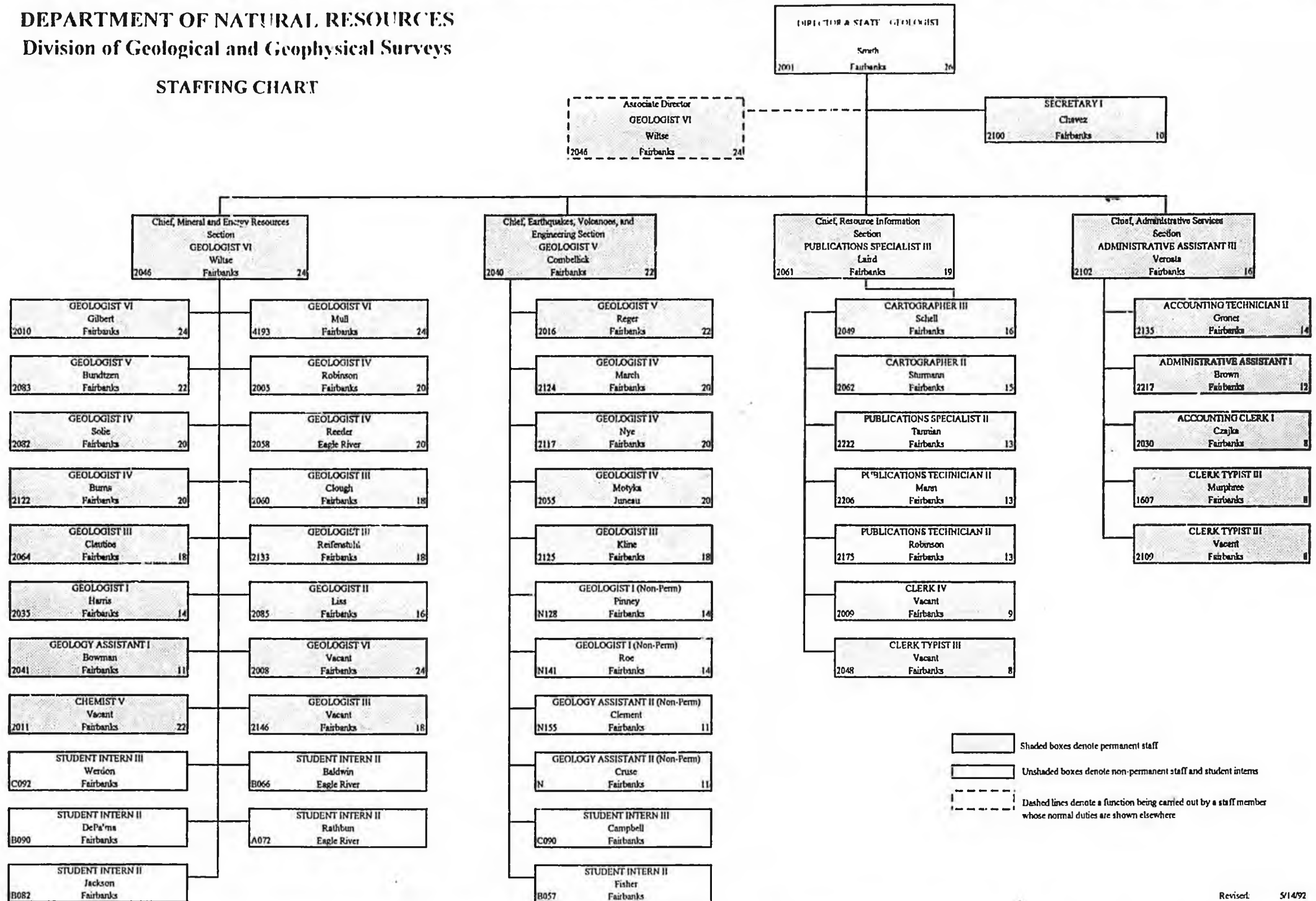
FY 93 Project Descriptions

<u>Project</u>	<u>Benefit</u>	<u>Funding</u>
<p>Statewide Mineral Resource Appraisal Evaluates mineral resource potential of land available for state selection as well as providing an inventory of geologic resources on state lands. Prepares annual Alaska's Mineral Industry report.</p>	<p>Enhances revenue-generating capability of state lands by providing geologic resource inventory and predicting mineral asset values. Provides current information on mineral industry.</p>	<p>742.5 (GF) (Reduced to 600.0)</p>
<p>Energy Resource Appraisal Conducts statewide geologic studies to support inventories of petroleum, coal and other energy resources in Alaska, with emphasis on Alaska's North Slope.</p>	<p>Provides the state and private sector with the geologic information for estimates of Alaska's energy resources.</p>	<p>461.3 (GF)</p>
<p>Geologic Materials Center Curate, store and make available to the public a priceless collection of cores, samples and geologic information from oil and gas wells and hardrock mineral deposits in Alaska.</p>	<p>Benefits the public and private sector, exploration and development projects and assessment of the state's energy and mineral assets.</p>	<p>85.7 (GF)</p>

<u>Project</u>	<u>Benefit</u>	<u>Funding</u>
<p>Earthquakes, Volcanoes and Engineering Generates and distributes information about geologic conditions that affect public safety, and development of harbors, urban facilities, and transportation corridors.</p>	Significantly reduces financial risks and human casualties.	295.2 (GF)
<p>Construction Materials Resources Provides reliable information on construction materials resources for use in state land selection, to support statewide construction, and to facilitate effective land management.</p>	Provides direct economic benefit to the state from lease revenues and indirectly supports local economies.	140.6 (GF)
<p>Resource Information Publishes technical maps and reports on Alaska's geologic resources. Supports division and inter-agency reports for mineral assessments in state land selection areas.</p>	Provides a public database for Alaska's geologic resources that directly supports state resource management and geologic resource development.	320.5 (GF)
<p>Administrative Services This project provides administrative services to the Geological Management BRU including project management, financial services, personnel services and clerical services.</p>	Provides support necessary to produce mineral, energy and construction materials resource inventories, produce geologic hazard information and publish technical data.	511.1 (GF)
<p>Federal Receipts This project provides authorization to receive and expend funds from federal agencies.</p>	Provides cost-effective public services and promotes cooperative agreements.	259.9 (Fed)
<p>Inter-Agency Receipts This project provides authorization to receive and expend funds from other state agencies.</p>	Provides cost-effective public services and promotes cooperative agreements.	101.8 (I-A)
<p>Program Receipts This project provides authorization to receive and expend funds from other state agencies.</p>	Provides cost-effective public services and promotes cooperative agreements.	61.6 (GF/PR)

DEPARTMENT OF NATURAL RESOURCES
Division of Geological and Geophysical Surveys

STAFFING CHART



Shaded boxes denote permanent staff
 Unshaded boxes denote non-permanent staff and student interns
 Dashed lines denote a function being carried out by a staff member whose normal duties are shown elsewhere

Evolution of Petroleum Development Technology on Alaska's North Slope...

*Reduced Impacts and Enhanced
Environmental Protection*



Alaska Department of
**NATURAL
RESOURCES**
Division of Oil and Gas
September 1991

FOLLOWING 20 YEARS OF DEVELOPMENT EXPERIENCE ON THE NORTH SLOPE:

