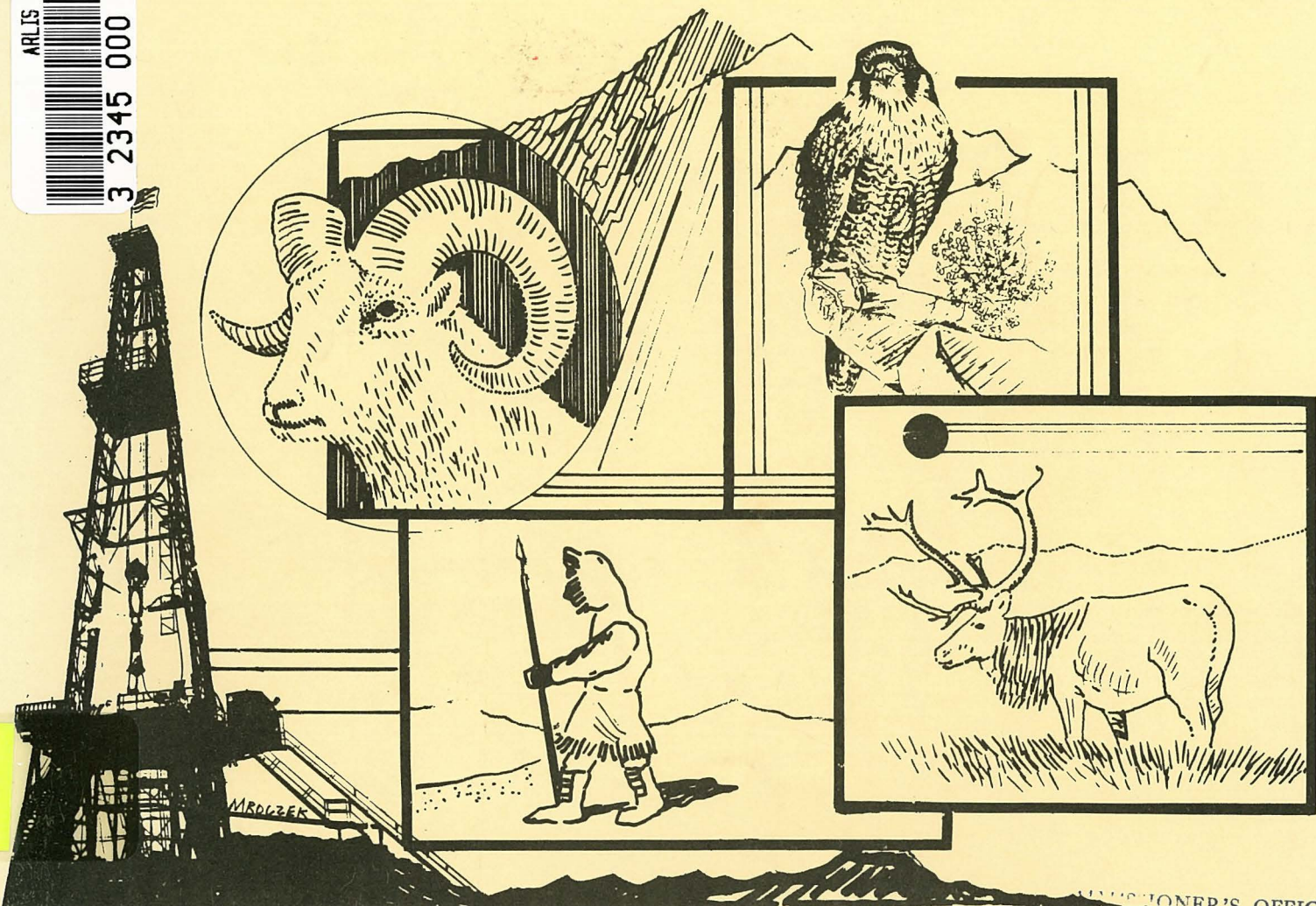


RECORD OF DECISION
ON
OIL AND GAS LEASING AND DEVELOPMENT
IN
NATIONAL PETROLEUM RESERVE IN ALASKA

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DEPARTMENT OF FISH AND GAME

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A RECORD OF DECISION
OF THE ALASKA STATE DIRECTOR ON
THE NATIONAL PETROLEUM RESERVE IN ALASKA

May 1983

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DECISION SUMMARY

THE ALASKA STATE DIRECTOR, BUREAU OF LAND MANAGEMENT (BLM), HAS ADOPTED THE PREFERRED ALTERNATIVE FROM THE FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FOR OIL AND GAS LEASING IN THE NATIONAL PETROLEUM RESERVE IN ALASKA (NPR-A) (SEE SECTION ONE) AS MODIFIED BY THIS RECORD OF DECISION (ROD). THIS DECISION CONSISTS OF:

LAND ALLOCATION:

--DELETION FROM LEASING OF 1,416,000 ACRES IN THE UTUKOK CARIBOU CALVING AREA AND THE HIGHEST DENSITY BLACK BRANT MOLTING AREA.

--SPECIAL MANAGEMENT LEASING OF APPROXIMATELY 4,350,000 ACRES IN FOUR ZONES.

--SPECIAL AND STANDARD STIPULATIONS FOR LEASING IN THE REMAINING APPROXIMATELY 17,787,000 ACRES OF THE RESERVE.

LEASING SCHEDULE:

A 5-YEAR LEASING PROGRAM FOR THESE AREAS NOT DELETED OR DEFERRED THAT WILL OFFER APPROXIMATELY 2,000,000 ACRES ANNUALLY.

STIPULATIONS:

THE STIPULATIONS IDENTIFIED IN THE FEIS ARE GENERALLY ADEQUATE FOR ALL FUTURE LEASES AND WILL BE ASSIGNED TO INDIVIDUAL TRACTS AS DEEMED NECESSARY. THIS ROD SPECIFICALLY IDENTIFIES STIPULATIONS THAT WILL BE ASSIGNED TO TRACTS AND THOSE WHICH WOULD BE PERMIT STIPULATIONS.

STUDIES AND MONITORING:

THE BLM WILL COOPERATE CLOSELY WITH THE STATE AND BOROUGH, MONITORING ACTIVITY ON THE RESERVE, GATHERING PRIORITY RESOURCE DATA AND IDENTIFYING SPECIFIC STUDY AND RESEARCH NEEDS.

SUBSISTENCE:

THE LEASE SCHEDULE, LEASE STIPULATIONS, SALE RATE, DEVELOPMENT LIKELIHOOD AND FUTURE SITE-SPECIFIC COORDINATION WITH THE NORTH SLOPE BOROUGH ADEQUATELY MITIGATE SUBSISTENCE IMPACTS.

