

Oil 3' Gas

Hearings

3-7-88

5-1975A
Bannister
2/23/88

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 and reduc-
7 tions for certain oil and gas leases; and providing
8 for an effective date."

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

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

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

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

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

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

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

28 (3) the lessee makes a clear showing that the revenue from
29 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

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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

R 17 E

T
10
N

T
10
N

CHEVRON

26 25
+ ①
35 36

ADL
318601 2560ac

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

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

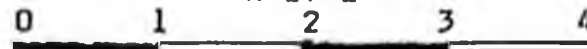
30 29
+ ⑬
31 32

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>

R 17 E

R 18 E

T
9
N

CONTINUED ON PAGE 3

EXHIBIT B

KEY UNIT

"B" BLOCK

R 19 E

R 20 E

R 19 E

R 20 W

CONTINUED FROM PAGE 2

T
9
N

T
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

The United States is the only major



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Alaska State Office
701 C Street, Box 13
Anchorage, Alaska 99513-0099

FEB 12 1988



IN REPLY REFER TO:

3021 (910)
1378p

FEB 12 1988

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

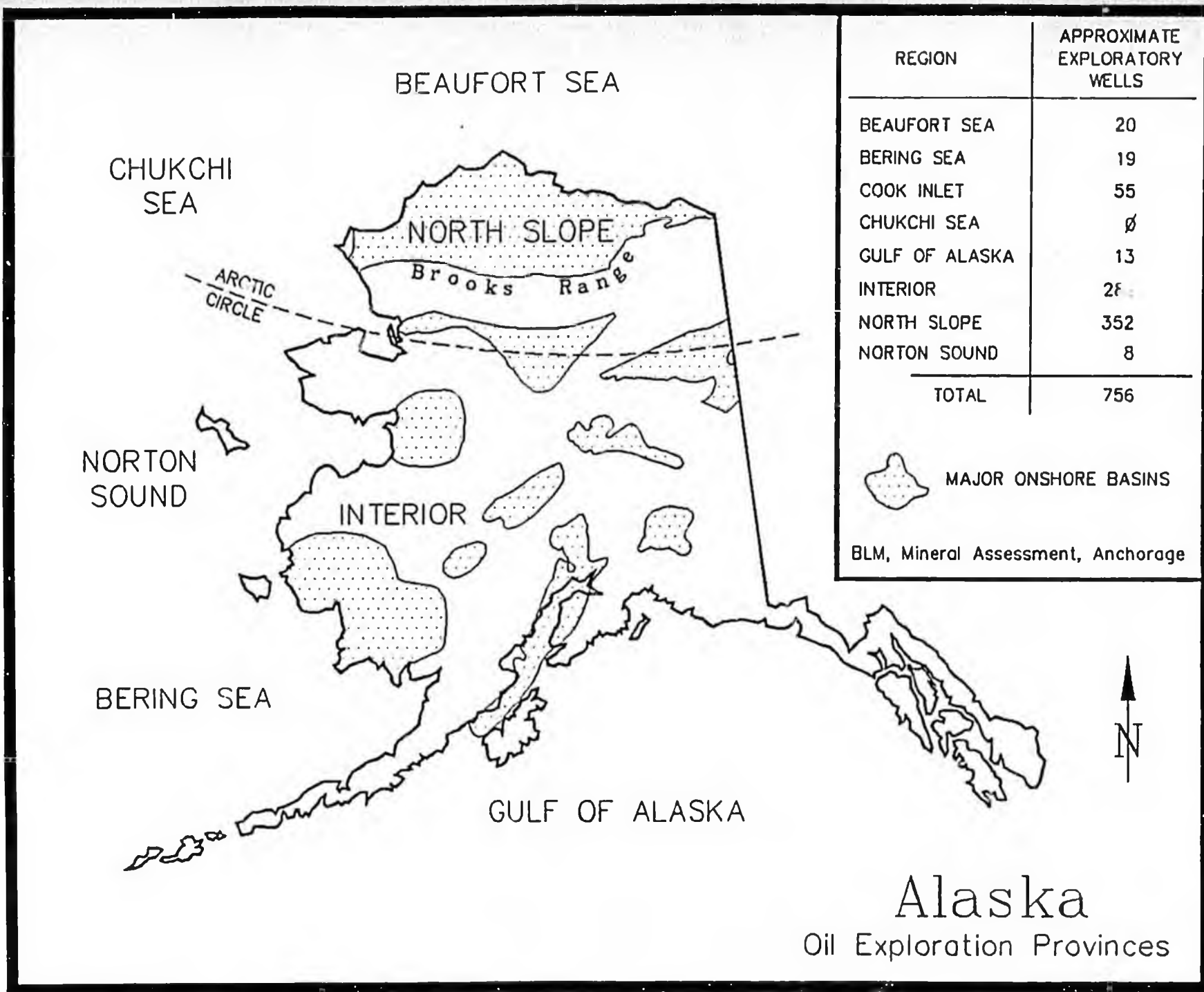


Figure 1. Oil Exploration Provinces, Alaska

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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.

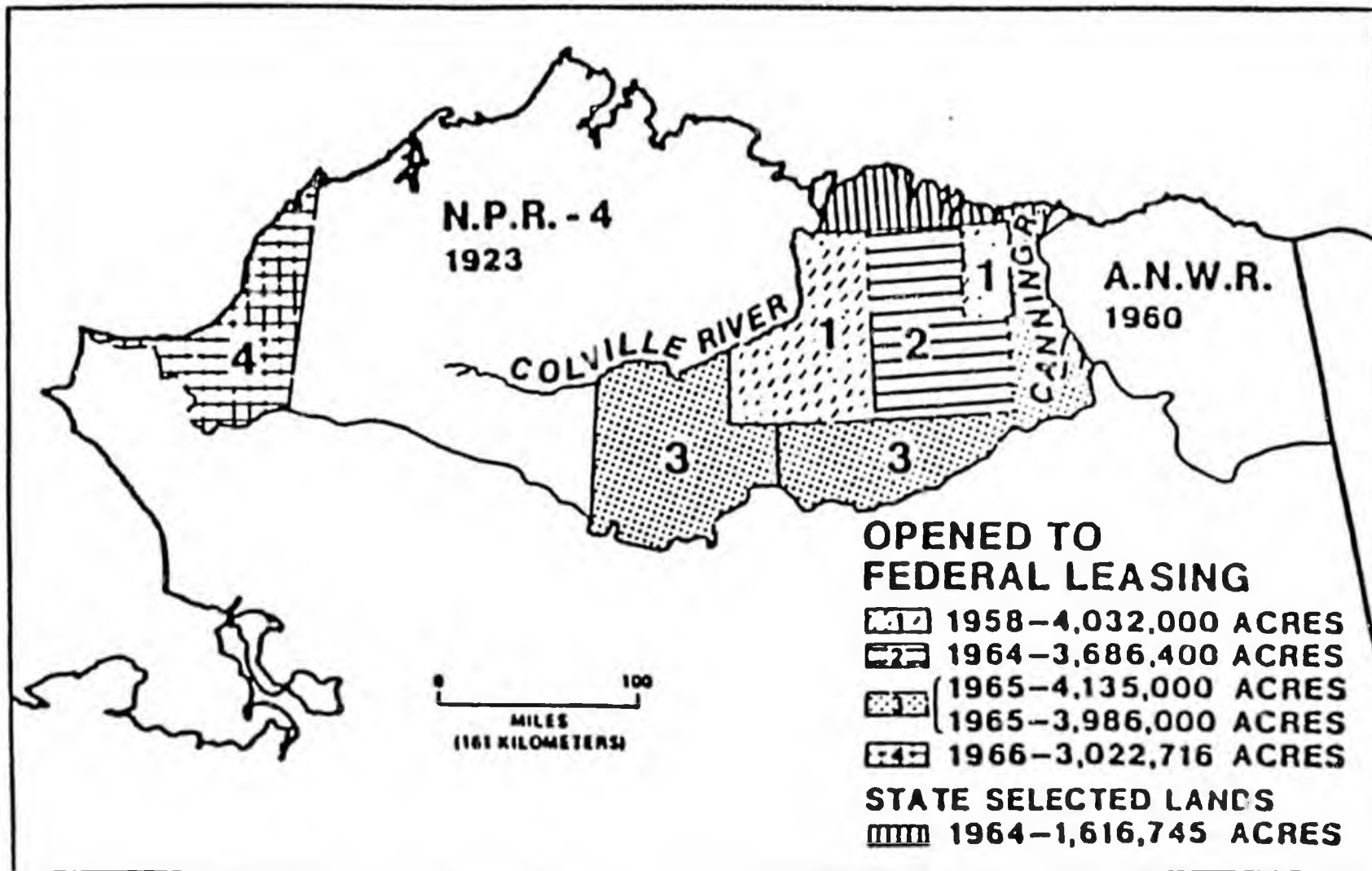


FIG. 2—North Slope land availability from 1958 through 1969.

