

ALASKA LEGISLATURE COMMITTEE FILES 1987 - 1988 8672
5445 SRES N. JACKSON (GAME BRD.) - OIL & GAS HEARING (3/7/88) / 017

N. Jackson

~ game ~

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: JOHN ALFONSI
TITLE:
ADDRESS: MILE 1403.5 ALASKA HIGHWAY
CITY: DELTA JUNCTION ZIP: 99737
PHONE: N/A-
BILL NO:
SUBJECT: BOARD OF GAME

MESSAGE: CONFIRMATION OF NICHOLAS JACKSON TO THE BOARD OF GAME. AS AN ALASKAN FOR 17 YEARS AND AN AVID OUTDOORSMAN I STRONGLY RECOMMEND YOU CONFIRM NICK JACKSON TO THE BOARD OF GAME. I REGULARLY ATTEND BOARD MEETINGS AND I AM INDEED IMPRESSED WITH NICK'S INTUITIVENESS IN SOUND MANAGEMENT POLICIES FOR OUR WILDLIFE. NICK JACKSON IS A VERY CAPABLE MAN WHO IS TRULY CONCERNED WITH THE WHOLE STATE'S FISH AND GAME RESOURCES.

POHID: 07154355
DATE: 04/29/87
TIME: 15:43:55
LIONAME: FAIRBANKS LIO

COPIES: SENATORS

DUNCAN
ELIASON
FISCHER
JONES
STURGULEWSKI
ZHAROFF

JACKSON ✓
Brd Game
822-3869
3648

Resume

Nicholas (Nick) Jackson
Box 123
Gakona, AK 99585

PERSONAL DATA

Birth Year: 1936, Copper Center
Marital Status: Married, 5 children

JOB EXPERIENCE

Present	-Ahtna Construction, teamster
1980 - Present	-Ahtna, Inc., President
1979 - 1980	-Ahtna, Inc., Vice President
1975 - 1978	-Ahtna, Inc., General Manager
1974 - 1975	-Ahtna, Inc., Treasurer
1965 - 1973	-Alaska Dept. of Fish and Game, Fish and Game Technician, Glennallen

Other experience:

Involved in hunting, fishing and has been a trapper.

Outdoors

Fairbanks Daily News-Miner, Fairbanks, Alaska

Thursday, March 5, 1987—9

Wolf control: a battle with politics and science

Sportsmen urge return to predator control

By CHRISTOPHER RATIN
Correspondent

Predator control must be reestablished in the Interior and an active management program implemented if Interior moose populations are to fully recover, say spokesmen from the area's leading sportsmen's groups.

"Unit 20A has the potential of being the most important moose population in the state," says Sam Harbo, retired professor of biometrics at the University of Alaska-Fairbanks and former game board member. "But it'll never happen unless predator control—as part of a total management plan—is implemented."

Harbo, who also is Interior vice-president of the Alaska Outdoor Council, said the Alaska Department of Fish and Game has the capability of increasing moose harvests in the Tanana Flats—an area currently suffering from low moose populations due to wolf predation—by at least 2,000. The current harvest is 400 animals.

"Local game biologists realize the importance of properly managing wolves and moose in the interior," he said "but their hands are politically tied."

"I think the system was initially structured so the Board of Game could make the determination of what the important uses of game are. Once they decide, it's up to the department to establish the management regime to satisfy those objectives.

"As far as wolf management is concerned, some of that management authority has gradually shifted over to the board. They now make all the determinations regarding wolf control reductions. They've started to impinge on what I think is the authority of the department. It's very clear in many areas of the interior that consumptive use of moose and caribou is the priority use. But the board doesn't allow the department to initiate predator management that would optimize some of those moose and caribou populations."

According to Bruce Campbell with the Tanana Valley Sportsmen's Association, the Game Board's stand on wolf control is well known.

"Board member Joel Bennett was quoted by the Associated Press as saying that 'this is a new era for controlling wolves in their last strong hold in the country.' In the November 26, 1985 story, Bennett acknowledged that the approach will mean greater fluctuations in big game populations," and said "people are just going to have to get used to the idea." Because of this political climate, Harbo said the department has had difficulties in advocating what they considered proper wildlife management.

Campbell believes that when the local game department advocates wolf control, they are viewed as a far right, radical group.

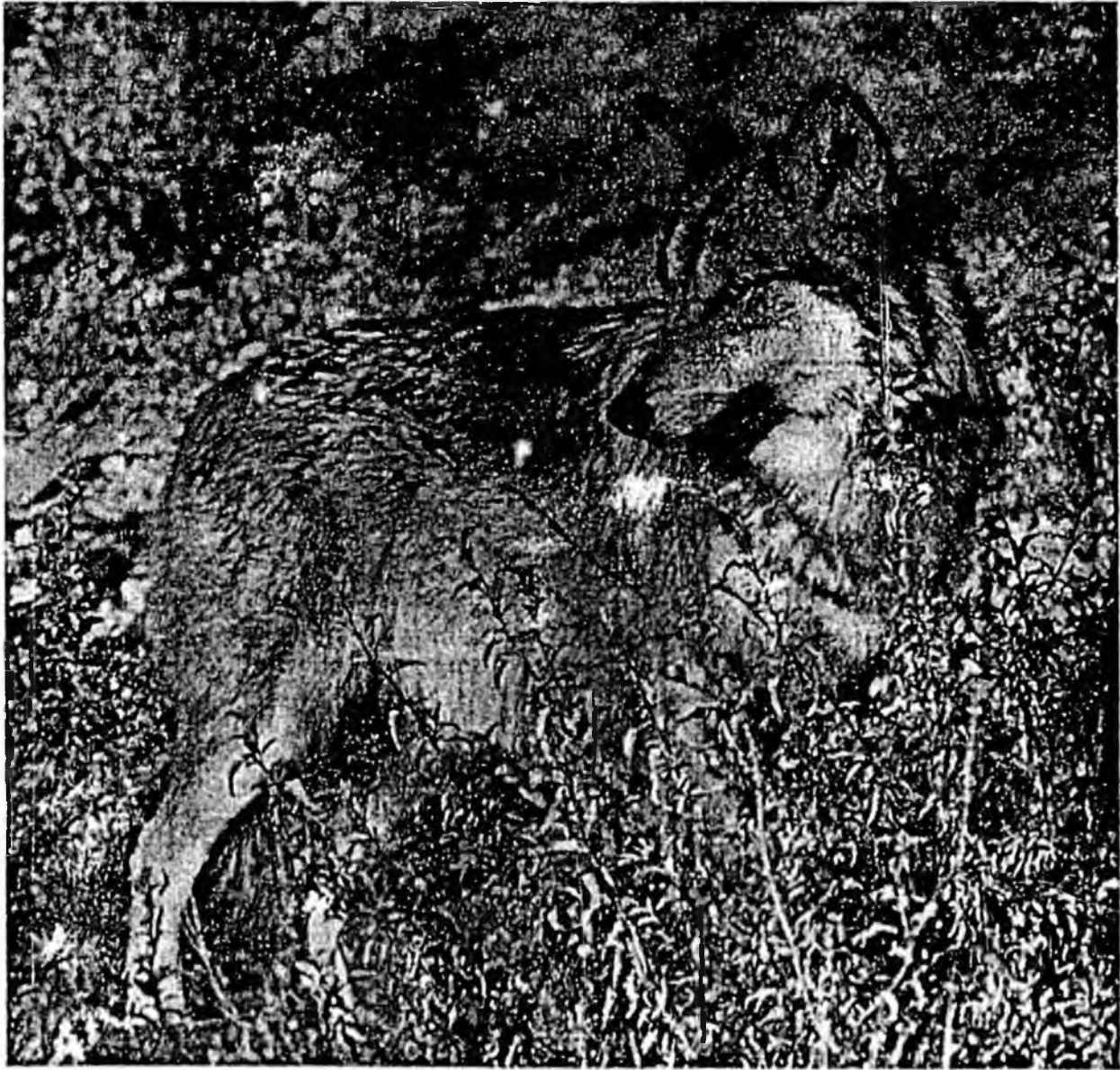
"They become the target for easy budget cutting, especially when tough choices are being made," he said. "It's how the upper ranks of the department get rid of their problems, by cutting budgets."

"This region has been chastized, economically and budgetwise, based on their stand that we need wolf control in order to rehabilitate our depressed moose populations," says former regional game coordinator Bud Burris. "I sat on meetings with Director of Game Lew Pamplin and other regional supervisors. They said we have to get off this (wolf control) because these anti-hunters are killing us budgetwise, and so we're not going to support wolf control. A few days later, they sent word down in memo form that we will not advocate management strategies regarding wolf control to the public or at Game Board meetings."

"In the past, the Board of Game, the Director of Game and the Commissioner of Fish and Game have told the department not to advocate wolf control or any other management technique."

He said that while working for the department, word came down from ADF&G headquarters that biologists would present only circumstances and present options and alternatives, rather than management plans based on their research and expertise.

"This drives the biologists up the wall," said Burris. "They've even been told that they can't respond to direct questions regarding habitat



CONTROVERSIAL CANINE—The wolf in Alaska, long an object of heated debate across the nation, receives a lot of political attention in the state where the wolf is seen by some as the last test of man's ability to effectively manage predators.

News-Miner library

manipulation or any other management technique."

"The board is in a great dilemma," says Harbo. "They think the public is so opposed to any reduction in wolf numbers that they are not willing to go along with any program that substantially reduces wolf numbers and allows priority uses of moose and caribou to be satisfied. The board certainly will not agree to any aerial shooting of wolves. Yet at the same time, they are not willing to enhance any of the trapper education programs they've implemented as a substitute means of controlling wolves."

Has the trapper program been a success? "No," says biologist Dave Kellyhouse of Tok. "We managed to teach trappers enough so that they increased their take of wolves in some areas, but so far, it hasn't controlled overall wolf numbers."

Kellyhouse gives several reasons why the trapping program hasn't been effective.

- Wolves are wary and difficult to capture.
- Even when wolves are abundant, they are relatively scarce compared to other furbearers.
- Wolf trapping is a lot of work. It takes lots of time and preparation to make trap sets.
- The cost of wolf traps are expensive. They cost about \$50 and up; out of the reach of most bush trappers.
- Preparing a wolf for market is a lot of hard work. The fur requires a lot of care.
- Wolf pelts aren't worth much money; about \$200 per pelt. That's the equivalent of two or three marten or half of a lynx—animals that take much less effort and expense to trap.

According to Harbo, there are other possible reasons for the dismal success of the wolf trapping program.

"The board determined they wouldn't supply information to the trappers, telling them where wolf populations were densest. They also weren't willing to turn over radio collar information. While there may be some legal restrictions there, the board could also be held legally at fault for not provid-

ing that information. The point is, the board hasn't made any effort to start legislation to change things."

Burris was concerned that hunters were blamed for the current decline of moose in 20A.

"Since statehood, hunter take in the Tanana Flats area has been minimal, with the exception of three years. Then the population was going down and the harvest was going up. From 1972-74, hunters may have taken as much as 19 percent of the population.

"Game Board member Vic Van Ballenberghe would like to attribute hunting as the cause of the major decline. However, when you look at studies of the population base that we kept since statehood, by 1972, we were already down to 1/4 of what the population was at one time, so the population had already declined by 75 percent or more.

"If the department had known this decline was taking place, they wouldn't have allowed such a large harvest," Burris said. "Even without those large harvests, the population was still crashing. If the action had been taken to stop it, it would have made the difference with the population bottoming out at 4,000 moose rather than 2,800; not significant to the recovery at all. It's very misleading to say hunter take caused that population to crash."

"We're not advocating that we just have wolf control in Unit 20," says Harbo. "We feel the population needs to be managed in total over there. It's going to include some vegetation manipulation, allowing wildfires to burn and restrictive burning. Some of the biologists feel strongly that predator management is needed also. Black and grizzly bears may be influencing moose calf survival, and of course, we've adequately documented that wolves take their toll on moose, year round."

In one area, studies show that a pack of 10 wolves killed a moose or caribou every 1.2 days during a 45-day period in late winter. In Denali National Park, biologist Gordon Haber estimated wolf packs of 5 to 24 killed an average of one moose or

Dall sheep every 2.9 days throughout the year. Of the 156 wolves trapped or harvested in the Tanana Flats area from 1975-79, 55 percent of the stomachs contained moose, 12 percent caribou, two percent sheep and three percent snowshoe hare.

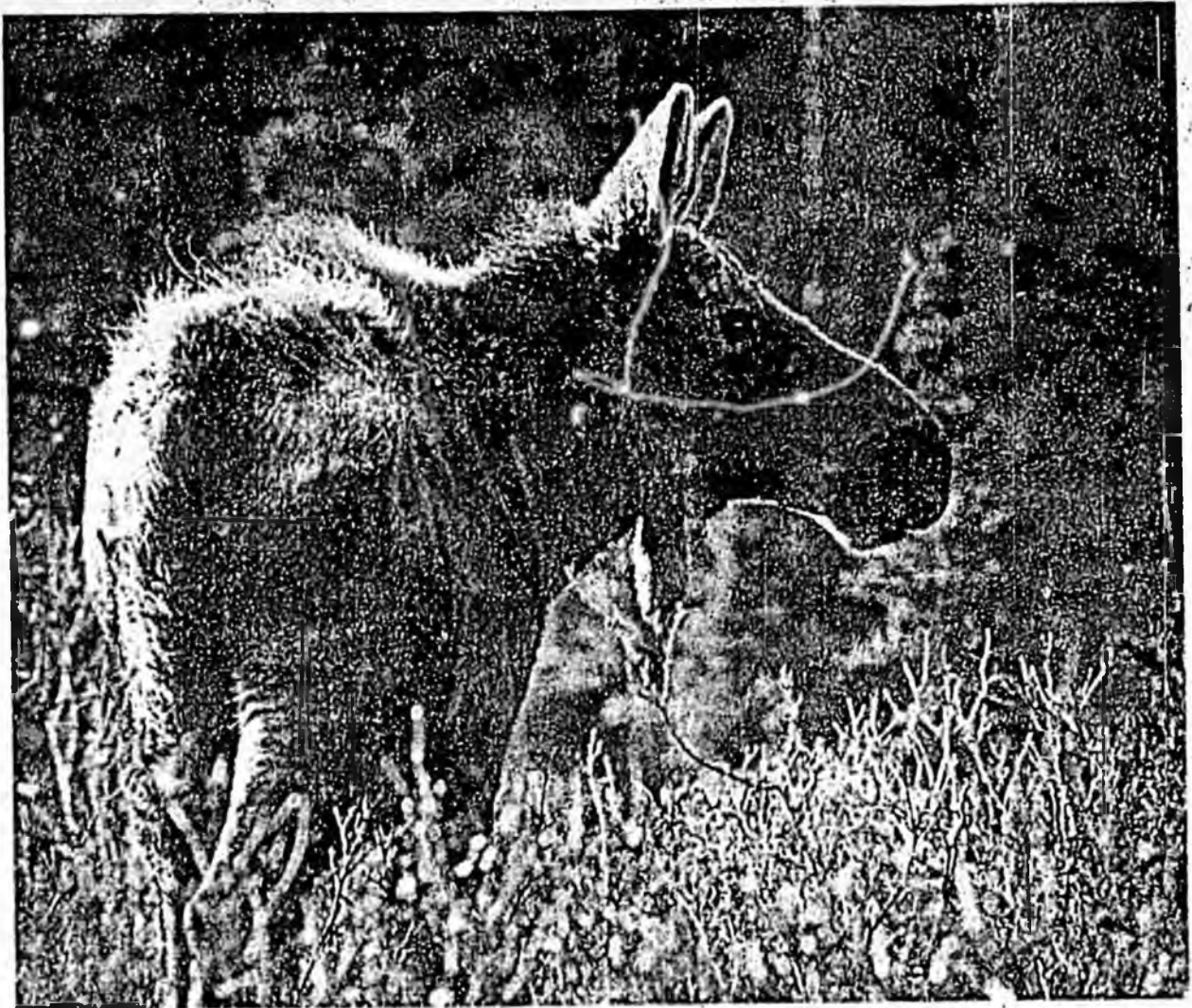
Based on a 1975-76 study, at least 23 wolf packs inhabited the Tanana Flats study area. Biologists calculated that each pack would kill one moose or caribou every 3 or 6 days. This would make an average of 35 to 70 kills, respectively, that would have been made per pack during the 7-month winter period. This

equals a total kill of 800 to 1,600 animals killed by 23 packs. Supporting their findings, biologists found that of those wolves harvested in the study area, 75 percent contained moose in their stomachs.

Weather can also severely limit predator-suppressed moose populations. "We don't know the status of the moose population in Unit 20," said Harbo. "In some areas it seems to be increasing. If it's stationery, we'll be cutting back on human take of moose. The department has already proposed to reduce the 1987 season by five days. Yet, a severe winter could wipe out

half of the remaining moose population. And the wolf population now in the area is as large as it was before we started wolf control in 1975. Cutting back on hunter harvest is delaying slightly the same problems we had in 1975. In other words, the problem doesn't get solved."

"Wolf control doesn't imply the wholesale elimination of wolves," he said. "It's simply one way of managing wolves to produce long-term, vigorous moose and caribou populations. Only after ungulates have reached larger population numbers can they better withstand occasional predator reduction."