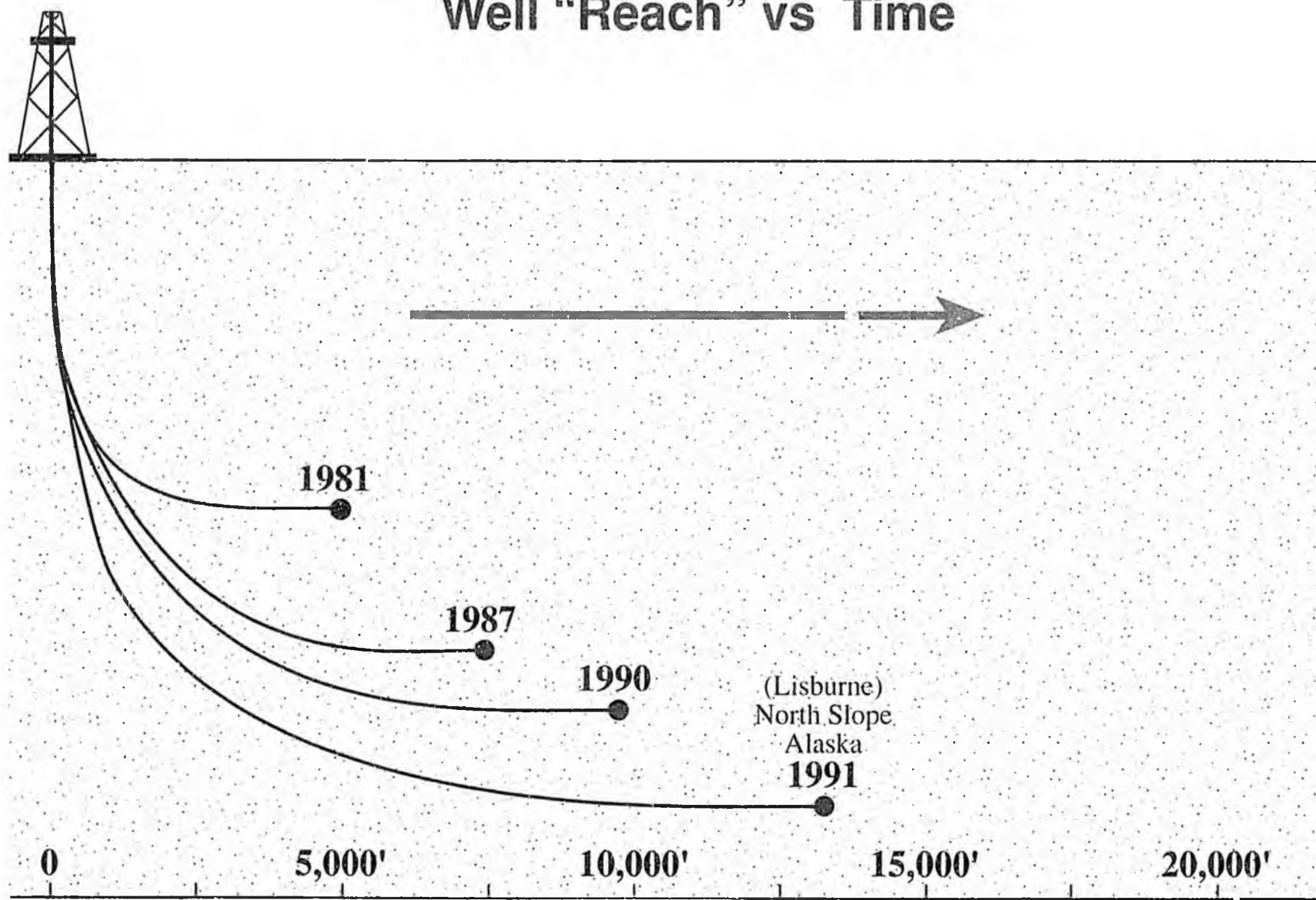
- SPACING BETWEEN WELLHEADS—REDUCED 91%
- SURFACE AREA OF GRAVEL DEVELOPMENT PADS— REDUCED 76%
- SURFACE AREA FOR CONTRACTOR SERVICE AREA— REDUCED 95%
- GRAVEL ROADS FOR PIPELINE CONSTRUCTION— ELIMINATED
- ICE PADS USED IN LIEU OF GRAVEL PADS FOR EXPLORATORY WELLS
- UNDERGROUND INJECTION FOR DISPOSAL OF DRILLING FLUIDS
- DESIGN AND PERMITTING OF CENTRALIZED WASTE MANAGEMENT FACILITIES — 95% RECYCLING OF ALL ASSOCIATED WASTES
- FEWER DRILL SITES NEEDED DUE TO ADVANCES IN DIRECTIONAL DRILLING
- RESERVE PITS ELIMINATED OR NEEDED ONLY ON A TEMPORARY BASIS

Alaska
Dept. of Natural Resources
Division of Oil and Gas
8-29-91

FOLLOWING 20 YEARS OF DEVELOPMENT EXPERIENCE ON THE NORTH SLOPE:

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- **RESERVE PITS ELIMINATED OR NEEDED ONLY ON A TEMPORARY BASIS**

Well "Reach" vs Time

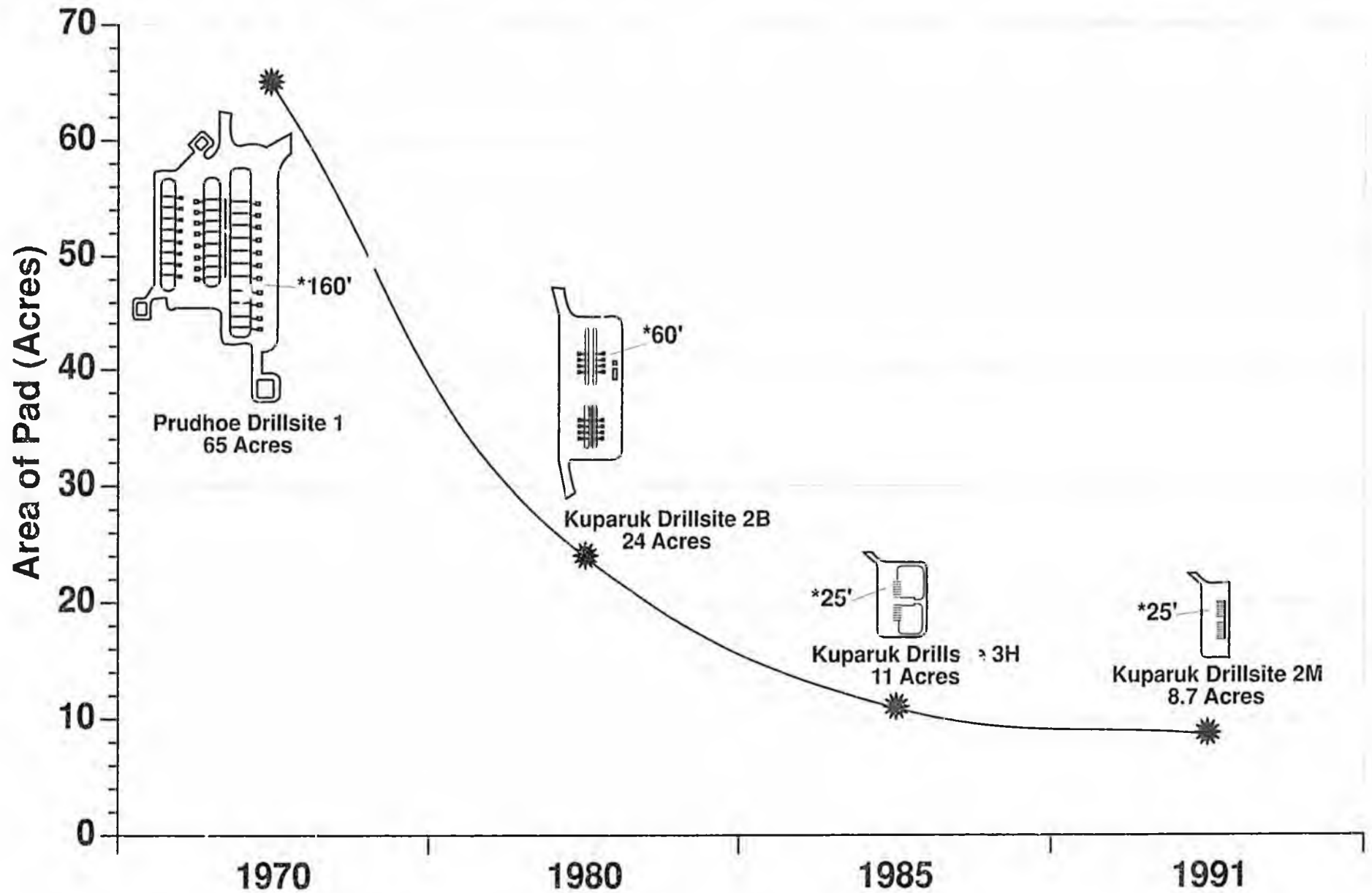


(Lisburne)
North Slope
Alaska

Total Horizontal Departure

Alaska
Dept. of Natural Resources
Division of Oil and Gas
8-29-91

Evolving Consolidation of North Slope Production Pad Size

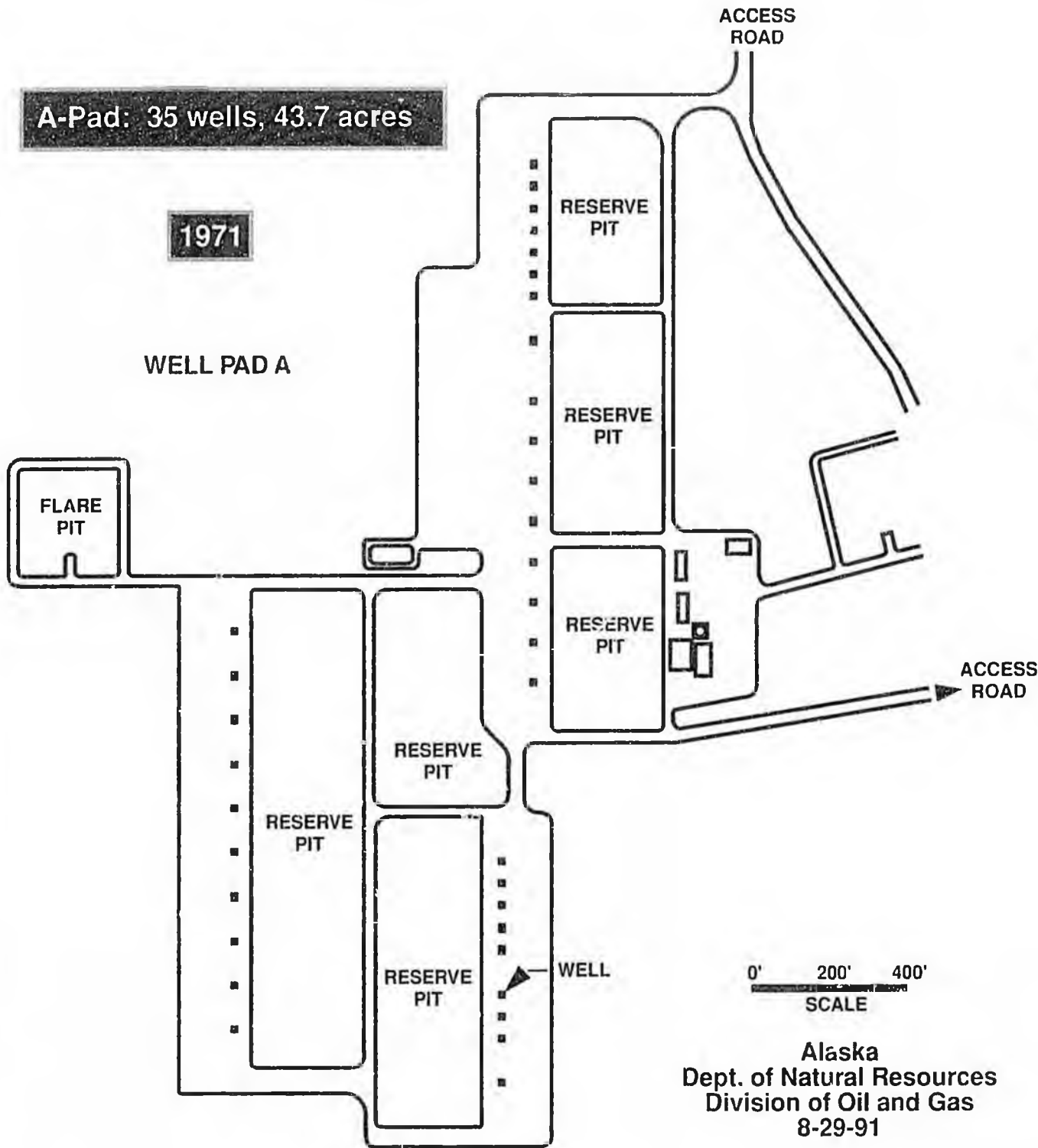


*Well Spacing

A-Pad: 35 wells, 43.7 acres

1971

WELL PAD A



P-Pad: 21 wells, 10.5 acres

1989

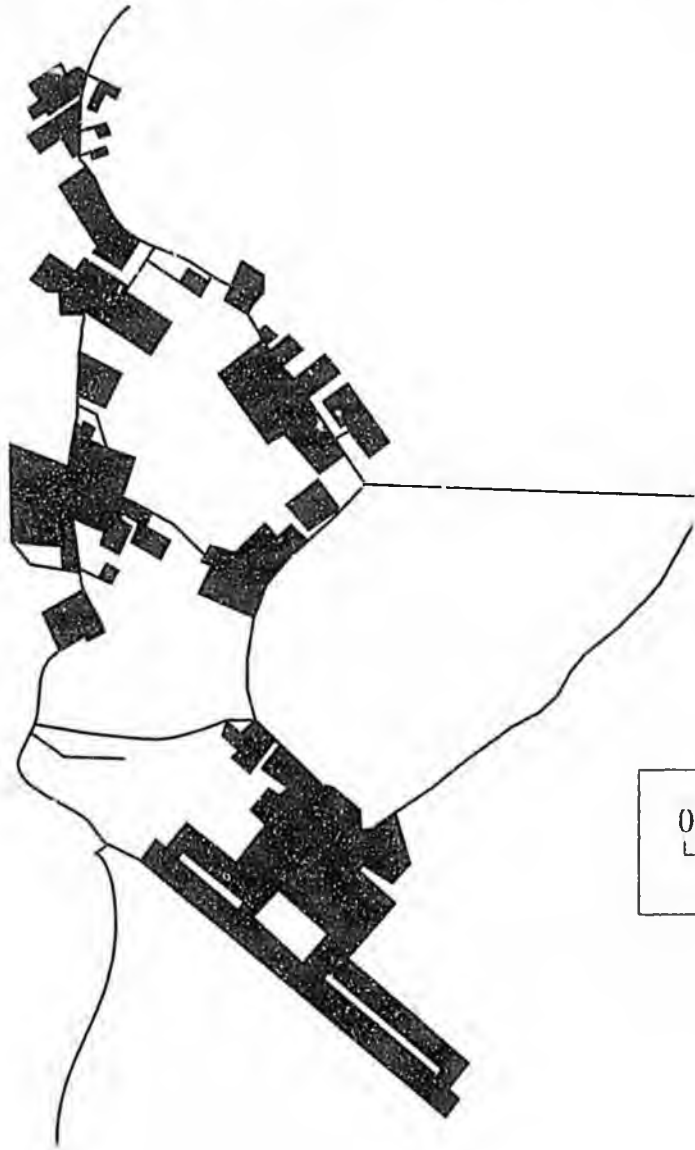
WELL PAD P



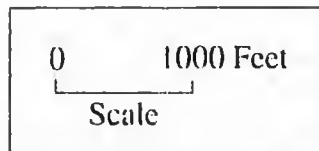
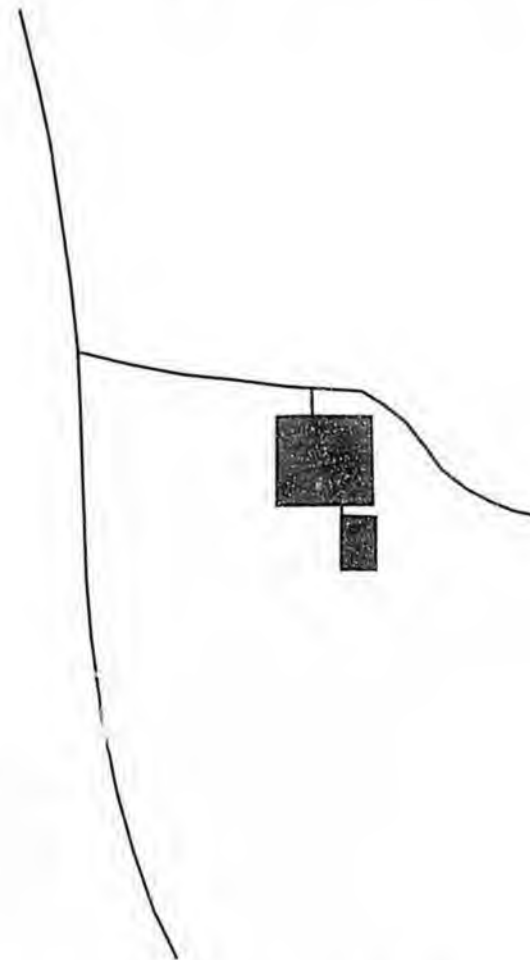
0' 200' 400'
SCALE