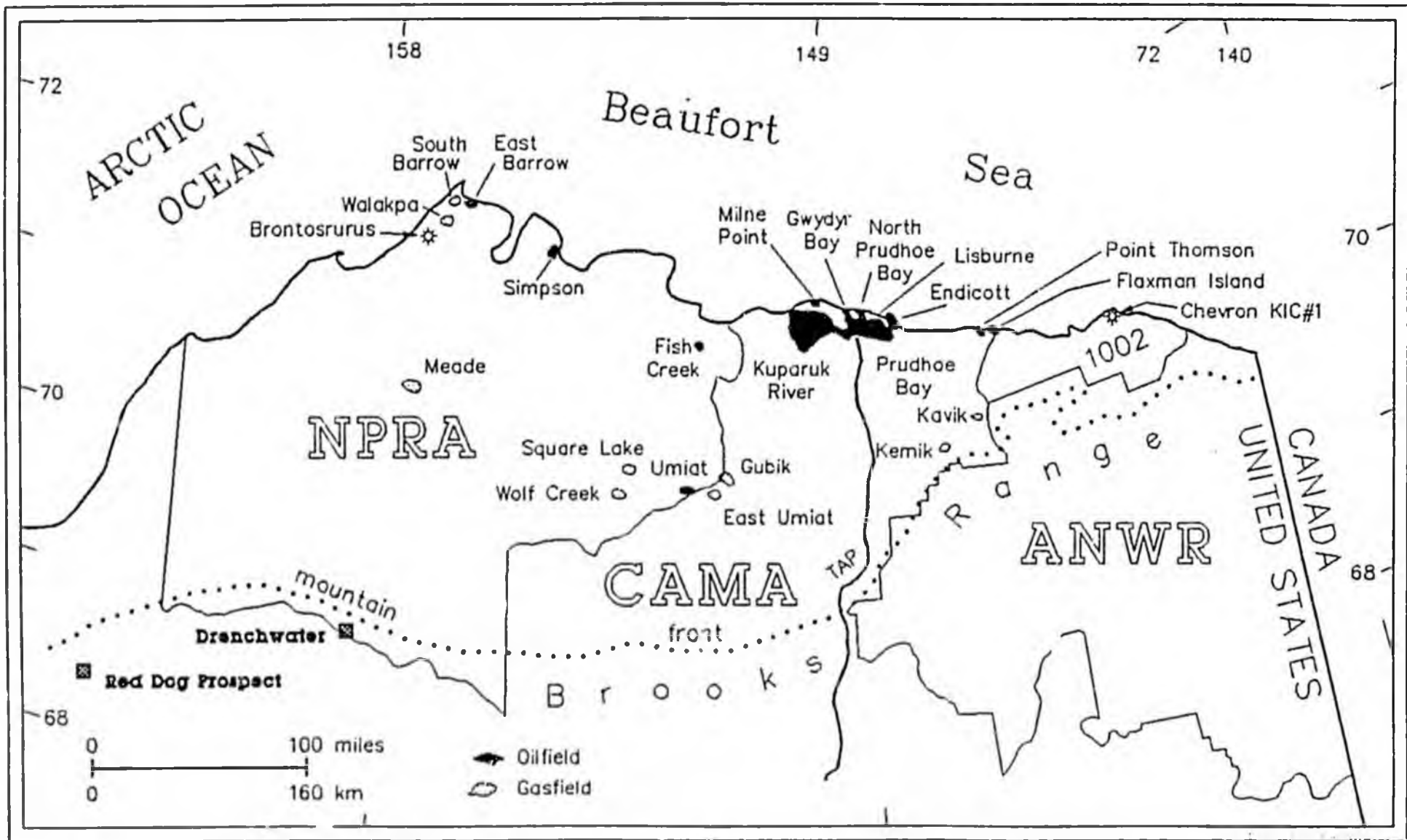


Figure 3. Major Oil/Gas Fields, North Slope Alaska

NORTH SLOPE RECOVERABLE RESERVES

 = 200,000,000 bbl

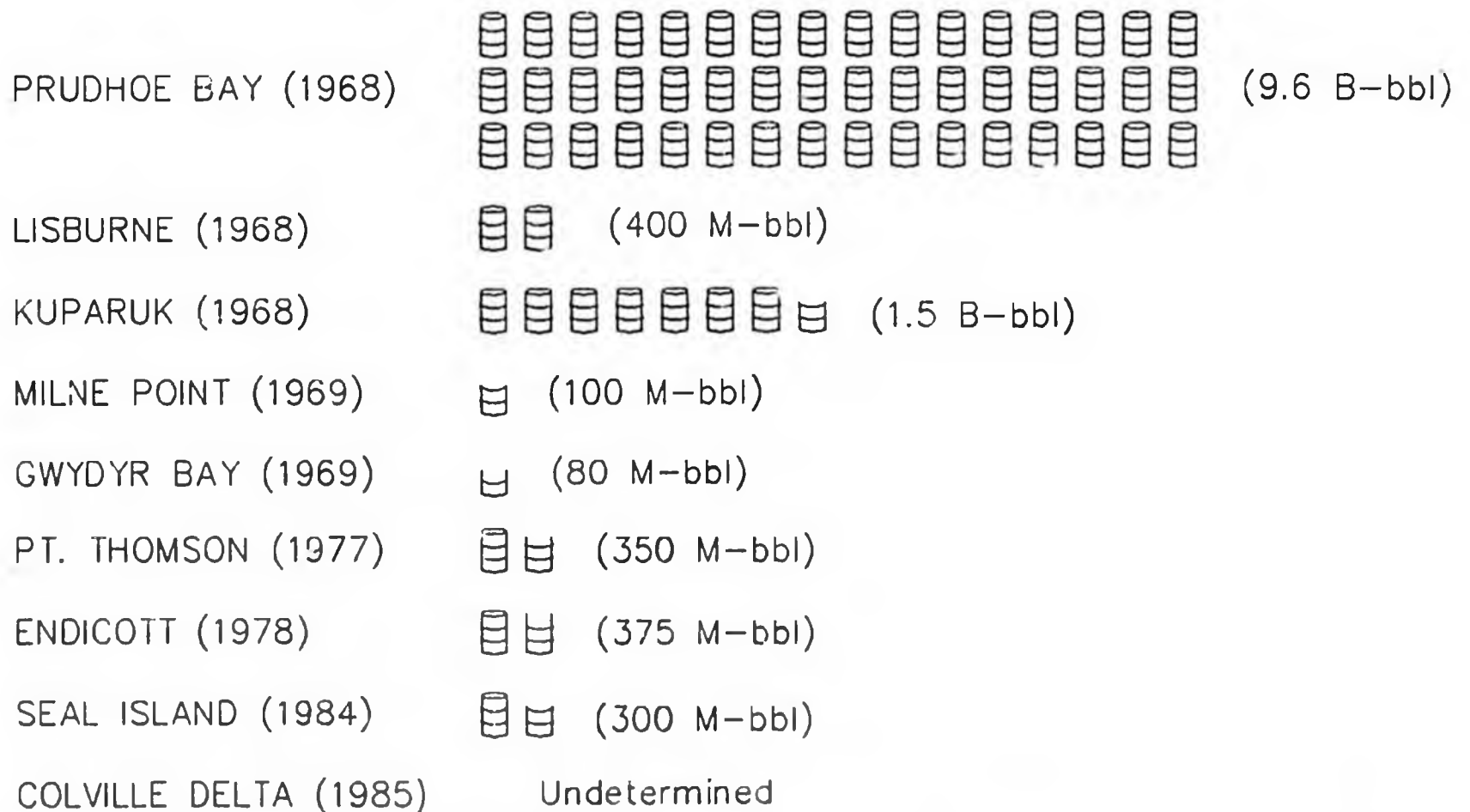


Figure 4. Recoverable Reserves, North Slope Alaska

PREDICTED ALASKA PRODUCTION

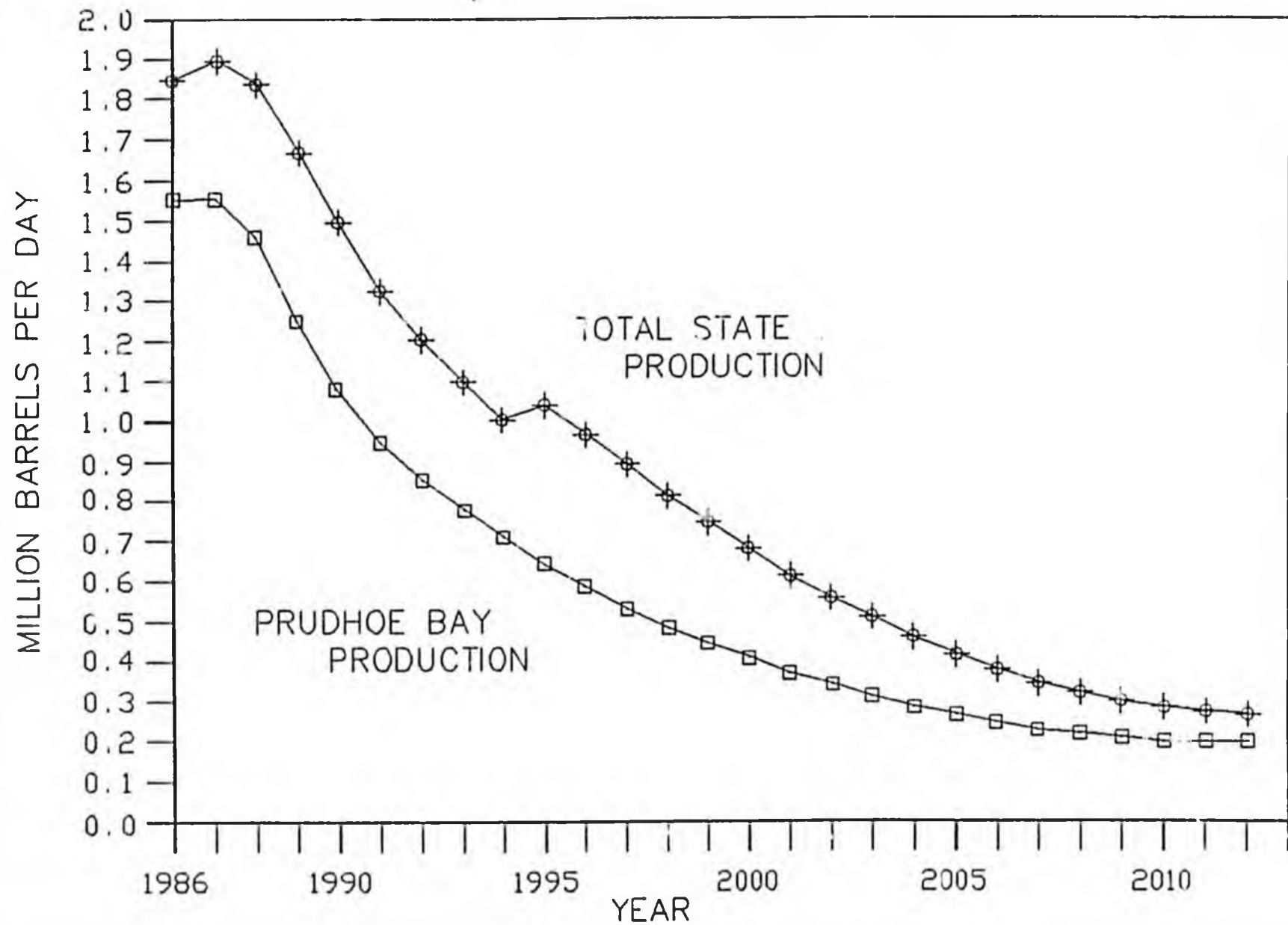


Figure 5. Predicted Oil Production, Alaska

In 1972, the Navy began a new and comprehensive NPR-A assessment program (see Early History section). The USGS took over the operation of this program in 1977. This program included the collection of thousands of line miles of reflection seismic data, the running of extensive gravity, magnetic, and geochemical surveys, and the drilling of 28 test wells (excluding the Barrow area wells). The drilling program discovered the noncommercial Walakpa gas field and good oil and gas shows in several test wells (table 1). The primary aim of this operation, which ceased in 1982, was resource assessment, and not discovery. Private industry has drilled only one exploratory well in NPR-A, the ARCO Brontosaurus well, drilled and subsequently abandoned, in 1985.

Only some 30 wells (table 1) have been drilled with modern methods and based on modern seismic mapping. The drilling data indicate that NPR-A contains at least four oil generating units: The Shublik (Triassic), the Kingak Shale (Jurassic-Cretaceous), the Pebble Shale unit (Lower Cretaceous), and the Torok Shale (Cretaceous). Mapping shows that these units underlie most of NPR-A. Thermal maturity modeling indicates that these units are thermally mature for oil generation in many areas of the reserve. Seismic structural interpretation shows the possible presence of both stratigraphic and structural traps, particularly traps in the structurally complicated foreland and thrust region (southern NPR-A).

Large areas, mainly the foothills belt and the southwestern quarter (Utukok area) remain unexplored or virtually unexplored, and a large-scale, modern exploration effort is still required to adequately define the potential of this part of the North Slope Petroleum Province. Most of the exploratory and test well drilling concentrated in the structurally simple coastal plain sedimentary sequence. The more structurally complex areas to the south of the coastal plain are virtually untested, as only two modern wells, the Awuna and Lisburne, have penetrated this area. Also, since these wells were drilled in 1980, the understanding of structural styles in fold belts, such as the NPR-A foothills province, has undergone major changes. Consequently, there are fresh and untested play concepts in the Brooks Range foothills of the NPR-A. Similar foreland and thrust regions of the Rocky Mountain Cordillera have recently proven productive.

Arctic National Wildlife Refuge

In 1960, Congress created the Arctic National Wildlife Range (figure 3), originally covering about 9 million acres, in northeastern Alaska. Subsequently (1980), Congress renamed it the Arctic National Wildlife Refuge (ANWR) and enlarged it to 19 million acres. Prior to 1983, only surface geological information and gravity and magnetic surveys were conducted in the refuge. As part of the legislation expanding ANWR, Congress set aside about 1.5 million acres of the coastal plain for petroleum evaluation (the so-called 1002 area) because of the presence of oil seeps and oil-stained rocks at the surface. In the winter of 1983-1984, as part of the 1002 exploration program mandated by the Alaska National Interest Lands Conservation Act, private

Table No. 1

First Phase of NPR-A Oil Exploration
1946-1953

<u>Well</u>	<u>Depth</u>	<u>Notation</u>
No. Simpson No. 1	3774	Drilled on basis of extensive surface seeps. 1945-1951, 33 shallow "core tests" were also drilled in this area.
So. Barrow No. 1	3553	Gas well.
So. Barrow No. 2	2504	Gas well.
So. Barrow No. 3	2900	Gas well.
Grandstand No. 1	3937	Oil well in Umiat Field p/a.
Fish Creek No. 1	7020	Drilled on basis of surface seeps. Tested oil 200 bopd from Nanushuk.
Oumalik No. 1	11872	
E. Oumalik No. 1	6035	Gas shows.
Square Lake No. 1	3987	Gas well p/a.
Wolf Lake No. 3	3760	Gas well p/a.
Titaluk No. 1	4020	
Knifeblade 2a	1805	
Meade No. 1	5305	Gas well p/a.
Simpson No. 1	7002	Oil shows.
Topagoruk No. 1	10503	Gas shows.
E. Topagoruk	3589	
Umiat No. 1	6005	Produced oil.
Umiat No. 11	3303	Produced oil.
Umiat No. 2		Oil recovered in Dst.

Table No. 1 (page 2)

First Phase of NPR-A Oil Exploration
1946-1953

<u>Well</u>	<u>Depth</u>	<u>Notation</u>
Umiat No. 3		Bailed oil.
Umiat No. 4		Bailed oil.
Umiat No. 5		400 bopd.
Gubik No. 1	6000	Tested producible gas and recoverable oil.
Kaolak No. 1	6952	
Barrow No. 7	2180	Gas well.
Barrow No. 9	2429	Gas well.
Barrow No. 10	2240	Gas well.
Barrow No. 11	2171	Gas well.
Barrow No. 12		Dry well.
Barrow No. 13	2249	Marginal gas well.
Barrow No. 14	1906	Gas well.
Barrow No. 15	2270	Gas well.
Barrow No. 16	2332	Dry well.
Barrow No. 17		1.09 MMCFD and oil cut mud.
Barrow No. 18		Gas well.
Barrow No. 19		Gas well, best in field.
Barrow No. 20		Gas well, marginal oil well.
1937 drilling:	2 gas wells 2 confidential wells.	

Second Phase of NPR-A Oil Exploration
1974-1977

<u>Well</u>	<u>Depth</u>	<u>Notation</u>
So. Barrow No. 12	2285	
Cape Halkett No. 1	9900	
So. Harrison Bay	11,290	Minor shows.
Atigaru Point No. 1	11,535	Oil and gas shows.
W. Fish Creek No. 1	11,423	Drilled at surface seeps. Fish Creek section removed.
W. T. Foran No. 1	8864	Dead oil, good porosity.
So. Simpson No. 1	8795	Gas shows in Torok.

Third Phase of NPR-A Oil Exploration
USGS-Husky
1977-1981

<u>Well</u>	<u>Depth</u>	<u>Notation</u>
So. Barrow No. 16	2400	
Walakpa No. 1	3666	Producible gas, Jurassic sands, oil stained sand.
W. Dease No. 1	4173	Oil shows, some porosity.
Tulugeak No. 1	4015	
Walakpa No. 2	4360	Gas well, drilled to delineate Walakpa Field 6 mile down dip.
No. Kalikpik No. 1	7395	Gas shows, drilled on seismic anomaly.
No. Inigok No. 1	10,170	Gas shows.
Koluktak No. 1	5882	Gas shows, good porosity.
Awuna No. 1	11,200	Drilled on surface expression of "triangle zone." Tested 2000+ bwpd.
So. Meade No. 1	9945	Tested gas, oil shows, good porosity.
Kugrua No. 1	12,588	Gas shows.
Kuyanak No. 1	6690	Last well drilled.
Drew Point No. 1	7946	Gas show, some oil shows in Sag 16'.
Inigok No. 1	20,102	Gas show and residual oil.
Ikpikpuk No. 1	15,481	Minor gas shows. Lower Cretaceous.
E. Simpson No. 2	7505	Dead oil, good porosity in Ivishak Keketuk.
J. W. Dalton No. 1	9367	Residual oil in Sadlerochit sands.
E. Simpson No. 1	7739	Heavy oil in Ivishak, gas.