PREY OF MANY—Bolstering moose and caribou populations is the goal of those in favor of wolf control programs. The Alaska Department of Fish and Game estimates the average moose yields 700 pounds of meat at \$2.74 per pound. *News-Miner library*

Moose and caribou peaked in 1960s

By **CHRISTOPHER BATIN**
Correspondent

Moose and caribou populations increased following a wolf reduction program in the 1950s and reached peak abundance in the 1960s. Deep snow and heavy browsing caused an initial crash of moose in 1965-66. Moose continued to decline until 1976, primarily due to deep snow, harvest by man, and predation by wolves. The latter removed an estimated 13 to 34 percent of the moose during winters 1973-74 and 1974-75.

Sporthunting was stopped in 1973, yet predation continued to limit the population. Following a 61 percent reduction of wolves in 1976, survival of calf and yearling moose increased two-to-fourfold. The moose population grew from 3,500 animals in 1978 to about 6,000 in 1982. Caribou populations also increased.

The level of harvest that wolf populations can sustain varies considerably, depending on food supplies and productivity. However, it appears

that harvest rates greater than 30 to 40 percent are usually required for wildlife managers to reduce wolf numbers.

Intensive surveys of moose and wolves in 1976 persuaded Division of Game biologists that reduction in wolf numbers was essential if moose numbers were to recover to meet moose harvest demands. Hunting had already been almost eliminated.

Aerial shooting and conventional trapping methods were used by department personnel and members of the public to reduce the wolf population. In the first year, approximately 143 of 239 wolves in 23 packs were killed in the Tanana Flats management area. Continued wolf removal from 1977 through 1979 maintained wolves at about this same level.

After 1979, however, wolves began to increase in numbers because fewer were killed. In May, 1982, ADF&G suspended its wolf removal program in the study area.

Cost of management must be evaluated

By CHRISTOPHER BATIN
Correspondent

When Gov. Steve Cowper said recently that wolf control was "too expensive" for the benefit received, he drew fire from sportsmen's groups across the state.

"The many members of the Alaska Outdoor Council feel strongly about the recent statements released regarding the cost of wolf control," said Interior vice president Sam Harbo. "We feel that the proper approach to look at the cost of any management strategy is to evaluate the cost of that strategy in terms of how well you achieve your goals. This is what the cost of wolf control is evaluated against, whether or not it's worthwhile to spend \$30,000, \$50,000 or \$100,000 to get \$4 million back."

"The Alaska Department of Fish and Game estimates the average moose yields 700 pounds of meat at \$2.74 per pound," said Tom Scarborough, chairman of the Interior Alaska Fish and Game Advisory Committee. "If 500 additional moose could be harvested, this would inject more than \$1 million into the economy. And this doesn't take into consideration economic benefit from expenditures for hunting and camping equipment, transportation, and gasoline."

"It's unfortunate that Gov. Cowper made the public announcements that he did, saying wolf control was too expensive," said Harbo. "He completely misses the point. The aerial take of wolves may be the most cost-effective way to replenish some of our moose and caribou populations. With proper management, we can probably increase the harvest from several hundred to 2,000 animals, creating an economic benefit in excess of \$4 million."

According to former game biologist Bud Burris, the department has to needlessly spend money allocated for wolf control to recover the carcasses. "It cost two to three times as much to retrieve the wolf as it does to shoot it," he said. "We can justify some expense of retrieving the animals, because of their research value. However, those costs have been struck from the program and are now called control, but they're basically research."

Scarborough says that the necessary predator control can be accomplished within the current ADF&G regulations, and at no cost to the State of Alaska.

"The last state administration said that only state employees could be trusted to perform predator control," he said. "This control by ADF&G personnel proved to be very costly, because it incorporated not just control, but also research. The public has shown they can control wolves very effectively, if allowed to do so by state government."

He said that Subunit 20A is critical to the success of moose and caribou populations in all of Alaska, and worthy of whatever expense necessary to maintain their welfare.

"The oral report given to my committee by ADF&G staff was not very bright," he said. "The wolf population is back to somewhere over 200 animals (approximately 26 packs). This is close to the level prior to any wolf control in the middle seventies. Moose and caribou can't cope with this increased predation."

"The area is important to consumptive and nonconsumptive users also because it can be reached by air, ground and water. It's utilized by many hunters. As time passes, the area will get more important as the population of Fairbanks increases. And Fort Wainwright will have a big impact as the new troops arrive."

Trends indicate that hunters are dissatisfied with extremely low moose numbers in the interior, and have been traveling farther afield during hunting season in order to bag a moose.

"Hunters are traveling to the Nowitna and the Koyukuk and the Yukon," said registered guide Pete Shepherd. "These additional hunters are creating conflicts with residents in these areas, who also depend on moose for food, and who have wolf control problems of their own. The department and the Board of Game need to act on the matter, now!"

Cowper says control 'legit' but expensive

By CHRISTOPHER BATIN
Correspondent

In a recent interview, Ron Clarke of KUAC-FM asked Gov. Steve Cowper his stand on wolf control. Sources say Cowper doesn't understand the complexity of the wolf control issue, and lost credibility by commenting on it.

Clarke—How do you decide when to get real specific with different aspects of these agencies' budgets? I mean, you went right into ADF&G and dealt with wolf control, which is a real small part. What prompts you to do something like that?

Cowper—Well, you know wolf control is an emotional issue that's existed since I came to Alaska. About every two years, the state says, okay, we're gonna go out and reduce the wolf population, do predator control, and we do. We go out and shoot a few wolves, and there's a great howl from all over the place and there are 49 lawsuits filed and it turns out that we always back away. We say okay, we won't do it anymore and I just don't want to repeat that anymore. I think that predator control is something that's uh, that is legit, but I don't want to go through all that stuff. I mean, I've got enough things to attend to without having to become a party to 12 or 15 lawsuits that people file because we're controlling the wolf population. Now as it turns out, it probably is not gonna be something that is absolutely necessary in any event this year.

Clarke—Too controversial to deal with the public or . . .

Cowper interrupts—S'not worth fooling with. When you compare the results with the cost, the overall cost to the state of wolf control programs, you find out that it just isn't cost effective. We just thought we had enough on the plate this year for us to do without having to wrestle with wolf control.

Clarke—Seems like more and more though, all the easy questions are gone and the . . .

Cowper interrupts—Oh yeah, lawsuits and complaining and people claiming they are gonna get ya in the next election and all that stuff. Basically, we've just taken the position that we got four years here to do a job and we're just gonna do it the best way we know how and make the best decisions that we know how to make. Sometime I suppose, three years from now, we'll look up and maybe run a poll to see if anybody wants us around anymore and if they, you know, (laugh) if they do, maybe we'll give it another shot. If they don't we'll just pass into history. But I can tell ya, we're gonna do the job that's required. I think that's why I was elected.

Clarke—Back to wolves, though. Why not leave that up to Fish and Game and let them mess with it?

Cowper—Cause Fish and Game isn't the only party that has to deal with it. The Attorney General's office has to deal. The Governor has to deal with it. Um, everybody has to deal with it, and it wasn't apparently so critical that in this particular year that, you know, we regarded it as being absolutely necessary.

According to inside sources, Cowper's comments on wolf control may have been sparked to life by a letter from Wayne Hall, Director of the Alaska Wildlife Alliance. Excerpts from that letter are as follows:

"We would like to follow up on a few wildlife related issues discussed between you and the Alaska Environmental Political Action Committee.

"According to the notes and recollections of the participants at the AEPA meeting and Cindy Lowry of Greenpeace USA, you stated that you were opposed to aerial wolf control. In a time of declining General Fund revenues (wolf control must come out of the General Fund) and when all Departments and programs are being cut, including more than a million dollars from other programs in ADF&G, we feel that the aerial wolf control program, considered an 'increment' in the ADF&G budget request, should not be funded.

"Other notes from the meeting also indicate that you favor balance on

the Board of Game. There is not now, nor has there ever been, a balance on the board with respect to . . . the consumptive and non-consumptive users. We urge you to consider the appointment of a non-consumptive user . . .

"It seems there is a possibility that you may be appointing Mr. Sam Harbo. We do not believe this is consistent with your opinions on wolf control and a balanced Board of Game. At a time when the wolf control controversy has subsided somewhat, it would seem the best way to plunge the state and the administration right back into the wolf control fire would be to appoint Mr. Harbo. We hope you will not take this initiative."

As a consequence, Cowper publicly denounced the wolf control program as "too expensive." The wolf predation control plans were suspended, and the funds reallocated for other projects.

According to a memo from Director of Game Lew Pamplin, \$30,000 earmarked for the project were redistributed as follows:

- Intensive wolf surveys in 20B \$11,000
- Wolf Surveys in 20A \$3,000
- Caribou calving surveys east of Sagavanirktok River \$9,000
- Revise trapper questionnaire/data analysis \$3,000

Pamplin also noted that he was "placing \$4,000 back into Headquarters' operating budget to help pay for report publication costs in this fiscal year."

FAIRBANKS FISH AND GAME ADVISORY COMMITTEE

1676 Taroka Drive,
Fairbanks, Alaska 99709
March 12, 1987

Honorable Senator Jack Coghill
Chairman Senate Resources Committee
P.O. Box V,
Juneau, Alaska 99811

Dear Senator;

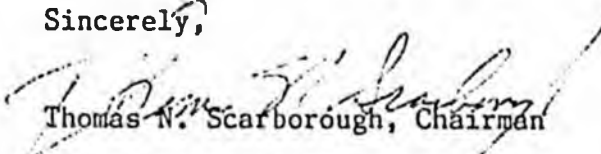
You are already aware of the dissatisfaction over the reappointment of the same members to the Game Board. Governor Cowper stated prior to his election, he would correct the situation the Sheffield administration had created. It is now apparent this promise has been reneged on.

Consequently, the only way we see now to place members on the Game Board which will make regulations based on sound biological advice rather than the present method of political bias, is to have the legislature reject the unacceptable Cowper appointments.

I would therefore like to request that hearings be held in Fairbanks and other areas of the state as soon as possible so we Sportsman and other interested public will have an opportunity to have input into the confirmation process.

It appears Fairbanks will be without a Game Board member as Vic Van Ballenberghe is being transferred to Anchorage by his employer. This should taken in to account on the appointment of new Game Board members.

Sincerely,


Thomas N. Scarborough, Chairman

cc File

Grim Haley

FAIRBANKS FISH AND GAME ADVISORY COMMITTEE
1676 Taroka Drive,
Fairbanks, Alaska 99709
March 12, 1987

Honorable Governor Steve Cowper
P.O. Box A,
Juneau, Alaska 99811

Dear Governor;

I recieved a response to my letter to you dated February 9, 1987 from Commissioner Collinsworth (ADF&G). I would rather have heard from you. The attitude of the leadership of ADF&G is already well known. It has been known for several years because it was established by the Sheffield Administration. We Sportsmen had hoped that a new Administration would at least attempt to correct the political manipulation we are so sick of. At least that is what you led us to believe during your campaign.

Unit 20A is critical to the Interior of Alaska. Most of our wildlife resources depend on sound biological management of this area. The leadership of ADF&G and your (do as they are politically instructed) Board of Game has determined these resources be managed for priority use by four legged predators. This practice violates sound wildlife management practices and quite possibly the State Constitution. Of course your Attorney Generals staff assigned to ADF&G believes it is legal until a Court of law declares it otherwise. This is a very sorry situation to be in. Now you perpetuate it by reappointing the same members back on the Board of Game. We Sportsmen certainly have no quarrel with Sidney Huntington but Nick Jackson and Joel Bennett are something else. They have a proven record of putting politics above biological management. I recomend you withdraw these nominations as soon as possible as they are only going to bring more embarassment to your administration.

It dismays me to have to write this letter but I have no choice. The wildlife of the Interior (they are renewable resources) are too important to simply ignore. Wildlife is a resource enjoyed by all and vital to the health of the Interior and many other parts of the State. To continue the mismanagement of the past four years is simply intolerable.

Please do not expect us to believe that decisions on predator control are to be made by the Board of Game when you personally killed the only program we had in the Interior. As clearly stated in your interview printed in the Fairbanks Daily News-Miner, Thursday, March 5, 1987 you made a purely political decision on wolf control. Yet you attempt to tell us you are interested in developing Alaska's renewable resources. Are we the public supposed to believe you on other issues?

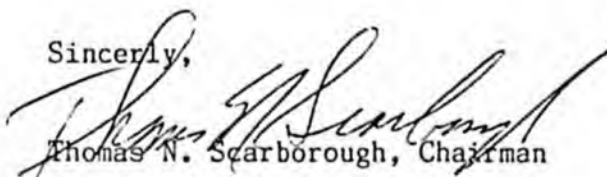
If this is how you intend to manage, your professional wildlife biologists should be told so they can go find work where they might be more useful. If their advice is to be continued to be ignored there is no need to have them on the payroll.

(2)

I and my committee will continue to work closely with the Interior Regional Staff of ADF&G. However, it is clear that the Headquarters Staff are not concerned with the welfare of Interior wildlife resources or the welfare of the Interior hunters. Our top priority is the wildlife resource and not special political interests. If the Game Board and the Commissioner were truly concerned with the welfare of our Interior moose and caribou populations, they would not have advised you to drop our remaining program to rehabilitate moose populations. In addition, they would have scheduled the matter for Board action and arranged to conduct the Board meeting in Fairbanks,

I look forward to your future actions. I had sincerely hoped that we would be marching forward together but unless you change directions that will clearly not be the case.

Sincerely,



Thomas N. Scarborough, Chairman

cc: file
Bryon Haley
TVSA
✓ Sen. Coghill

FAIRBANKS FISH AND GAME ADVISORY COMMITTEE
1676 Taroka Drive,
Fairbanks, Alaska 99709
March 12, 1987

MAR 16 1987

Honorable Senator Jack Coghill
Chairman Senate Resources Committee
P.O. Box V,
Juneau, Alaska 99811

Dear Senator;

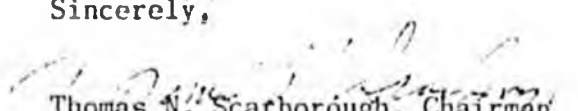
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Sincerely,


Thomas N. Scarborough, Chairman

cc file
Lynn P. Kay

Tok Cutoff-Nabesna Road
Advisory Committee
S. R. Box 380
Gakona, Alaska 99585
February 1, 1987

MAR 1.6. 1987

Senator Coghill &
Representative Shultz
Pouch U
Juneau, Alaska 99802

Dear Jack and Dick:

The Tok Cutoff-Nabesna Road Advisory Committee met on January 24, 1987 in a general meeting. We have a couple of items we would like you as our legislators to address.

1. We would like to see the requirement for a trophy tag on wolves only after the hunter has been successful. We believe the hunter would not mind paying the trophy fee after the animal had been killed. Most hunters only see wolves occasionally, but would welcome the opportunity to go ahead if the tag was or could be purchased when the animal was killed.
2. We would like to make sure the legislature does not raise the cost of resident/non-resident hunting licenses and trophy tags. We would like them to remain the same even though the revenues of the state are declining.
3. We would like to see both of you draft legislation requiring qualifications for Board of Game and Fisheries members. We believe these people should have first hand and/or other experience when dealing with our resources.

Hope you can assist our committee with some of this or at least make sure it doesn't get slipped in somewhere else.

Sincerely,



Bill Ellis, Chairman
822-3426

P. S.

If you have any questions, please call Thelma at 822-3426.

G. Slaven

~fisheries~

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: LEE SEATER
TITLE:
ADDRESS: 537 TIMBERLAKE DRIVE
CITY: ASHLAND, ORE
PHONE: 482-1853
ZIP: 97520

BILL NO:
SUBJECT: GAME BOARD SELECTIONS
MESSAGE: I AM CONCERNED ABOUT CANDIDATES THAT ARE NOW SERVING, OR IN THE PROCESS OF BEING APPOINTED TO, THE BOARD. WE NEED PEOPLE OF HIGH QUALITY AND INTEGRITY. I FEEL TWO OF YOUR CHOICES ARE EXCELLENT, GARY SLAVEN AND JOE DENHART. THE THIRD CHOICE, MIKE HAGLAND, I THINK HE TENDS TO THINK IN ONE DIRECTION, BEING A DRIFTER HIMSELF, I DON'T THINK HE CAN LOOK AT THE WHOLE PICTURE. WE NEED PEOPLE WHO CAN CONSIDER ALL OF THE ASPECTS.

POMID: 03100621
DATE: 04/30/87
TIME: 10:06:21
LOCATION: ANCHORAGE LIO

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COLLINS	COTTEN	DUNCAN
DAVIDSON	DAVIS	ELIASON
DONLEY	ELLIS	FAHRENKAMP
FRANK	FURNACE	FAIKS
GOLL	GRUENBERG	FISCHER
GRUSSENDORF	HANLEY	HALFORD
HERRMANN	HOFFMAN	HENSLEY
HUDSON	KOPONEN	JONES
LARSON	MARTIN	JOSEPHSON
MENARD	MILLER	KELLY
NAVARRE	PEARCE	KERTULA
PETTYJOHN	PHILLIPS	RODEY
POURCHOT	RIEGER	STURGULEWSKI
SHULTZ	SPRINGER	SZYHANSKI
SUND	SNACKHAMMER	UEHLING
TAYLOR	ULMER	ZIAROFF
WALLIS	ZAWACKI	

PUBLIC OPINION MESSAGE

DEAR: SENATOR COGHILL

NAME: ROBERT E. ATKINSON
TITLE:
ADDRESS: BOX 4067
CITY: KENAI
PHONE: N/A-
BILL NO:
SUBJECT: BOARD OF FISH CONFIRMATION
MESSAGE: I WOULD LIKE TO SEE GARY SLAVEN AND JOE DEMMERT APPOINTED, PLEASE.