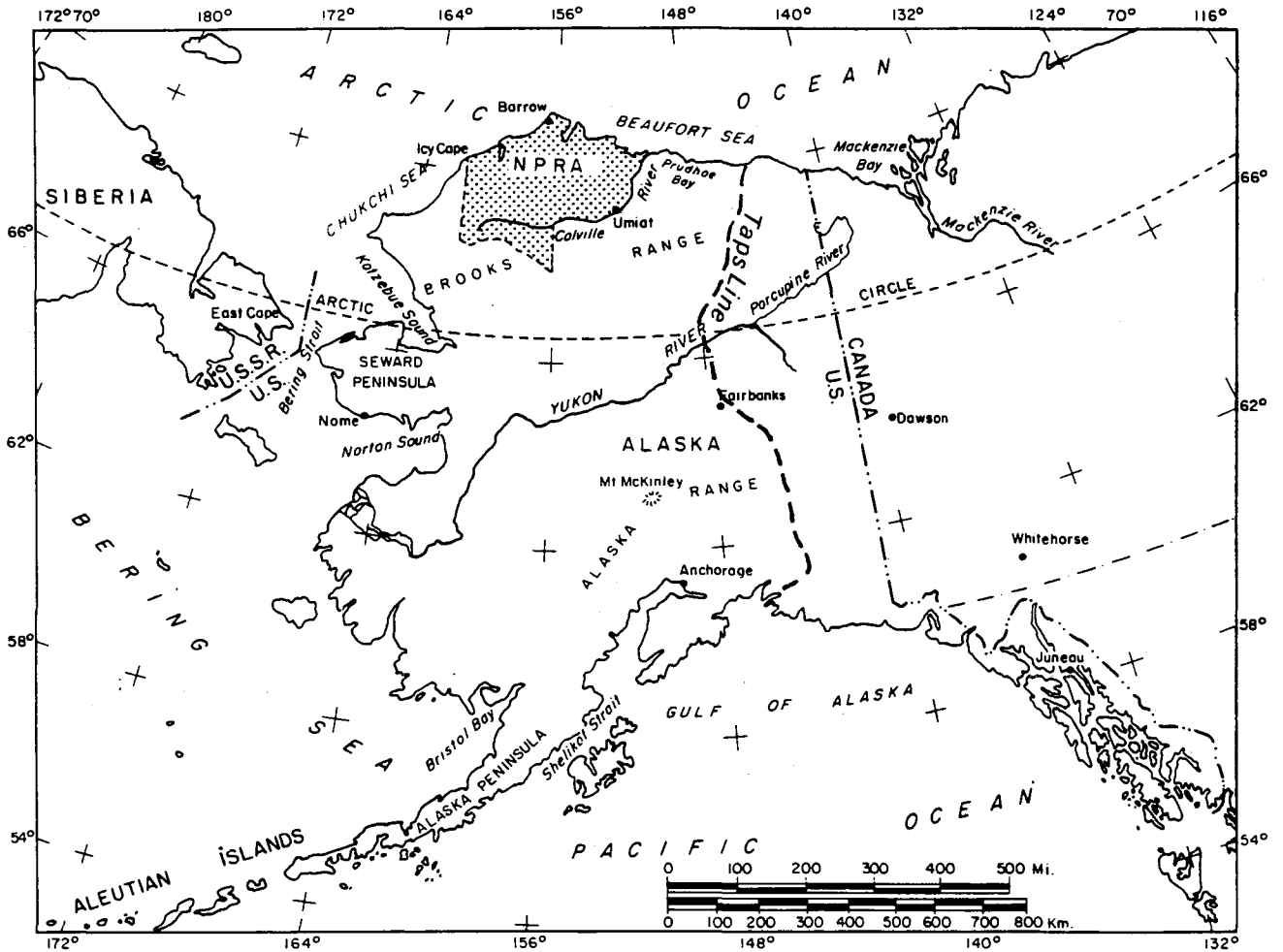
INTRODUCTION

The Department of the Interior Appropriations Act of Fiscal Year 1981 (Public Law 96-514) dated December 12, 1980 has provided the authority for an oil and gas leasing program within the 23-million-acre NPR-A.

This ROD concludes the FEIS that analyzed the environmental consequences of an oil and gas leasing program in the NPR-A (see Figure 1 for the location of the NPR-A). As required by the Council on Environmental Quality (CEQ), this ROD portrays the alternatives considered in the FEIS as well as compares and contrasts them. Alternatives are compared not only on the basis of their respective environmental consequences but also on the basis of economic, and technical considerations and national policy implications.

FIGURE 1

LOCATION OF NPR-A



SOURCE: TETRA TECH, 1982

SECTION ONE: STATE DIRECTOR'S DECISION

The State Director's decision was guided by the 1981 Department of the Interior Appropriations Act, as amended, which authorized the Secretary of Interior to prescribe an expeditious program of competitive leasing of oil and gas in NPR-A. Such a program was to include such conditions, restrictions and prohibitions deemed necessary or appropriate to mitigate reasonable foreseeable and significantly adverse effects on the surface resources of NPR-A.

This leasing program is also an element of the President's initiative to accelerate on-shore mineral leasing of Federal lands as part of his effort to reduce the United States' dependence on foreign sources of strategic minerals.

I. Where To Lease

A. Leaseable Areas

Approximately 21,600,000 acres of NPR-A are available for leasing. National Wildlife Refuge, village lands and wild and scenic rivers will require specific administrative procedures or circumstances before leasing. All NPR-A areas open to leasing are subject to stipulations at both the lease and permit stage, and to special management zones (see Figure 3) and the lease schedule in the ROD.

B. Deletions and Deferrals From Leasing

1. Caribou and waterfowl

The Western Arctic Caribou Herd Central Calving Area, Utukok uplands (Area 1 on Figure 3) and the highest density Black Brant Molting Area (Area 2 on Figure 3) are deleted from leasing. The two deletions combined total 1,450,000 acres. In addition the Fish Creek delta and adjacent salt marshes (Area 3 of Figure 3) are deferred from leasing until July 1987 to allow the U.S. Fish and Wildlife Service the opportunity to complete ongoing ecological studies.

a. Restoration of deleted areas to the leasing program

Deleted areas may be leased if:

- ° Studies show the area is no longer critical to the life-cycle of caribou or black brant;
- ° Analogous situations have demonstrated a high degree of compatibility of calving caribou and molting black brant with oil and gas activities; or
- ° New resource estimates and Department of the Interior directives establish that potential oil and gas values outweigh potential environmental losses.

b. Procedures

Before removing any area from an administrative deletion the BLM will:

- ° Inform the public that lands previously deleted are being reconsidered for leasing and give the reasons for the reconsideration;
- ° Summarize for the public the impact discussions from the FEIS and any new material;
- ° Respond to public comments and concerns in a formal "ROD"; and
- ° Select appropriate stipulations.

c. Rights-of-Way

- ° Proposed routings across areas in a deleted status at the time of right-of-way proposal will require specific National Environmental Policy Act (NEPA) compliance documentation with regard to values of these areas.

2. Federal subsurface of village lands

The Federal subsurface of village lands at Barrow, Atkasuk, Nuiqsut and Wainwright will not be offered for lease until the Arctic Slope Regional Corporation has exhausted subsurface selection rights under Section 1431(o) of the Alaska National Interest Lands Conservation Act (ANILCA).

3. Wild and Scenic Rivers

Federal lands within two miles of either side of the Colville, Etivluk-Nigu and Utukok Rivers were withdrawn from mineral development by ANILCA. The study river status and this withdrawal will expire in September 1984 unless there is Congressional action to formally designate these rivers. In the event that there is no formal designation, leasing still will not occur until multiple use plans have been completed for these rivers. These will meet environmental and petroleum objectives.

4. Alaska Maritime Refuge

The Alaska Maritime National Wildlife Refuge on the Chukchi Sea coast is deferred from leasing until completion of U.S. Fish and Wildlife applicable procedures.