Third Phase of NPR-A Oil Exploration (page 2)
USGS-Husky
1977-1981

<u>Well</u>	<u>Depth</u>	<u>Notation</u>
Seabee No. 1	15,611	Gas shows.
E. Teshepak No. 1	9000	Oil shows, Cretaceous sands.
Lisburne	11,608	Drilled on surface seeps, gas shows.

Fourth Phase of NPR-A Oil Exploration (page 2)
Industry wells
1981-Present

<u>Well</u>	<u>Depth</u>	<u>Notation</u>
Chevron Livehorse No. 1	900	Minor shows of oil and gas.
ARCO Brontosaurus		Held confidential

industry collected about 700 line miles of reflection seismic data in the 1002 area (about the western three-fourths of the coastal plain in ANWR). In the winter of 1984-1985, industry collected about 700 more line miles of reflection seismic data. Gravity data and shot hole core samples were also collected. Interpretation of this data revealed promising, large, subsurface exploration targets that had previously only been tentatively inferred. Surface geological studies indicate that the coastal plain also has good hydrocarbon source rocks and good- to excellent-reservoir potential.

One well was drilled during 1984-1985 on Arctic Slope Regional Corporation/ Kaktovik Inupiat Corporation land adjacent to the 1002 area. Only a few Chevron, British Petroleum, and Standard Alaska people know the data revealed by the well. From subsequent acts by this group, however, one could reasonably infer that the KIC-1 well was encouraging.

For further discussion of the 1002 potential, refer to Arctic National Wildlife Refuge, Alaska, Coastal Plain Resource Assessment: Report and Recommendation to the Congress of the United States and Final Legislative Environmental Impact Statement (USDOI, 1987).

Other Resources

Besides oil and gas, the North Slope contains vast quantities of coal.

Barnes (1967) estimated 120,197 million tons of "identified resources" coal on the North Slope of Alaska. Tailleux and Brosge (1976) calculated an "additional speculative resource" of 220 billion to 3.35 trillion tons, for a total of 321 to 3,471 billion tons. Schaff (1980) estimated between 402 and 4,000 billion tons of "hypothetical resources" and 60 to 146 billion tons of identified resources for a total of 460 to 4,146 billion tons of coal on the North Slope.

Schaff (1980) estimated that 55 percent of the coal on the North Slope of Alaska occurs within the Utukok area of NPRA. If correct, the Utukok area may contain 177 to 2,280 billion tons of coal. If Schaff's (1980) other estimates are correct; (1) 50 percent of the nation's coal is in Alaska, and (2) 80 percent of Alaska's coal is in NPRA, then the Utukok area may hold approximately one-quarter of the nation's coal resources (22 percent).

In addition to coal, the Utukok area of NPR-A has additional mineral potential. Phosphate of unknown quantity occurs within this area of NPR-A. Phosphate deposits usually have the rare earth elements, which can have strategic importance, as by-products.

This southern portion of the Utukok area is also on trend with Red Dog, a "world class" lead-zinc discovery. It is not possible to say at this time if there is a greater or lesser potential of similar deposits in NPRA than outside it.

Summary and Conclusions

Because of disappointing results elsewhere in Alaska, oil and gas interest has returned to the North Slope. Currently, the Central Arctic, including Prudhoe Bay, is the most thoroughly explored of the North Slope regions. Even here, with hundreds of wildcat wells, companies continue to drill exploratory wells.

In the NPR-A, the foothills belt and the southwestern quarter (Uukok area) remain virtually untested, while the coastal plain has experienced the most thorough testing. At present, relatively low and somewhat volatile oil prices have dampened enthusiasm for additional NPR-A exploration, but several tracts remain leased.

ANWR currently holds the status of a priority exploration objective. The ANWR coastal plain has good hydrocarbon source rocks, large structures, and good to excellent reservoir potential -- truly the best potential for another Prudhoe Bay-size field in North America.

With known oil fields in NPR-A and the Central Arctic, the North Slope of Alaska remains the best hope of adding to the nation's oil reserves. Further, it should be pointed out that the Central Arctic and NPR-A contain vast coal resources which add to their value as a further source of energy. Placing any part of the North Slope off-limits to exploration is, at best, extremely premature.

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STATE OF ALASKA
OIL AND GAS LEASE UNITIZATION PROCESS

Unitization of State of Alaska Oil and Gas leases is governed by Title 11, Chapter 83, Article 3 of the Alaska Administrative Code (AAC). The following is a brief summary of the steps necessary to form an Alaskan Oil and Gas Unit:

1. The lessees of the leases overlying a reservoir or a potential hydrocarbon accumulation as those terms are defined in 11 AAC 83.395 must determine an prospective area to be unitized. For units which intend to commence production immediately, an appropriate participating area must also be determined in accordance with 11 AAC 83.351. We strongly recommend that the prospective lessees to be included within the unit area (the "working interest owners") meet with Division of Oil and Gas staff to review the technical data supporting the proposed unit prior to any submittal of an application for unitization.
2. The working interest owners must select a unit operator, which must be qualified to act as unit operator under 11 AAC 83.331.
3. The unit operator, acting on behalf of all of the working interest owners, must submit an application for unitization. The application must include the following items:
 - A. A Unit Agreement based on the State of Alaska Standard Unit Agreement Form (DNR Form 10-1128), executed by all of the working interest owners, including all exhibits required under 11 AAC 83.341, 11 AAC 83.343, 11 AAC 83.346, 11 AAC 83.351, and 11 AAC 83.371, as applicable.
 - B. A Unit Operating Agreement executed by all working interest owners, which is submitted for information only, and does not require the commissioner's approval for adoption or amendment. Most Unit Operating Agreements for State of Alaska oil and gas units are executed on the Rocky Mountain Unit Operating Agreement Form 2 (Divided Interest)¹, but this is not required.
 - C. Evidence of reasonable effort made to obtain joinder of any proper party who has refused to execute the Unit Agreement and commit its interests within the unit area to the unit². A proper party is defined in 11 AAC 83.328.

1. Model Rocky Mountain Unit Operating Agreement forms are available from the Rocky Mountain Mineral Law Foundation, University of Colorado, Fleming Law Bldg., Boulder, Colorado 80309.

2. The State requires that at least 70% of the acreage within the proposed unit area commit to the Unit Agreement to ensure "reasonably effective control of operations" as required by 11 AAC 83.316(c). Unit applications with less than 70% of the acreage committed will not be accepted by the division as complete.

D. If any modifications or changes to the State of Alaska's Standard Unit Agreement Form are proposed, an explanation of why such changes should be accepted by the State.

E. All pertinent geological, geophysical, engineering, and well data, and interpretations of those data, directly supporting the application.

3. All signatures on the application must meet the provisions of 11 AAC 83.379; that is they must have the signator's name and title typed or printed underneath, and must be notarized or attested by two separate individuals. All persons signing on behalf of a corporation must be qualified to sign for that corporation, and their signatures must be on file with the division as evidenced by the qualification files for that corporation.
4. An application fee of \$1000.00 for a new unitization application must accompany the above application for unitization [11 AAC 05.010 (10) (D)]. The check should be made out to the State of Alaska, Department of Revenue.
5. One copy of items A through D above should be forwarded to the Commissioner of the Department of Natural Resources, P. O. Box "M", Juneau, AK 99811; the original application plus three additional copies of items A through D, two copies of item E, and the application fee should be forwarded to the Unit Manager, Department of Natural Resources, Division of Oil and Gas, P. O. Box 7034, Anchorage, AK 99510. Upon written request by the submitter, any technical data submitted will be kept confidential in accordance with the terms of Alaska Statute 38.05.035(9)(C).
6. Within 10 days of the determination by the Division of Oil and Gas that the application as submitted is appropriate and complete, the division will publish notice of receipt of the application in both State-wide and local newspapers. In addition, notice of receipt of the application will be forwarded to certain parties as set out in 11 AAC 83.311. Public comments will be accepted by the division concerning the proposed unit for 30 days after the first publication of the public notice.
7. The division will issue a written decision approving or denying the application based on the criteria in 11 AAC 83.303 within 60 days of the close of the public comment period. In general, the division will not make a conditional or partial approval of a unitization application; this is why we strongly recommend meeting with the division staff prior to submitting a unitization application.

Prior to making an application for unitization of State of Alaska lands, it is recommended that applicants familiarize themselves with the contents of the unitization regulations (11 AAC 83.301 - 11 AAC 83.395) and the terms and provisions of the State's Standard Unit Agreement Form (form DNR 10-1128). If you have any questions relating to the process of unitization, please contact the Unit Manager, Division of Oil and Gas, (907) 762-4241.

ALASKA ADMINISTRATIVE CODE
TITLE 11, CHAPTER 83, ARTICLE 3

UNITIZATION REGULATIONS

Last Amended 3/30/84, Register 89

Section

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UNITIZATION REGULATIONS

Alaska Administrative Code
Title 11, Chapter 83, Article 3

Last Amended 3/30/84, Register 89

11 AAC 83.301. PURPOSE. (a) 11 AAC 83.301 - 11 AAC 83.395 establish standards and procedures governing the submission of applications to the commissioner and criteria for approval of unit agreements for state oil and gas leases, and standards to be followed by a state lessee in conducting lease operations under an oil and gas unit agreement approved by the commissioner.

(b) 11 AAC 83.301 - 11 AAC 83.395 apply to an existing oil and gas lease or approved unit agreement where not inconsistent with the lease or unit agreement or regulations in effect on the effective date of the lease or unit agreement. (Effective 6/28/81, Register 78; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.190

11 AAC 83.303. CRITERIA. (a) The commissioner will approve a proposed unit agreement for state oil and gas leases if he makes a written decision that the decision is necessary or advisable to protect the public interest considering the provisions of AS 38.05.180(p) and this section. The commissioner will approve a proposed unit agreement upon a written finding that it will

(1) promote conservation of all natural resources, including all or part of an oil or gas pool, field, or like area;

(2) promote the prevention of economic and physical waste; and

(3) provide for the protection of all parties of interest, including the state,

(b) In evaluating the above criteria, the commissioner will consider:

(1) the environmental costs and benefits of unitized exploration or development;

(2) the geological and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization;

(3) prior exploration activities in the proposed unit area;

(4) the applicant's plans for exploration or development of the unit area;

(5) the economic costs and benefits to the state; and

(6) any other relevant factors, including measure to mitigate impacts identified above, the commissioner determines necessary or advisable to protect the public interest.

(c) The commissioner will consider the criteria in (a) and (b) of this section when evaluating each requested authorization or approval under 11 AAC 83.301 - 11 AAC 83.395, including

(i) approval of a unit agreement;

(2) an extension or amendment of a unit agreement;

(3) a plan or amendment of a plan of exploration, development, or operations;

(4) a participating area; or

(5) a proposed or revised production or cost allocation formula. (Effective 9/5/74, Register 51; amended 7/22/79, Register 78; amended 3/18/83, Register 85.)

Authority: AS 36.05.020
AS 36.05.145
AS 38.05.180

11 AAC 83.306. APPLICATION FOR UNIT APPROVAL. Any person owning an interest in a lease which is proposed to be committed to a unit which would include a state oil and gas lease may propose a unit agreement by applying to the commissioner for approval of the agreement. The following items constitute a complete application for approval:

(1) the unit agreement, including exhibits required under 11 AAC 83.341 or 11 AAC 83.343, executed by the proper parties;

(2) the unit operating agreement executed by the working interest owners, which is submitted for information only and does not require the commissioner's approval for adoption or amendment;

(3) evidence of reasonable effort made to obtain joinder of any proper party who has refused to join the unit agreement;

(4) all pertinent geological, geophysical, engineering, and well data, and interpretations of those data, directly supporting the application; and

(5) an explanation of proposed modifications, if any, of the standard state unit agreement form. (Effective 6/28/81, Register 78; amended 8/15/82, Register 83; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.160

11 AAC 83.311. PUBLIC NOTICE. Within 10 days after receipt of a complete application for approval of a unit agreement under 11 AAC 83.356, or extension of the unit term under 11 AAC 83.336(a)(2), the commissioner will publish notice of the application in a newspaper of general statewide circulation and in a newspaper serving the locality in which the unit or proposed unit is located. In addition, the commissioner will, in his discretion, publish notice by radio, television, or other electronic media. If the unit or proposed unit is within the boundary of an organized borough, municipality, regional corporation, or village corporation organized under Section 8(a) of the Alaska Native Claims Settlement Act, the notice will be mailed to the chief executive officer of the borough or municipality, or designated representative of the corporate entity. The notice will also be mailed to the postmaster of each permanent settlement of more than 25 persons located within six miles of the proposed unit area. In the case of a proposed unit expansion, a copy of the notice will be mailed to the unit operator. The notice will include

(1) the name and address of the applicant, and the location of the unit or proposed unit;

(2) a statement explaining the nature of the approval sought;

(3) a statement indicating where copies of the nonconfidential portions of the application may be obtained; and

(4) a statement that any person may file written comments on the application with the commissioner within 30 days after publication of the notice. (Effective 6/28/81, Register 78; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.160

11 AAC 83.316. UNIT APPROVAL. (a) Within 60 days after the close of the public comment period required by 11 AAC 83.311, the commissioner will issue a written decision approving or disapproving the unit agreement, in which he states the basis for his decision after considering the provisions of 11 AAC 83.303.

(b) If the commissioner determines that the provisions of 11 AAC 83.303 are not met, the commissioner will, in his discretion, propose modifications which, if accepted by the parties to the proposed unit agreement, would qualify the agreement for approval.