ZIP: 99611

PO#ID: 13162335
DATE: 04/29/87
TIME: 16:23:35
LIONAME: SOLDOTNA LIO

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KENAI PENINSULA INFORMATION OFFICE

(SOLDOTNA)

TO: Juneau FOR: ~~San Resources~~ PHONE: _____
FROM: Soldotna / Cheryl Sutton PHONE: _____
ADDITIONAL INSTRUCTIONS: _____

DATE TIME SENT: 5/2/87 12:57 PLEASE ACKNOWLEDGE RECEIPT:

DISPOSAL OF ORIGINAL: _____ THROW AWAY
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BY: Shanna

Cheryl Sutton

Box 546

Soldotna, AK 99669

The Kenai Peninsula Fishermen's Cooperative Association endorses the confirmation of Gary Slaven and Joe Demmert to the Alaska Board of Fisheries.

Cheryl Sutton

SLAVEN
Brd. Fisheries

GARY SLAVEN
P.O. BOX 205
PETERSBURG, AK 99833
PHONE: (907) 772-3675

SSN: 540-62-2563

DOB: MARCH 7, 1951

Commercial fisherman since 1963. Owned vessels since 1973.
Second generation fisherman.

Graduated high school in Junction City, Oregon in 1969. Entered Marine Corps in 1970. Honorable Discharge in 1973 with a rating of Sergeant E-5. While in Marine Corps had training in Public Human Relations.

Currently is Vice President of Alaska Trollers Association and has held this post for three years. Prior to becoming Vice President, served on the Board of Directors for the Alaska Trollers Association for approximately five years.

Is a member of: United Fishermen of Alaska for approximately ten years, Petersburg Troll Pact for five years, delegate to the U.S./Canada Salmon Treaty negotiations for approximately two years, member Northern Panel, U.S. - Canada Pacific Salmon Commission, and is a recent member of the Aquaculture Association, Northern Southeast Chapter.

P. Taylor

Marine Pilots

BOARD MARINE
Taylor

R/02
RESUME OF EXPERIENCE OF
M. PAUL TAYLOR, P.E.

PERSONAL

Name: Marvin Paul Taylor, Jr. SS# 574-18-5404

Address: Post Office Box 241
Skagway, Alaska 99840

Telephone: (907) 983-2214

Birth date: January 3, 1949

Registered Professional Civil Engineer, State of Alaska, 4260-E
Registered Professional Civil Engineer, Yukon Territory
Licensed Explosives Handler, Alaska and Yukon Territory

EDUCATION

University of Alaska, Fairbanks, B. S. degree in Civil Engineering,
May 1972

University of Alaska, Fairbanks, Master of Civil Engineering
May 1973

EXPERIENCE

Jul 1981 to Present/ White Pass & Yukon Route, Skagway. Manager, Rail and Alaska Operations: Promoted to highest operation official to implement changed transport conditions in delivery of bulk fuel and container traffic thru port of Skagway. Manage all aspects of Marine and Petroleum construction projects. Negotiate all railroad and Teamster 959 contracts. Represent White Pass interest to public officials. Prepare, implement and control all operation and capital budgets.

Southeast Stevedoring Corp, Skagway. Port Manager: Responsible for all agency work and berthing conditions of all cruise ships, ore carriers, petroleum barges and other ships in Skagway. Design and construct all dock expansion and modification projects for cruise ships.

Resume

M. Paul Taylor, P.E.

Page 2...

EXPERIENCE (continued)

Dec 1980 to Jun 1981/ Alaska Department of Transportation, Juneau.
Position: Assistant construction Engineer, Southeast Region. Direct the administration of construction projects through subordinate project engineers.

Jul 1978 to Nov 1980/ Alaska Department of Transportation, Skagway.
Position: Project Engineer for Skagway State Street reconstruction, Sheep Creek Bridge construction and other projects in Juneau.

Oct 1974 to Jun 1978/ Alaska Department of Transportation, Skagway.
Position: Ass't. Project Engineer for the construction of the Klondike Highway from Skagway to the Canadian Border, including construction of the cable stayed Capt. Moore Creek Bridge.

Apr 1974 to Sep 1974/ White Pass & Yukon Route, Skagway. Position: Civil Engineer. In responsible charge of work on emergency reconstruction in only six days of bridge 15C, a 70 foot high trestle bridge destroyed by fire. Planned, designed and surveyed new yard track leads into locomotive and car shops.

May 1973 to Feb 1974/ Union Pacific Railroad Co., Omaha. Position: Staff engineer. Supervised Union Pacific forces for construction of six high-speed curve changes near Rock Springs, Wyoming. Managed reconstruction of eight mile long main line, signals and yard relocation with welded rail at Marysville, Kansas.

May 1972 to Oct 1972/ Alaska Railroad, Fairbanks. Position: Civil Engineer. Provided engineering and partial construction management for subgrade construction of the 10 mile spur from Fort Wainwright to Fairbanks International Airport.

Member: Clerk Skagway School Board
American Society of Civil Engineers
American Railway Engineering Association
Skagway Volunteer Fire Department

Past

Member: Skagway School Board
President Skagway Chamber of Commerce

Oil 3' Gas

Hearings

3-7-88

5-1975A
Bannister
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IN THE SENATE

BY THE RESOURCES COMMITTEE

SENATE BILL NO.

IN THE LEGISLATURE OF THE STATE OF ALASKA
FIFTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act authorizing state royalty waivers and reductions for certain oil and gas leases; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 38.05.180(j) is amended to read:

(j) To prolong the economic life of an oil and gas field, the commissioner shall adopt regulations for all bidding methods to allow reduction of royalty on leases within the field to compensate for increasing costs in the later stages of production decline. Except as provided in (cc) of this section, the [THE] commissioner may not grant a reduction of royalty until two years' initial production from the field has occurred and each lessee requesting the reduction has made a clear showing that the revenue from all hydrocarbons produced from the field is insufficient to produce a reasonable rate of return with respect to that lessee's total investment in the field.

* Sec. 2. AS 38.05.180 is amended by adding new subsections to read:

(cc) Upon application by the lessee of a lease covered by this section, the commissioner may temporarily waive or reduce the royalty requirement of the lease during the first two years of production, if

(1) the lease was issued before January 1, 1986;

(2) the lease was not under commercial production on January 1, 1988; and

(3) the lessee makes a clear showing that the revenue from all hydrocarbons produced from the field is insufficient to produce a

1 reasonable rate of return with respect to the lessee's total invest-
2 ment in the field.

3 (dd) An application under (cc) of this section must be filed
4 with the commissioner between June 1, 1988, and June 1, 1990.

5 (ee) A royalty waiver or reduction made under (cc) of this
6 section may not apply to production under the lease after
7 December 31, 1995.

8 (ff) If the posted price of West Texas Intermediate crude oil
9 rises above \$25 a barrel before December 31, 1995, the commissioner
10 may phase out a royalty reduction or waiver made under (cc) of this
11 section. The terms and duration of the phase-out shall be based on a
12 sliding scale that is tied to the price of oil and that has
13 established by regulation of the department.

14 * Sec. 3. This Act takes effect immediately under AS 01.10.070(c).
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5-1988A
Bannister
2/24/88

1 IN THE SENATE

BY THE RESOURCES COMMITTEE

2 SENATE BILL NO.

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act authorizing state royalty waivers for certain
7 oil and gas leases and authorizing state oil and gas
8 properties production tax waivers for certain leases
9 and property; and providing for an effective date."

10 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

11 * Section 1. LEGISLATIVE FINDINGS. The legislature finds that

12 (1) since 1985, world oil prices have dropped precipitously;

13 (2) the sharp decline in world oil prices has had a dramatic
14 effect on new oil and gas exploration and development in the state; in
15 1987, three exploratory wells were drilled in the state, as compared to 22
16 in 1985;

17 (3) future oil and gas development in the state depends on the
18 productivity of smaller fields in the state; many smaller fields lie in
19 remote offshore areas of the state and face severe and unique constraints,
20 including long distances from pipelines and supply systems, sea ice, sea-
21 sonal drilling restrictions, and high construction and operation costs;
22 under current economic conditions, these fields will not recoup the costs
23 of development, and, therefore, will not be developed without encouragement
24 from the state; and

25 (4) because of the long lead time necessary to bring remote
26 fields into commercial production, and because of the severity of the
27 state's current economic difficulties, it is in the public interest to
28 encourage the immediate development of these fields.

29 * Sec. 2. AS 38.05.180(j) is amended to read:

1 (j) To prolong the economic life of an oil and gas field, the
2 commissioner shall adopt regulations for all bidding methods to allow
3 reduction of royalty on leases within the field to compensate for
4 increasing costs in the later stages of production decline. Except as
5 provided in (cc) of this section, the [THE] commissioner may not grant
6 a reduction of royalty until two years' initial production from the
7 field has occurred and each lessee requesting the reduction has made a
8 clear showing that the revenue from all hydrocarbons produced from the
9 field is insufficient to produce a reasonable rate of return with
10 respect to that lessee's total investment in the field.

11 * Sec. 3. AS 38.05.180 is amended by adding new subsections to read:

12 (cc) Upon application by the lessee of a lease covered by this
13 section, the commissioner shall temporarily waive the royalty require-
14 ment of the lease, if the lessee demonstrates that

15 (1) the lease was issued before January 1, 1986;

16 (2) the lease is not under commercial production;

17 (3) projected production revenue from the lease would be
18 insufficient to permit recovery of projected initial development costs
19 within 10 years of the beginning of commercial production or within a
20 shorter period that is commercially reasonable under the circum-
21 stances; and

22 (4) exploration of the lease has delineated oil reserves.

23 (dd) An application under (cc) of this section must be filed
24 with the commissioner by July 1, 1994. The lessee must pay the cost
25 of processing the application.

26 (ee) A royalty waiver made under (cc) of this section expires
27 when the commissioner certifies that sufficient production revenue has
28 been received to recover initial development costs. If the lease is a
29 net profit share lease, certification under this subsection may not

1 precede the first credit balance in the lessee's development account.

2 (ff) The commissioner may attach the following conditions to a
3 royalty waiver made under (cc) of this section:

4 (1) if the lease is not a net profit share lease, that the
5 state receive a net profit share when initial development costs have
6 been recovered;

7 (2) that the lessee meet certain reasonable reporting
8 requirements for the purpose of certifying recovery of initial devel-
9 opment costs under (ee) of this section.

10 (gg) The commissioner may not attach a condition under (ff) of
11 this section that would deny the lessee a commercially reasonable rate
12 of return from the lease after recovery of initial development costs.

13 (hh) If a lessee files an application under AS 43.55.035 within
14 60 days before or after filing an application under (cc) of this
15 section, the commissioner and the commissioner of revenue shall hear
16 and decide the applications jointly.

17 (ii) A person aggrieved by a decision of the commissioner under
18 (cc) of this section may appeal the decision to the superior court.

19 (jj) In (cc) - (jj) of this section

20 (1) "initial development costs" include all expenses that
21 accrue from issuance of the lease to the beginning of commercial
22 production in support or as a result of lease development, plus inter-
23 est from the date of accrual on the expenses at a rate that equals,
24 for net profit share leases, the rate of interest allowed on the
25 lessee's development account, if the rate is not less than the pre-
26 vailing prime rate plus two percent, and, for all other leases, the
27 prevailing commercial rate for projects of like risk and magnitude, if
28 the rate is not less than the prevailing prime rate plus two percent;
29 if the lease is a net profit share lease, "initial development costs"

1 includes an expenditure that is includable as a debit in the lessee's
2 development account;

3 (2) "projected production revenue" means revenue deter-
4 mined on the basis of the Department of Revenue's current 30 percent
5 case price projections at the point of production, after deducting

6 (A) projected direct operating costs;

7 (B) projected taxes under 26 U.S.C. 4986 - 4998 (Wind-
8 fall Profit Tax on Domestic Crude Oil);

9 (C) projected subsequent development costs on an
10 accrual basis;

11 (D) the projected royalty that would be due under the
12 lease in the absence of a waiver under (cc) of this section; and

13 (E) the projected tax that would be due under AS 43.-
14 55, in the absence of a tax waiver under AS 43.55.035;

15 (3) "projected subsequent development costs" means all
16 development costs that accrue after the beginning of commercial pro-
17 duction.

18 * Sec. 4. AS 43.55.011(a) is amended to read:

19 (a) Unless the tax is waived under AS 43.55.035, there [THERE]
20 is levied upon the producer of oil a tax for all oil produced from
21 each lease or property in the state, less any oil the ownership or
22 right to which is exempt from taxation. The tax is equal to either
23 the percentage-of-value amount calculated under (b) of this section or
24 the cents-per-barrel amount calculated under (c) of this section,
25 whichever is greater, multiplied by the economic limit factor de-
26 termined for the oil production of the lease or property under AS
27 43.55.013. If the amounts calculated under (b) and (c) of this sec-
28 tion are equal, the amount calculated under (b) of this section shall
29 be treated as if it were the greater for purposes of this section.

1 * Sec. 5. AS 43.55.016(a) is amended to read:

2 Sec. 43.55.016. GAS PRODUCTION TAX. (a) Unless the tax is
3 waived under AS 43.55.035, there [THERE] is levied upon the producer
4 of gas a tax for all gas produced from each lease or property in the
5 state, less any gas the ownership or right to which is exempt from
6 taxation. The tax is equal to either the percentage-of-value amount
7 calculated under (b) of this section or the cents-per-barrel amount
8 calculated under (c) of this section, whichever is greater, multiplied
9 by the economic limit factor determined for gas production of the
10 lease or property under AS 43.55.013. If the amounts calculated under
11 (b) and (c) of this section are equal, the amount calculated under (b)
12 of this section shall be treated as if it were the greater for pur-
13 poses of this section.

14 * Sec. 6. AS 43.55 is amended by adding a new section to read:

15 Sec. 43.55.035. TEMPORARY TAX WAIVER. (a) Upon application by
16 an oil or gas producer covered by this chapter, the commissioner shall
17 temporarily waive the tax under this chapter for a lease or property
18 if the applicant demonstrates that

19 (1) the lease or property was conveyed by, or derived in
20 the chain of title from, a lease issued by the commissioner of natural
21 resources under AS 38.05.180 before January 1, 1986;

22 (2) the lease or property is not under commercial produc-
23 tion;

24 (3) projected production revenue from the lease or property
25 would be insufficient to permit recovery of projected initial develop-
26 ment costs within 10 years of the beginning of commercial production
27 or within a shorter period that is commercially reasonable under the
28 circumstances; and

29 (4) the commissioner of natural resources has certified

1 that exploration of the lease or property has delineated oil reserves.

2 (b) An application under (a) of this section must be filed with
3 the commissioner by July 1, 1994. The applicant must pay the cost of
4 processing the application.

5 (c) A tax waiver made under (a) of this section expires when the
6 commissioner certifies that sufficient production revenue has been
7 received to recover initial development costs. If the lease or prop-
8 erty is a net profit share lease, certification under this subsection
9 may not precede the first credit balance in the producer's development
10 account.

11 (d) The commissioner may require, for a tax waiver under this
12 section, that the producer meet certain reasonable reporting require-
13 ments for the purpose of certifying recovery of initial development
14 costs under (c) of this section.

15 (e) If an applicant files an application under AS 38.05.180(cc)
16 within 60 days before or after filing an application under (a) of this
17 section, the commissioner and the commissioner of natural resources
18 shall hear and decide the applications jointly.

19 (f) A person aggrieved by a decision of the commissioner under
20 (a) of this section may appeal the decision to the superior court.

21 (g) In this section

22 (1) "commissioner" means the commissioner of revenue;

23 (2) "initial development costs" includes all expenses that
24 accrue from issuance of the lease or property to the beginning of
25 commercial production in support or as a result of lease or property
26 development, plus interest from the date of accrual on the expenses at
27 a rate that equals, for net profit share leases, the rate of interest
28 allowed on the producer's development account if the rate is not less
29 than the prevailing prime rate plus two percent, and, for all other

1 leases or properties, the then-prevailing commercial rate for projects
2 of like risk and magnitude if the rate is not less than the prevailing
3 prime rate plus two percent; if the lease or property is a net profit
4 share lease, "initial development costs" includes an expenditure that
5 is includable as a debit in the producer's development account;

6 (3) "projected production revenue" means revenue determined
7 on the basis of the department's current 30 percent case price projec-
8 tions at the point of production, after deducting

9 (A) projected direct operating costs;

10 (B) projected taxes under 26 U.S.C. 4986 - 4998 (Wind-
11 fall Profit Tax on Domestic Crude Oil);

12 (C) projected subsequent development costs on an
13 accrual basis;

14 (D) the projected royalty that would be due on the
15 lease or property in the absence of a waiver under AS 38.05.-
16 180(cc); and

17 (E) the projected tax that would be due under this
18 chapter in the absence of a tax waiver under this section;

19 (4) "projected subsequent development costs" means all
20 development costs that accrue after the beginning of commercial pro-
21 duction.

22 * Sec. 7. This Act takes effect immediately under AS 01.10.070(c).
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DMEM Form No. 18-83 (UNIT AGREEMENT)
DNR Form No. 10-1128
(Revised June, 1983)

UNIT AGREEMENT
FOR THE EXPLORATION, DEVELOPMENT, AND OPERATION
OF THE KEY UNIT

STATE OF ALASKA
THIRD JUDICIAL DISTRICT

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ATTACHMENTS

<u>Exhibit</u>	<u>Title</u>	<u>Page</u>
A	OWNERSHIP INFORMATION	24
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UNIT AGREEMENT
FOR THE EXPLORATION, DEVELOPMENT, AND OPERATION
OF THE KEY UNIT

STATE OF ALASKA
THIRD JUDICIAL DISTRICT

THIS AGREEMENT is entered into as of the _____ day of _____, 19__ by the parties who have signed this Agreement, and with the approval of the State of Alaska.