C. Rationale

The discussions of where to lease were based on legal, environmental, technical and economic factors as expressed in the FEIS and this ROD. NPR-A is a frontier area where relatively little is known about specific oil and gas potentials, ~~costs of development are extremely high and overall risks for developers are great.~~ Leasing is prerequisite to discovery and development of petroleum resources. The FEIS Preferred Alternative C has adequately weighed these factors. There are no additional management or policy concerns which would override the where to lease decision stated above. Technical assessment

of the petroleum potentials estimate that only approximately three percent of the petroleum potential would be affected by deletions for caribou and waterfowl. Future options are flexible with regard to industry exploration. (See Table 2, Section Two)

II. When To Lease

Public comments on the Draft EIS required a discussion of the leasing schedule in the FEIS. Therefore, the FEIS discussed leasing schedules ranging from immediate offering of all remaining lands in the Reserve to a slower schedule of leases every other year with an Environmental Assessment (EA) on each sale. An intermediate position discussed in the Preferred Alternative and in this ROD is an annual sale based on an average 2,000,000 acre offer.

A. Sale Schedules

Decisions on sale schedules and procedures are as follows:

1. Sales

Sales to be held in July of each year at Anchorage from 1983-1987 will offer an average of 2,000,000 acres.

Sales beyond 1987 will continue to offer acreage in response to new nominations, geophysical data, or discoveries.

2. Reofferings

Unsold tracts may be reoffered in response to improved oil and gas resource information or utilizing different bidding systems. Any unsold tracts to be reoffered will be shown as such on the lease tract map preceding the sale. These reofferings will be reviewed in the sale area selection process to insure that previously assigned stipulations remain appropriate.

B. Presale Procedures

Standard BLM procedures will detail how the sales will be carried out in the NPR-A leasing program. Similar procedures and time frames will precede all unscheduled sales beyond 1987.

1. Call for nominations

These will be made only as necessary to make sure that lease sale offerings are responsive to the petroleum industry interests. If required, call for nominations will be held in January of the year preceding a sale (that is, if a nomination is held in January 1984, it will be for the July 1985 sale).

2. Sale area selection

Sale area selection will be conducted in April of the year preceding a sale (that is, sale area selection in April of 1983 will be for the July 1984 sale). Prospective bidders and the public will have 14 months before the sale date to evaluate proposed sale areas.

3. Special lease stipulations

Reviewed annually as a part of the sale area selection and tract delineations process for proper assignment to specific lease tracts, these special lease stipulations to specific tracts will be completed by January of the year of sale (see How to Lease - Stipulations).

C. Rationale

The approach outlined above would meet the following objectives for an expeditious program of competitive oil and gas leasing.

1. Expose the majority of the petroleum resource potential within seven years. (In excess of 50 percent of the potential will have been offered in the first three sales).
2. Provides 14 months for industry assessment of sale areas before sale.
3. Provides adequate time before each sale to coordinate with the public, North Slope Borough and State of Alaska on sale area concerns.
4. Meets Congressional and Department of the Interior objectives for expedited offering.

Within the range of FEIS alternatives regarding rate of leasing, it is concluded that there are no significant environmental differences. Much of NPR-A oil and gas potential has been exposed through the leasing process of the first two sales. Economics and developmental requirements indicate that it takes from 10 to 15 years from discovery to production.

Petroleum development, which is subject to NEPA, is a function of what is offered much more than when it is offered, inasmuch as the policy is to offer the land with the best potentials first regardless of the rate of offer.

The alternative to offer all of the remaining lands in one sale is rejected as being difficult for companies to analyze and prepare for and as being adversely perceived by the residents of the area, State and local governments and environmental groups.

III. How To Lease

Stipulations form the bridge between law or regulation and operations on the lease. Technically and legally, violations of the stipulations could require action against the lessee.

The following decisions will guide NPR-A areawide and lease management:

A. Geographic Zones

The geographic zones depicted on Figure 3 of this ROD and Plate One of the FEIS determine the boundaries where variation of management and stipulations will apply.

B. Lease Stipulations

The lease stipulations developed through the FEIS process and the first two NPR-A sales (Figure 4) will be the standard stipulations to be selected from throughout future lease sales. Wording may vary on the Notice of Sale to reflect nationwide standardization of lease terms and conditions, and the decisions of this ROD prior to the sale. The Information to Lessee will further explain specific responsibilities for stipulation compliance.

1. The following stipulations from Figure 4 will be applied to leases:

- * Cultural Resources - all leases
- * Peregrine Falcon - tract specific
- * Habitat Preservation - all leases
- * Wildlife Conservation - tract specific
- * Subsistence Lifestyle - tract specific
- * Subsistence Fisheries - tract specific
- * Special Management Zone - tract specific (as shown on Figure 3)

2. The following stipulations will be applied at the permit level:

- * Submerged Land Stipulations - permit specific
- * Environmental Training - all permits
- * All Others (Column 3, Figure 4) - permit specific

C. The NPR-A Permitting Process

With the reorganization within the Department of the Interior, the BLM has acquired full permitting control of all NPR-A activities including the issuance of Application for Permit to Drill (APD). The BLM will make permitting decisions based on thorough applicant analyses of proposed project specifics and reasonably foreseeable effects. Decisions will incorporate the best designs and mitigations and be issued in a timely manner.

1. Surface occupancy restrictions

Surface occupancy restrictions may be made on a site-specific basis during the permitting process. These restrictions will be applied to protect small areas of known high value fish and wildlife use, subsistence use or historical and archaeological values known to be incompatible with the proposed activity. They will not be applied to eliminate all Lessee access to possible subsurface petroleum resources on a lease.

2. Seasonal restrictions

Seasonal restrictions in addition to present lease stipulations (Figure 4) may be applied in a permitting process if they are required to conserve project area fish and wildlife seasonal uses.

3. The Design Solution Concept

The Design Solution Concept of cooperation between the BLM and a Permittee will be carried out in all aspects of the permitting process. The Design

Solution Concept requires companies to incorporate environmental concerns and analyses into their project designs at initial stages. The objective is to facilitate project approval while protecting the environment.

4. Native allotments and village lands surface estates

The BLM will not issue any permit requiring the occupation of Native allotment or village land surface to extract Federal subsurface minerals until the Permittee establishes that the surface owner has been contracted and agrees to such use in the form of a surface use agreement.

5. Proposals to grant public access

All proposals to grant public access to roads or airstrips on the NPR-A built under BLM permit in support of petroleum exploration, development or production activities will require further specific NEPA compliance documentation.

D. Rationale

The limited number of stipulations proposed for the lease meet the following criteria:

- * The stipulation is legally required, but the law or regulations are not specific to the situation. Guidelines or Information to the Lessee are not considered enforceable.
- * The concern to which the stipulation is directed involves all of the lease eg., involves all of the subsequent lease activities in a singular or cumulative manner.
- * Is significant enough that if violated would justify possible legal action against the lessee.
- * The stipulation is not effective at the permit state or cannot be implemented at the permit stage.
- * The FEIS or previous planning/environmental document/ROD decision process have established the reasoning and basis for the stipulation as a required mitigation measure.

In most cases stipulations are most appropriately attached at the permit level. They can be very specifically worded and directed at that stage. The NPR-A regulations provide for attachment of stipulations to protect resource values. In addition, due to operational and management realities, limited exceptions to stipulations may be given. A procedure for exceptions procedure will be developed to ensure consistency in each action.

IV. Special Findings

The Alaska National Interest Lands Conservation Act, Section 810 (ANILCA) of December 1980 created a special duty to care for harvestable subsistence

resources. Whenever a Federal agency is authorizing a new land use in an area used for subsistence, the agency shall assure that:

- * The proposed activity will involve the minimal amount of public lands;
- * Reasonable steps will be taken to minimize adverse impacts on subsistence uses and resources; and,
- * Rural residents engaged in subsistence uses shall have reasonable access to subsistence resources on the public lands.