(c) No unit will be approved unless parties to the unit agreement hold sufficient interest in the unit area to give reasonably effective control of operations and at least one lease or portion of a lease in the unit area is a state lease. (Effective 9/5/74, Register 51; amended 7/22/79, Register 71; amended 6/28/81, Register 78; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.321. COPIES OF APPLICATION REQUIRED. In submitting an application under 11 AAC 83.301 - 11 AAC 83.395, the applicant must provide five copies of the nonconfidential portions of the pertinent agreement, plan, modification, or other instrument or document for which approval is sought and two copies of any confidential material submitted. Ten copies of unit plans of operations are required for activities within the coastal zone. (Effective 9/5/74, Register 51; amended 7/22/79, Register 71; amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145

11 AAC 83.326. STANDARD UNIT AGREEMENT. (a) Except as provided in 11 AAC 83.353, and as otherwise provided in this section, a unit agreement must be executed on, or in a manner consistent with, a standard state unit agreement form.

(b) The commissioner will allow a modification of the standard state unit agreement form, upon request by the unit applicant, when the commissioner determines that the modification is reasonably required to meet the needs and requirements of the particular unit considering the facts and conditions found to exist with respect to that unit, and the proposed modification meets the provisions of 11 AAC 83.303. The commissioner will require a modification of the standard state unit agreement form if required to meet the provisions of 11 AAC 83.303. Any request by the unit applicant for modification of the standard state unit agreement form must be made in writing not later than the time an application is submitted for approval under 11 AAC 83.306 and must include an explanation of proposed modifications. (Effective 6/26/81, Register 76; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.328. PARTIES. (a) The record owners of any right, title or interest in the oil or gas reservoirs or potential hydrocarbon accumulations to be included in a unit are the proper parties to the unit agreement. All proper parties must be invited to join the unit agreement.

(b) Where authorized by lease, the commissioner will, in his discretion, require a state lessee or any assignee of interest in a state lease to subscribe to a unit agreement. (Effective 9/5/74, Register 51, amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.331. UNIT OPERATOR. (a) A unit operator must be qualified to hold a lease as provided in 11 AAC 82.200 - 11 AAC 82.205, and must be qualified to fulfill the duties and obligations prescribed in the unit agreement.

(b) The unit operator may be a working interest owner in the unit area or may be a party selected by the working interest owners.

(c) No designation or change of the unit operator becomes effective until approved by the commissioner. The commissioner will approve or disapprove a proposed change of the unit operator within 30 days after receipt of request, and will explain in writing his basis for

disapproval. (Effective 9/5/74, Register 51; amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.130

11 AAC 83.336. EFFECTIVE DATE AND TERM OF UNIT AGREEMENT. (a) A unit agreement becomes effective upon approval by the commissioner and automatically terminates five years from the effective date unless

(1) a unit well in the unit area has been certified as capable of producing hydrocarbons in paying quantities, in which case the unit agreement will remain in effect for so long as hydrocarbons are produced in paying quantities from the unit area, or for so long as hydrocarbons 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 after that as diligent operations are in progress to restore production and then so long after that as unitized substances are produced in paying quantities; or

(2) exploration activities have been conducted in accordance with an approved unit plan of exploration, and the commissioner, after issuing written notice under 11 AAC 83.311, issues a written decision extending the unit term in which he states the basis for his decision, considering the provisions of 11 AAC 83.303; no single extension will exceed five years.

(b) If a suspension of unit operations or production on all or part of the unit area has been ordered or approved under federal, state, or local law, or, if the commissioner determines that the unit operator has been prevented, despite good-faith efforts, from complying with any express or implied promise, term, condition, or covenant of the unit agreement, or from conducting exploration, development, production, transportation, or marketing operations on or from the unitized area by reason of force majeure, the unit operator's obligation to comply with the 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 subsection and the continuance 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, which will not be less than six months, for the unit operator to resume operations or production. Nothing in this subsection 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 unitized 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 subsection, 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 required for unit agreement approval, will not be considered a suspension of operations or production ordered under 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.

(c) A unit agreement may be terminated at any time with the approval of the commissioner.

(d) Upon termination of a unit, each lease or portion of a lease committed to the unit may be continued in effect only in accordance with the terms and conditions of the lease, statutes, and regulations, or as provided in the unit agreement. (Effective 6/28/81, Register 78; amended 8/15/82, Register 83; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.341. UNIT PLAN OF EXPLORATION. (a) Unless a unit plan of development is filed under 11 AAC 83.343, a unit plan of exploration must be filed for approval by the commissioner as an exhibit to the unit agreement under 11 AAC 83.306. The plan must describe the applicant's proposed exploration activities, including the bottom-hole locations and depths of proposed wells, and the estimated date drilling will commence. All exploration operations must be conducted under an approved plan of exploration. The commissioner will approve a unit plan of exploration if it complies with the provisions of 11 AAC 83.303. If the proposed unit plan of exploration is disapproved, the commissioner will, in his discretion, proposed modifications which, if accepted by the unit operator, would qualify the plan for approval.

(b) The unit plan of exploration must be updated and submitted to the commissioner for approval at least 60 days before the expiration date of the previously approved plan, as set out in that plan. The update must describe the extent to which requirements of the previously approved plan were achieved; if actual operations deviated from or did not comply with the previously approved plan, an explanation of the deviation or noncompliance must be included in the update. Within 10 days after receipt of an updated plan of exploration, the commissioner will inform the unit operator as to whether a proposed unit plan of exploration is complete. After the commissioner has determined that a unit plan of exploration is complete, as submitted or modified by the unit operator following the commissioner's suggestions, the commissioner will have an additional 30 days in which to approve or disapprove the plan; if no action is taken by the commissioner, the unit plan of exploration is approved.

(c) The commissioner will approve an update of the unit plan of exploration if it complies with the provisions of 11 AAC 83.303. If the proposed update of a unit plan of exploration is disapproved, the commissioner will, in his discretion, propose modifications which, if accepted by the unit operator, would qualify the plan for approval.

(d) The unit operator shall submit an annual report to the commissioner describing the operations conducted under the unit plan of exploration during the preceding year.

(e) The unit operator may, with the approval of the commissioner, amend an approved plan of exploration. (Effective 6/28/81, Register 78, amended 3/18/83; Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.343. UNIT PLAN OF DEVELOPMENT. (a) A unit plan of development must be filed for approval as an exhibit to the unit agreement if a participating area is proposed for the unit area under 11 AAC 83.351, or when a reservoir has become sufficiently delineated so that a prudent operator would initiate development activities in that reservoir. All development operations must be conducted under an approved plan of development. A unit plan of development must contain sufficient information for the commissioner to determine whether the plan is consistent with the provisions of 11 AAC 83.303. The plan must include a description of the proposed development activities based on data reasonably available at the time the plan is submitted for approval as well as plans for

the exploration or delineation of any land in the unit not included in the participating area. The plan must include, to the extent available information exists

(1) long-range proposed development activities for the unit, including plans to delineate all underlying oil or gas reservoirs, bring the reservoirs into production, and maintain and enhance production once established;

(2) plans for the exploration or delineation of any land in the unit not included in a participating area;

(3) details of the proposed operations for at least one year following submission of the plan; and

(4) the surface location of proposed facilities, drill pads, roads, docks, causeways, material sites, base camps, waste disposal sites, water supplies, airstrips, and any other operation or facility necessary for unit operations.

(b) The commissioner will approve the unit plan of development if it complies with the provisions of 11 AAC 83.303. If the proposed unit plan of development is disapproved, the commissioner will, in his discretion, propose modifications which, if accepted by the unit operator, would qualify the plan for approval.

(c) The unit plan of development must be updated and submitted to the commissioner for approval at least 90 days before the expiration date of the previously approved plan, as set out in that plan. The update must describe the extent to which the requirements of the previously approved plan were achieved; if actual operations deviated from or did not comply with the previously approved plan, an explanation of the deviation or noncompliance must be included in the update. The commissioner will approve the updated unit plan of development if it complies with the provisions of 11 AAC 83.303. If the proposed update of a unit plan of development is disapproved, the commissioner will, in his discretion, propose modifications which, if accepted by the unit operator, would qualify the plan for approval. Within 10 days after receipt of an updated plan of development, the commissioner will inform the unit operator as to whether the proposed unit plan of development is complete. After the commissioner has determined that an updated unit plan of development is complete as submitted, or as modified by the unit operator following the commissioner's suggestions, the commissioner will have an additional 60 days in which to approve or disapprove the plan; if no action is taken by the commissioner, the update of the unit plan of development is approved.

(d) The unit operator shall submit an annual report to the commissioner describing the operations conducted under the unit plan of development during the preceding year.

(e) The unit operator may, with the approval of the commissioner, amend an approved plan of development. (Effective 6/28/81, Register 78; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.346. UNIT PLAN OF OPERATIONS. (a) Except as provided in (b) of this section, a unit plan of operations for all or part of the unit area must be approved by the commissioner before any operations may be undertaken on the unit area if

(1) the state owns all or part of the surface estate of the unit area;

(2) the unit includes a lease that reserves a net profit share to the state; or

(3) the state owns all or part of the mineral estate, but the entire surface estate of the unit area is owned by a party other than the state, and a surface owner requests that a unit plan of operations be required by the commissioner for the portion of the unit area owned by that surface owner.

(b) A unit plan of operations will not be required by the commissioner for activities that would not require a land use permit under this title.

(c) Before undertaking operations on the unit area, the unit operator shall provide for full payment of all damages sustained by the owner of the surface estate as well as by the surface owner's lessees and permittees, by reason of entering the land. If the surface estate is owned by a party other than the state, the unit operator shall also notify the surface owner of his opportunity to request that the commissioner require a plan of operations before allowing operations to be undertaken on the unit area owned by the requesting surface owner.

(d) An application for approval of a plan of operations must contain sufficient information, based on data reasonably available at the time the plan is submitted for approval, for the commissioner to determine the surface use requirements and impacts directly associated with the proposed operations. An application must include statements and maps or drawings setting out the following:

(1) the sequence and schedule of the operations to be conducted in the unit area, including the date operations are proposed to begin and their proposed duration;

(2) projected use requirements directly associated with the proposed operations, including but not limited to the location and design of well sites, material sites, water supplies, solid waste sites, buildings, roads, utilities, airstrips, and all other facilities and equipment necessary to conduct the proposed operations;

(3) plans for rehabilitation of the affected unit area after completion of operations or phases of those operations; and

(4) a description of operating procedures designed to prevent or minimize adverse effects on other natural resources and other uses of the unit area and adjacent areas, including fish and wildlife habitats, historic and archeological sites, and public use areas.

(e) In approving a unit plan of operations or an amendment of a plan, the commissioner will require amendments he determines necessary to protect the state's interest. The commissioner will not require any amendment that would be inconsistent with the terms of sale under which the lease was obtained, or with the terms of the lease itself, or which would deprive the lessee of reasonable use of the leasehold interest.

(f) The unit operator may, with the approval of the commissioner, amend an approved plan of operations.

(g) Upon completion of operations, the unit operator shall inspect the area of operations and submit a report indicating the completion date of operations and stating any known noncompliance of which the unit operator knows, or should reasonably know, with requirements imposed as a condition of approval of the plan. (Effective 6/28/81, Register 76; amended 8/15/82, Register 83; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.130
AS 38.05.145
AS 38.05.180

11 AAC 83.351. PARTICIPATING AREA. (a) At least 90 days before sustained unit production from a reservoir, the unit operator shall submit to the commissioner for approval a description, based on subdivisions of the public land or its aliquot parts, of the proposed participating area. The participating area may 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 hydrocarbons in paying quantities. Under 11 AAC 83.371(a), the unit operator shall also submit to the commissioner for approval a proposed division of interest or formula setting out the percentage of production and costs to be allocated to each lease and portion of lease within the participating area. Upon approval by the commissioner, the area of productivity constitutes a participating area.

(b) A separate participating area must be established as provided in (a) of this section for each reservoir delineated, except that with the consent of the commissioner and all working interest owners, any two or more reservoirs or participating areas within the unit may be combined into one participating area. Separate participating areas may be established to distinguish between an oil rim and a gas cap within the same reservoir.

(c) A participating area must be expanded to include acreage reasonably estimated through use of geological, geophysical, and engineering data to be capable of producing or contributing to the production of hydrocarbons in paying quantities, and must be contracted to exclude acreage reasonably proven through use of geological, geophysical, or engineering data to be incapable of producing hydrocarbons in paying quantities, subject to approval by the commissioner. A revised division of interest or formula allocating production and costs must be submitted under 11 AAC 83.371 at the time of expansion or contraction of a participating area. (Effective 6/28/81, Register 78; amended 3/18/83, Register 85; amended 3/30/84, Register 89.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.160

11 AAC 83.356. UNIT AREA; CONTRACTION AND EXPANSION.

(a) A unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or all or part of one or more potential hydrocarbon accumulations.

(b) Ten years after sustained unit production begins, the unit area must be contracted to include only those lands then included in an approved participating area and lands that facilitate production including the immediately adjacent lands necessary for secondary or tertiary recovery, pressure maintenance, reinjection, or cycling

operations. The commissioner will, in his discretion, after considering the provisions of 11 AAC 83.303, delay contraction of the unit area if the circumstances of a particular unit warrant. If any portion of a lease is included in the participating area, the entire lease will remain committed to the unit.

(c) Any expansion or contraction of the unit area must be based on legal subdivisions of land as defined in 11 AAC 88.185.

(d) No land will be excluded from a participating area due to the depletion of hydrocarbons.

(e) Not sooner than 10 years from the effective date of the unit agreement, the commissioner will, in his discretion, contract the unit area to include only that land covered by an approved unit plan of exploration or development, or that area underlain by one or more potential hydrocarbon accumulations and lands that facilitate production as set out in (b) of this section. Before any contraction of the unit area under this subsection, the commissioner will give the unit operator, the working interest owners, and the royalty owners of the leases or portions of leases being excluded reasonable notice and an opportunity to be heard. (Effective 6/28/81, Register 78; amended 3/18/83, Register 85.)