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Division of Oil and Gas
8-29-91

Deadhorse Service Area



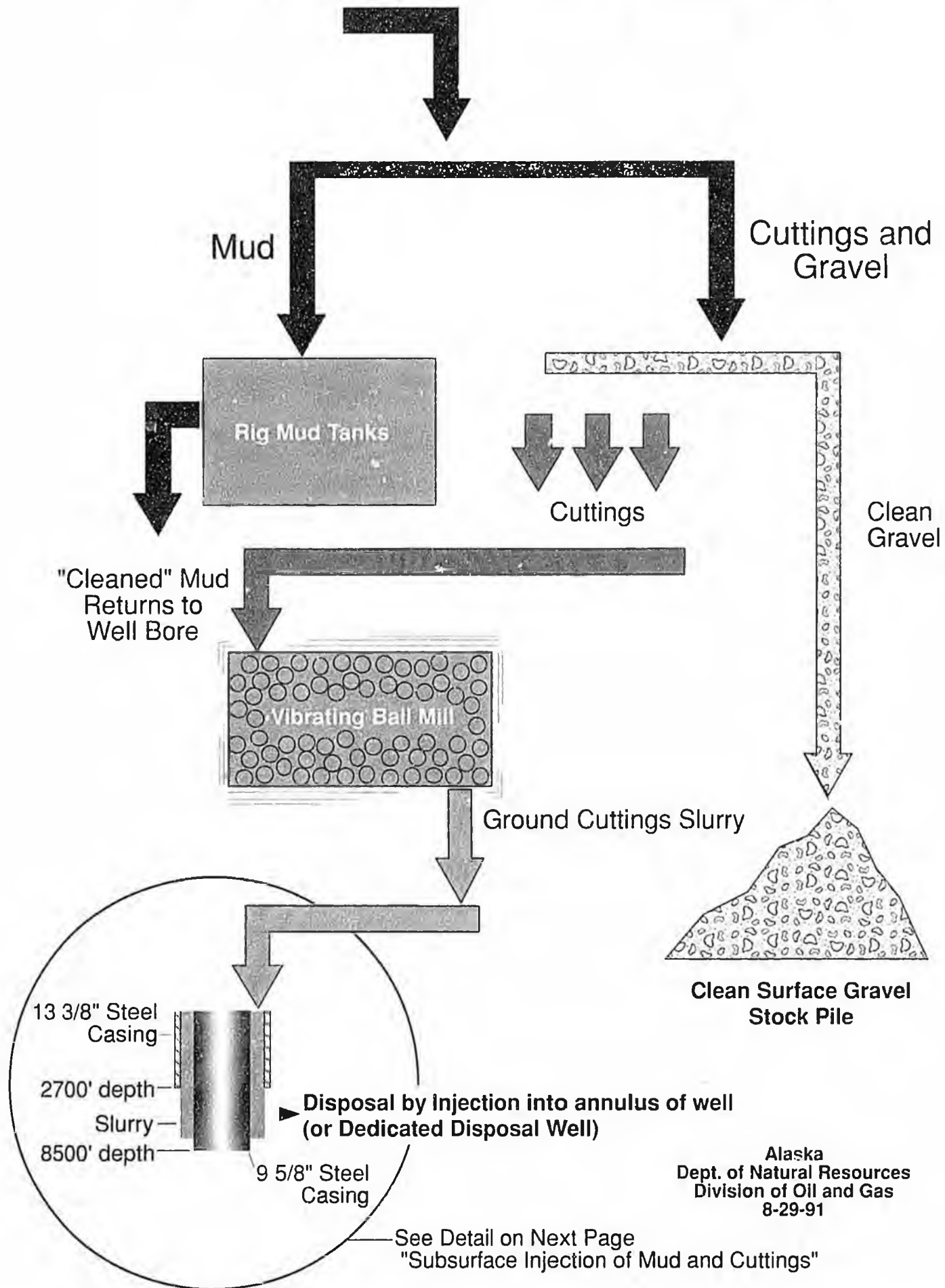
Conceptual ANWR Service Center



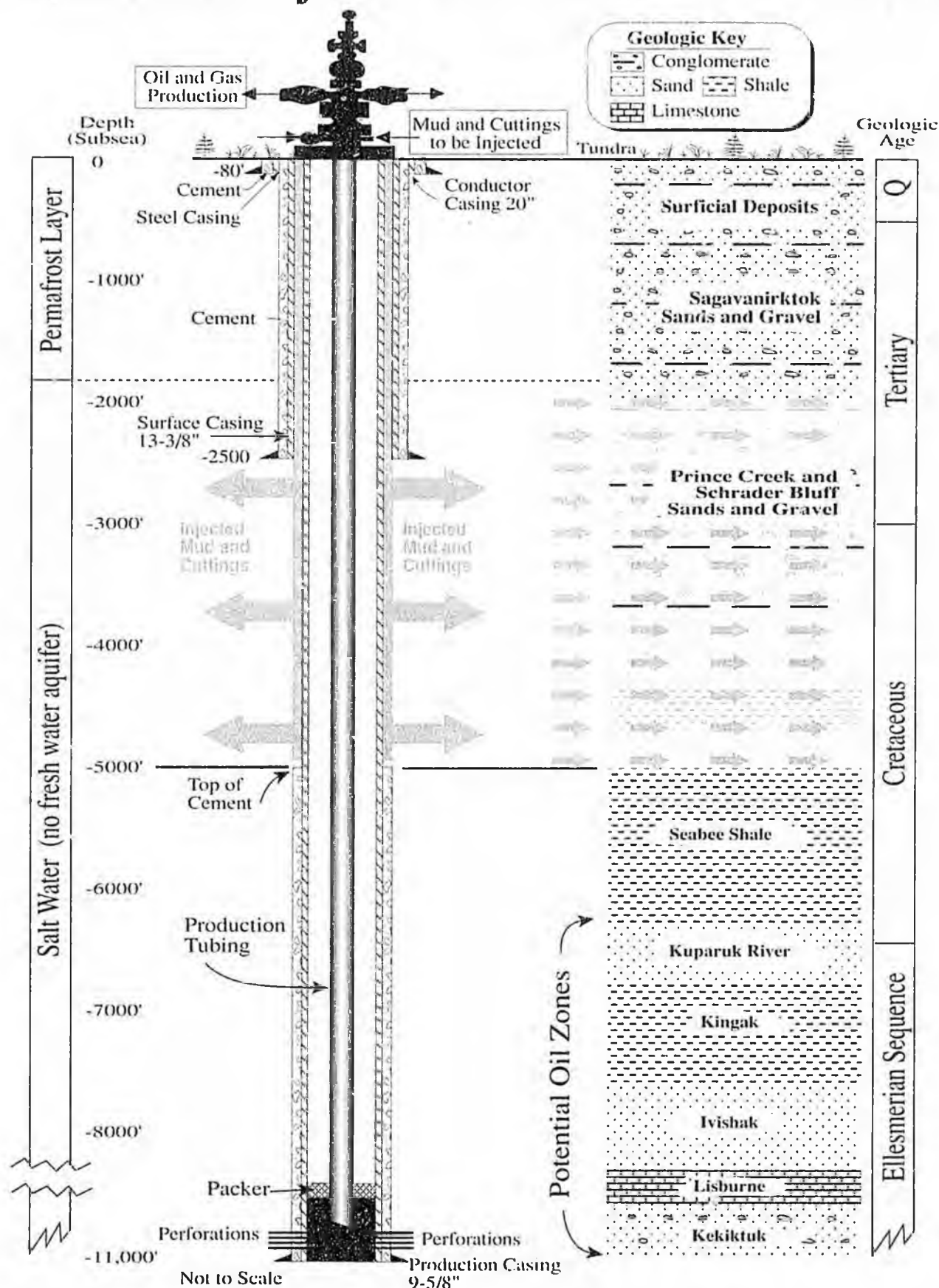
Service facilities for the Prudhoe Bay oil fields are located at Deadhorse. These buildings are situated on 1,050 acres. Satellite service facilities at ANWR could be located on only 55 acres, as was done for the Kuparuk oil field.