This special duty has been discharged by adopting stipulations concerning habitat preservation and cultural resources, and by:

- * Deletion of the core calving area for the Western Arctic Caribou Herd which forms much of the subsistence base for all of Northwest Alaska.
- * Clarification by the solicitor that subsistence access to development areas must be maintained.
- * Restriction of all Permittee surface access to Native allotments unless permission has been given by the allotment holder.
- * Establishment of a 200-meter-setback zone along all rivers with subsistence fisheries. Key subsistence rivers are identified on the Preferred Alternative map (Figure 3).
- * Development of a subsistence stipulation to be attached to all tracts affecting subsistence. This requires companies to gather subsistence data and coordinate closely with local residents to protect subsistence values including traditional land use sites and religious sites.
- * Requirement by permit stipulation that Permittees develop an environmental training program to inform all company personnel about the northern environment and subsistence. Hopefully this training would foster an understanding and empathy for local values.
- * Establishing seasonal restrictions to protect caribou calving and migration and waterfowl nesting and molting.

V. Other Management Considerations

Close coordination will be maintained between the BLM, State of Alaska and the North Slope Borough in all further leasing and permitting actions. Monitoring of petroleum exploration and development activities on the Reserve will be conducted by the BLM Fairbanks District Office to ensure compliance with lease and permit provisions.

Subject to management concerns, BLM will establish a comprehensive, scientific, long-term monitoring inventory and study program to be developed in cooperation with industry, the North Slope Borough, State and other Federal agencies. Management criteria will include budget considerations, technical and scientific alternatives, priorities, agency responsibilities, economic

efficiency and effectiveness, and cooperative agreement appropriateness. Studies or inventory required of industry under provisions of the stipulations will be coordinated closely with a total scientific program to the extent practical.



Curtis V. McVee
Alaska State Director

SECTION TWO: SYNOPSIS OF THE FEIS ALTERNATIVES

Section Two compares the three FEIS alternatives as background for the State Director's decision. Their comparison is based on the when, how and where to lease format also used in the FEIS.

I. Where To Lease

A. Alternative A

Alternative A would delete no lands. All lands within NPR-A could be offered subject only to possible legal barriers such as the Arctic Slope Regional Corporation selection rights, and the wild and scenic river study status of the Colville, Utukok, and Etivluk-Nigu Rivers. This study status will expire in September 1984, unless there is Congressional action.

B. Alternative B

Alternative B would delete from leasing approximately 9,770,000 acres of land. These deletions include the entire Utukok Uplands, Colville River and Teshekpuk Lake Special Areas, all village lands, the Maritime Refuge, and waterfowl habitat along NPR-A coasts. Alternative B deletions are shown on Figure 2.

C. Alternative C

Alternative C, the FEIS "Preferred Alternative," would delete the core calving habitat of the Western Arctic Caribou Herd and the core molting habitat of the black brant and defer leasing for 5 years on the Fish Creek delta salt marsh waterfowl area (see Figure 3).

II. When To Lease

A. Alternative A

Alternative A proposes one lease sale in 1984 with future reoffering as necessary.

B. Alternative B.

Alternative B proposes ten sales occurring every other year and average about one million acres per offering starting in 1983; each sale would have its own EA. Reoffering would be made as necessary.

C. Alternative C

Alternative C proposes five annual sales, averaging approximately 2,000,000 acres offered per sale beginning in 1983. Reofferings could be included at any time.