Authority: AS 31.05.110
AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.361. CERTIFICATION OF WELL TEST RESULTS. For the purposes of 11 AAC 83.301 - 11 AAC 83.395, a well will be considered capable of producing hydrocarbons on paying quantities, as defined in 11 AAC 83.395, when so certified by the commissioner following application by the lessee or unit operator. The commissioner will require the submission of data necessary to make the certification, including all results of the flow test or tests, supporting geological data, and cost data reasonably necessary to show that the production capability of the well satisfies the economic requirements of the paying quantities definition. (Effective 6/28/81, Register 78; amended 8/15/82, Register 82; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.366. UNIT OPERATING AGREEMENT. Any revision of the unit operating agreement must be submitted to the commissioner before it takes effect. The unit agreement controls the respective rights and obligations of the unit operator, the working interest owners, the State of Alaska, and royalty owners other than the State of Alaska in case of conflict between the unit agreement and the unit operating agreement. Where conflicts exist solely between working interest owners, the unit operating agreement shall control. (Effective 6/28/81, Register 78; amended 8/15/82, Register 83.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.371. ALLOCATION OF PRODUCTION AND COSTS.
(a) The proposed or revised division of interest or formula allocating hydrocarbon production and unit operating costs among the leases in the unit area may 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 relate to the proposed or revised division of interest or allocation formula for all leases in the participating area. Before any disapproval of the proposed or revised division of interest or allocation formula, the commissioner will give the working interest and royalty owners reasonable notice and an opportunity to be heard. After the hearing, the commissioner will approve the proposed or revised division of interest or allocation formula as submitted unless he finds in writing that the formula does not equitably allocate production and costs among the leases.

(b) If there is a separate division of interest or allocation formula among any of the parties holding an interest in the unit that is different from the division of interest or allocation formula approved by the commissioner, the parties to the separate division of interest or allocation formula not approved by the commissioner shall submit a copy of that formula to the commissioner and a statement explaining the reasons for the difference. (Effective 6/28/81, Register 78; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.373. SEVERANCE. (a) Except as otherwise provided in this section and 11 AAC 83.356, where only a portion of a lease is committed to a unit agreement

approved or prescribed by the commissioner, the commitment constitutes a severance of the lease as to the unitized and nonunitized portions of the lease. The portion of the lease not committed to the unit will be treated as a separate and distinct lease having the same effective date and term as the original lease and may be maintained thereafter only in accordance with the terms of the original lease, statutes, and regulations. Any portion of the lease not committed to the unit agreement will not be affected by the unitization or pooling of any other portion of the lease by operations in the unit, or by suspension approved or ordered for the unit under 11 AAC 83.336(b).

(b) The commissioner will, in his discretion, grant up to a two-year extension of the lease term for that portion of a lease not committed to the unit agreement under this section.

(c) A lease having a well certified as capable of production in paying quantities before commitment to the unit agreement will not be severed. (Effective 9/5/74, Register 51; amended 7/22/79, Register 71; amended 6/28/81, Register 78; amended 8/15/82, Register 83.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.374. DEFAULT. (a) Failure to comply with any of the terms of an approved unit agreement, including any plans of exploration, development, or operations which are a part of the unit agreement, is a default under the unit agreement.

(b) 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 by a specific date, which in the case of failure to pay rentals or royalties will be a date determined by the commissioner and in 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.

(c) If a default occurs with respect to a unit in which there is no well capable of producing oil or gas in paying quantities 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 the unit agreement by mailing notice of the

termination to the unit operator and defaulting party. Termination is effective upon mailing the notice.

(d) If a default occurs with respect to a unit in which there is a well capable of producing oil or gas in paying quantities and the default is not cured by the date indicated in the demand, the commissioner will, in his discretion, seek to terminate the unit agreement by judicial proceedings. (Effective 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.379. SIGNATURES. Each signature on the unit agreement must be notarized or attested by at least two witnesses. Corporate or other signatures made in a representative capacity must be accompanied by evidence of the authority of the signatory to act on behalf of the principal or by a reference to such evidence previously filed. The printed or typed name and address of each signatory to the unit agreement must be set out below the signature. (Effective 9/5/74, Register 51; amended 7/22/79, Register 71; amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.380. COUNTERPARTS. The parties may execute any number of counterparts of a unit agreement or may execute a ratification, joinder, or consent in a separate instrument. These documents have the same effect as if all parties signed the same instrument. (Effective 9/5/74, Register 51; amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.383. NOTATION OF APPROVAL. If approved by the commissioner, the counterparts of each instrument submitted for approval will be returned to the applicant with the commissioner's approval noted on the approved counterparts. (Effective 9/5/74, Register 51; amended 7/22/79, Register 71; amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.385. MODIFICATION OF UNIT AGREEMENT. Any modification of an approved unit agreement is subject to the commissioner's approval. (Effective 9/5/74, Register 51; amended 7/22/79, Register 71; amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.390. UNIT BONDS. In place of separate bonds required for each lease committed to a unit agreement, the unit operator shall furnish and maintain a statewide oil and gas lease bond under 11 AAC 85.160. (Effective 9/5/74, Register 51; amended 7/22/79, Register 71; amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.393. APPROVAL OF FEDERAL AND PRIVATE PARTY UNITS. (a) If the State of Alaska selects or otherwise acquires any federal land which, at the effective date of selection or acquisition, is subject to a federal oil and gas lease which is committed to a unit agreement that has been approved in accordance with federal laws and regulations, the unit agreement will be considered to have been approved by the commissioner for all the purposes of AS 38.05 and 11 AAC 83.301 - 11 AAC 83.395.

(b) The commissioner will, in his discretion, enter into agreements with the federal government to provide for the unitization of state and federal oil and gas leases overlying a common reservoir. If the agreement permits or requires the commissioner to take any action or enter into any unit agreement which is contrary to or inconsistent with 11 AAC 83.301 - 11 AAC 83.395, the commissioner will, in his discretion, do so after making a written finding that his action or the unit agreement is necessary or advisable to protect the public interest, and will, in all cases, comply with the requirements of 11 AAC 83.303 and 11 AAC 83.311.

(c) Any person owning an interest in a state oil and gas lease who has been asked to join a unit in which all state leases proposed to be committed to the unit constitute not more than 10 percent of the surface acreage of the unit or not more than five percent of the initial participation in the unit may request approval of the commissioner to join the unit as a working interest owner and may also request that the commissioner join the unit as a royalty owner. The commissioner will, in his

discretion, approve and join the unit agreement as a royalty owner if; after giving public notice in accordance with 11 AAC 83.311, he makes a written finding that the proposed unit is necessary or advisable to protect the public interest considering the criteria in 11 AAC 83.303. A unit agreement entered into under this section need not comply with the requirements of this chapter. (Effective 9/5/74, Register 51; amended 7/22/79, Register 71; amended 6/28/81, Register 78.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

11 AAC 83.395. DEFINITIONS. Unless the context clearly requires a different meaning, in 11 AAC 83.301 - 11 AAC 83.395 and in the applicable unit agreements:

(1) "conservation" of the natural resources of all or parts of an oil or gas pool, field, or like area" means maximizing the efficient recovery of oil and gas and minimizing the adverse impacts on the surface and other resources;

(2) "commissioner" means the commissioner of the state Department of Natural Resources or his designee;

(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 and includes operational failure to existing transportation facilities and delays caused by judicial decisions or lack of them;

(4) "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;

(5) "potential hydrocarbon accumulation" means any structural or stratigraphic entrapping mechanism which has been reasonably defined and delineated through geophysical, geological, or other means and which contains one or more intervals, zones, strata, or formations having the necessary physical characteristics to accumulate and prevent the escape of oil and gas;

(6) "reservoir" means an oil or gas accumulation which has been discovered by drilling and evaluated by testing and which is separate from any other accumulation of oil and gas;

(7) "unit" means a group of leases covering all or part of one or more potential hydrocarbon accumulations, or all or part of one or more adjacent or vertically separate oil or gas reservoirs, which are subject to a unit agreement;

(8) "unit agreement" means the agreement executed by the State of Alaska, working interest owners, and royalty owners creating the unit; and

(9) "sustained unit production" means continuing production of oil or gas 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. (Effective 6/23/81, Register 78; amended 3/18/83, Register 85.)

Authority: AS 38.05.020
AS 38.05.145
AS 38.05.180

- END OF TITLE 11, CHAPTER 83, ARTICLE 3 -

of this section, or approve alternate means for determining the location of a bore hole. (Eff. 4/13/80, Register 74; am 4/2/86, Register 97)

Authority: AS 31.05.030

20 AAC 25.055. DRILLING UNITS AND WELL SPACING. (a). In proven oil and gas fields, the establishment of drilling units and a spacing pattern may be governed by special pool rules adopted in accordance with 20 AAC 25.520. In the absence of an order by the commission establishing drilling units or prescribing a spacing pattern for a pool, the following apply:

(1) a governmental quarter section constitutes the drilling unit for oil exploration; the surface location for a well exploring for oil must be at least 500 feet from the drilling unit boundary;

(2) a governmental section constitutes the drilling unit for gas exploration; the surface location for a well exploring for gas must be at least 1500 feet from the drilling unit boundary;

(3) where oil has been discovered, not more than one well may be drilled to that pool on any governmental quarter section, nor may any oil pool be opened to the well bore closer than 500 feet to any quarter section line, nor closer than 1,000 feet to any well drilling to or capable of producing from the same pool; and

(4) where gas has been discovered, not more than one well may be drilled to that pool on any governmental section, nor may any gas pool be opened to the well bore closer than 1,500 feet to any section line, nor closer than 3,000 feet to any well drilling to or capable of producing from the same pool.

(b) An application for exception to the provisions of this section must set out the names of all owners and of all operators of governmental quarter sections directly and diagonally offsetting the quarter section where the oil well is located, or the names of all owners and of all operators of governmental sections directly or diagonally offsetting the section where the gas well is located. A plat must be attached, drawn to a scale of one inch equaling 2,640 feet or larger, showing the location of the well for which the exception is sought, all other completed and drilling wells on the property, and all adjoining properties and wells. The application must be verified by a person acquainted with the facts, stating that all facts are true and that the plat correctly portrays pertinent and required data. The applicant for exception must send notice of the application by registered mail to all owners and to all operators noted above, and furnish the commission with a copy of the notice, date of

mailing, and the addresses to which the notices were sent. The application for exception will be handled in accordance with 20 AAC 25.540.

(c) A well may not be re-entered for the purpose of producing oil on a property that is smaller than the governmental quarter section upon which the well is located or for the purpose of producing gas on a property that is smaller than the governmental section upon which the well is located.

(d) If two or more separately owned properties are embraced within a governmental quarter section to be drilled, or a well re-entered for oil, or a governmental section to be drilled, or a well re-entered for gas, persons owning the oil or gas rights may voluntarily pool their separate interests to form a drilling unit. A copy of the pooling agreement must be submitted to the commission. If one or more persons owning oil and gas rights fail to voluntarily pool their interests, the commission, upon petition or its own motion, and after public hearing, will, in its discretion, issue an order pooling the owner's interests for the development of their land as a drilling unit. (Eff. 4/13/80, Register 74; am 4/2/86, Register 97)

Authority: AS 31.05.030
AS 31.05.100

20 AAC 25.061. WELL SITE SURVEYS. (a) Near surface strata to a depth of 2000 feet in the well site area for all exploratory and stratigraphic test wells must be evaluated seismically by common depth point refraction or reflection profile analysis to identify anomalous velocity variations indicative of potential shallow gas sources. Analysis results must be included with the application for the Permit to Drill (Form 10-401).

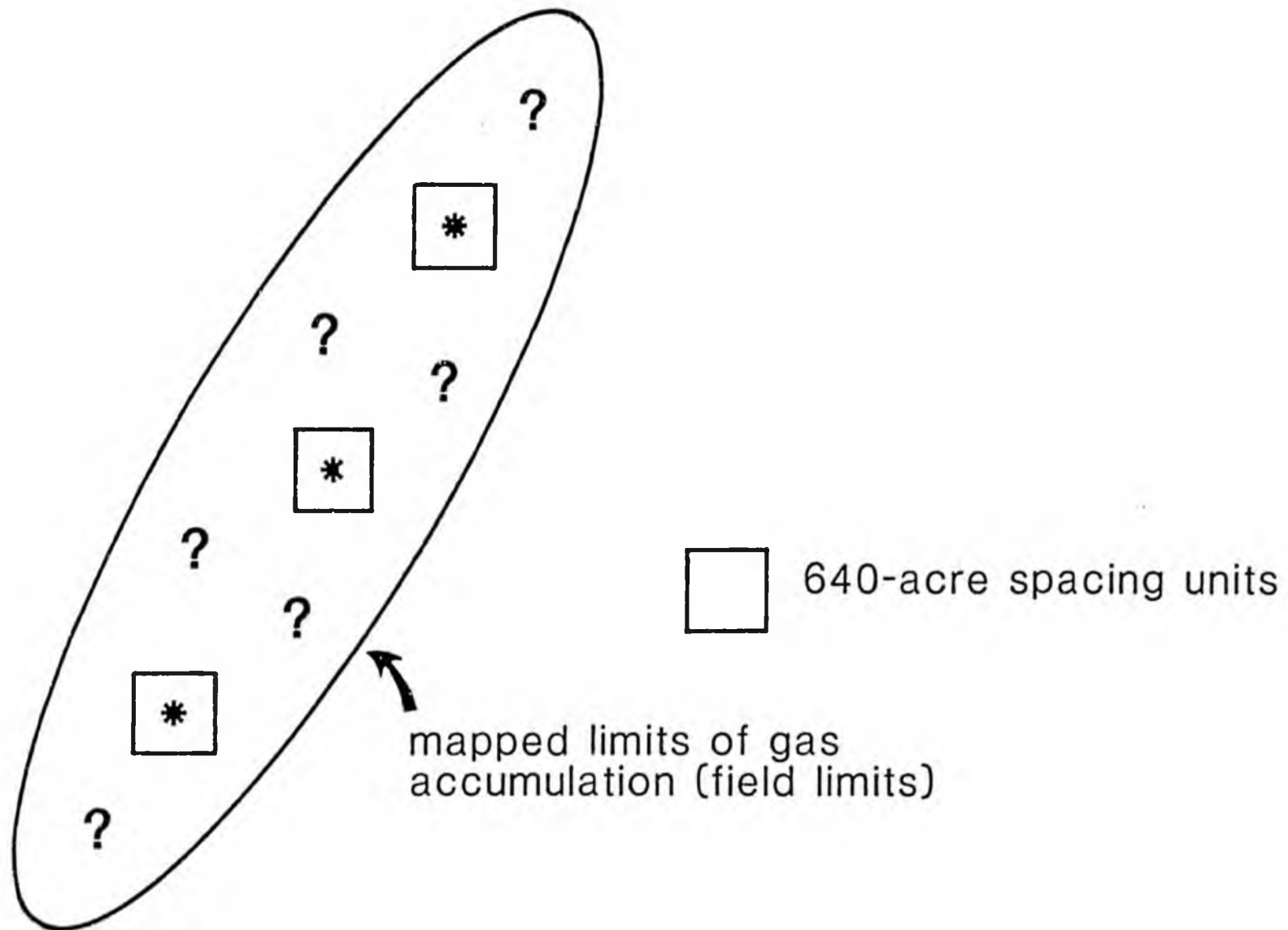
(b) The well site area must be evaluated by sidescan sonar and other pertinent surveys to determine whether potential seabed hazards to drilling operations are present for each type of well listed in 20 AAC 25.005 to be drilled offshore from a mobile bottom-founded, jack-up or floating unit. Survey results must be included with the application for Permit to Drill (Form 10-401).