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Division of Oil and Gas
8-29-91

Mud, Cuttings and Gravel from Well



Subsurface Injection of Mud and Cuttings

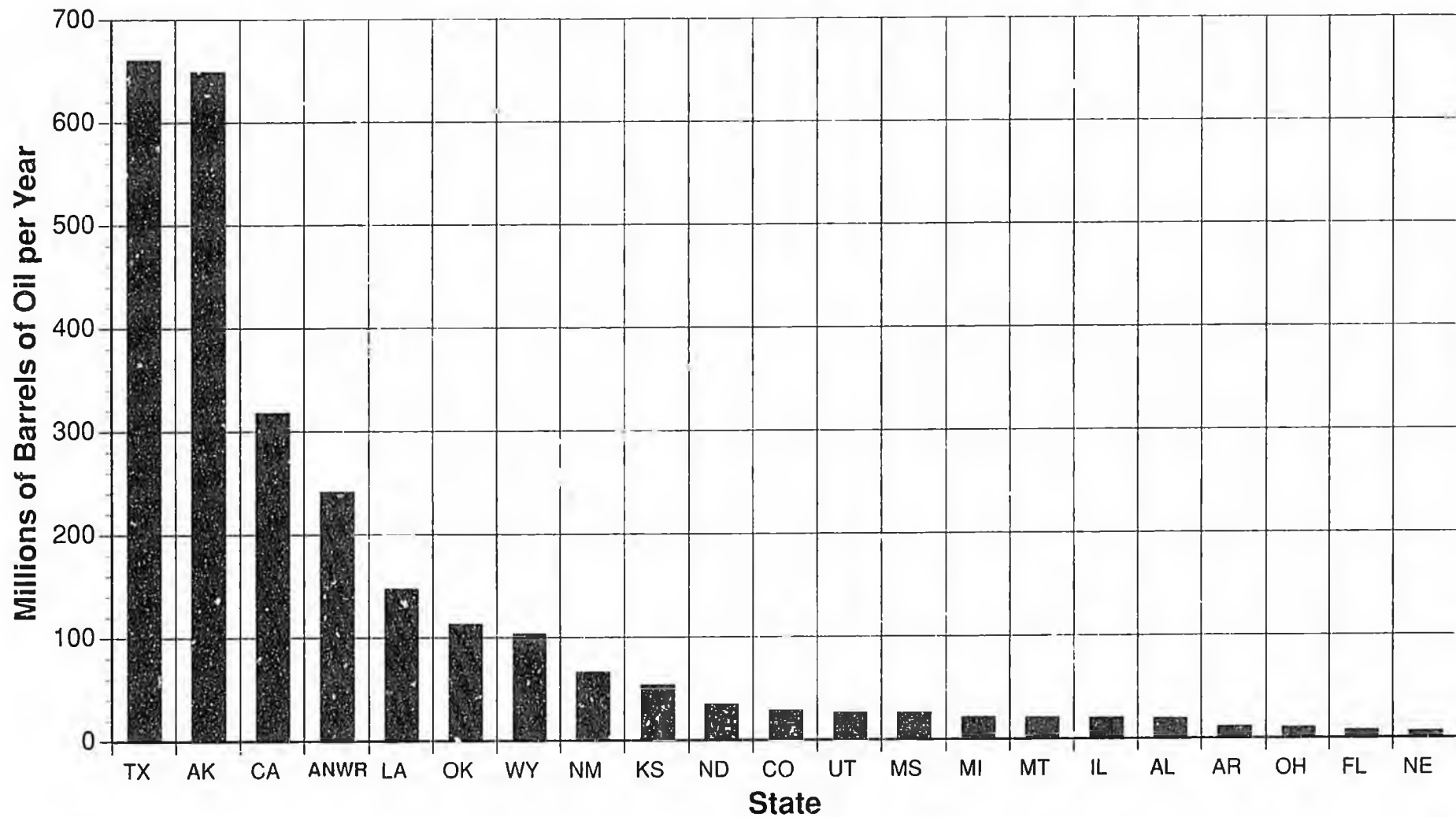


Please Note:

1. When injection phase is completed, the 9-5/8" X 13-3/8" annular space is pumped full of cement and permanently sealed.
2. In the Kuparuk River Unit the surface casing is set through the West Sak interval (to approximately -4000 ss).

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Division of Oil and Gas
8-29-91

Top Twenty Oil Producing States and ANWR



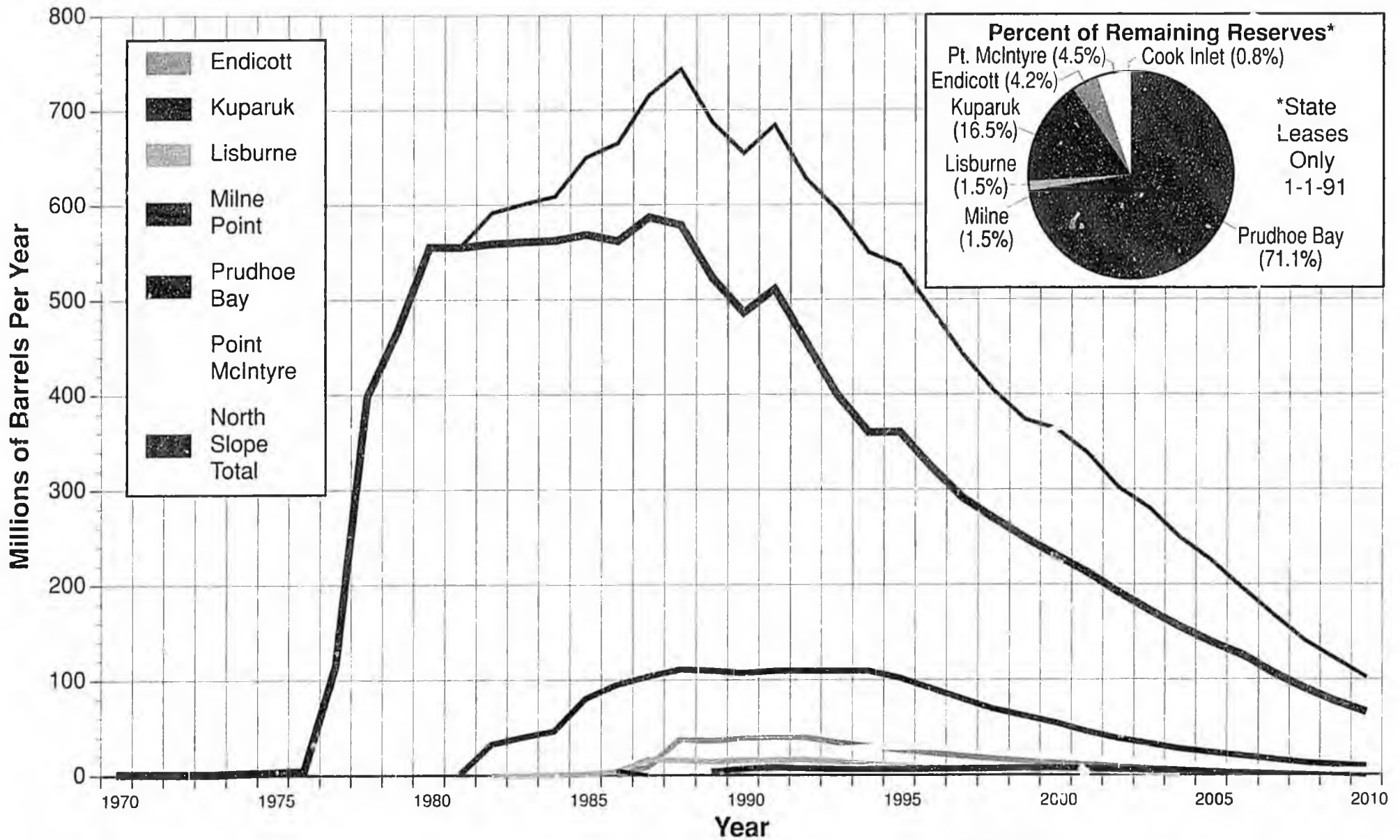
State figures reflect 1990 production.