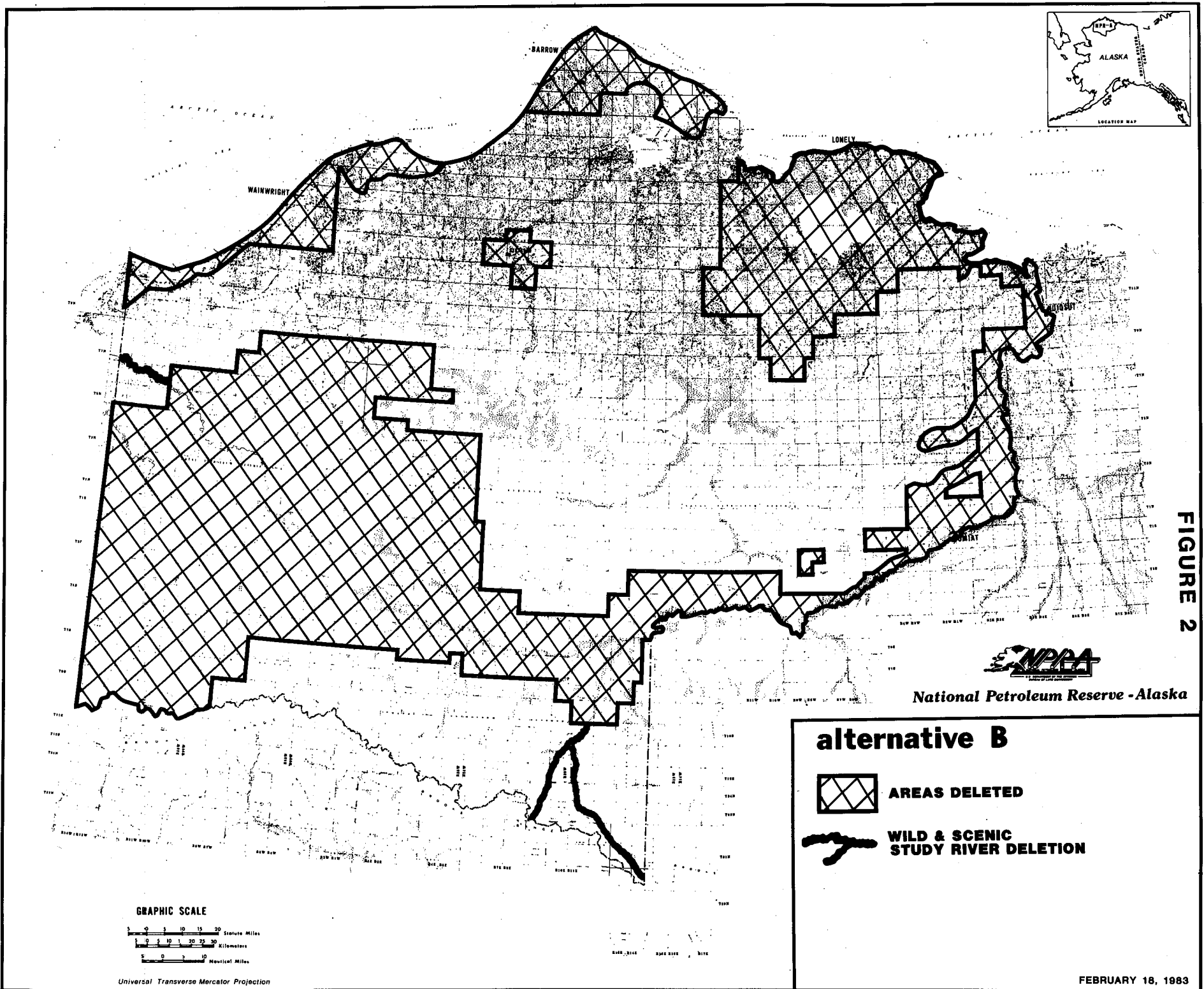


FIGURE 2

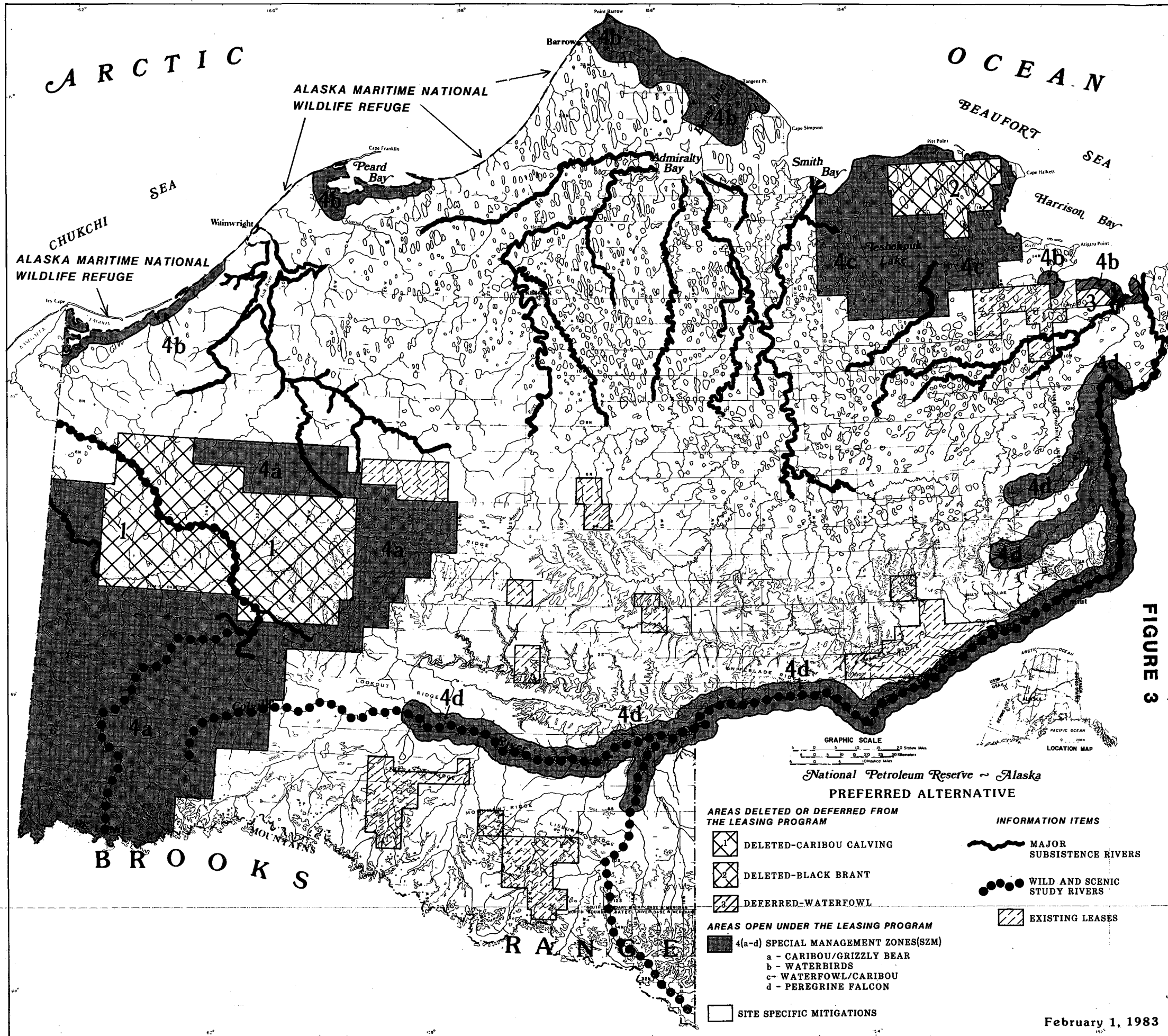
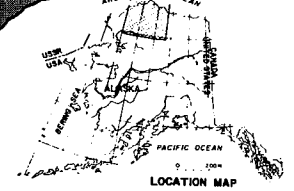
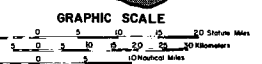


FIGURE 3



National Petroleum Reserve - Alaska
PREFERRED ALTERNATIVE

AREAS DELETED OR DEFERRED FROM THE LEASING PROGRAM

- DELETED-CARIBOU CALVING
- DELETED-BLACK BRANT
- DEFERRED-WATERFOWL

INFORMATION ITEMS

- MAJOR SUBSISTENCE RIVERS
- WILD AND SCENIC STUDY RIVERS
- EXISTING LEASES

AREAS OPEN UNDER THE LEASING PROGRAM

- 4(a-d) SPECIAL MANAGEMENT ZONES(SZM)
 - a - CARIBOU/GRIZZLY BEAR
 - b - WATERBIRDS
 - c - WATERFOWL/CARIBOU
 - d - PEREGRINE FALCON
- SITE SPECIFIC MITIGATIONS

February 1, 1983

III. How To Manage

A. Alternative A

Alternative A would adopt the three stipulations in column one of Figure 4 (in pocket) as lease stipulations. The peregrine stipulation would be attached to a lease on a habitat-specific basis. This alternative would not adopt any additional stipulations either at the lease or permit stage.

This alternative shifts the burden of environmental protection to other Federal and State agencies. The Environmental Protection Agency (Federal) and State Department of Environmental Conservation (DEC) would have total responsibility for pollution abatement. The Corps of Engineers and the DEC would have total responsibility for wetlands protection and oil spill prevention and cleanup. The BLM would continue to resolve land ownership issues. Wildlife preservation, minimization of damage to habitat, erosion control, habitat rehabilitation, and cultural resources protection would be BLM's main concerns and would be coordinated closely with agencies such as Alaska Department of Fish and Game.

B. Alternative B.

Alternative B would adopt all the stipulations on Figure 4 (in pocket at back) as lease stipulations and would favor adopting even more restrictive stipulations at the permit stage.

C. Alternative C

Alternative C would adopt the stipulations consistent with the lease stipulations of the first two NPR-A sales. Figure 20 of the FEIS on pages 81 and 82 portrays a wide variety of stipulations that could be attached to either leases or permits. The stipulations in Figure 4 portray the assignment of stipulations by alternative. The stipulations in column three of Figure 4 are more likely to be adopted at the permitting stage if Alternative C is selected. The Special Management Zone (SMZ) stipulation (column 4) would be attached to all leases within the SMZ zones on Figure 3. This stipulation requires companies to conduct studies or perform analyses as necessary before authorization of lease operational activities.

SECTION THREE: COMPARISON OF ALTERNATIVES

The advantages and disadvantages of the FEIS alternatives are discussed below. Tables 1 and 2 summarize relative impacts on the major significant values of the Reserve under each alternative.

I. Alternative AA. Advantages

- * One hundred per cent of potential oil and gas reserves would be offered.
- * Alternative A gives maximum flexibility to industry to focus on highest interest areas.
- * It allows the possibility of oil and gas production ahead of other proposed alternatives by exposing all potential immediately. Responsibility for the rate of development mainly would be exercised by private industry.
- * It takes NPR-A leasing off future public and government agendas making it administratively more cost efficient.
- * There would be no delay in the leasing program due to the need to complete studies. Industry would be given the opportunity to demonstrate their ability to make proper environmental decisions with minimal BLM guidance.
- * Impact mitigation would be provided in the permitting process by following state-of-the-art practices developed by industry at Prudhoe Bay and Kuparuk oil fields, and elsewhere in the worldwide Arctic.