(c) Upon request by the operator, the commission, in its discretion, will waive the requirements of this section. (Eff. 4/13/80, Register 74; am 4/2/86, Register 97)

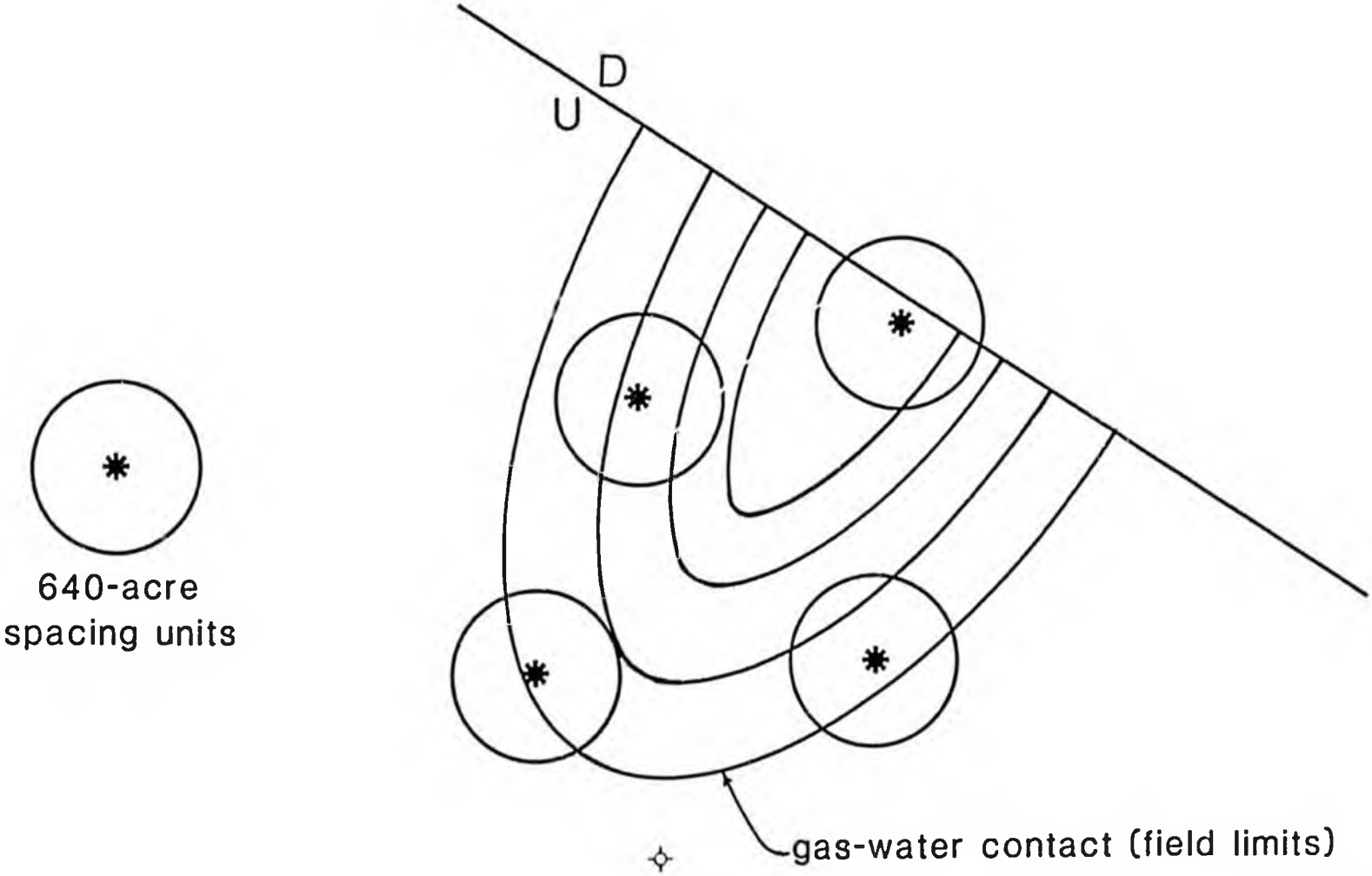
Authority: AS 31.05.030

20 AAC 25.065. HYDROGEN SULFIDE. (a) When hydrogen sulfide gas is encountered, the operator shall notify the commission within 24 hours.

Hypothetical Field Drilled on 640-acre Spacing Units

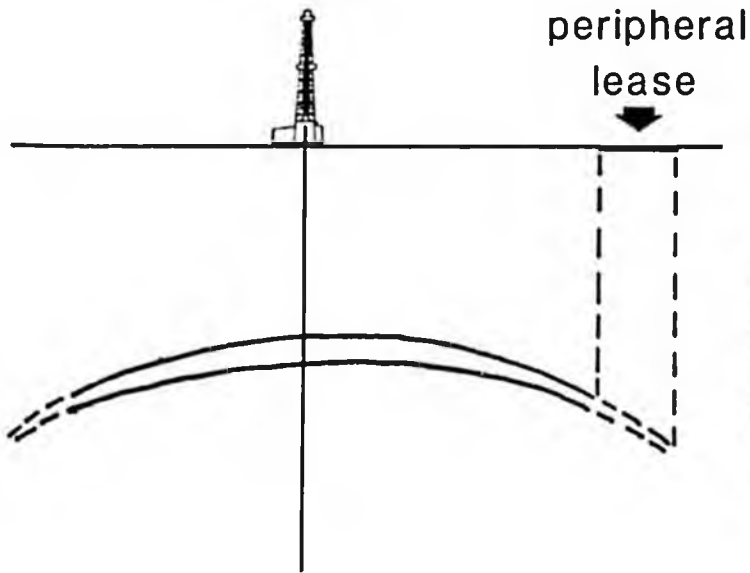


Hypothetical Field Drilled on 640-acre Spacing Units

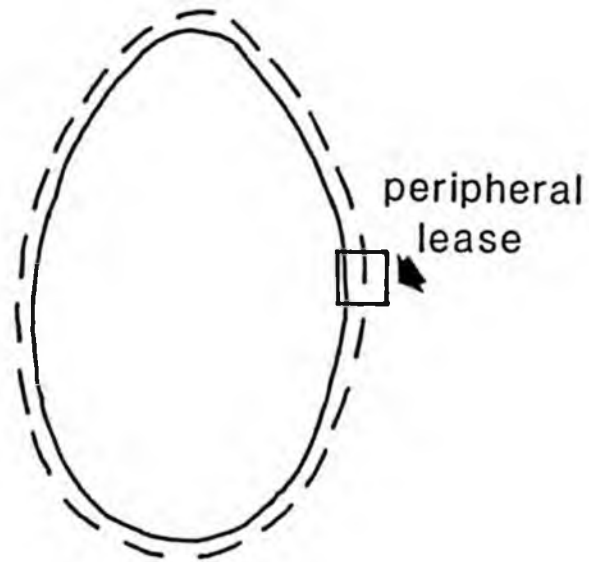


Determining Field Limits

Cross Section



Map View

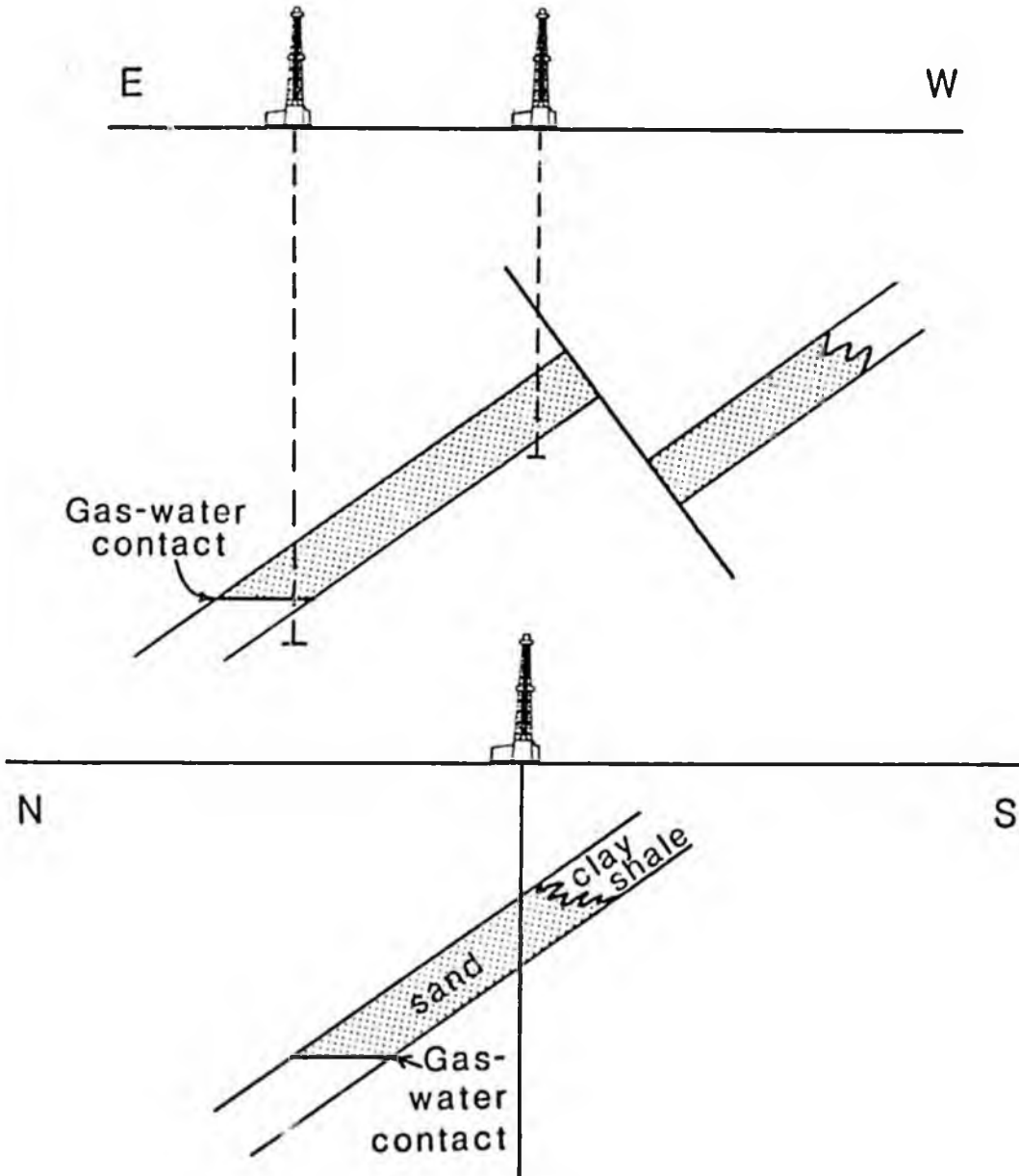


Useful Information

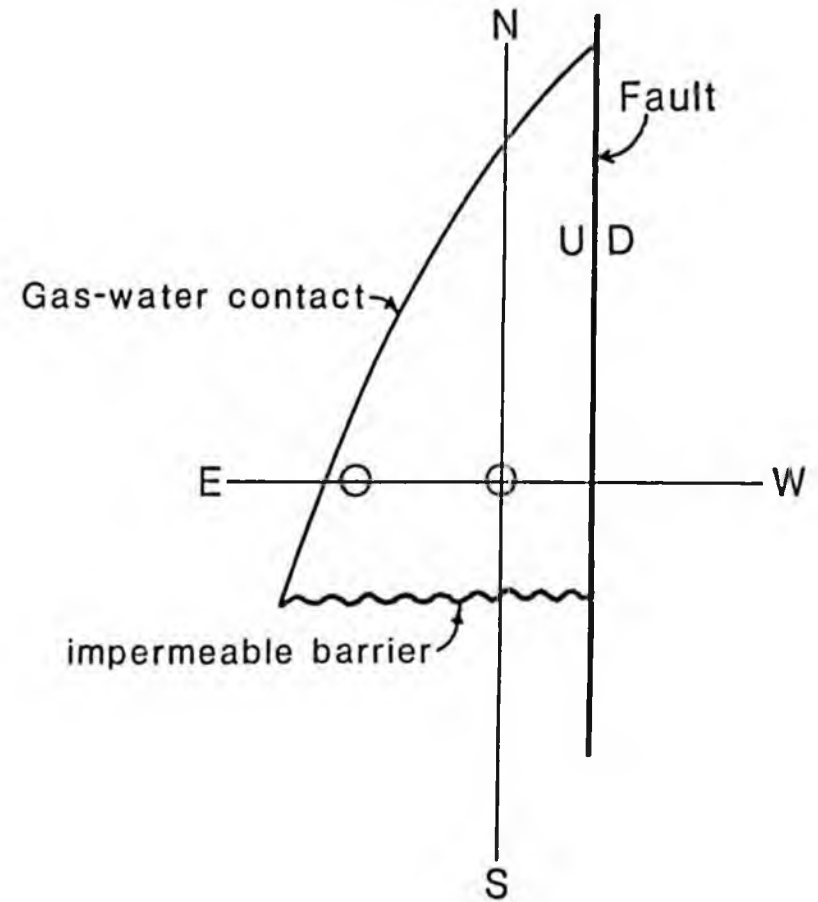
- 1) Seismic data
- 2) Reservoir type
(homogeneous?)
- 3) Other fields in basin
- 4) Well data
oil-water,
gas-water contacts
other log information
- 5) Production data
pressure draw-down etc.