ANWR figure assumes peak production from mean value economic field.

Source: Department of Interior

Alaska Department of Natural Resources
Division of Oil & Gas August 2, 1991

North Slope Historical & Projected Oil Production



August 2, 1991

Source: Alaska Dept. of Natural Resources, Div. of Oil & Gas.

Partial List of Current Issues Where Division of Oil and Gas Has Lead

Units

- **Jones Island**—work commitment being negotiated with ARCO
- **Thetis Island**—complex negotiation with Exxon regarding conversion of NPSL to royalty, removal of EIC and work commitment.
- **Kuukpik**—completed negotiations with ARCO on work commitment. Unit formed. ARCO drilling two wells in unit (and one adjacent) this season.
- **Kuparuk River**—negotiated with ARCO on "final" contraction. Have solid drilling commitment requirements.
- **Niakuk**—resolving commingling and other issues prior to 1995? startup.
- **Pt. McIntyre**—resolving some commingling issues, startup in 1993.
- **Pt. Thomson**—evaluate effects of gas cycling and Kuvlum discovery.
- **West McArthur River Unit (Stewart)**—waiting on second Plan of Development. Rig on site. Spud second well this month?

Pro-Development Initiatives

- **Marketing ANWR/"new explorers"/contractors/investors**—numerous meetings at Society of Exploration Geophysicists meeting to promote pro-development opportunities in Alaska.
- **"Open ANWR"** strategies with new administration.
- **Large Block Licensing/Leasing and Exploration Incentive Credits**—have met with and will continue to meet with industry, native organizations, legislators, contractors to promote these bills.
- **Coal Bed Methane**—Have met with industry, native organizations, contractors, University, AEA and others to promote the concept of coal-bed methane development in Alaska.
- **Gas Hydrates**—30 TCF known reserves in Prudhoe/Kuparuk. Preliminary discussions have begun. (Probably not a near-term project).
- **Gas Sales**—Working with industry and Harold Heinze to resolve reservoir issues that may lead to an expedited sale of North Slope gas.
- **Streamline lease sale procedures**—re-thought and re-wrote stipulations and other aspects of Best Interest Finding to help streamline lease-sale process.
- **Evaluated all recent discoveries (Kuvlum, Badami, Sunfish, Stinson, all Chukchi wells, all Colville wells and others)** to update our subsurface studies.

Royalty and Settlement

- **"Severed" issues (gas) discussions with producers**—royalties due from gas "transfers" and related issues.
- **RIK settlements with refiners**—negotiations with Tesoro, Mapco, Chevron and GVEA—royalties owed as a result of "Amerada Hess" settlement with producers.
- **Royalty Reduction/Discovery Royalty**—Conoco litigation.
- **Metering and commingling**—assuring that proper techniques are used and that each hydrocarbon type is properly allocated and accounted for..
- **Reopeners**—planning strategy for ANS settlement reopeners.
- **OGRA re-write and Electronic Data Interchange**—enhance accuracy, speed and efficiency of collecting royalty payments. Developing capability to process run-tickets (and other data) by electronic exchange.
- **Support litigation for lifting North Slope oil export ban**—Petroleum economist working with Governor's staff.

**THE FOLLOWING DOCUMENT
HAS NOT BEEN FILMED
BUT IS AVAILABLE IN THE
ORIGINAL FILE.**

ALASKAN FORESTS FOREVER



ALASKA DIVISION
OF FORESTRY



Alaska Department of
**NATURAL
RESOURCES**

ALASKAN FORESTS FOREVER



MISSION STATEMENT

The Division of Forestry's mission is to manage forest land for multiple use and sustained yield, protect the forest's natural values, and support Alaska's economy through development of timber and wood products.

To accomplish this important mission, the division will:

- ensure that public resources--such as water, fish, wildlife, and forests--are protected on state, municipal, and private lands
- manage renewable resources on state-owned forest land in a balanced manner to serve the needs of Alaskans now and in the future
- protect people, private property, and natural resources from fire, insects, and disease
- provide technical assistance to forest landowners
- cooperate with other forest landowners and managers to improve management efficiency by using new scientific and technological methods

DIVISION OF FORESTRY RESPONSIBILITIES

"Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the state shall be utilized, developed, and maintained on a sustained yield principle, subject to preferences among beneficial uses."

ALASKA STATE CONSTITUTION

By state law, the Commissioner of the Department of Natural Resources charges the Division of Forestry with the following responsibilities:

- to protect forest land from fire and destructive agents
- to manage state forests for multiple use and sustained yield
- to guarantee a perpetual supply of renewable resources
- to reforest state land
- to establish and maintain forest vegetation nurseries and greenhouses for planting stock
- to advise state land managers on sound forest practices
- to provide public information and assistance regarding

ALASKA DIVISION OF FORESTRY



THE ALASKA DIVISION OF FORESTRY'S MANAGEMENT PROGRAMS

The Division of Forestry manages state-owned forest land and resources through four management programs:



State Forestry and Fish and Game staff participate in a field inspection.

The Forest Practices Program

The Forest Practices Program is designed to protect water quality, fish and wildlife habitat, and other public forest values through the use of appropriate forest practices.

The key elements of the program are to:

- educate forest landowners, operators, and the public about the requirements of the Forest Resources and Practices Act and proper forest practices



Gathering firewood for personal use.

The Forest Resource Management Program

The Forest Resource Management Program is designed to efficiently manage the benefits as well as the products of a dynamic forest system.

The key elements of the program are to:

- develop and maintain statewide forest inventory statistics for state-owned forest resources
- provide forest management expertise for statewide resource planning efforts
- promote establishment of state forests
- manage state-owned forest land for non-timber related multiple use benefits
- evaluate all forest resource values before harvesting



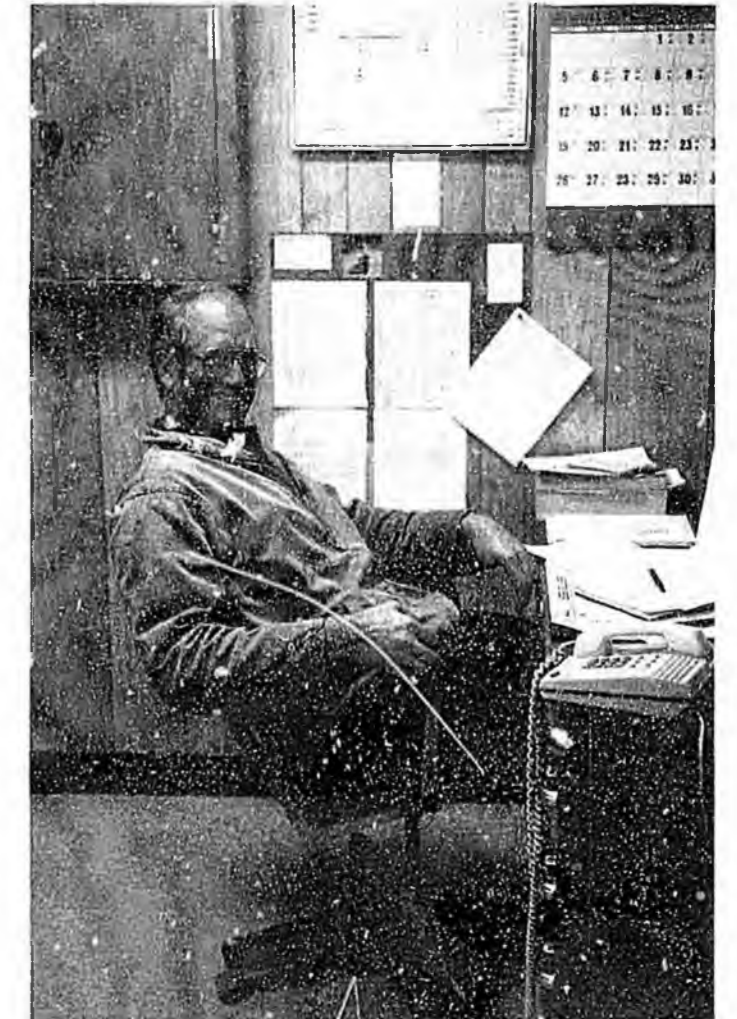
Wildland fire in interior Alaska.