WHEREAS, the parties to this Agreement are the owners of Working, Royalty, or other oil and gas interests in the Unit Area subject to this Agreement; and

WHEREAS, Section 31.05.110(a) of the Alaska Statutes (Oil and Gas Conservation) provides that to prevent, or to assist in preventing waste, to insure a greater ultimate recovery of oil and gas, and to protect the correlative rights of owners of interests in the tracts of land affected, these owners may validly integrate their interests to provide for the unitized development and operation of such tracts of land as a unit; and

WHEREAS, the Commissioner of the Department of Natural Resources, State of Alaska, is authorized by Alaska Statute 38.05.180 and regulations adopted under that statute to consent to and approve oil and gas unit agreements containing oil and gas leases for which the State of Alaska is the lessor; and

WHEREAS, the parties to this Agreement have complied with the Alaska Statutes and regulations prescribing the standards and procedures governing the submission of applications and criteria for approval of oil and gas unit agreements containing oil and gas leases for which the State of Alaska is the lessor; and

WHEREAS, the Commissioner of the Department of Natural Resources has found that this Agreement is necessary or advisable to protect the public interest;

NOW THEREFORE, in consideration of the provisions contained in this Agreement, it is agreed as follows:

ARTICLE 1

DEFINITIONS

1.1 Commissioner means the Commissioner of the Department of Natural Resources, State of Alaska, or his duly authorized representative, who is authorized and has been delegated the authority to act for and on behalf of the Commissioner of the Department of Natural Resources.

1.2 Effective Date means the time and date this Agreement becomes effective as provided in Article 13.1.

1.3' Force Majeure means war, riots, acts of God, unusually severe weather, or any other cause beyond the Unit Operator's reasonable ability to foresee or control (including delays caused by operational failure of existing transportation facilities and judicial decisions or lack of them), whether similar to those enumerated or not.

1.4 Oil and Gas Rights means the rights to explore, develop, and operate on lands within the Unit Area for the production of Unitized Substances, or to share in the production, the proceeds, or the value of the Unitized Substances.

1.5 Outside Substances means substances purchased or otherwise obtained by the Working Interest Owners and injected into a Reservoir in the Unit Area.

1.6 Participating Area means a Tract or group of Tracts described and designated as a Participating Area under this Agreement for the purposes of developing, producing, or allocating one or more Unitized Substances from all or part of a Reservoir.

1.7 Participating Area Expense means all cost, expense, or indebtedness incurred by the Working Interest Owners or Unit Operator under this Agreement or the Unit Operating Agreement for or on account of production from or operations in a Participating Area, and allocated solely to the Tracts in that Participating Area and not to any other Tracts in the Unit.

1.8 Paying Quantities means quantities sufficient to yield a return in excess of operating costs, even if drilling and equipment costs may never be repaid and the undertaking considered as a whole may ultimately result in a loss; quantities are insufficient to yield a return in excess of operating costs unless those quantities, not considering the costs of transportation and marketing, will produce sufficient revenue to induce a prudent operator to produce those quantities. A well will be considered capable of producing Unitized Substances in Paying Quantities when so certified by the Commissioner following application by the Unit Operator.

1.9 Reservoir means an accumulation of Unitized Substances which has been discovered by drilling and evaluated by testing and which is separate from any other accumulation of Unitized Substances.

1.10 Royalty Interest means a right to or interest in any portion of, or the proceeds or value of the Unitized Substances other than a Working Interest.

1.11 Royalty Owner means the State of Alaska and any other party that owns a Royalty Interest.

1.12 State means the State of Alaska acting in this Agreement by and through the Commissioner of the Department of Natural Resources or his authorized representative.

1.13 Sustained Unit Production means continuing production of Unitized Substances from a Reservoir in the Unit Area into a pipeline or other means of transportation to market, but does not include testing, evaluation, or pilot production.

1.14 Tract means the land which is described in Exhibit A and given a Tract number.

1.15 Tract Participation means the percentage assigned to a Tract in a Participating Area for allocating Unitized Substances to that Tract.

1.16 Unit Area means the land identified by Tracts in Exhibit A and shown on Exhibit B to which this Agreement applies or to which it may be extended as provided in this Agreement.

1.17 Unit Expense means all cost, expense, or indebtedness incurred by the Working Interest Owners or the Unit Operator under this Agreement and the Unit Operating Agreement for or on account of Unit Operations, except for Participating Area Expense.

1.18 Unit Operating Agreement means the agreement entered into by the Working Interest Owners, having the same Effective Date as this Agreement, entitled "Unit Operating Agreement, KEY Unit, State of Alaska," as amended or supplemented from time to time.

1.19 Unit Operations means all operations conducted under this Agreement and the Unit Operating Agreement.

1.20 Unit Operator means the Working Interest Owner or other party designated by the Working Interest Owners under the Unit Operating Agreement to conduct Unit Operations, acting as operator and not as a Working Interest Owner.

1.21 Unitized Substances means all oil, gas, and associated substances other than Outside Substances within or produced from the Unit Area.

1.22 Working Interest means an interest in Unitized Substances by virtue of a lease, operating agreement, fee title, or otherwise, including a carried interest, under which the owner of that interest has the right to drill, develop, and produce, or cause to be drilled for, developed, or produced, oil and gas, and the owner of which interest is obligated to pay, either in cash or out of production or otherwise, a portion of the Unit Expense or the Participating Area Expense. A Royalty Interest created out of a Working Interest subsequent to the execution of this Agreement by the owner of that Working Interest shall continue to be subject to those Working Interest burdens and obligations that are stated in this Agreement and the Unit Operating Agreement.

1.23 Working Interest Owner means a party to this Agreement owning a Working Interest.

ARTICLE 2

EXHIBITS

2.1 Exhibits. The following exhibits which are attached to this Agreement are incorporated into this Agreement by reference:

2.1.1* Exhibit A is a schedule that identifies and describes each Tract in the Unit Area, and shows the Working Interest Ownership of Oil and Gas Rights in each Tract and a schedule of the Royalty and Net Profit Share rates applicable to each Tract in the Unit Area.

2.1.2 Exhibit B is a map depicting the boundaries of the Unit Area and the Tracts.

2.1.3** Exhibit C is a description of the Participating Areas formed under this Agreement, including general geologic descriptions and schedules showing Tract Numbers, Legal Descriptions, Alaska Lease Numbers (ADLs), and Tract Participations.

2.1.4** Exhibit D is a map depicting the boundary lines of the Participating Areas and the Tracts formed under this Agreement.

2.1.5** Exhibit E is a schedule that describes the allocation of Participating Area Expense to each Tract in the Participating Areas formed under this Agreement.

2.1.6 Exhibit F is a schedule that describes the allocation of the Unit Expense to each Tract in the Unit Area.

2.1.7*** Exhibit G is the plan of exploration or development for the Unit Area.

2.2 Reference to Exhibits. When reference is made to an exhibit, it is to the exhibit as originally attached or, if revised, to the latest approved revision.

*Exhibit A will reflect the royalty rate from the leases; if a royalty rate is renegotiated at the time of unitization, Exhibit A will reflect this modification.

**If there is more than one Participating Area when the Unit is initially created, these areas should be described in Exhibits C-1, C-2, etc., D-1, D-2, etc., and E-1, E-2, etc.

***If no Participating Areas are established at the time this unit is approved, Exhibit G should be a plan of exploration. If a Participating Area is established at the time of unitization, Exhibit G should be a plan of development.

2.3 Exhibits Considered Correct. Exhibits A, B, C, D, E, F, and G have been established using the best information available and shall be considered to be correct until revised.

2.4 Correcting Errors. If subsequent to the date of this Agreement it appears that any Tract should be divided into more than one Tract because of diverse Royalty or Working Interest Ownership, or that any mechanical miscalculation or clerical error has been made, the Unit Operator, with the approval of the Working Interest Owners and the Commissioner, shall correct the mistake by revising the exhibits to conform to the facts. The revision shall not include any reevaluation of engineering or geological interpretations used in determining Tract Participation. Each revision of an exhibit made less than 30 days after the Effective Date shall be effective as of the Effective Date. Each revision made 30 days or more after the Effective Date shall be effective at 12:01 a.m. on the first day of the next calendar month following the filing of the revised exhibit with the Commissioner for his approval or on any other date as may be agreed upon by the Working Interest Owners and the Commissioner and set forth in the revised exhibit.

2.5 Filing Revised Exhibits. If an exhibit is revised, the Unit Operator shall execute an appropriate instrument with the revised exhibit attached and file the same for record in the filing office of the Department of Natural Resources, Anchorage, Alaska.

2.6 Exhibits for New Participating Areas. The Unit Operator shall prepare Exhibits C, D, and E for each new Participating Area created under Article 6 of this Agreement, and shall submit these exhibits to the Working Interest Owners and, after approval by them, to the Commissioner for approval. The Working Interest Owners also shall submit revisions to Exhibit F at the same time for approval by the Commissioner.

ARTICLE 3

CREATION AND EFFECT OF UNIT

3.1 Oil and Gas Rights Unitized. All Oil and Gas Rights in and to the lands described in Exhibit A are unitized so that Unit Operations may be conducted as if the Unit Area had been included in a single lease executed by the State of Alaska and any other party who has authority to execute oil and gas leases, as lessor, in favor of all Working Interest Owners, as lessees.

3.2 Amendment of Leases and Other Agreements. The provisions of the various leases, agreements, division and transfer orders, or other instruments pertaining to the respective Tracts or the production from those Tracts, are amended to the extent necessary to make them conform to the provisions of this Agreement, but otherwise shall remain in effect.

3.3 Continuation of Leases and Term Interests. Except for the purpose of determining payments to the State of Alaska and other Royalty Owners, production from any part of a Participating Area shall be considered as production from each Tract in the Participating Area and shall continue each lease in the Participating Area in effect just as if a well were producing

from each Tract, so long as that Tract remains committed to the Unit. Unit Operations, if conducted under and in compliance with an approved plan of exploration or development, shall continue each lease in the Unit Area in effect as if Unit Operations were conducted on each Tract, so long as that Tract remains committed to the Unit.

3.4 Rental Settlement. Rental due on leases committed to this Agreement shall be paid by the Working Interest Owners who are lessees of the leases. The lessee shall pay annual rental to the State in accordance with the following rental schedule:

(1) For the first year of the term of the lease, \$1.00 per acre or fraction of an acre;

(2) For the second year of the term of the lease, \$1.50 per acre or fraction of an acre;

(3) For the third year of the term of the lease, \$2.00 per acre or fraction of an acre;

(4) For the fourth year of the term of the lease, \$2.50 per acre or fraction of an acre;

(5) For the fifth year of the term of the lease, and all following years, \$3.00 per acre or fraction of an acre. Rental may be waived or suspended by the Commissioner.

3.4.1 Annual rental paid in advance on a lease, any portion of which is committed to a Participating Area, is a credit on the royalty or net profit share due under the lease for that year.

3.4.2 The lessee shall pay the annual rental to the State of Alaska (or any depository designated by the State with at least 60 days notice to the lessee) in advance, on or before the annual anniversary date of the lease. The State is not required to give notice that rentals are due by billing the lessee. If the State's (or depository's) office is not open for business on the annual anniversary date of the lease, the time for payment is extended to include the next day on which that office is open for business. If the annual rental is not paid timely, this lease automatically terminates as to both parties at 11:59 p.m., Alaska Standard Time, on the date by which the rental payment was to have been made. Rental may be waived or suspended by the Commissioner.

3.5 Minimum Royalty. If any State oil and gas lease committed to this Agreement requires the payment of minimum royalty, that lease is amended to delete that minimum royalty obligation. Rental, at the rate specified in Alaska Statute 38.05.180(n), shall be paid in lieu of minimum royalty.

3.6 Injection Rights. Under the plan of development attached as Exhibit G, the Working Interest Owners may inject substances into the Unit Area for Unit Operations, may drill, use, and maintain injection wells in the Unit Area, and may use for injection purposes any nonproducing or abandoned wells or dry holes, and any producing wells completed in the Unit Area.

3.7 Surface and Subsurface Operating Rights. Except to the extent modified in this Agreement, the Working Interest Owners, and the Unit Operator in their behalf, shall have the same rights to use of the surface and subsurface and use of water and any other rights as are granted in the

leases. Except to the extent modified in this Agreement, any stipulations or operating conditions attached to a lease at the time of sale remain applicable to the lease. The State of Alaska retains all rights reserved it to explore, use, dispose of, or otherwise act upon or with respect to the surface and subsurface to the same extent as those rights are reserved in the oil and gas leases. The Working Interest Owners and the Unit Operator will, to the extent possible, minimize and consolidate surface facilities in order to minimize surface impacts.

3.8 Personal Property Excepted. All lease and well equipment, materials, and other facilities placed by any of the Working Interest Owners in the Unit Area are and shall remain personal property belonging to and removable by the Working Interest Owners. The rights and interests in that property as among the Working Interest Owners are set out in the Unit Operating Agreement.

3.9 Titles Unaffected by Unitization. Nothing in this Agreement shall be construed to result in the transfer of title to Oil and Gas Rights by any party to any other party or to the Unit Operator.

ARTICLE 4

UNIT OPERATOR

4.1 Unit Operator. The Working Interest Owners are concurrently entering into the KEY Unit Operating Agreement. The Working Interest Owners by the Unit Operating Agreement designate BURGLIN as the Unit Operator, which the Commissioner, by his signature to this Agreement, approves as the Unit Operator. By signature to this Agreement, BURGLIN affirms that it is qualified under Alaska law to be a Unit Operator and accepts the duties and obligations of the Unit Operator for the KEY Unit. A change of the Unit Operator may be made in accordance with the Unit Operating Agreement, but no change shall become effective until approved by the Commissioner, who shall not be required to grant approval unless he determines that the new Unit Operator is qualified under Alaska law to be a Unit Operator. Except as otherwise provided in this Agreement or in the Unit Operating Agreement, the Unit Operator shall have the exclusive right to conduct Unit Operations, which shall conform to the provisions of this Agreement and the Unit Operating Agreement. In the event of any change of Operator, the Unit Operator designated in this Agreement shall continue in its capacity as Unit Operator until a qualified successor has been selected by the Working Interest Owners and approved by the Commissioner, and the successor has assumed its duties as Unit Operator.

ARTICLE 5

PLANS OF EXPLORATION, DEVELOPMENT, AND OPERATIONS

5.1 Unit Plan of Exploration. If, upon the Effective Date of this Agreement, a Unit Plan of Development is not in effect as described in Article 5.2 of this Agreement, the Unit Operator, on behalf of the Working Interest Owners, with diligence and in accordance with good engineering practice, shall explore the Unit Area as described in the Unit Plan of Exploration attached to this Agreement as Exhibit G. The Unit Plan of Exploration shall conform to the provisions of 11 AAC 83.341, and may be amended or modified from time to time by the Unit Operator with the approval of the Commissioner.

5.2 Unit Plan of Development. If, upon the Effective Date of this Agreement, or at any time thereafter, a Reservoir in the Unit Area has been sufficiently delineated such that a prudent operator would initiate development activities in that Reservoir, the Unit Operator, on behalf of the Working Interest Owners, with diligence and in accordance with good engineering and production practice, shall explore, develop, and produce from the Unit Area in accordance with the Unit Plan of Development attached to this Agreement as Exhibit G. The Unit Plan of Development shall conform to the provisions of 11 AAC 83.343, and may be amended or modified from time to time by the Unit Operator with the approval of the Commissioner.

5.3 Unit Plan of Operations. A Unit Plan of Operations approved by the Commissioner is required before any operations may be undertaken on the Unit Area. The Unit Plan of Operations shall conform to the provisions of 11 AAC 83.346, and may be amended or modified from time to time by the Unit Operator with the approval of the Commissioner.

5.4 Rate of Exploration, Development, and Production. The Commissioner, after giving the Unit Operator written notice and an opportunity to be heard, may require the Unit Operator to modify the rate of exploration of, development of, or production from the Unit Area. Any modification required by the Commissioner shall not be contrary to any state or federal law or regulation or require the Unit Operator to violate a valid order or rule of the Alaska Oil and Gas Conservation Commission; shall not require any increase in the rate of exploration or development of, or production from the Unit Area that would be in excess of that permitted under prudent oil and gas engineering and production practices; shall not require the Unit Operator to alter or modify the rates of exploration or development of, or production from the Unit Area from those provided in the Unit Plan of Exploration or Development then in effect; or, in any case, shall not curtail rates of production to an unreasonable extent, considering Unit productive capacity, transportation facilities available, and conservation objectives. Nothing in this section is intended to preclude the enforcement by the Commissioner of any law or regulation which, by its terms, is required to be enforced by the Commissioner.

5.5 Drilling by Working Interest Owners. Any Working Interest Owner shall be entitled to drill wells on its lease under circumstances and limitations prescribed in the Unit Operating Agreement. Subject to the provisions of the Unit Operating Agreement, and with the approval of the Commissioner, a plan of testing, evaluation, and pilot production may be carried out by such Working Interest Owner or the Unit Operator to determine if such wells are capable of sustained production of Unitized Substances in sufficient quantities to justify the Working Interest Owners in developing and producing the Reservoir into which such well is completed; provided, however, that any such wells which are determined to be capable of production in Paying Quantities must thereafter be operated by the Unit Operator. Production of Unitized Substances resulting from testing, evaluation, or pilot plant operations saved, removed, or sold from the Unit Area shall be allocated to the lease from which such production occurred, and royalties paid on such production in accordance with Articles 7 and 8 of this Agreement.