Combination Structural-Stratigraphic Trap Hypothetical Asymmetrical Gas Field

Cross Sections:



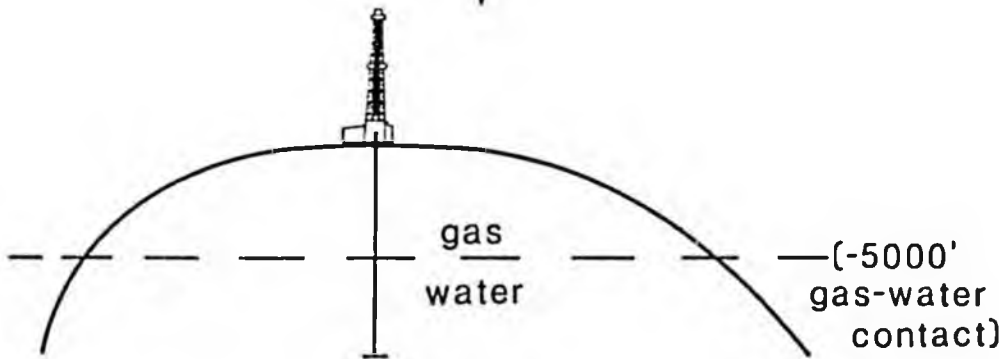
Map View:



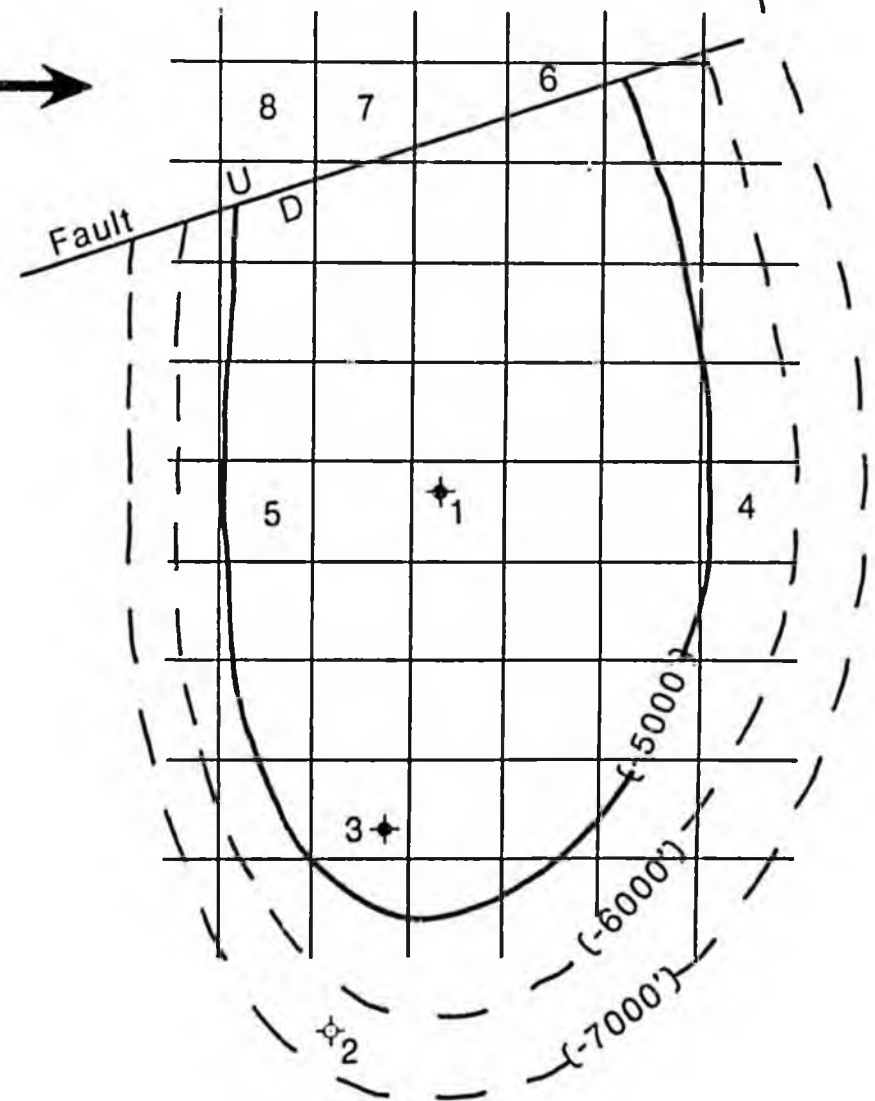
Hypothetical Gas Field showing possible well locations and field (lease) equity

Map View →

Cross Section ↘



1. Discovery well
2. Dry hole
3. Confirmation well
4. Lease with minor amount of hydrocarbons
5. Lease with substantial hydrocarbons
6. Hydrocarbons limited by fault
7. Minor hydrocarbons due to fault
8. No hydrocarbons



shows leases based on 4
640-acre sections each

Sec. 38.05.180. Oil and gas leasing. (a) The legislature finds that (1) the people of Alaska have an interest in the development of the state's oil and gas resources to

(A) maximize the economic and physical recovery of the resources;
 (B) maximize competition among parties seeking to explore and develop the resources;

(C) maximize use of Alaska's human resources in the development of the resources;

(2) it is in the best interests of the state to encourage an assessment of its oil and gas resources and to allow the maximum flexibility in the methods of issuing leases to

(A) recognize the many varied geographical regions of the state and the different costs of exploring for oil and gas in these regions;

(B) minimize the adverse impact of exploration, development, production, and transportation activity.

(b) The commissioner shall annually prepare and submit to the legislature, between the first and the fifteenth day of each regular legislative session, a five-year proposed oil and gas leasing program consisting of a schedule of proposed lease sales and specifying as precisely as practicable the location of tracts proposed to be offered for oil and gas leasing during the calendar year in which the proposed program is submitted to the legislature and the following four calendar years.

(c) Except as provided in (d) and (w) of this section, an oil and gas lease sale may not be held unless it was included in the proposed leasing programs submitted to the legislature during the two calendar years preceding the year in which the sale is held. A lease sale shall be held during the calendar quarter for which it is scheduled in the proposed oil and gas leasing program but may be delayed by the commissioner for not more than 90 days after the last day of the calendar quarter for which it was scheduled if the commissioner determines that a delay is in the best interest of the state. A lease sale which is not held during the calendar quarter for which it was scheduled in the oil and gas leasing program, or in the following 90-day period authorized by this subsection, may be held only if rescheduled as provided in (b) of this section. A lease sale may not be held before the date it is scheduled in the proposed oil and gas leasing program.

(d) The commissioner may issue oil and gas leases in an area that has not been included in a leasing program submitted, in accordance with (b) of this section, to the legislature if

(1) the land to be leased was previously subject to a valid state or federal oil and gas lease; or

(2) the land to be leased is contiguous to land already under state, federal or private lease and the commissioner makes a written finding, after hearing, that leasing of the land would result in a substan-

*Don't know
time*

tial probability of early evaluation and development of the land to be leased; or

(3) the land to be leased is adjacent to land owned or controlled by another party on which a discovery of commercial quantities of oil or gas has been made, and the commissioner finds, after hearing, that there is a reasonable probability that the land to be leased contains oil or gas in communication with the oil or gas discovered on the land of the other party; or

(4) the land to be leased is adjacent to land included in the federal five-year Outer Continental Shelf leasing program under 43 U.S.C. § 1344, and the commissioner makes a written finding, after hearing, that coordinated or simultaneous leasing with the federal government is in the public interest.

(e) Simultaneously with submission of the leasing program required under (b) of this section, the commissioner shall submit to the legislature a report containing the following:

(1) the schedule of all lease sales held during the preceding calendar year, the bidding method or methods utilized, and an analysis of the results of the bidding;

(2) if determined, a description of the bidding methods to be used for all lease sales to be held during the current and next two succeeding calendar years;

(3) the reasons a particular bidding method has been selected.

(f) The commissioner may issue oil and gas leases on state land to the highest responsible qualified bidder determined by competitive bidding under regulations adopted by the commissioner. Bidding may be by sealed bid or according to any other bidding procedure the commissioner determines is in the best interests of the state. Whenever, under any of the leasing methods listed in this subsection, a royalty share is reserved to the state, it shall be delivered in pipeline quality and free of all lease or unit expenses, including but not limited to separation, cleaning, dehydration, gathering, salt water disposal, and preparation for transportation off the lease or unit area. Following a pre-sale analysis, the commissioner may choose at least one of the following leasing methods:

(1) a cash bonus bid with a fixed royalty share reserved to the state of not less than 12 1/2 per cent in amount or value of the production removed or sold from the lease;

(2) a cash bonus bid with a fixed royalty share reserved to the state of not less than 12 1/2 per cent in amount or value of the production removed or sold from the lease and a fixed share of the net profit derived from the lease of not less than 30 per cent reserved to the state;

(3) a fixed cash bonus with a royalty share reserved to the state as the bid variable but no less than 12 1/2 per cent in amount or value of the production removed or sold from the lease;

(4) a fixed cash bonus with the share of the net profit derived from the lease reserved to the state as the bid variable;

(5) a fixed cash bonus with a fixed royalty share reserved to the state of not less than 12 1/2 per cent in amount or value of the production removed or sold from the lease with the share of the net profit derived from the lease reserved to the state as the bid variable;

(6) a cash bonus bid with a fixed royalty share reserved to the state based on a sliding scale according to the volume of production or other factor but in no event less than 12 1/2 per cent in amount or value of the production removed or sold from the lease;

(7) a fixed cash bonus with a royalty share reserved to the state based on a sliding scale according to the volume of production or other factor as the bid variable but not less than 12 1/2 per cent in amount or value of the production removed or sold from the lease.

(g) The share of the net profit derived from a lease reserved to the state under (f) of this section is royalty sale proceeds for the purposes of the Alaska permanent fund under AS 37.13.010.

(h) The commissioner may include terms in any oil and gas lease imposing a minimum work commitment on the lessee. These terms shall be made public before the sale, and may include appropriate penalty provisions to take effect in the event the lessee does not fulfill the minimum work commitment. If it is demonstrated that a lease has been proven unproductive by actions of adjacent lease holders, the commissioner may set aside a work commitment. The commissioner may waive for a period not to exceed one two-year period any term of a minimum work commitment if the commissioner makes a written finding either that conditions preventing drilling or exploration were beyond the lessee's reasonable ability to foresee or control or that the lessee has demonstrated through good faith efforts an intent and ability to drill or develop the lease during the term of the waiver.

(i) The commissioner may provide for the establishment of an exploration incentive credit system under which a lessee of state land drilling an exploratory well on that land may earn credits based upon the footage drilled and the region in which the well is situated. The commissioner may also provide for credits to be earned by persons performing geophysical work on state land, if that work is performed during the two seasons immediately preceding an announced lease sale and on land included within the sale area and the geophysical information is made public following the sale. Credits may not exceed 50 percent of the cost of the drilling or geophysical work. Credits may be used during a limited period established by the commissioner and may be assigned during that period. Credits may be applied against (1) oil and gas royalty and rental payments payable to the state or (2) taxes payable under AS 43.55. A credit may not exceed 50 percent of the payment toward which it is being applied. Amounts due the

Alaska permanent fund (AS 37.13.010) shall be calculated before the application of credits under this subsection.

(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. 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.

(k) The commissioner shall define all terms and adopt all regulations necessary for a reasonable understanding and evaluation of a particular bidding method before the public announcement of the terms of proposed sale employing that method.

(l) Subject to the provisions of AS 31.05, the commissioner has discretion to enter into an agreement whereby, with the consent of the lessee, the state's royalty share of oil and gas production may be stored or retained in storage by the lessee, or the commissioner may enter into an agreement with one or more of the affected field lease holders to trade current royalty production from a field for a like amount, kind, and quality of future production, on the condition that the state receives back its stored or traded royalty share during the first half of the estimated field life or no later than 15 years after start of production, whichever is sooner.