B. Disadvantages

- * From a public perspective, this alternative seems to disregard regional and cumulative impacts, inasmuch as the FEIS indicates that the caribou and black brant concerns are unresolved.
- * Goals to maintain caribou populations as a subsistence resource may not be met.
- * Developmental costs to industry may be hidden by postponing all management decisions to the project stage and permit level. All industry/governmental/public interface would occur without firm mutually agreed to standards in advance.

II. Alternative BA. Advantages

- * Sixty percent of the potential oil and gas reserves would be offered.
- * It ensures that those in the public who feel that petroleum development and a quality environment are incompatible are heard. Environmental Analyses on each lease sale would provide a greater focus for public review.

TABLE 1
COMPARISON OF FEIS ALTERNATIVES

<u>Values at Risk</u>	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>
CARIBOU	Impacts on caribou could result from any permanent development within the NPR-A. Alternative A has the highest probability that these impacts would be significant in terms of population size or distribution. The site-specific solutions implementable under this alternative (see habitat preservation stipulation of column 1 of Figure 4) may fail to adequately address and conserve a regional resource such as caribou, especially if developments occur in the calving areas or significantly restrict traditional migration routes. Population reductions, fragmentation of present herds and changes in present distribution are probable under Alternative A.	Deletion of all caribou calving habitat for NPR-A's two herds would prevent significant demographic impacts. Alteration of distribution and measurable reductions in population remain possible but are very unlikely.	Deletion of the majority of the central caribou calving areas for NPR-A's two herds would protect the core habitats critical to maintenance of current population levels. However, noticeable alteration of distribution and measurable reductions in populations are more probable than under Alternative B. Protection of the core calving area would provide the opportunity for caribou populations to recover from any significant impacts occurring in northwestern Alaska, assuming some final habituation to the human activities of development is possible.
GEESE	Should development occur in Teshekpuk Lake Goose Molting Area, a measurable reduction in the world population of black brant is predicted. White-fronted and Canada geese would experience a loss of disturbance free molting habitat similar to black brant. However, their losses are not expected to be significant to total populations. If intensive developments i.e. fields, support facilities, and transportation are allowed within the coastal zones recommended for protection of goose and other waterbird use, measurable losses of populations are predicted.	Geese would still be exposed to periodical stress and potentially fatal increased energy use unless enforceable regulations are provided to control aircraft overflights over goose molting areas during the molting season. However, deletion of most of the waterfowl areas would insure that isolated loss of molting individuals would not become measurable in populations.	Geese may experience periodic stress and potentially fatal increased energy use. This would happen as geese would be exposed not only to aircraft overflights bound for, or departing from fields outside the deleted Teshekpuk Lake Goose Molting Area during the molting season, but also from possible oil and gas activities within the peripheral molting habitat that was leased.
PEREGRINE	NPR-A developments may lead to increased public access to the recreational uses of the Colville River. Any increase in the frequency or duration of human disturbance at nest sites will lead to a decrease in nesting success.	Same	Same
GRIZZLY BEAR	Developments in southern NPR-A would maximize the potential for human/bear conflicts in which case the bear would have to be destroyed. Alteration of home ranges and denning areas in high density use areas combined with destruction of marauding bears would cause a measurable population loss.	Grizzly/worker confrontations and high density use habitat alterations would be almost totally eliminated. In addition, a protective enclave of high density use would be preserved as a recruitment area for grizzlies adversely affected elsewhere on the Arctic Slope.	The SMZ protection given to southwest NPR-A would protect grizzly habitat and maternal den sites.
POLAR BEAR	Some polar bear would be destroyed in response to worker/bear conflicts and some unquantifiable reduction in availability of maternal denning habitat would result.	Given the large amount of coastal land deleted, polar bear/worker conflicts would be insignificant from a regional perspective and there is little chance that maternal denning would be adversely affected.	Polar bear/worker conflicts would be more frequent under Alternative C than under Alternative B. Alternative C would have fewer impacts than Alternative A because the SMZ requirements on the coast would protect maternal polar bear den sites.
SUBSISTENCE LIFESTYLE	Threat is maximized.	Threat is minimized.	Balanced threat.

TABLE 2
COMPARISON OF FEIS ALTERNATIVES: RELATIONSHIP TO OIL AND GAS POTENTIALS

<u>Oil and Gas Issues</u>	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>
Acreage that could* be offered.	23,000,000	13,230,000	21,600,000**
Deletions		General (9,770,000)	Utukok Caribou Calving (1,232,000)
			Black Brant (218,000)
Totals		<hr/> 9,770,000	<hr/> 1,450,000
Oil Potential Exposed			
1982 Sales	45%	45%	45%
Balance of program	<u>55%</u>	<u>15%</u>	<u>52%</u>
Total	100%	60%	97%

* All acreages are approximate.

** The Fish Creek Delta area that is deferred through 1986 contains about 46,000 acres that could be offered under this alternative after that date.

- * It significantly reduces the risk of environmental harm.
- * It permits additional time for state-of-the-art stipulations for future leases in environmentally sensitive areas.

B. Disadvantages

- * Because of the deleted acreage, 40 percent of potential oil and gas reserves are withheld indefinitely. This could:

- reduce industry's flexibility;
- cause a delay in production; or
- adversely impact economic efficiency of the 60 percent offered.
- seriously infringe on the Congressional intent and Department of the Interior policy to expedite energy exploration and development for the national benefit.

- * It does not fully recognize previous studies since this alternative would require continued government and industry money for studies.
- * It significantly slows the rate of exposure to industry and could extend development time significantly.

III. Alternative C

A. Advantages

- * Ninety-seven percent of potential oil and gas reserves would be offered for lease. The excluded areas would be subject to further seismic exploration and geologic interpretation based on nearby drilling and development.

- * Assigned management zones let industry know the government expectations and associated industry responsibilities in advance of leasing. Industry and the public have consistently requested that BLM intent be defined in advance of leasing.

- * Alternative C demonstrates a good balance of risk to subsistence resources, such as caribou and black brant, while recognizing environmental and petroleum development concerns to achieve both objectives.

- * Special Management Zones will allow industry a place to demonstrate its expressed ability to work in these complex environments without significant impact to the values.

- * It allows industry time to further assess the deleted zones.

- * The lease sale schedule of 2,000,000 acres offered each year meets the following goals:

- gives industry adequate time before each sale to analyze likely sale areas.
- puts high interest areas up first. Five sales will expose almost all NPR-A potential.
- Provides a stable process for tract delineations and stipulations.

B. Disadvantages

Deletion of three percent or any amount of petroleum potential is viewed by some as being against congressional intent because it:

* Would not meet the request of the North Slope Borough and environmental groups for environmental analyses or an FEIS on each sale.

* Puts more burden on industry for studies and information. This may affect industry interest and bidding.

* Attaches more stipulations to the lease than industry might like and less than environmental interests might like; thus, neither side may be satisfied.

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ALTERNATIVE "A" LEASE STIPULATIONS

Cultural Resources

Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the Lessee or operator, unless notified to the contrary by the AO, shall contact the AO to determine if a site-specific cultural resources inventory is required. If a survey is required Lessee shall:

- Engage the services of a qualified cultural resource specialist acceptable to the AO to conduct an intensive inventory for evidence of cultural resources values;
- Submit a report acceptable to the AO; and
- Implement mitigation measures required by the AO to preserve or avoid destruction of cultural resource values. Mitigation may include relocation of proposed facilities, testing and salvage or other protective measures. Where impacts cannot be mitigated to the satisfaction of the AO, surface occupancy on that area shall be prohibited.