ARTICLE 6

PARTICIPATING AREAS

6.1 Participating Areas Established. Participating Areas established under this Agreement are described in Exhibits C, D, and E.

6.1.1 At least 90 days before commencement of Sustained Unit Production from a Reservoir, the Unit Operator, on behalf of the Working Interest Owners, shall submit to the Commissioner for approval (1) proposed Exhibits C, D, and E describing a Participating Area for the Reservoir; (2) a proposed division of interest or formula allocating Tract Participation and Participating Area Expense as described in proposed Exhibits C and E; (3) if needed, a proposed modification of Exhibit F allocating Unit Expense to each Tract; (4) a proposed plan of development for the Unit Area (Exhibit G); and (5) a proposed plan of operations for the Unit Area. A Participating Area becomes effective on the day Sustained Unit Production commences.

6.1.2 A Participating Area may, but need not, encompass the entire Unit Area. A Participating Area shall include only the land reasonably known to be underlain by hydrocarbons and known or reasonably estimated through use of geological, geophysical, and engineering data to be capable of producing or contributing to production of Unitized Substances in Paying Quantities. A separate Participating Area shall be established for each separate Reservoir delineated in or partially in the Unit Area. Any two or more Participating Areas may be combined into one with the consent of the Commissioner and all Working Interest Owners in the Participating Areas to be combined.

6.2 Expansion and Contraction of Participating Area. A Participating Area shall be expanded or contracted from time to time by the Unit Operator with the approval of the Working Interest Owners and the Commissioner, whenever expansion or contraction is warranted on the basis of further drilling or otherwise. A Participating Area shall be expanded to include acreage reasonably proven through use of geological, geophysical, and engineering data to be capable of producing or contributing to production of Unitized Substances in Paying Quantities, or contracted to exclude acreage

reasonably proven through use of geological, geophysical, and engineering data to be incapable of producing or contributing to production of Unitized Substances in Paying Quantities, subject to the approval of the Commissioner. A revised division of interest or formula allocating production and costs must be submitted for approval by the Commissioner at the time of application for expansion or contraction of a Participating Area. No land in a Participating Area shall be excluded from the Participating Area due to the depletion of Unitized Substances.

ARTICLE 7

ALLOCATION OF UNITIZED SUBSTANCES AND EXPENSES; PAYMENT OF ROYALTY

7.1 Allocation of Production and Costs. The division of interest or the formula which allocates the Tract participations of production, Unit Expense, and Participating Area Expense among the leases within the Unit Area shall not take effect until approved by the Commissioner in writing. Any proposed revision of an approved division of interest or allocation formula shall not take effect until approved by the Commissioner in writing. When requested by the Commissioner, the lessees or Unit Operator shall promptly file with the Commissioner all data that relates to the proposed or revised division of interest or the allocation formula.

7.2 Allocation of Unitized Substances Produced From Participating Areas. All Unitized Substances produced and saved or sold from the Unit Area shall be allocated to the Participating Area established for the Reservoir from which the Unitized Substances were produced. Unitized Substances allocated to a Participating Area shall be allocated to each Tract within the Participating Area in accordance with each Tract's Tract Participation and among each Working Interest Owner in accordance with each Working Interest Owner's ownership in the Oil and Gas Rights in the Tract. The amount of Unitized Substances allocated to each Tract, regardless of whether the amount is more or less than the actual production of Unitized Substances from the wells, if any, on a Tract, shall be considered for all purposes to have been produced from that Tract.

7.3 Provisions Common to All Reservoirs. For all Participating Areas, the Working Interest Owners and the Royalty Owners other than the State may allocate Unitized Substances, Participating Area Expense, and Unit Expense in amounts other than those set out in Exhibits C, E, and F, provided that any allocation which is different from the allocations required by Exhibits C, E, and F shall be submitted to the Commissioner for his information with a statement explaining the reasons for the different allocations.

7.4 Royalty Reports. Each month, the Unit Operator shall furnish to the Commissioner a schedule which shall specify, for the previous month, the total amount of Unitized Substances produced, the amount of Unitized Substances used for Unit Operations or unavoidably lost as provided in Article 8 of this Agreement, the amount of Unitized Substances allocated to each Tract as royalty delivered in kind to the Commissioner, and the amount of Unitized Substances allocated to each Tract as royalty production to be settled in value.

7.5 Royalty in Value. Each Working Interest Owner shall make settlement for its share of royalty on Unitized Substances taken in value by the State as follows:

7.5.1 Royalty paid in value shall be free and clear of all lease expense, Unit Expense, and Participating Area Expense (and any portion of those expenses that is incurred away from the Unit Area), including, but not limited to, expenses for separating, cleaning, dehydration, gathering, salt water disposal, and preparing the Unitized Substances for transportation off the Unit Area, and free from any lien for them. All royalty that may become payable in money to the State shall be paid on or before the last day of the calendar month following the month in which the Unitized Substances are produced. The amount of all royalty in value payments which are not paid when due under this Agreement or which are subsequently determined to be due as a result of a redetermination will bear interest from the date the obligation accrued until it is paid in full, at a variable annual rate equal to 1.25 percent plus the prime rate as announced from time to time by the Bank of America, San Francisco, California. Royalty payments shall be accompanied by copies of run tickets or other information relating to the valuation of royalty as the State may require, which may include, but is not limited to, evidence of sales and shipments of Unitized Substances produced from the Unit Area.

7.5.2 For purposes of computing royalties due under this Agreement, the value of Unitized Substances payable to the State as Royalty Owner shall not be less than the highest of:

(1) the field price received by the Working Interest Owner for the Unitized Substances;

(2) the volume-weighted average of the three highest field prices received by other producers in the same field or area for Unitized Substances of like kind, character, and quality at the time the Unitized Substances are sold or removed from the Unit Area or, in the case of gas, at the time that gas is delivered to an extraction plant if that plant is located on the Unit Area. If there are less than three prices reported by other producers, the volume-weighted average shall be calculated by using the lesser number of prices received by other producers in the field or area;

(3) the Working Interest Owner's posted price in the field or area for Unitized Substances; or

(4) the volume-weighted average of the three highest posted prices in the same field or area of the other producers in the same field or area for Unitized Substances of like kind, character, and quality at the time the Unitized Substances are sold or removed from the Unit Area, or, in the case of gas, at the time that gas is delivered to an extraction plant if that plant is located on the Unit Area. If there are less than three prices posted by other producers, the volume-weighted average shall be calculated using the lesser number of prices posted by other producers in the field or area.

7.5.3 If Unitized Substances are sold away from the Unit Area, the term "field price" in 7.5.2 of this Article shall be the cash value of all consideration received by the Working Interest Owner from the purchaser of the Unitized Substances, less the reasonable costs of transportation away from the Unit Area to the point of sale. The "reasonable costs of transportation" as used in this Article shall be those costs as defined in 11 AAC 83.228 -- 11 AAC 83.229 as those regulations exist on the Effective Date of this Agreement.

7.5.4 In the event the Working Interest Owner does not sell in an arm's-length transaction the Unitized Substances after removal from the Unit Area, the term "field price" in 7.5.2 and 7.5.3 of this Article shall mean the price on the Unit Area the Working Interest Owner would expect to receive for the Unitized Substances if the Working Interest Owner did sell the Unitized Substances in a arm's-length transaction. The Working Interest Owner shall determine this price in a consistent and logical manner using information available to the Working Interest Owner and report this price to the Commissioner.

7.5.5 The Commissioner may establish minimum values for purposes of computing royalties on Unitized Substances obtained from this Unit, with consideration being given to the price actually received by the Working Interest Owner, to the price or prices paid in the same field or area for production of like quality, to posted prices, to prices received by the Working Interest Owner and other producers from sales occurring away from the Unit Area, and to other relevant matters. In establishing minimum values, the Commissioner may use, but is not limited to, the Department of Revenue's methodology for determining "prevailing value" for purposes of the oil and gas property production tax, AS 43.55 et seq., or the methodology for determining "prevailing value" as defined in 11 AAC 83.227, in circumstances where terms of a contract set a single price for Unitized Substances without adjustments tied to market conditions for periods of longer than six years, or where the terms of a contract set prices which do not reasonably reflect market conditions for production from that field or area prevailing at the time the contract is executed or renegotiated, or where fraud or an intent to evade payment is demonstrated. Each minimum value determination shall be made only after the Working Interest Owner has been given reasonable notice and an opportunity to be heard. Under this provision, it is expressly agreed that the minimum value of royalty on Unitized Substances under this Agreement may not necessarily equal the price of such Unitized Substances.

7.5.6 The Commissioner may determine which of the methods contained in this Article shall be used to establish the minimum value of royalty for the purposes of royalties payable under this Agreement.

7.6 Payment of Royalty in Value. All payment to the State shall be made payable to the State in the manner directed by the Commissioner and, unless otherwise specified, must be tendered at

Department of Natural Resources
Pouch 7-034
Anchorage, Alaska 99510
Attention: Accounting

or to any depository designated by the Commissioner with at least 60 days notice to Unit Operator and the Working Interest Owners.

7.7 Failure to Pay Royalty. In the event of the failure of any Working Interest Owner to make proper settlement of any royalty due, the Commissioner shall have all rights and remedies available to him under law, the lease, and this Agreement, including any rights of cancellation and termination of the lease. If there is any conflict between a lease provision and the provisions of this Agreement, this Agreement shall govern.

7.8 Royalty In Kind. As close as practicable to 12 months before the commencement of Sustained Unit Production from a Participating Area, the Unit Operator shall give the Commissioner notice of the anticipated date for commencement of production. Within six months of receipt of that notice, the Commissioner shall give written notice to the Unit Operator of the State's election to take in kind all, none, a specified percentage, or a specified quantity of its royalty on any Unitized Substances produced from the Participating Area.

7.8.1 Anytime after the commencement of Sustained Unit Production from a Participating Area, the Commissioner, upon six months advance written notice to the Unit Operator, may elect to take in kind all, none, a specified percentage, or a specified quantity of the State's royalty on any Unitized Substance produced from the Participating Area. Upon six months advance written notice to the Unit Operator, the Commissioner may increase or decrease (including ceasing to take royalty in kind) the amount of royalty on any Unitized Substances the State takes in kind, except that this provision does not authorize the State to receive a royalty percentage on any Unitized Substances greater than the royalty percentage set out in Exhibit A of this Agreement.

7.8.2 In the written notices given under this Article, the Commissioner may elect to specify the Tracts from which royalty taken in kind by the State is to be allocated. If the Commissioner does not specify any Tracts in the notice, the royalty taken in kind shall be allocated to all Tracts in accordance with the Tract Participation.

7.8.3 The royalty taken in kind by the State shall be delivered to the Commissioner, or his designee, at the Unit Area boundary and in a pipeline or other facility capable of carrying the State's royalty share with the Unitized Substances of the Working Interest Owners, or at any other place mutually agreed upon by the Commissioner and the Unit Operator, and shall be delivered to the State or to any individual, firm, or corporation designated by the Commissioner.

7.8.4 The State's royalty Unitized Substances delivered in kind shall be delivered in good and merchantable condition and be of pipeline quality. Royalty delivered in kind shall be free and clear of all lease expenses, Unit Expense, and Participating Area Expense (including any portion of those expenses which is incurred away from the Unit Area), including but not limited to expenses for separating, cleaning, dehydration, gathering, salt water disposal, and preparing the Unitized Substances for transportation off the Unit Area.

7.8.5 Each Working Interest Owner shall furnish storage for royalty oil and natural gas liquids produced from the Unit Area to the same extent that Working Interest Owner provides storage for its own share of oil and natural gas liquids. The Working Interest Owner shall not be liable for the loss or destruction of stored royalty oil and natural gas liquids from causes beyond the Unit Operator's or the Working Interest Owner's reasonable control.

7.8.6 If a State Royalty purchaser refuses or for any reason fails to take delivery of Unitized Substances, or in an emergency, and with as much notice to the Unit Operator as practical or reasonable under the circumstances, the Commissioner may elect without penalty to underlift for up to six months all or a portion of the State's royalty on Unitized Substances produced from the Unit or from any Tract and taken in kind. The State's right to underlift is limited to the portion of royalty Unitized Substances that the royalty purchaser refused or failed to take delivery of, or the portion necessary to meet the emergency condition. Underlifted Unitized Substances may be recovered by the State at a daily rate not to exceed 10 percent of its Royalty Interest share of daily production at the time of the underlift recovery. Recovery of underlifted Unitized Substances will be completed within two years of the date such underlift commences.

7.9 Royalty on Outside Substances. If any Outside Substance consisting of natural gases is injected into any Reservoir in the Unit Area, _____ percent of any like substance contained in the Unitized Substances subsequently produced from that Reservoir and allocated to the Participating Area for that Reservoir and sold, or used for other than Unit Operations, shall be considered to be a part of the Outside Substance injected until the total volume considered to be those Outside Substances equals the total volume of the Outside Substances injected. If liquefied petroleum gas or other liquid hydrocarbons which are Outside Substances are injected into the Reservoir,

_____ percent of all those Unitized Substances produced and sold after one year from the time the injection of those Outside Substances was commenced shall be considered to be a part of the Outside Substances until the total value of the production considered to be those Outside Substances equals the total cost of the Outside Substances so injected. _____ percent of the Unitized Substances considered to be Outside Substances will be in addition to that which is being recovered for natural gases as provided in this Article if both liquefied petroleum gas or other liquid hydrocarbons and natural gases are injected. No payment shall be due or payable to the Royalty Owners on substances produced from any Reservoir in the Unit Area that are considered to be Outside Substances.

7.10 Records. The Unit Operator and the Working Interest Owners shall keep and have in their possession books and records showing the development and production (including records of development and production expenses) and disposition (including records of sales prices, volumes, and purchasers) of all Unitized Substances produced from the Unit Area. The Unit Operator and the Working Interest Owners shall permit the Commissioner to examine those books and records at all reasonable times. These books and records of development, production, and disposition shall employ methods and techniques that shall ensure the most accurate figures reasonably available without requiring separate tankage or meters for each well. The Working Interest Owners shall use generally accepted and internally consistent accounting procedures.

ARTICLE 8

USE OR LOSS OF UNITIZED SUBSTANCES

8.1 Use of Unitized Substances. Working Interest Owners may use or consume Unitized Substances for Unit Operations, including but not limited to the injection of Unitized Substances into any Reservoir underlying the Unit Area, provided the injection is made under an approved Plan of Development.

8.2 Royalty Payments. No royalty, overriding royalty, production, or other profit-based payments shall be payable on account of Unitized Substances used, unavoidably lost, stored, or consumed in Unit Operations. Royalty, overriding royalty, production, or other profit-based payments on Unitized Substances reinjected into the Unit Area will not be payable until those Unitized Substances are finally produced and transported off the Unit Area or used for other than Unit Operations. If Unitized Substances are consumed in the operation of any facility which is not exclusively devoted to Unit Operations, royalty, overriding royalty, production, or profit-based payments shall not be payable on the Unitized Substances consumed by that facility which are allocatable to Unit Operations.

ARTICLE 9

EXPANSION AND CONTRACTION OF UNIT AREA

9.1 Expansion of Unit Area. The Unit Area may be expanded from time to time to include any additional lands determined to overlie any Reservoir all or part of which is within the Unit Area, or any additional lands regarded as reasonably necessary to facilitate production of hydrocarbons or for any other purpose of this Agreement. Any expansion shall not be effective until approved by the Commissioner. The lands to be included shall be based on subdivisions of the public land surveys as may be approved by the Commissioner. Expansion shall be effected in the following manner:

9.1.1 Unit Operator, acting under the terms of the Unit Operating Agreement or on demand of the Commissioner, shall prepare a notice of the proposed expansion describing the contemplated additions to the Unit Area, the reasons for expansion, and the proposed Effective Date.

9.1.2 The notice shall be delivered to the Commissioner and a copy mailed to each Working Interest Owner and Royalty Interest Owner at its last known address, and to any other party believed by the Unit Operator to own any Oil and Gas Rights in any lands proposed to be added. The notice shall state a definite period, which shall not end earlier than 30 days after the mailing of the last notice to be mailed, during which time any interested party may file with the Unit Operator written objections to the proposed expansion.

9.1.3 Upon expiration of the period stated in the notice, the Unit Operator shall file with the Commissioner evidence of mailing of the notice of expansion, copies of all objections which have been submitted to the Unit Operator, and applications for joinder executed by those owning Oil and Gas Rights in any land sought to be added as have been submitted to the Unit Operator.

9.1.4 After consideration of all pertinent information, the Commissioner shall approve or disapprove the expansion as to each lease or lands submitted for commitment. Unless the Commissioner's decision states to the contrary, that decision shall become effective as of the time specified in the notice. The Commissioner will notify Working Interest and Royalty Owners and all other parties who have requested notification upon approval or disapproval of a proposed expansion.

9.1.5. If permitted by a lease issued by the State, the Commissioner may compel joinder to this Agreement by any lessee, or any assignee of an interest in a State lease. The parties to this Agreement agree to accept that joinder upon reasonable terms and conditions. Before compelling joinder under this Article, the Commissioner will give all affected parties reasonable notice and an opportunity to be heard.

9.2. Contraction of Unit Area Ten Years After Sustained Unit Production. Any lease, a part of which is neither included in a Participating Area nor which facilitates production of hydrocarbons in Paying Quantities on the tenth anniversary of the commencement of Sustained Unit Production from the initial Participating Area formed under this Agreement, shall be excluded from the Unit Area and from this Agreement. If any portion of a lease is included in a Participating Area or facilitates production of hydrocarbons in Paying Quantities, the entire lease will remain committed to the Unit. Nothing in this Agreement shall operate to excuse further development on the portion of any lease lying outside the Unit Area where the circumstances would require a prudent lessee to further develop.