The Fire and Aviation Management Program

The Fire and Aviation Management Program carries out an effective wildland fire program on public and private lands.

The key elements of the program are to:

- support and continue the interagency fire management agreements for cooperative protection and planning efforts
- maintain current cooperative wildland fire protection levels
- improve the resource evaluation system for lands to be protected from wildland fire
- maintain fire prevention and enforcement programs to reduce risk and minimize the number of human caused wildland fires
- provide wildland fire protection by having staff and equipment ready and prepared to suppress any wildland fires statewide
- develop and maintain wildland fire detection capabilities, including the Automated Lightning Detection System



Office support for state forestry programs.

The Support Services Program

The Support Services Program is designed to provide administrative and technical services necessary to support program activities and fully meet state administrative directives.

The key elements of the program are to:

- provide efficient management of the division's budget, personnel, and property
- improve computerized transfer of information throughout the division



to provide public information and administrative regarding forest practices and timber management

- to regulate operations of private forest land
- to establish the Board of Forestry

THE BOARD OF FORESTRY

The nine-member Board of Forestry advises the Director of the Division of Forestry. Its members are appointed by the governor, from groups and organizations representing a wide range of forestry interests:

- a commercial fishermen's organization
- a Native corporation established under the Alaska Native Claims Settlement Act (43 U.S.C. 1601-1628)
- an environmental organization
- a forest industry trade association
- a professional fish or wildlife biologist who is not employed by state, municipal, or federal government agencies, except for university employment
- a mining organization
- a recreational organization
- the Director of the Division of Forestry, who serves ex-officio and without a vote

The powers and duties of the Board of Forestry are to:

- advise the Commissioner of the Department of Natural Resources on forestry related regulations
- provide a forum for interest groups to discuss and resolve state forest issues
- work with the Departments of Natural Resources, Environmental Conservation, and Fish and Game to conduct annual survey or research needs related to forest practices and report to the legislature on these needs
- coordinate and monitor implementation and effectiveness of the Forest Resources and Practices Act and management of forest lands, and to report annually to the legislature and the governor

The presiding officer of the board is the Director of the Division of Forestry, who also has the title of State Forester. The Board of Forestry can be contacted through the state forester's office in Anchorage, 36th and C Street, Suite 1058, P. O. Box 107005, Anchorage, Alaska 99510-7005. Phone Number: (907) 762-2501

- improve administration of the Forest Resources and Practices Act, including review of notifications, conducting forest inspections, and taking appropriate enforcement actions
- meet the Department of Natural Resources' forest management responsibilities, as in the Alaska Coastal Management Program and the Forest Resources and Practices Act regulations



Timber harvest on private land, southcentral Alaska.

The 1990 legislature adopted a revised Forest Resources and Practices Act (HB 331) which changed the way forests on public lands will be managed. The Act sets new standards for protecting stream banks, strengthens the Department of Natural Resources' ability to enforce compliance, and provides increased funding for the state to inspect logging sites. The Act also restructures the Board of Forestry to include a wider range of interests, and establishes a comprehensive five-year planning schedule for logging on state land. The state is drafting regulations for setting these changes in motion.

timber resources

- improve long-term forest management, including silviculture, and management techniques
- assess and monitor state, private, and municipal field operations
- incorporate forest pest management into the resource management program
- improve timber sale management on state-owned forest land
- oversee the log brand program
- reforest the non-productive timber lands
- improve management of the state forest nursery
- provide additional funding for the Alaska Reforestation Council
- regenerate harvested and high-value burned forests
- apply new technology to field operations
- provide forestry assistance to other forest landowners, including industrial and non-industrial private forest land owners, and private citizens



Recreation in Mutanuska Valley Moose Range.

and the Alaska Initial Attack Management System

- establish and maintain a weather and fire danger rating system
- provide a safe and effective aviation program to support the division's fire and resource operations



Training wildland fire crews.



Aviation support for wildland fire.

- strengthen an effective, professional workforce
- provide incentives for improved staff performance
- improve staff qualifications through training in administration of the Forest Resources and Practices Act, forest resource management, fire and aviation management, and administrative responsibilities
- develop comprehensive division-wide management policies
- improve communications with the public and other agencies
- incorporate technical information and research into forest management decisions and operations



Interagency field inspection of spruce bark beetle infestation.

STATEWIDE DIVISION OF FORESTRY OFFICES

The Division of Forestry has 15 offices to serve the public. The central office provides statewide policy direction and program assistance in forest management. There are three regional offices: northern, south-central, and southeast. Ten area offices and one state forest nursery are located around the state.

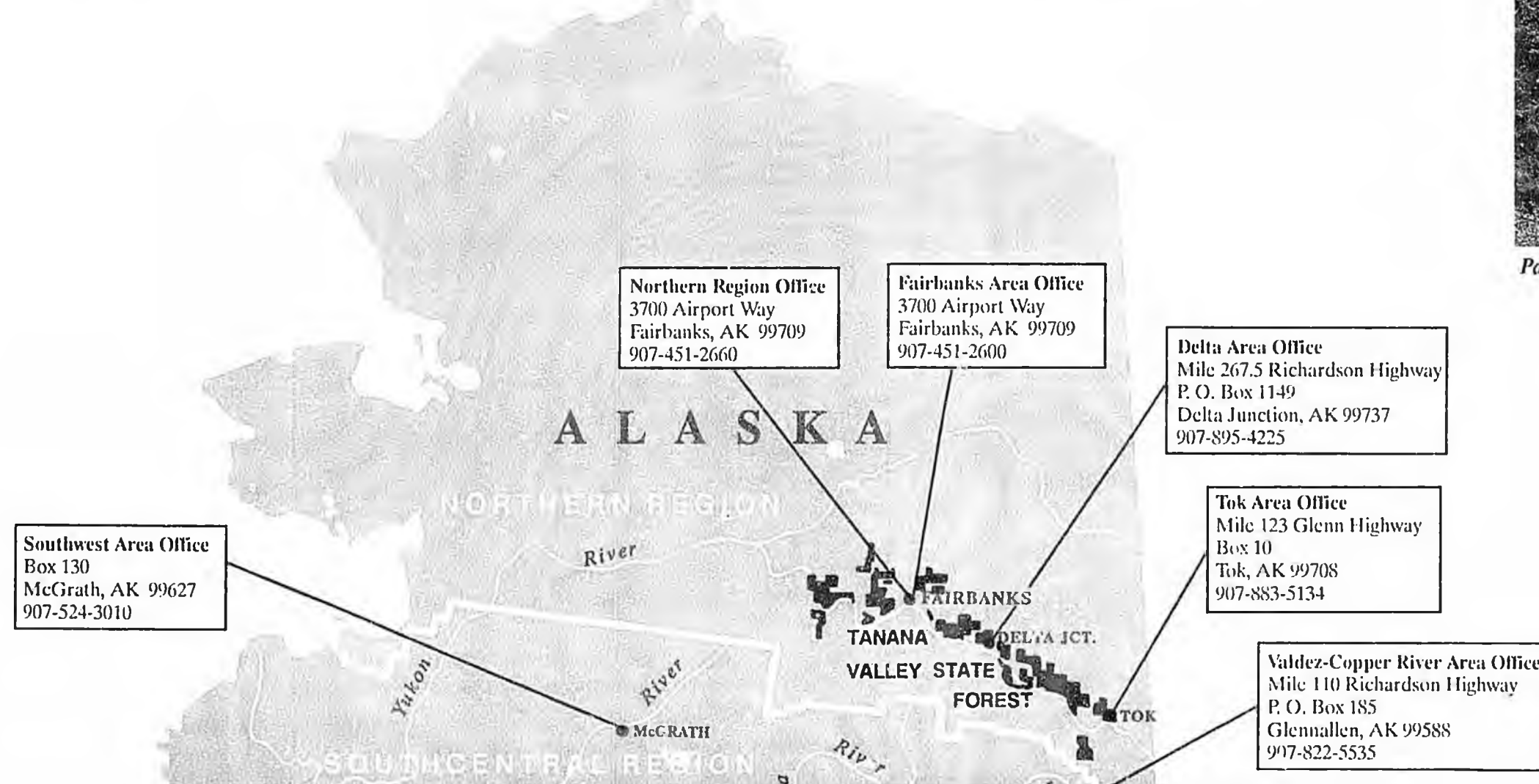
To learn more about the Division of Forestry, or for forestry related information or assistance, please contact the Division of Forestry office nearest you.