The Lessee or operator shall immediately bring to the attention of the AO any cultural resources or any other object of scientific interest discovered as a result of surface operations under this lease and not disturb such discoveries until directed to proceed by the AO.

Peregrine Falcon

This establishes a time period "window" within which activities, authorized under an APD, will be barred or constrained to protect the peregrine falcon. Limited exceptions to the stipulated "window" may be specifically authorized in writing by the AO if the Lessee can reasonably demonstrate to the satisfaction of the AO that such activities would be unlikely to have an adverse effect on these important wildlife resources or their habitats. A decision to exempt must be based on a sound analysis (by Lessee) of the type, location, and intensity of the Lessee's proposed activity and/or density of facilities and the cumulative impacts from other user activities/facilities regionally.

All activities will be limited in order to protect important endangered raptor nesting sites and adjacent habitat as follows:

- All construction and ground level activity will be prohibited within one mile of nesting sites from April 15 through August 31;
- Aircraft shall maintain 1,500 foot altitude above the nest sites and one mile horizontal distance from nest site from April 15 through August 31 unless doing so would endanger human life or safe flying practices;
- All permanent facilities such as drill pads, airstrips, camps, roads, or pipelines will not be permitted within one mile of any nesting sites;
- Blasting or other significant construction noise within two miles of nest site is prohibited between April 15 and August 31 unless authorized by the AO after consultation with the U.S. Fish and Wildlife Service (FWS); and
- Material sites, disposal sites, water reservoirs, drill pads, or other land uses that would significantly alter ponds, lakes, wetlands or shrub riparian habitat are prohibited within one mile or nest sites. Such cumulative activity within fifteen miles of identified peregrine falcon nest sites must be specifically authorized by the AO in consultation with the FWS and will be allowed only after a complete analysis of impacts to potential peregrine falcon hunting habitat.

Exceptions to these limitations in peregrine falcon habitat hunting areas must be specifically authorized in writing by the AO in consultation with FWS.

Habitat Preservation

The Lessee/operator is given notice that the lands within this lease may include special areas. Such areas may contain special values or may be needed for special purposes. Surface uses or occupancy within such special areas will be strictly controlled or, if absolutely necessary, excluded. The Lessee will be required to submit plans of operations to the Authorized Officer (AO) who may modify the plan of operations to protect special values and uses. Use or occupancy will be restricted when the AO demonstrates that the modification or restriction is necessary for the preservation of the special values or use.

ALTERNATIVE "B" and "C" LEASE STIPULATIONS

Cultural Resources (see Alternative "A")

Wildlife Conservation

This stipulation sets time periods ("windows") within which activities, authorized under an APD, must be restricted to conserve wildlife resources. Limited exceptions to these stipulated "windows" may be specifically authorized in writing by the AO if the Lessee can reasonably demonstrate to the satisfaction of the AO that such activities would be unlikely to have an adverse effect on these important wildlife resources or their habitats. A decision to exempt must be based on a sound analysis (by Lessee) of the type, location, and intensity of the Lessee's proposed activity and/or density of facilities and the cumulative regional impacts from other user activities/facilities. Prior to development a NEPA compliance document (with public review) will consider and modify the following seasonal restrictions to allow for the maintenance and operation of producing wells.

- Waterbirds — Operations between May 20 and August 25 of each year will be barred or constrained in order to protect important waterbird (duck, goose, swan, and shorebird) nesting, molting, and staging habitat.
- Caribou Migration — Operations proposed between August 15 and September 15 of any year for areas used for caribou migration routes will be barred or constrained. No activities which would hinder normal caribou movements will be permitted.
- Caribou Calving — Operations between May 15 and July 15 of any year proposed for areas used for caribou calving will be barred or severely constrained. No activities which would hinder normal caribou movement/calving will be permitted.

Only as much of this stipulation as is appropriate to a given tract will be attached to a particular lease. For example, a tract primarily containing waterfowl habitat would have only the water-bird portion of this stipulation attached.

Peregrine Falcon (see Alternative "A")

Subsistence Lifestyle

Areas within this lease contain harvestable resources utilized by North Slope residents as part of their subsistence lifestyle. If subsistence impacts within this lease are determined to be potentially significant by the AO, the Lessee prior to any drilling or construction or placement of any exploration or development structure on lease areas, including pipeline and facility placement (hereafter referred to as "operation"), shall gather site-specific information using field examination techniques approved by the AO. The field examination(s) shall identify, on all areas where operations will take place:

- Active subsistence hunting, fishing, trapping or gathering sites;
- Routes of access to the subsistence sites traditionally used by subsistence hunters, trappers, fishermen and guides; and
- Areas of high densities of harvestable resources within and/or migration routes from and onto the area of proposed operations.

If the site-specific information shows that harvestable subsistence resources may be adversely affected by any lease operations, the Lessee shall establish to the satisfaction of the AO that impacts are mitigated by:

- Relocating the site of such operations to minimize adverse effects on the harvestable resources and/or
- Relocating the site of such operations and design production, processing, and transportation facilities to assure continued access of the subsistence user to the subsistence sites and to areas where the harvestable resources are known of high density; or
- After consultation with rural Alaskans who actively use the areas for subsistence, establishing that such operations will not have a significant adverse effect upon the harvestable resources, the subsistence sites, and/or subsistence users' access to the subsistence sites or harvestable resources.

Habitat Preservation (see Alternative "A")

Submerged Land Stipulation

After completion of exploratory drilling, all structures will be removed from the leasehold. The Lessee will rehabilitate the site to a condition approved by the BLM unless a structure or site will be used in the production phase or for additional exploratory drilling or unless it is not in the best interest of the public or the environment to require removal or restoration. Permission to leave the structure in place must be obtained from the BLM.

Solid waste disposal on artificial islands or in waters of the lease areas is prohibited. Discharge of produced waters and drilling muds and cuttings into the freshwater or marine environment is prohibited, except when BLM may approve discharges if effluents are shown to be nontoxic and can be adequately dispersed.

Pipelines, including both flow lines and gathering lines for oil and gas, shall be designed and constructed to provide for adequate protection from water currents, storm and ice scouring, subfreezing conditions and other hazards.

If biological populations or habitats requiring additional protection are identified by the Land Manager on this tract, the BLM will require the Lessee to conduct environmental surveys to determine the extent and compositions of biological populations or habitats and the effects of proposed or existing operations on the populations or habitats. The BLM shall provide written notice to the Lessee on this decision to require such surveys.

Based on any surveys which the BLM may require or on other information available to the BLM on special biological resources, the BLM may require Lessee to: 1) move any facility or operation so as not to adversely affect the resource; 2) establish to the satisfaction of the BLM that operations will not have a significant adverse effect upon the resource; 3) operate during those periods of time that do not adversely affect the biological resources; and/or 4) modify operations to avoid adversely affecting the significant biological populations or habitats deserving protection. Data obtained in the course of such surveys shall be sent to the BLM. Lessee may take no action that might affect the biologic populations or habitats surveyed until the BLM gives written directions to the Lessee concerning permissible actions.

Lessee's activities are subject to all Federally recognized coastal zone plans and ordinances.

Subsistence Fisheries

No activities will be authorized within 200 meters of aquatic habitat (i.e. streams, lakes or estuarine and marine habitats) which support a subsistence fishery. Limited exceptions may be specifically authorized in writing by the AO if the Lessee can reasonably demonstrate to the satisfaction of the AO that such activities would not interfere with continued subsistence use.