9.3 Contraction for Failure to Drill Second Well pursuant to Exhibit G. Unless a well has been commenced on or before March 31, 1987 which will have a bottomhole location in Block B, which Block is shown in Exhibits A and B, or such drilling obligation has been suspended in accordance with the provisions of 11 AAC.83.336(b), the Unit Area shall be contracted to exclude all of the Tracts in Block B, except those Tracts included in an established Participating Area or a Participating Area for which an application is pending.

9.3.1 Effect of Contraction. Upon contraction of the Unit Area as provided in Article 9.3 of this Agreement, operations on any Tract excluded from the Unit Area may be continued. Each oil and gas lease covering lands within Block B excluded from the Unit Area shall remain in force for at least one year after the date on which such a contraction is made, and for a further period, if any, as provided by the lease. The salvaging of any equipment or the need for rehabilitation of lands excluded from the Unit Area shall be as provided for in Article 14.4.

9.3.2 If any lease within Block A of the Unit Area as set out in Exhibits A and B of this Agreement includes a work commitment pursuant to Stipulation #5 of such lease, that work commitment will be satisfied by the drilling of the first well with a bottom hole location under a lease contained in Block A of the Unit Area. If any lease within Block B of the Unit Area as set out in Exhibits A and B of this Agreement includes a work commitment pursuant to Stipulation #5 of such lease, that work commitment will be satisfied by the drilling of the first well with a bottom hole location under a lease contained in Block B of the Unit Area. Any well with a bottom hole location under a lease contained in Block A of the Unit Area will not satisfy a work commitment for any lease contained in Block B of the Unit Area and vice versa.

9.3.3 If any lease committed to this Agreement is eliminated from the Unit Area in accordance with the provisions of Article 9.3 of this Agreement, and that lease contains a work commitment pursuant to Stipulation #5 of such lease, that work commitment will reattach to such lease at the time of its contraction out of the Unit Area. The time period allowed for the lessee to commence the drilling of a well as required by the work commitment shall be the period of time that remained for the completion of the work commitment at the time such lease was committed to Unit Area but in no event shall that period be less than one year from the date such work commitment reattaches.

ARTICLE 10 TITLES

10.1 Removal of Tract from Unit Agreement. If a Working Interest Owner or a Royalty Owner ceases to have any of its Tracts committed to this Agreement because of failure of title, those Tracts shall be removed from this Agreement effective as of 12:01 a.m. on the first day in the calendar month in which the failure of title is finally determined unless within 90 days after the date of its final determination of the failure of title, the true Working Interest Owner and Royalty Owner of the Tract execute this Agreement and, if a Working Interest Owner, the Unit Operating Agreement.

10.2 Revision of Exhibits. If a Tract in a Participating Area is removed from this Agreement because of failure of title, the Unit Operator shall recompute the Tract Participation of each of the Tracts remaining in the

Participating Area and shall revise the exhibits to this Agreement accordingly; provided, however, that the revised Tract Participations of the Tracts remaining in the Participating Area shall remain in the same ratio one to another. The revised exhibits shall be effective as of 12:01 a.m. on the first day of the calendar month in which the failure of title is finally determined.

10.3 Failure of Title of Part of Tract. In the event of the failure of title of any party to this Agreement as to a divided portion of any Tract, the Unit Operator, with the approval of the Working Interest Owners and the Commissioner, shall divide that Tract into separate Tracts, and if that Tract is in a Participating Area, shall recompute the Tract Participation of each of the resulting Tracts (the sum of which shall equal the Tract Participation of the original Tract) and revise the Exhibits to this Agreement accordingly. After that revision, that resulting Tract in which title was not affected shall remain in this Agreement, and the resulting Tract in which title failed shall be subject to the provisions of Articles 10.1 and 10.2 of this Agreement.

10.4 Working Interest Titles. If title to a Working Interest fails, the rights and obligations of the Working Interest Owners by reason of the failure of title shall be governed by the Unit Operating Agreement.

10.5 Royalty Interest Titles. If title to a Royalty Interest fails, but the Tract to which it relates is not removed from this Agreement, the party whose title failed shall not be entitled to royalty.

10.6 Production Where Title is in Dispute. If the title or right of any party claiming the right to receive all or any portion of the Unitized Substances allocated to a Tract is in dispute, the Unit Operator, at its discretion, shall either

(1) require that the party to whom Unitized Substances are delivered or to whom the proceeds or value are paid furnish security for the proper accounting to the rightful owner if the title or right of that party fails in whole or in part; or

(2) withhold and market the portion of Unitized Substances with respect to which title or right is in dispute, and impound the proceeds until the title or right is established by a final judgment of a court of competent jurisdiction or otherwise to the satisfaction of Working Interest Owners, whereupon the proceeds impounded shall be paid to the party rightfully entitled to them.

10.7 Definition of "In Dispute." For purposes of Article 10.6 of this Agreement, the State of Alaska's title shall not be deemed "in dispute" until a court with initial jurisdiction to adjudicate title has entered a judgment that the State does not have title to the lands.

10.8 Payment of Taxes to Protect Title. The owner of surface rights to lands within the Unit Area, or severed mineral interests or Royalty Interest in those lands or lands outside the Unit Area on which personal property, lease and well equipment, plants, and other facilities and equipment used, taken over, or otherwise acquired by the Working Interest Owners for use in Unit Operations are located, is responsible for the payment of any ad valorem taxes on all those

rights, interests, or property, unless that owner and the Working Interest Owners otherwise agree. If any ad valorem taxes are not paid by or for that owner when due, the Unit Operator may, with approval of the Working Interest Owners, at any time prior to tax sale, or prior to expiration of the period of redemption after tax sale, pay the tax lien. Any payment shall be an item of Unit Expense or Participating Area Expense. Unit Operator shall, if possible, withhold from any proceeds derived from the sale of Unitized Substances otherwise due any delinquent taxpayer an amount sufficient to defray the costs of payment or redemption, and credit the withholding to the Working Interest Owners. Withholding shall be without prejudice to any other remedy available to Unit Operator or Working Interest Owners.

10.9 Transfer of Title. Any conveyance of all or any part of any interest owned by any party with respect to any Tract shall be made expressly subject to this Agreement.

10.10 Successors and Assigns. This Agreement shall extend to, be binding upon, and inure to the benefit of the parties and their respective heirs, devisees, legal representatives, successors, and assigns and shall constitute a covenant and equitable servitude running with the land, leases, and interest covered by them.

ARTICLE 11

RELATIONSHIP OF PARTIES

11.1 No Partnership. The duties, obligations, and liabilities of the parties are intended to be several and not joint or collective. This Agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation, or liability with regard to any one or more of the parties to this Agreement. Each party shall be individually responsible for its own obligations.

11.2 No Joint Refining or Marketing. This Agreement is not intended to provide, and shall not be construed to provide, directly or indirectly, for any joint refining or marketing of Unitized Substances.

11.3 Royalty Owners Free of Costs. This Agreement is not intended to impose, and shall not be construed to impose upon the State of Alaska or any other Royalty Owner any obligation to pay Unit Expense or Participating Area Expense.

11.4 Confidentiality of Information. Upon the request of the Unit Operator or the Working Interest Owners, the Commissioner shall hold as confidential to the extent authorized by statute any engineering, geophysical, or geological data, well data, daily drilling reports, or any other data or information of a similar nature which may be required by the State for any purpose of this Agreement.

ARTICLE 12

FORCE MAJEURE AND SUSPENSION OF OPERATIONS

12.1 Force Majeure and Suspension of Operations. If a suspension of Unit Operations or production on all or part of the Unit Area has been ordered under federal, state, or local law, or if the Commissioner determines that the Unit Operator has been prevented, after efforts made in good faith, from complying with any express or implied promise, term, condition, or covenant of this Agreement, from conducting drilling operations, or from producing or marketing Unitized Substances from the Unit Area by reason of Force Majeure, the Unit Operator's obligation to comply with that provision will be held in abeyance, but not voided, and the Commissioner will extend the term of the Unit Agreement for a period of time equal to the time lost under the unit term due to the suspension or prevention by Force Majeure. If Unit Operations or production are suspended or prevented under this Article and the continuation of those operations or production without suspension or prevention would have had the effect of extending the Unit Agreement, the Unit Agreement does not terminate during the period in which operations or production are suspended or prevented plus a reasonable time after that period, which shall not be less than six months, for the Unit Operator to resume operations or production. Nothing in this Article holds in abeyance the obligation to pay rentals, royalties, or other production or profit-based payments to the State of Alaska from operations or production in the Unit Area which are not suspended or prevented, or from operations or production which are unrelated to any suspension or prevention. For the purposes of this Article, any seasonal restriction on operations or production or other conditions specifically required or imposed as a term of sale of an original lease, or as a condition imposed under this Agreement, will not be considered a suspension of operations or production ordered pursuant to law, or prevention due to Force Majeure. However, upon application to the Commissioner, seasonal restrictions on operations or production imposed subsequent to approval of a Unit Agreement will be considered a suspension of operations or production ordered under law.

ARTICLE 13

EFFECTIVE DATE

13.1 Effective Date. This Agreement shall become binding upon each party as of the date each party signs the instrument by which it becomes a party, and shall become effective as of 12:01 a.m. on the day following approval by the Commissioner. At least one counterpart of this Agreement shall be filed for record by the Unit Operator in the filing office of the Department of Natural Resources, Anchorage, Alaska.

ARTICLE 14

TERM

14.1 Term. This Agreement terminates five years from the Effective Date unless

(1) a unit well in the Unit Area has been certified as capable of producing Unitized Substances in Paying Quantities, in which case this Agreement shall remain in effect for so long as Unitized Substances are produced in Paying Quantities from the Unit Area, or for so long as Unitized Substances can be produced in Paying Quantities and Unit Operations are being conducted in accordance with an approved Unit Plan of Exploration or Development, or, should production cease, for so long thereafter as diligent operations are in progress to restore production and then so long thereafter as Unitized Substances are produced in Paying Quantities; or

(2) the unit term is extended by the Commissioner in accordance with applicable regulations.

14.2 Termination by Working Interest Owners. This Agreement may be terminated at any time by the Working Interest Owners with the approval of the Commissioner.

14.3 Effect of Termination. Upon termination of this Agreement, the further development and operation of the Unit Area as a unit shall be abandoned, and Unit Operations shall cease. Each oil and gas lease or other agreement covering lands within the Unit Area shall remain in force for at least one year after the date on which this Agreement terminates, and for a further period, if any, as provided by the lease.

14.4 Salvaging Equipment and Rehabilitation Upon Termination. The Unit Operator and the Working Interest Owners shall have the right for a period of 3 years after the date of termination of this Agreement in which to salvage and remove all personal property, lease and well equipment, plants, and other facilities and equipment used, taken over, or otherwise acquired by the Working Interest Owners for use in Unit Operations. The Unit Operator shall rehabilitate the Unit Area to the satisfaction of the Commissioner within 3 years after the date of termination of this Agreement. The Commissioner may extend the period for salvage and removal of equipment and rehabilitation of the Unit Area. Upon the expiration of this period, and at the discretion of the Commissioner, any equipment not removed from the Unit Area becomes the property of the State of Alaska or may be removed by the State at the expense of the Working Interest Owners. All other improvements, such as roads, well pads, water reservoirs, landing strips, and material sites either shall be abandoned and the sites rehabilitated to the satisfaction of the Commissioner or shall be left intact and the Unit Operator and the Working Interest Owners absolved of all further responsibility or liability as to their maintenance, repair, and eventual abandonment and rehabilitation.

ARTICLE 15

EXECUTION

15.1 Original, Counterpart, or Other Instrument. An owner of Oil and Gas Rights may become a party to this Agreement by signing the original of this instrument, a counterpart, or other instrument agreeing to become a party. The signing of these instruments shall have the same effect as if all parties had signed this Agreement.

15.2 Joinder in Dual Capacity. Execution of this Agreement by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests owned or controlled by that party in the Unit Area to this Agreement.

ARTICLE 16

RELATIONSHIP OF AGREEMENTS

16.1 Unit Agreement and Unit Operating Agreement. This Unit Agreement shall control the respective rights and obligations of the Unit Operator, the Working Interest Owners, the State of Alaska, and Royalty Interest Owners other than the State of Alaska in case of any conflict between this Agreement and the Unit Operating Agreement. However, where conflicts exist solely between Working Interest Owners, the Unit Operating Agreement shall prevail.

ARTICLE 17

LAWS AND REGULATIONS

17.1 Laws and Regulations. This Agreement shall be subject to all applicable federal, state, and local laws, rules, regulations, and orders in effect on the Effective Date and, insofar as is constitutionally permissible, to all laws, rules, regulations, and orders subsequently enacted or adopted after the Effective Date of this Agreement.

17.2 Construction. This agreement shall be construed according to the laws of the State of Alaska.

ARTICLE 18

GENERAL

18.1 Amendments. Except as otherwise provided in this Agreement, this Agreement may be amended by the parties. Except as otherwise provided in this Agreement, an amendment becomes effective upon approval by the Commissioner.

18.2 Action by Working Interest Owners. Except as otherwise provided in this Agreement, any action or approval required by the Working Interest Owners under this Agreement shall be in accordance with the provisions of the Unit Operating Agreement.

ARTICLE 19

DEFAULT

19.1 Default. Failure to comply substantially with any of the terms of this Agreement, including any Plans of Exploration, Development, or Operations which are a part of this Agreement, is a default under this Agreement.

19.1.1 The Commissioner will give notice to the Unit Operator and defaulting party (if other than the Unit Operator) of the default. The notice will state the nature of the default and include a demand to cure the default within a reasonable time, which, in the case of failure to pay rentals or royalties, will be a date determined by the Commissioner, and the case of any other default will be a date not less than 90 days after the date of the Commissioner's notice of default.

19.1.2 If there is no well certified as capable of producing Unitized Substances in Paying Quantities at the time a default occurs under this Agreement and the default is not cured by the date indicated in the demand, the Commissioner will, in his discretion, and after giving the Unit Operator and defaulting party (if other than the Unit Operator) reasonable notice and an opportunity to be heard, terminate this Agreement by mailing notice of the termination to the Unit Operator and defaulting party. Termination is effective upon mailing the notice.

19.1.3 If there is a well capable of producing Unitized Substances in Paying Quantities at the time a default occurs under this Agreement and the default is not cured by the date indicated in the demand, the Commissioner will, in his discretion, seek to terminate this Agreement by judicial proceedings.

IN WITNESS OF THE FOREGOING, the parties have executed this Unit Agreement on the dates opposite their respective signatures.

Party: _____
By: _____
Title: _____
Address: _____

Date: _____

Party: _____
By: _____
Title: _____
Address: _____

Date: _____

EXHIBIT A
OWNERSHIP INFORMATION
KEY UNIT "A" BLOCK

<u>Tract No.</u>	<u>Legal Description</u>	<u>No. of Acres</u>	<u>ADL#</u>	<u>Lessee of Record Ownership</u>	<u>Working Interest</u>	<u>State Royalty</u>	<u>NPSI</u>
1			318601	CHEVRON			
2			318615	CHEVRON			
3	T10N-R17E-UM Sec. 5, 6, 7, 8	2501	318618	KELLEY EVERETTE C. BURGLIN R. WAGNER W. COURTNEY R. GREGORY DAVID BURGLIN	5% 15% 15% 15% 15% 35%	20%	30%
4	T10N-R18E-UM Sec. 17, 18, 19, 20	2512	318626	KELLEY EVERETTE C. BURGLIN A. GRIEG J. DIERINGER R. WAGNER BRIAN BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
5				UNLEASED			
6	T10N-R17E-UM Sec. 15, 16, 21, 22	2560	318621	KELLEY EVERETTE C. BURGLIN W. WAUGAMAN J. RIBAR V. GAVORA MARY GUSTAFSON	5% 15% 20% 20% 20% 20%	20%	30%

EXHIBIT A
OWNERSHIP INFORMATION
KEY UNIT "A" BLOCK

<u>Tract No.</u>	<u>Legal Description</u>	<u>No. of Acres</u>	<u>ADL#</u>	<u>Lessee of Record Ownership</u>	<u>Working Interest</u>	<u>State Royalty</u>	<u>NPSI</u>
7	T10N-R17E-UM Sec. 17, 18, 19, 20	2512	318620	KELLEY EVERETTE C. BURGLIN J. THURMAN R. GREGORY C. COLE MARY GUSTAFSON	5% 15% 20% 20% 20% 20%	20%	30%
8			318616	CHEVRON			
9			318617	CHEVRON			
10			318622	CHEVRON			
11	T10N-R17E-UM Sec. 27, 28, 33, 34	2560	318623	KELLEY EVERETTE C. BURGLIN A. GRANT BOB GROSECLOSE M. MILLER BRIAN BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
12	T10N-R17E-UM Sec. 25, 26, 35, 36	2560	318624	KELLEY EVERETTE C. BURGLIN L. SANDERS E. COOK E. BIVENS MARY GUSTAFSON	5% 15% 20% 20% 20% 20%	20%	30%
13			318627	AMOCO			