Winter logging by dog sled.



Paper Birch tree.



FORESTRY ASSISTANCE FROM THE FEDERAL GOVERNMENT

Forest Stewardship

The Division of Forestry has presented a proposal to the U.S.D.A. Forest Service for funding to develop a forest stewardship program. If the Alaska proposal is accepted, the division will provide direct forest management assistance to private and municipal non-industrial forest landowners. The division will assist the forest landowners in developing and achieving their management goals for the benefit of the resources, the landowners, and the citizens of Alaska.

A stewardship program will provide:

- substantial volumes of raw wood materials for both local consumption and value added processing
- an economic basis for local employment of youths in rural areas
- maintained or improved water and air quality
- habitat for threatened or endangered species
- sustainable yields which contribute to environmental health
- continued public and private benefits with long-term commitment to forest management

Urban and Community Forestry

In 1990, the Division of Forestry received an urban and community forestry grant from the U.S.D.A. Forest Service, State and Private Forestry, to assist communities in forest related activities. The community of St. George received state assistance in planting a research site of 2,500 trees on the island. This forest improvement will be studied for the next several years to determine whether trees can survive in this harsh environment.



A state forester discusses forest management with a forest land owner.

NEW DIRECTIONS IN FOREST RESOURCE MANAGEMENT

Alaska has a wealth of renewable and nonrenewable resources, and our forests play a vital role in this legacy. How we manage our resources today will set the stage for tomorrow. The Alaska Division of Forestry is committed to long term, sustained productivity of the forest ecosystem, which includes soil, water, air, fish and wildlife habitat, and healthy trees. The division's directions are based on the belief that development of forest resources in Alaska can coexist with environmental preservation and multiple use by applying proper management guidelines.

The Division of Forestry is committed to:

- managing state-owned forest lands for long-term benefit for future generations of Alaskans
- protecting forest resources by properly administering the Forest Resources and Practices Act
- providing a leadership role in multiple use management of state-owned forest lands

STATEWIDE DIVISION OF FORESTRY OFFICES

The Division of Forestry has 15 offices to serve the public. The central office provides statewide policy direction and program assistance in forest management. There are three regional offices: northern, south-central, and southeast. Ten area offices and one state forest nursery are located around the state.

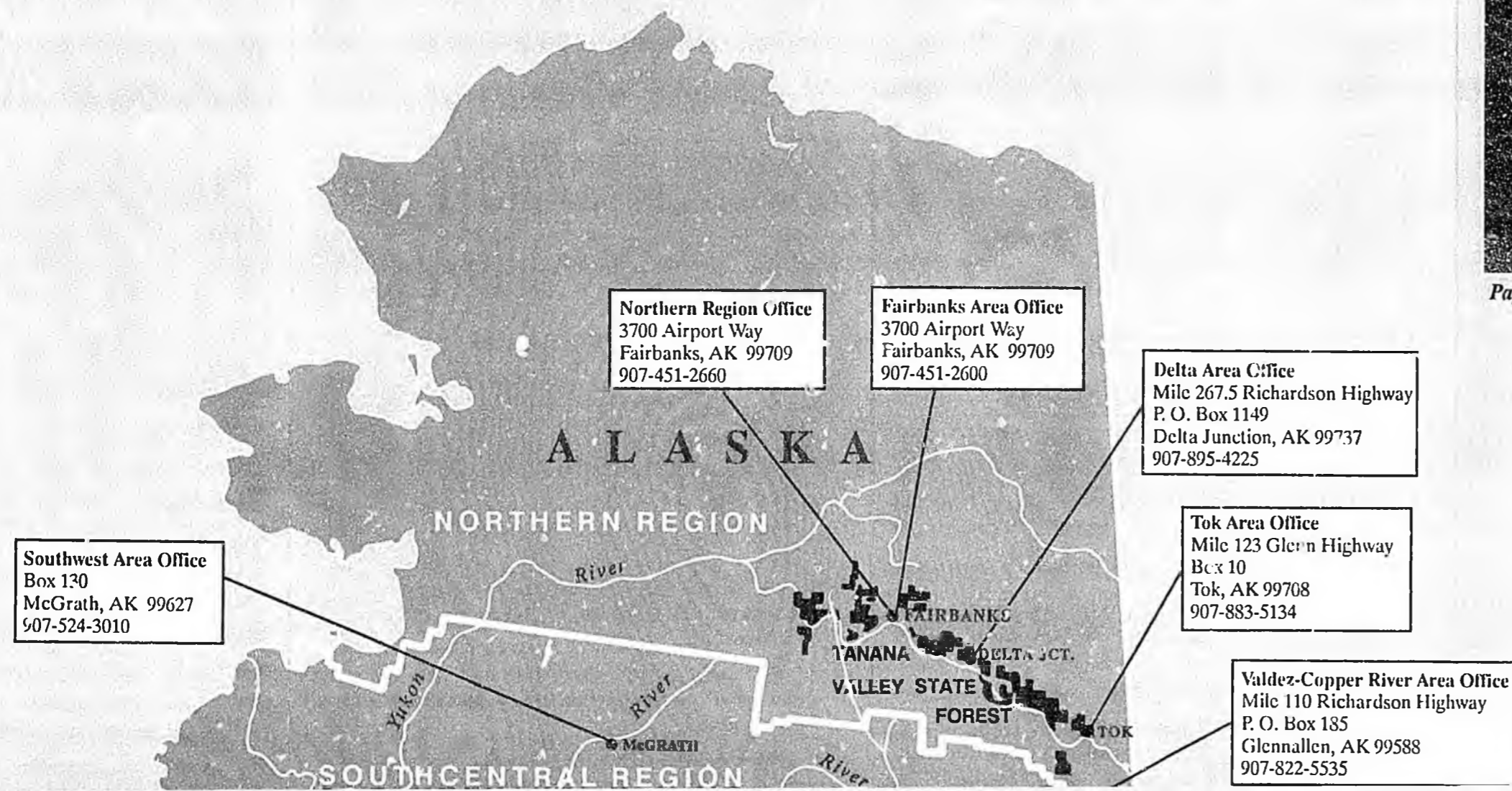
To learn more about the Division of Forestry, or for forestry related information or assistance, please contact the Division of Forestry office nearest you.



Winter logging by dog sled.



Paper Birch tree.



FORESTRY ASSISTANCE FROM THE FEDERAL GOVERNMENT

Forest Stewardship

The Division of Forestry has presented a proposal to the U.S.D.A. Forest Service for funding to develop a forest stewardship program. If the Alaska proposal is accepted, the division will provide direct forest management assistance to private and municipal non-industrial forest landowners. The division will assist the forest landowners in developing and achieving their management goals for the benefit of the resources, the landowners, and the citizens of Alaska.

A stewardship program will provide:

- substantial volumes of raw wood materials for both local consumption and value added processing
- an economic basis for local employment of youths in rural areas
- maintained or improved water and air quality
- habitat for threatened or endangered species
- sustainable forests which contribute to environmental health
- continued public and private benefits with long-term commitment to forest management

Urban and Community Forestry

In 1990, the Division of Forestry received an urban and community forestry grant from the U.S.D.A. Forest Service, State and Private Forestry, to assist communities in forest related activities. The community of St. George received state assistance in planting a research site of 2,500 trees on the island. This forest improvement will be studied for the next several years to determine whether trees can survive in this harsh environment.



A state forester discusses forest management with a forest land owner.

NEW DIRECTIONS IN FOREST RESOURCE MANAGEMENT

Alaska has a wealth of renewable and nonrenewable resources, and our forests play a vital role in this legacy. How we manage our resources today will set the stage for tomorrow. The Alaska Division of Forestry is committed to long term, sustained productivity of the forest ecosystem, which includes soil, water, air, fish and wildlife habitat, and healthy trees. The division's directions are based on the belief that development of forest resources in Alaska can coexist with environmental preservation and multiple use by applying proper management guidelines.

The Division of Forestry is committed to:

- managing state-owned forest lands for long-term benefit for future generations of Alaskans
- protecting forest resources by properly administering the Forest Resources and Practices Act