MORE ALTERNATIVE "B" LEASE STIPULATIONS or POSSIBLE ALTERNATIVE "C" PERMIT STIPULATIONS

Roads

Winter road or trail construction and use involving heavy equipment is to begin only after the seasonal frost in the tundra and in the underlying mineral soils over the route has reached a depth of 23 inches and the average snow cover has reached a thickness of six inches. Normally this condition will not prevail until about October 25, occasionally not until November 1. These requirements may be modified by BLM for the use of lightweight equipment specialized for use in tundra environments. Such modification for specific uses shall be in writing with a copy provided to the contractor or subcontractor. Winter road or trail use involving heavy equipment will cease when the daytime spring melt of snow begins. The approximate date of spring melt is May 5 in foothill areas exceeding 300 feet in elevation and approximately May 15 in the northern coastal areas. No bulldozing of tundra areas for roads or trails will be allowed.

Camps

Camps used for road construction will be situated on gravel bars, sand or other durable lands. Where leveling for trailers or modules is required and the surface has a vegetative mat, leveling will be accomplished with blocking rather than by leveling with a bulldozer. Camps may be located on pond or lake ice which is determined to be frozen to the bottom provided that no sewage effluent, filtered wastewater, toxic or hazardous materials, petroleum products or solid wastes are allowed to be dumped onto the ice. Such locations will be specifically approved in writing by the BLM with a copy of the approval provided to the contractor.

Tundra Travel Over Snow

Exploration activities will employ low ground pressure vehicles of the Rolligon, ARDCO, Trackmaster, Nodwell, Flextrac, or similar type. The limited use of tractors equipped with wide snow tracks will be allowed for the plowing of snow or to pull heavy camp equipment and drilling rigs. Blades may be used to plow unusually deep snow, but, when used, must be kept sufficiently high so that they do not "clip" the tops of tussocks or polygonal ridges. Any exceptions to this stipulation which could result in damage to the tundra will require the written approval of the BLM. Should true "ice" roads be used, their construction shall be sufficiently substantial for the specific use intended that there is no breaking through the ice by wheel or track to the underlying tundra surface.

Environmental Training

In any Application for Permit to Drill submitted under 30 CFR 221, the Lessee shall include for review and approval by the AO a proposed environmental training (ET) program for all personnel involved in exploration or development activities (including personnel of the Lessee's agents, contractors, and subcontractors). The program shall be designed to inform each project employee of the specific types of environmental, social and cultural concerns which relate to each individual's job. The program shall be formulated and conducted by qualified instructors experienced in the pertinent fields of study. They shall use methods to assure that personnel can recognize and will conserve archeological, geological, and biological resources. The ET program will cover Lessee's policies and techniques to avoid harassment of wildlife. The program shall increase the sensitivity and understanding of personnel to local community values, customs, and lifestyles. Information on local subsistence activities should be included in order to minimize conflicts. The Lessee also shall submit for review and approval a technical environmental briefing program for supervisory and managerial personnel of the Lessee and its agents, contractors and subcontractors.

As part of this environmental training the Lessee shall inform all personnel that:

The rural residents of the North Slope shall have the right of ingress and egress and the right to use the leasehold in conducting their hunting, trapping, and related activities in accordance with applicable law provided that such rights shall not be exercised in such a manner as to endanger the safety of Lessee's employees or to damage Lessee's equipment or facilities.

Pollution/Erosion Control

The Lessee shall comply with all Federally approved rules and regulations of the Secretary of Health and Human Services and the Environmental Protection Agency and State and local laws and codes governing the emission or discharge of pollutants from activities which are embraced in this lease or permit. Lessee shall comply with the rules and regulations of the Lessor governing lands under Lessor's jurisdiction which are embraced in the lease or permit. Surface-disturbing activities may be prohibited during muddy and/or wet soil periods. This limitation does not apply to operation and maintenance of producing wells using authorized roads. During periods of adverse conditions due to climatic factors all activities creating irreparable impacts may be suspended.

Protection of Visual Quality

To maintain esthetic values, all surface-disturbing activities and facilities, including semipermanent and permanent facilities, may require special designs. Painting and camouflaging to blend the activity or facility with the natural surroundings and meet the intent of the visual quality objectives of the BLM may be required.

Protection Given Those Holding Prior Existing Rights of Use

The Lessee will recognize existing surface uses, permits and improvements, and conduct operations so as to interfere as little as possible with existing rights and privileges or with other existing uses.

Protection of Fish and Wildlife

All operations shall be conducted to minimize damage or disturbance of any fish or wildlife resource. This includes but is not limited to the following:

- No operations may occur within one-half mile of any denning barren ground grizzly (in the upland area) or of any denning polar bear (near the sea coast or in the lower reaches of major rivers or estuaries);
- No chasing of any wildlife by vehicles or buzzing by aircraft may occur. Particular attention will be given to avoid disturbing caribou.
- There will be no feeding of wildlife. Camp garbage will be securely covered while awaiting incineration.
- Hunting by Lessee's employees and/or by employees of Lessee's agents, contractors and subcontractors will be barred within a five mile radius of any mobile construction camp, fuel cache, drilling operation or road or trail construction or use.

DELETIONS

Alternative "A"

NONE

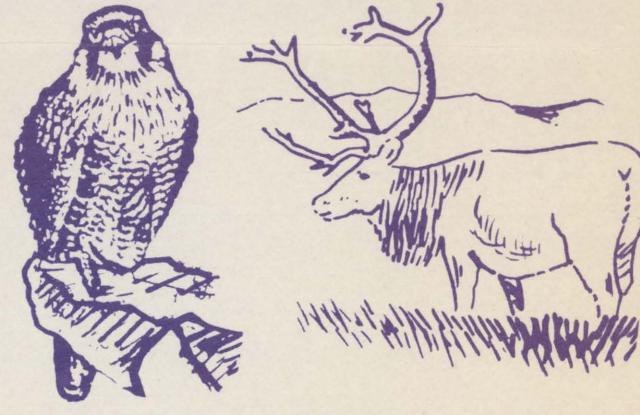
Alternative "B"

All lands within:

- designated "Special" Areas
- Maritime Refuge
- Village land

Alternative "C"

- Core black brant molting habitat above Teshekpuk Lake
- Core caribou calving grounds in the Utukuk uplands



STIPULATION "UNIQUE" TO ALTERNATIVE "C"

For any activity in an NPR-A Special Management Zone (SMZ), the Lessee must demonstrate the following to the satisfaction of the Authorized Officer (AO).

Lessee has conducted primary research on the effects of the Lessee's proposed facilities and activities on the biological resources present within the SMZ. This research must support a conclusion that all phases of proposed multi-year activities will be conducted and all facilities will be sited so as to have little or no adverse effects on key wildlife resources or habitats; or

Lessee's primary research and/or current literature on the response of key wildlife to similar disturbances in similar settings support a conclusion that the proposed activity will have little or no permanent adverse effects on fish and wildlife use or habitats because operations would not be conducted during periods of intense fish and wildlife use; would not permanently alter the habitat to preclude fish and wildlife use; and/or would not be conducted in proximity to important fish and wildlife habitats or migration routes.

Lessee's primary research must address the cumulative effects of other industrial activities within the SMZ on the key biological resources. The AO may consider these cumulative effects in deciding to approve, deny or modify Lessee's proposed operations. If Lessee's primary research indicates a high probability of significant adverse effects on key biological resources, then Lessee shall design, site and operate activities and facilities innovatively to eliminate those impacts.



NATIONAL PETROLEUM RESERVE IN ALASKA
 JANUARY 31, 1983