EXHIBIT A
OWNERSHIP INFORMATION
KEY UNIT "B" BLOCK

<u>Tract No.</u>	<u>Legal Description</u>	<u>No. of Acres</u>	<u>ADL#</u>	<u>Lessee of Record Ownership</u>	<u>Working Interest</u>	<u>State Royalty</u>	<u>NPSL</u>
14			318673	AMOCO			
15				UNLEASED			
16	T9N-R17E-UM Sec. 1, 2, 11, 12	2560	318667	KELLEY EVERETTE C. BURGLIN C. COLE W. BOGGESS D. MORRISON DAVID BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
17	T9N-R17E-UM Sec. 3, 4, 9, 10	2560	318666	KELLEY EVERETTE C. BURGLIN R. WAGNER J. ARSENAULT M. MILLER MARY GUSTAFSON	5% 15% 20% 20% 20% 20%	20%	30%
18	T9N-R16E-UM Sec. 5, 6, 7, 8	2533	318665	KELLEY EVERETTE C. BURGLIN C. COLE W. BOGGESS D. LARSON BRIAN BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%

**EXHIBIT A
OWNERSHIP INFORMATION
KEY UNIT "B" BLOCK**

<u>Tract No.</u>	<u>Legal Description</u>	<u>No. of Acres</u>	<u>ADL#</u>	<u>Lessee of Record Ownership</u>	<u>Working Interest</u>	<u>State Royalty</u>	<u>NPSL</u>
19	T9N-R17E-UM Sec. 17, 18, 19, 20	2544	318668	K. EVERETTE C. BURGLIN R. WAGNER J. ARSENAULT O. DROZ BRIAN BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
20				UNLEASED			
21	T9N-R17E-UM Sec. 13, 14, 23, 24	2560	318669	K. EVERETTE C. BURGLIN C. COLE R. SPAKE J. JOHNSON MARY GUSTAFSON	5% 15% 20% 20% 20% 20%	20%	30%
22	T9N-R18E-UM Sec. 17, 18, 19, 20	2544	318674	K. EVERETTE C. BURGLIN R. WAGNER J. DIERINGER R. SPAKE BARBARA BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
23			318675	AMOCO			
24			318676	AMOCO			
25				AMOCO			
26				UNLEASED			
27				UNLEASED			

**EXHIBIT A
OWNERSHIP INFORMATION
KEY UNIT "B" BLOCK**

<u>Tract No.</u>	<u>Legal Description</u>	<u>No. of Acres</u>	<u>ADL#</u>	<u>Lessee of Record Ownership</u>	<u>Working Interest</u>	<u>State Royalty</u>	<u>NPSL</u>
28	T9N-R20E-UM Sec. 29, 30, 31, 32	2555	318682	K. EVERETTE C. BURGLIN R. GREGORY J. THURMAN J. MURPHY BRUCE BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
29	T9N-R19E-UM Sec. 25, 26, 35, 36	2560	318681	K. EVERETTE C. BURGLIN J. ARSENAULT J. THURMAN C. COLE BRUCE BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
30				UNLEASED			
31	T9N-R19E-UM Sec. 29, 30, 31, 32	2555	318680	K. EVERETTE C. BURGLIN R. GREGORY J. THURMAN R. GOMEZ BARBARA BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
32				MOBIL/PHILLIPS			

**EXHIBIT A
OWNERSHIP INFORMATION
KEY UNIT "B" BLOCK**

<u>Tract No.</u>	<u>Legal Description</u>	<u>No. of Acres</u>	<u>ADL#</u>	<u>Lessee of Record Ownership</u>	<u>Working Interest</u>	<u>State Royalty</u>	<u>NPSL</u>
33	T9N-R18E-UM Sec. 27, 28, 33, 34	2560	318678	K. EVERETTE C. BURGLIN R. GREGORY J. THURMAN R. WAGNER BARBARA BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
34	T9N-R18E-UM Sec. 29, 30, 31, 32	2555	318677	K. EVERETTE C. BURGLIN J. THURMAN J. ARSENAULT R. WAGNER BARBARA BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
35	T9N-R17E-UM Sec. 25, 26, 35, 36	2560	318671	K. EVERETTE C. BURGLIN R. GREGORY J. THURMAN C. COLE BARBARA BURGLIN	5% 15% 20% 20% 20% 20%	20%	30%
36				UNLEASED			
37	T9N-R17E-UM Sec. 29, 30, 31, 32	2555	318670	K. EVERETTE C. BURGLIN R. GREGORY J. THURMAN R. SPAKE MARY GUSTAFSON	5% 15% 20% 20% 20% 20%	20%	30%

EXHIBIT B

KEY UNIT

AREA MAP
BASED ON UNIAT MERIDIAN, ALASKA
FEB 85 *KE*



"A" BLOCK

UNIT BOUNDARY

① DENOTES TRACT NUMBERS

"A" BLOCK 31771 ACRES
TRACTS 1 thru TRACTS 13

"B" BLOCK 60065 ACRES
TRACTS 14 thru tracts 37

TOTAL UNIT ACREAGE 91836 ACRES

T
11
N

R 16 E

CHEVRON

26 25
+ ①
35 36

ADL
318601 2560ac

R 17 E

CHEVRON

2 1
+ ②
11 12

ADL
318615 2560ac

BURGLIN, et al

6 5
+ ③
7 8

ADL
318618 2501ac

CHEVRON

14 13
+ ⑧
23 24

ADL
318616 2560ac

BURGLIN, et al

18 17
+ ⑦
19 20

ADL
318620 2512ac

BURGLIN, et al

16 15
+ ⑥
21 22

ADL
318621 2560ac

UN-
LEASED

13
⑤
24

1280ac

BURGLIN, et al

18 17
+ ④
19 20

ADL
318626 2512ac

T
10
N

T
10
N

CHEVRON

26 25
+ ⑨
35 36

ADL
318617 2560ac

CHEVRON

30 29
+ ⑩
31 32

ADL
318622 2523ac

BURGLIN, et al

28 27
+ ⑪
33 34

ADL
318623 2560ac

BURGLIN, et al

26 25
+ ⑫
35 36

ADL
318624 2560ac

AMOCO

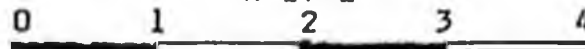
30 29
+ ⑬
31 32

ADL
318627 2523ac

R 16 E

R 17 E

R 18 E



scale in miles

EXHIBIT B

KEY UNIT
"B" BLOCK

R 17 E

R 18 E

<p>BURGLIN, et al 6 5 + (18) 7 8 ADL 318665 2533ac.</p>	<p>BURGLIN, et al 4 3 + (17) 9 10 ADL 318666 2560ac.</p>	<p>BURGLIN, et al 2 1 + (16) 11 12 ADL 318667 2560ac.</p>	<p>UNLEASED 6 5 + (15) 7 8 2560ac.</p>	<p>AMOCO 4 3 + (14) 9 10 ADL 318673 2560ac.</p>	
<p>BURGLIN, et al 18 17 + (19) 19 20 ADL 318668 2544ac.</p>	<p>UNLEASED 16 15 + (20) 21 22 2560ac.</p>	<p>BURGLIN, et al 14 13 + (21) 23 24 ADL 318669 2560ac.</p>	<p>BURGLIN, et al 18 17 + (22) 19 20 ADL 318674 2544ac.</p>	<p>AMOCO 16 15 + (23) 21 22 ADL 318675 2560ac.</p>	<p>AMOCO 14 13 + (24) 23 24 ADL 318676 2560ac.</p>
<p>BURGLIN, et al 30 29 + (37) 31 32 ADL 318670 2555ac.</p>	<p>UNLEASED 28 27 + (36) 33 34 2560ac.</p>	<p>BURGLIN, et al 26 25 + (35) 35 36 ADL 318671 2560ac.</p>	<p>BURGLIN, et al 30 29 + (34) 31 32 ADL 318677 2555ac.</p>	<p>BURGLIN, et al 28 27 + (33) 33 34 ADL 318678 2560ac.</p>	<p>MOBIL/PHILLIPS 26 25 + (32) 35 36 2560ac.</p>

T
9
N

CONTINUED ON PAGE 3

R 17 E

R 18 E

EXHIBIT B

KEY UNIT

"B" BLOCK

R 19 E

R 20 E

R 19 E

R 20 W

CONTINUED FROM PAGE 2

T
9
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9
N

	AMOCO 18 17 + (25) 19 20 ADL 318679 2544ac.	UNLEASED 16 15 + (26) 21 22 2560ac.	UNLEASED (27) 23 24 1280ac.	
	BURGLIN, et al 30 29 + (31) 31 32 ADL 318680 2555ac.	UNLEASED 28 27 + (30) 33 34 2560ac.	BURGLIN, et al 26 25 + (29) 35 36 ADL 318681 2560ac.	BURGLIN, et al 30 29 + (28) 31 32 ADL 318682 2555ac.

EXHIBIT A
Ownership Information

Tract No.	Description (Township, Range, Sec., Lot)	No. of Acres	ADL No.	Lessee of Record Ownership	Working Interest	Royalty Percentage and Owner	NPSL
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EXHIBIT B
Map of Unit Area and Tracts

EXHIBIT C
Participating Area
(General Geologic Description)

Tract No.	Legal Description (Township, Range, Sec., Lot)	ADL No.	Tract Participation
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EXHIBIT D
Map of _____ Participating Area

EXHIBIT E
Allocation of Participating Area Expense

Tract No.	Allocation of _____ Participating Area Expense (%)
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EXHIBIT F
Allocation of Unit Expense

Tract No.	Allocation of Unit Expense
--------------	-------------------------------

EXHIBIT G
Plan of Development or Exploration

KEY TO ABBREVIATIONS:

ACC - **Alaskan Crude Corporation**

BURGLIN - **Burglin, et al**

EXHIBIT G

UNIT PLAN OF EXPLORATION

Attached to and made a part of
the Key Unit Agreement

For the period starting with the Effective Date of this Agreement and continuing for five (5) years thereafter, the Working Interest Owners intend to proceed with the following Unit Plan of Exploration.

1. Exploratory Wells

- a. The first well will have a bottomhole location in the northeast quarter (NE $\frac{1}{4}$) of Section 5 of T10N-R17E on Lease ADL 318618 drilled to a depth sufficient to test the hydrocarbon potential of the Lisburne Group. The Lisburne Group is that interval (or stratigraphic equivalent) which was encountered between 9353 and 9696 feet measured depth in the ARCO Delta State No. 1. (Section 10-T10N-R16E). This well is planned to commenced prior to March 31, 1987.
- b. A second exploratory well is planned to be commenced prior to March 31, 1989. The bottomhole location of the second well will be in Block B of the Unit as described in Exhibits A and B and will take into account information obtained from all previous wells and the studies mentioned below. The geological justification for the well bottom-hole location will be provided to the State.

2. Studies

Geological, geophysical and engineering studies based on available information and integrated with new data will continue to be carried out by the Working Interest Owners in order to evaluate the hydrocarbon potential of the leases within the Unit boundary.

The terms of the Unit Plan of Exploration shall cover the time period from Effective Date of this Agreement through a period of five (5) years.

The Unit Operator will continue to obtain applications and permits for Unit Operations as required by State laws, regulations and/or State Oil and Gas Lease Stipulations. Commencing in 1986, The Unit Operator will file annual progress reports describing operations and results to date under the Unit Plan of Exploration.

divided into two categories, those within the city boundaries of Fairbanks and North Pole, and those outside those boundaries. A certain number of signatures of each category of citizen is needed on the petitions, and then, a majority of votes in each category is needed when the unification issue is finally put on the bal-

candidates. In fact, several league members later said that their participation in the gathering of signatures is not assured at this point and will be decided in a membership meeting March 5.

Whoever attempts to gather the needed signatures will certainly face an uphill battle in convincing rural residents that

studying unification?" To which a fair reply would be: If someone is determined to drown you in deep water, would you like to go for a little swim with him?

If this is on the fall ballot, we will also be asked to elect members of the charter commission. Rest assured that these folks will be advocates of one larger unified

signed the petition, but who now would like their name removed from it, may give a signed statement to that effect to that office. Possibly, as the true ramifications of a unification move sink in, the petitions will shrink in length rather than expand, and we can continue under our three smaller, more responsive local governments.

Governor promises economic cures and big deals

by Cliff Burglin

Governor Cowper is turning into a carrot dangler. A carrot dangler could be defined as someone who is going to cure all of the state's economic ills with a big deal that is right around the corner. Like the proverbial rabbit, for the people of Alaska, the carrot is always two strides out of reach.

Among the governor's carrots are making the state a financial power in the Western Hemisphere. Another is a gas line from the North Slope that will soak up all of Alaska's unemployed at high wages. Still another is having foreign nations come in and invest a lot of money in the development of Alaska's timber, mining, agricultural, etc. resources. Notwithstanding the fact that every one of these resources can be developed more profitably and with more encouragement in other states and other nations.

It is relatively easy for the governor to meet and associate with the top people in other nations and other states. It is quite

another thing for these people to invest hard dollars in Alaska's resources where state government with its regulations and restrictions prohibits any development from being profitable.

The governor and legislature could at least insure that our most profitable and viable industry is encouraged. The best way to do this is to amend and extend all of the oil and gas leases that were issued when oil was in excess of \$30 a barrel.

The leases that were issued for shorter periods than 10 years should have their terms extended for the additional years up to 10 years. The terms of all leases should be the same: 12-1/2 percent royalty plus severance tax. This would bring state leases in line and competitive with adjacent federal and Native lands within the state.

For instance at 12-1/2 percent royalty plus severance tax, Conoco's Milne Point and Gwyder Bay fields would be economic and competitive. With the severance tax the state's take equals about 25 percent. Not too bad for putting forth very little

positive effort.

It would also mean that the Texas Eastern, Amerada Hess, etc. tracts adjacent to Seal Island would be bringing in a great deal of money to the state when that field is put on line. As of now these leases carry between 85 and 93 percent net profits.

If the terms of these leases are not amended to be competitive, they will be drained by the adjacent federal tracts and rather than the state earning 25 percent of a couple hundred million barrels of oil plus any gas, it will earn 85 to 93 percent of nothing.

Out of the hundreds of state leases, fewer than 50 would have to be amended. If these leases are not amended, this acreage will probably never be developed.

Another advantage to amending the terms and the other provisions would be that it would not take an army of state accountants, lawyers and assorted bureaucrats to litigate the definition of net profits.

It would also be a good idea if the state

adhered to the same leasing procedures and conditions for every sale.

If these suggestions are followed it might not be too late for the State of Alaska to continue to be a world class oil producer. Make no mistake, oil will be produced in Alaska, but certainly not on state lands with the current eccentric and inconsistent state policies.

Despite the fact that the majors have announced that they plan to spend \$25 billion in Alaska, it is certainly not all going to be spent developing oil and gas reserves on state acreage. This is yet another reason for the state to get its policies, regulations and terms in line with their two major competitors within the state — the Native corporations and the federal government.

If the state does not change its practices, less than one half of this money will be spent on state lands which means eventually, less than one half of the oil flowing through the pipeline will be state oil.

Catastrophic illness insurance for all Alaskans

by Rep. Niilo Koponen
House District 21

The current proposals include SSHB 410 which provides for affordable catastrophic illness insurance automatically extended to all state residents. There is

to go through the hearing process and be made both affordable and reasonable for the people of the state. Alternatives include lowering the benefit cost by raising

Like anything else, the bill would require continuing effort to lower costs and extend benefits as Alaska changes. One

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IN REPLY REFER TO:

3021 (910)
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Senator John Coghill
Alaska State Senate
P.O. Box V
Juneau, Alaska 99811

Dear Senator Coghill:

Because there has been so much significant discussion surrounding oil and gas issues in Alaska, especially for large blocks of federal land, I have directed my staff to develop the enclosed issue paper.

You may find it of some interest.

Sincerely,

Mike Penfold
Alaska State Director

Attachments (2)

- 1 - Executive Summary (1 pg)
- 2 - Oil & Gas in Alaska (19 pp)

EXECUTIVE SUMMARY

Exploration for natural resources, including oil and gas, coal, and metals has long been a part of the history of Alaska. Many changes have come to the state because of the presence of an abundance of these resources. Conflicts today over their development continue to be as intense as at any time in the past.

The attached paper, "Oil and Gas Exploration in Alaska: A Brief Perspective," provides a short overview of oil exploration in the state. While not totally comprehensive, this paper will provide an idea of the tremendous mineral potential, especially for areas such as the National Petroleum Reserve-Alaska, with untapped oil and gas; and of the coal reserves present in the Utukok region, containing up to 25 percent of the nation's coal.

It is hoped this paper will contribute to a better understanding of the oil, gas and mineral potential present on federal lands in Alaska.

**Oil and Gas Exploration in Alaska:
A Brief Perspective**

**Division of Mineral Resources
Branch of Mineral Assessment**

**Richard Foland
Robert Bascle
Gary Brougham
Art Banet**

Oil and Gas Exploration in Alaska: A Brief Perspective

Introduction

Alaska now has about 25 percent of the nation's petroleum reserves. To date, more than 750 exploratory oil and gas wells have been drilled in the State of Alaska. Outside of the North Slope and the Cook Inlet-Kenai Peninsula area, exploration for petroleum in Alaska has proven to be largely disappointing. Onshore and offshore basins, aside from those mentioned above, have been equally disappointing.

The North Slope appears to offer the greatest potential to add to the nation's resources. Closing of any of its three main provinces (NPRA, Central Arctic, ANWR 1002 area) from entry to petroleum (and coal) exploration is probably premature.

Early History

The Katalla Field, Alaska's first oil field, was discovered in 1902 near Yakutat on the shores of the Gulf of Alaska. The Katalla produced a total of 154,000 barrels of oil by 1933. In 1933, a fire destroyed the production facilities and led to the abandonment of the field.

Although the Katalla was the first oil field in Alaska, it does not represent the first use of Alaskan oil. The first use probably occurred when Russian explorers collected oil from a seep on the Alaska Peninsula in the eighteenth century. The oil seeps on the peninsula attracted early exploration interest. Four wells were drilled in 1903 and 1904. In 1910, oil lands in Alaska were withdrawn from entry. The Mineral Leasing Act of 1920 re-opened these lands and brought renewed interest to the Peninsula. Five wells were drilled by early 1926. Since then, interest in oil exploration on the Peninsula has revived several times. The last well was drilled in 1985. Some of these wells have had shows of petroleum, but no commercial quantities of oil or gas have been found.

North Slope exploration began in 1919 with Leffingwell's pioneering expedition which documented several oil seeps. Subsequent U.S. Geological Survey (USGS) investigations noted and mapped additional seeps. In 1923, President Harding established, by Executive Order, Naval Petroleum Reserve No. 4 (NPR-4, now known as the National Petroleum Reserve - Alaska or NPR-A) in northwestern Alaska. From 1923 to 1926, the USGS, on behalf of the U.S. Navy, continued reconnaissance geologic field mapping. The USGS published the results of this mapping program in 1930.

In 1943, during World War II, the Federal government withdrew the entire North Slope from public entry. In 1944, the Navy and the USGS began a major

program of NPR-4 exploration. This program included surface geologic mapping, extensive seismic surveys, gravity and magnetic surveys, and the drilling of 45 core holes and 37 test wells. This exploration program ended by 1953. Oil accumulations were found at Umiat, Cape Simpson, and Fish Creek; gas accumulations were found at six locations. None of these discoveries were of commercial size.

Outer Continental Shelf, Cook Inlet and Interior Basins

Richfield Oil Company discovered the Swanson River Field on the Kenai Peninsula in 1957 with the Swanson River Unit 1 well. Subsequent exploration on the Kenai Peninsula and in the adjacent Cook Inlet basin led to the discovery of 21 oil and gas fields. The Cook Inlet basin, currently in a mature phase of development, probably will not have new, large hydrocarbon discoveries. The daily oil production from the Cook Inlet fields, both onshore and offshore, is about 46,000 barrels and is declining at about 15 percent a year.

Exploration in the Cook Inlet basin has not proven uniformly successful. Drilling in the lower Cook Inlet, offshore, has resulted in twelve dry holes -- no successes. Success has occurred exclusively in the Upper Cook Inlet.

The Gulf of Alaska (figure 1) held the oil industry's attention in the offshore in the early to mid-1970s. Reflection seismology revealed the presence of very large anticlinal structures (potential oil-bearing traps). Proximity of these structures to the Katalla Field and known oil(?) and gas seeps offered strong arguments that these structures might contain oil deposits. Starting in 1976, three Outer Continental Shelf (OCS) lease sales were held amidst high expectations. By the end of the Gulf of Alaska exploration cycle, the oil industry had drilled twelve successive, expensive, and discouraging dry holes. Similar disappointments characterized exploration in other Alaskan OCS provinces (figure 1) during the late '70s and early '80s -- St. George basin, Navarin basin, and Norton basin. Exploration continues in the Beaufort Sea OCS, and this area could still hold some, as yet undiscovered, petroleum resources.

Other onshore basins (figure 1) in Alaska have experienced some exploration interest, but the results in these have been disappointing. The test wells in these onshore basins have not encountered commercial quantities of hydrocarbons. Wells on the Alaska Peninsula have encountered shows of oil and gas, but nothing of commercial significance. The early 60s to the late 70s saw the drilling of discouraging onshore exploratory dry holes in the Hope/Selawik basin, the Kandik basin, the Copper River basin, the Yukon-Koyukuk basin, the periphery of the Bristol Bay basin, and the Tanana basin. The tectonic and thermal histories of several of the onshore basins indicate that, if they have any petroleum potential, they are likely to be gas

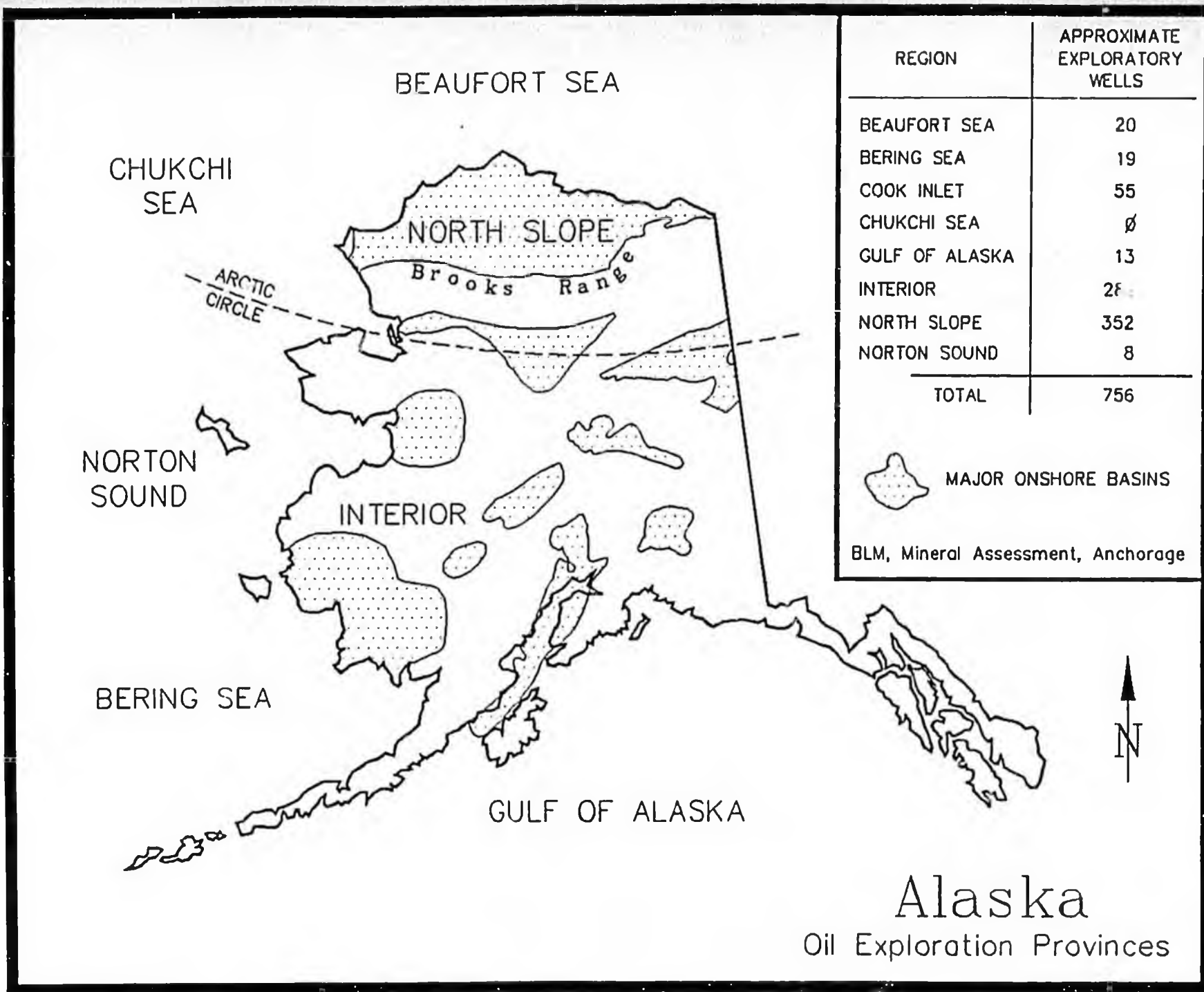


Figure 1. Oil Exploration Provinces, Alaska

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prone. Furthermore, given the physical size of the other onshore basins, even if they contain petroleum resources, they promise to be small and insignificant compared to North Slope reserves.

Central Arctic

When the Federal government opened the North Slope to leasing, oil exploration quickly followed (figure 2). In 1958, the BLM offered, for lease, about 4 million acres of land in the Central Arctic. This marked the end of the 1943 public lands withdrawal and the beginning of a new phase of North Slope petroleum exploration. Between 1958 and 1966, the State and Federal governments offered 17,456,145 acres of land in the Central Arctic. Exploration efforts between 1962 and 1964 resulted in the drilling of seven unsuccessful wells. Three more unsuccessful exploratory wells followed in 1966 and 1967.

The next well, the ARCO-Humble Prudhoe Bay State 1, drilled amidst waning enthusiasm for North Slope exploration discovered the Prudhoe Bay field. By some accounts, this, the fourteenth well drilled in the Central Arctic (counting three Navy wells adjacent to NPR-A), was expected to end this phase of exploration. The discovery, announced in 1968, changed these expectations.

The ensuing years witnessed additional discoveries in the Central Arctic. These include Kuparuk (figure 3), Milne Point, Lisburne, and West Sak in the vicinity of the Prudhoe Bay field. Discoveries at Seal Island, Flaxman Island, and Point Thomson expanded the area of known petroleum accumulations. Wells drilled farther inland on the Coastal Plain and in the Brooks Range foothills have, however, yet to find exploitable petroleum reserves.

The combined daily oil production from the North Slope during September 1987 averaged about 1.8+ million barrels from the Kuparuk, Endicott, Lisburne, and Prudhoe Bay oil pools (figure 4). Production should begin to decline by 1990 (figure 5), due mainly to a projected decline in Prudhoe Bay production.

National Petroleum Reserve - Alaska

The National Petroleum Reserve, Alaska (NPR-A) covers some 23 million acres in northwest Alaska (figure 3). It was established on the basis of geology favorable to the presence of petroleum and the presence of oil seeps at Simpson Lagoon, Skull Cliffs, Fish Creek, Umiat, the Lisburne well area, and oil stained sandstones in the foothills. Known oil discoveries occur at Umiat (a sub-giant to giant field estimated at 70 to 120 million barrels), in the Simpson area, and in the Fish Creek area. The known gas fields occur at east and south Barrow (which also have unproduced oil), Walakpa, Square Lake, Meade, and Wolf Creek areas.

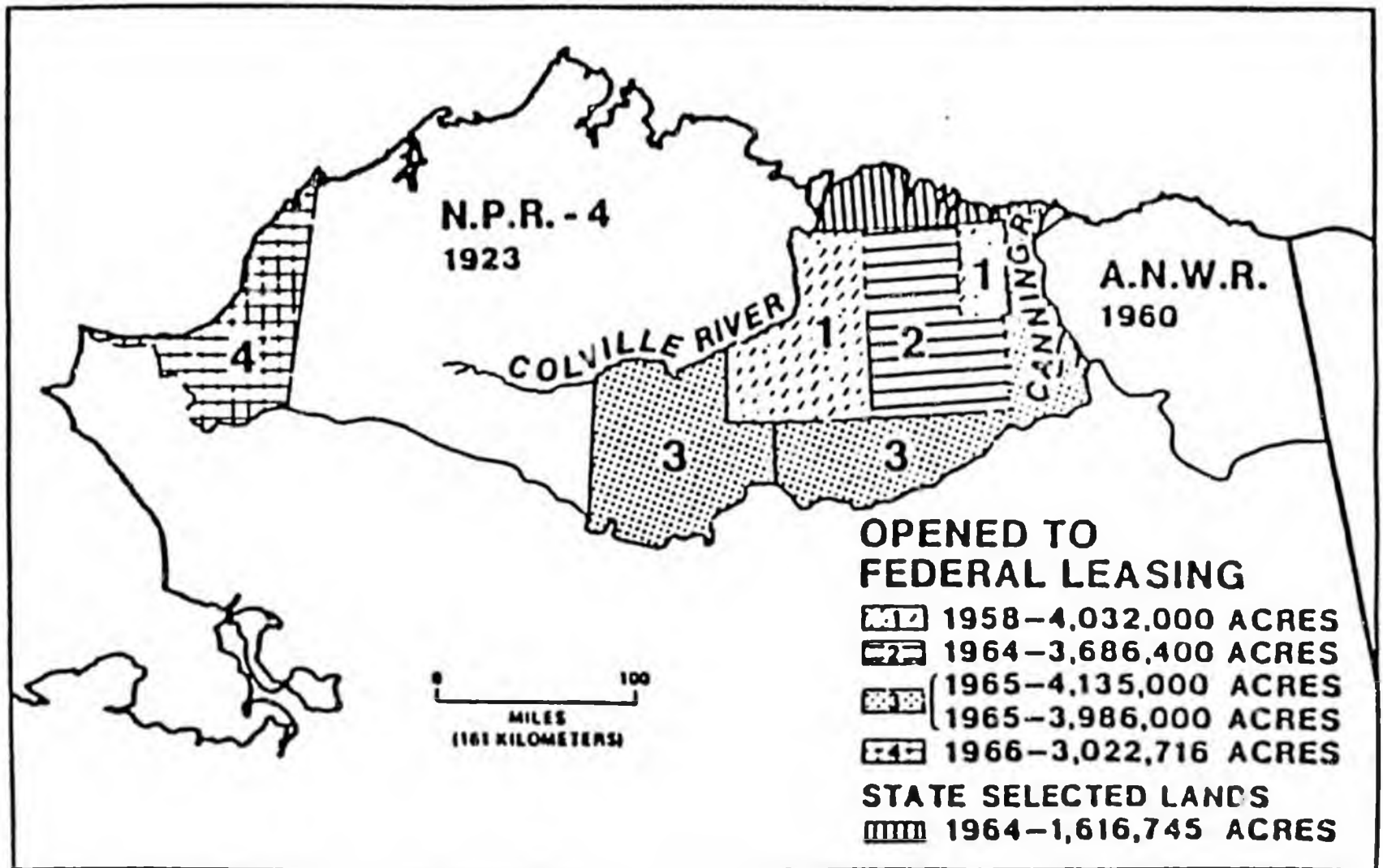


FIG. 2—North Slope land availability from 1958 through 1969.

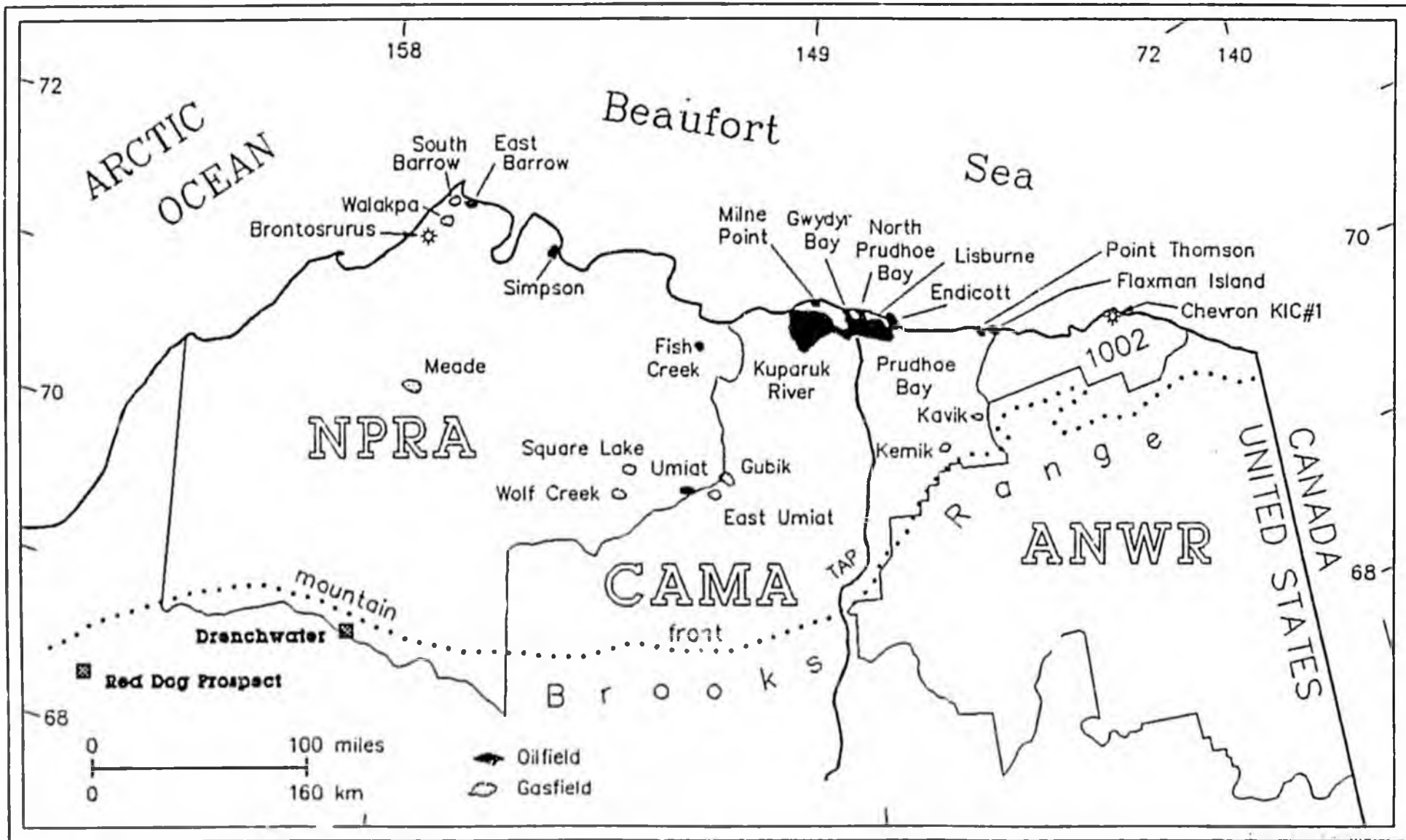


Figure 3. Major Oil/Gas Fields, North Slope Alaska