(m) An oil and gas lease must cover a reasonably compact area not exceeding 5,760 acres, and may be for a maximum period of 10 years, except that the commissioner may issue a lease for a period not less than five years upon a finding that it is in the best interests of the state. An oil and gas lease shall be automatically extended if and for so long thereafter as oil or gas is produced in paying quantities from the lease or if the lease is committed to a unit approved by the commissioner. A lease issued under this section covering land on which there is a well capable of producing oil or gas in paying quantities does not expire because the lessee fails to produce oil or gas unless the lessee is allowed reasonable time to place the well on a producing status. Upon extension, the commissioner may increase lease rentals so long as the increased rental rate does not exceed 150 per cent of the rate for the preceding year. If drilling has commenced on the expiration date of the primary term of the lease and is continued with reasonable diligence, including such operations as redrilling, sidetracking, or other means necessary to reach the originally proposed bottom hole location, the lease continues in effect until 90 days after drilling has ceased and for so long thereafter as oil or gas is produced in paying quantities. An oil and gas lease issued under this section which is subject to termination by reason of cessation of production

does not terminate if, within 60 days after production ceases, reworking or drilling operations are commenced on the land under lease and are thereafter conducted with reasonable diligence during the period of nonproduction.

(n) The commissioner may establish by regulation that after a well has been plugged and abandoned, the rental rate which was in effect during the year of abandonment is maintained for the remainder of the term. Rental is payable in advance and continues until income to the state from royalty or net profit share exceeds rental income to the state for that year. Oil and gas leases shall provide for payment to the state of rental on the following basis:

- (1) for the first year, \$1.00 per acre;
- (2) for the second year, \$1.50 per acre;
- (3) for the third year, \$2.00 per acre;
- (4) for the fourth year, \$2.50 per acre;
- (5) for the fifth and following years, \$3.00 per acre.

(o) Upon timely application as provided by regulation, the state may issue to the holder of a federal or private lease, a state shoreland lease covering land within the exterior boundaries of the federal or private lease which has been excluded on the basis of navigability or which is later administratively or judicially determined to be shoreland. The term of such a state shoreland lease shall be the same as the term of the federal or private lease.

(p) To conserve the natural resources of all or a part of an oil or gas pool, field, or like area, the lessees and their representatives may unite with each other, or jointly or separately with others, in collectively adopting or operating under a cooperative or a unit plan of development or operation of the pool, field, or like area, or a part of it, when determined and certified by the commissioner to be necessary or advisable in the public interest. The commissioner may, with the consent of the holders of leases involved, establish, change, or revoke drilling, producing, and royalty requirements of the leases and adopt regulations with reference to the leases, with like consent on the part of the lessees, in connection with the institution and operation of a cooperative or unit plan as the commissioner determines necessary or proper to secure the proper protection of the public interest. The commissioner may require oil and gas leases issued under this section to contain a provision requiring the lessee to operate under a reasonable cooperative or unit plan, and may prescribe a plan under which the lessee must operate. The plan must adequately protect all parties in interest, including the state.

(q) A plan authorized by (p) of this section, which includes land owned by the state, may contain a provision vesting the commissioner, or a person, committee, or state agency, with authority to modify from time to time the rate of prospecting and development and the quantity and rate of production under the plan. All leases operated under a

plan approved or prescribed by the commissioner are excepted in determining holdings or control under AS 38.05.140. The provisions of this section concerning cooperative or unit plans are in addition to and do not affect AS 31.05.

(r) Producing acreage on a known geologic structure of a producing oil or gas field is excluded from chargeability as against the acreage limitation provisions of AS 38.05.140.

(s) When separate tracts cannot be individually developed and operated in conformity with an established well-spacing or development program, a lease, or a portion of a lease, may be pooled with other land, whether or not owned by the state, under a communization or drilling agreement providing for an apportionment of production or royalties among the separate tracts of land comprising the drilling or spacing unit when determined by the commissioner to be in the public interest. Operations or production under the agreement are considered as operations or production as to each lease committed to the agreement.

(t) The commissioner may prescribe conditions and approve, on conditions, drilling, or development contracts made by one or more lessees of oil or gas leases, with one or more persons, when, in the discretion of the commissioner, the conservation of natural resources or the public convenience or necessity requires it or the interests of the state are best served. All leases operated under approved drilling or development contracts and interests under them, are excepted in determining holding or control under AS 38.05.140.

(u) To avoid waste or to promote conservation of natural resources, the commissioner may authorize the subsurface storage of oil or gas whether or not produced from state land, in land leased or subject to lease under this section. This authorization may provide for the payment of a storage fee or rental on the stored oil or gas, or, instead of the fee or rental, for a royalty other than that prescribed in the lease when the stored oil or gas is produced in conjunction with oil or gas not previously produced. A lease on which storage is so authorized shall be extended at least for the period of storage and so long thereafter as oil or gas not previously produced is produced in paying quantities.

(v) *[Repealed, § 36 ch 94 SLA 1980.]*

(w) Notwithstanding any other provisions of this section, land which has been offered for lease within the previous five years and which received no bids at competitive sale or for which no bid was accepted may be, at the discretion of the commissioner, immediately offered for lease, under regulations adopted by the commissioner, upon terms appearing most advantageous to the state; however, non-competitive leasing is prohibited. The commissioner shall establish a royalty determined to be in the public interest but not less than 12 1/2 percent. A lease must provide for payment to the state or rental but

need not adhere to the rental schedule in (n) c. this section nor to the 5,760-acres-per-lease limitation in (m) of this section. The lease term may not exceed five years except as provided in (m) and (o) of this section.

(x) A lessee conducting or permitting any exploration for, or development or production of, oil or gas on state land shall provide the commissioner access to all noninterpretive data obtained from that lease and shall provide copies of that data, as the commissioner may request. The confidentiality provisions of AS 38.05.035 apply to the information obtained under this subsection.

(y) A noncompetitive lease existing at October 10, 1978 shall be extended for a period of two years and so long thereafter as oil and gas is produced in paying quantities. A noncompetitive lease extended under this subsection is subject to the regulations in force at the expiration of the initial five-year term of the lease. No extension may be granted, however, unless within a period of 90 days before the expiration date an application for extension is filed by the record title holder or an assignee whose assignment has been filed for approval, or an operator whose operating agreement has been filed for approval.

(z) No leases may be issued under this section without the inclusion of the following language: "The landowners' royalty share of the unit production allocated to each separately owned tract shall be regarded as royalty to be distributed to and among, or the proceeds of it paid to, the landowners, free and clear of all unit expense and free of any lien for it." Leases issued in violation of this subsection shall, for all purposes, be construed as containing the language required by this subsection.

(aa) Within 90 days after the written request of a lessee of a lease issued under this section, the commissioner shall enter into an agreement with the lessee to use the price for the gas established in the contract between the lessee and a gas or electric utility as the value of the state's royalty share of gas production sold by the lessee under the contract unless the commissioner makes a written finding, based on clear and convincing evidence, that

- (1) the contract price is unreasonably low;
- (2) the prospective reduction in royalty receipts would not be balanced by increased benefits to in-state gas and electric consumers;
- (3) the lessee and the utility are related in management, ownership, or other aspect; and
- (4) the contract price is not in the best interest of the state.

(bb) In (aa) of this section

(1) "gas or electric utility" includes an electric cooperative organized under AS 10.25, a municipal utility, and a gas or electric utility regulated under AS 42.05; provided that if the contract gas is transmitted to consumers through a pipeline and the gas utility either owns the pipeline or is related in ownership to the owner of the pipe-

line, then the gas utility qualifies as a "gas or electric utility" within the meaning of this paragraph only if it is bound or agrees to be bound by the covenants set out in AS 38.35.120;

(2) "price for the gas established in the contract" includes tax reimbursement amounts, deliverability and other charges, and other forms of consideration paid by the gas or electric utility under the contract;

(3) "state's royalty share of gas production" does not include the state's royalty share of gas production from land patented to the state under

(A) P.L. 84-830, 70 Stat. 709 (Alaska Mental Health Enabling Act);

(B) 38 Stat. 1214 (Act of March 4, 1915); or

(C) 43 U.S.C. 1635 in settlement of the claims of the state under 38 Stat. 1214. (§ 3(7) art VIII ch 169 SLA 1959; am § 13 ch 61 SLA 1960; am § 1 ch 124 SLA 1962; am §§ 4 — 7 ch 30 SLA 1964; am § 20 ch 70 SLA 1964; am § 2 ch 91 SLA 1967; am § 1 ch 65 SLA 1969; am § 1 ch 86 SLA 1970; am § 1 ch 155 SLA 1978; am § 16 ch 160 SLA 1978; am §§ 3, 4 ch 65 SLA 1979; am § 6 ch 18 SLA 1980; am § 36 ch 94 SLA 1980; am §§ 1 — 5 ch 111 SLA 1980; am §§ 11, 12 ch 161 SLA 1984; am § 1 ch 89 SLA 1985; am § 2 ch 55 SLA 1986)

Cross references. — For legislative findings in connection with the 1986 amendment to this section, see § 1, ch. 55, SLA 1986, in the Temporary and Special Acts.

Effect of amendments. — The 1985 amendment in subsection (h) substituted "If it is" for "Should it be" at the beginning of the third sentence and added the last sentence.

The 1986 amendment added subsections (aa) and (bb).

Editor's notes. — Section 5, ch. 55, SLA 1986 provides that subsection (aa) of this section "applies to agreements to establish for a lease issued under AS 38.05.180 the in-value royalties on gas production that is sold under a contract entered into on or after May 30, 1986, between the state's lessee and a gas or electric utility."

Sec. 38.05.183. Sale of royalty. (a) The sale, exchange or other disposal of a mineral obtained by the state as a royalty under AS 38.05.182, or the sale, exchange or other disposal in whole or in part of a right to receive future mineral production under a state lease under this chapter, shall be by competitive bid and the sale, exchange or other disposal made to the highest responsible bidder, except that competitive bidding is not required when the commissioner, after prior written notice to the Alaska Royalty Oil and Gas Development Advisory Board under AS 38.06.050, determines that the best interest of the state does not require it or that no competition exists.

(b) When competitive bids are required, the commissioner, after prior written notice to the Alaska Royalty Oil and Gas Development Advisory Board, may reject all bids on a determination that because of the amount of the bids, the lack of responsibility on the part of the bidders, or for reasons consistent with the criteria set out in AS 38.06.070, the acceptance of the bids would not be in the best interest of the state.

FIVE-YEAR OIL AND GAS LEASING PROGRAM

JANUARY 1988

AS 38.05.180



Alaska Department of

**NATURAL
RESOURCES**
DIVISION OF OIL & GAS

Proven and Probable Oil Reserves on Currently Leased State Lands
North Slope, Alaska (1)

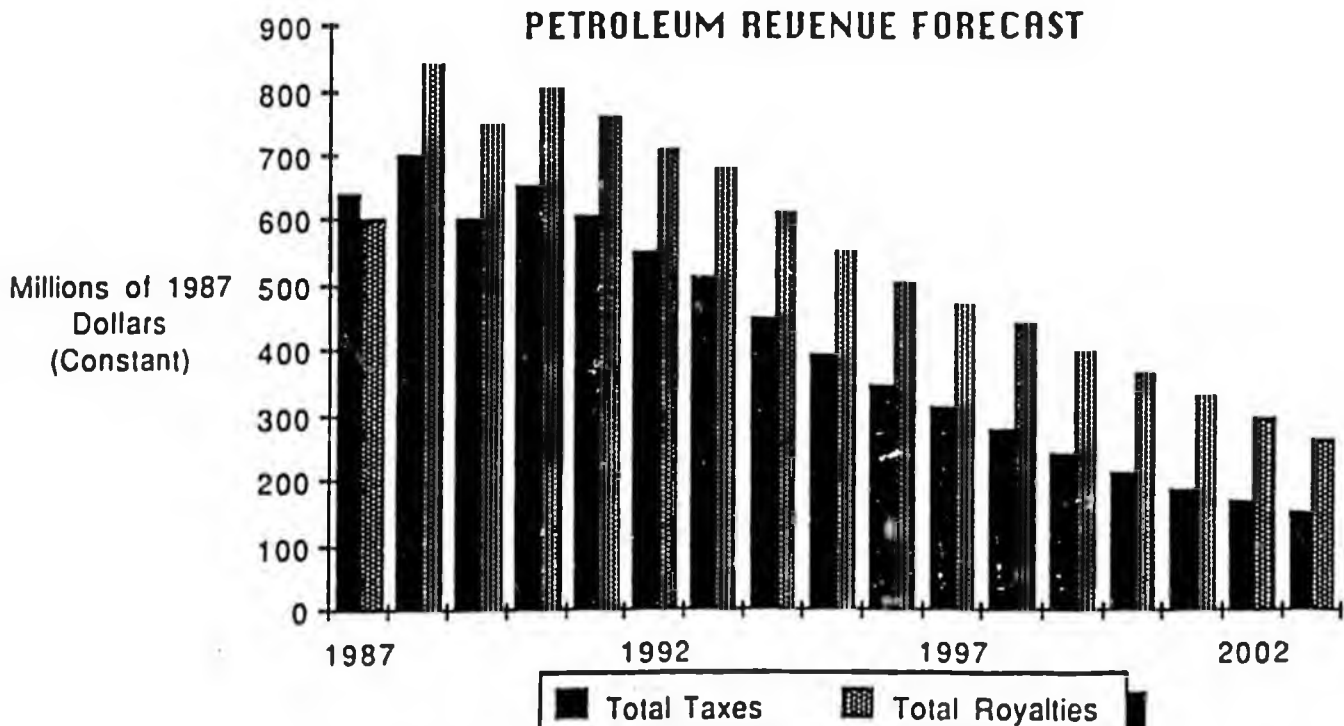
AREA	Range of Reserves (millions of barrels)		
	low	most probable	high
Prudhoe Bay Unit	4100	4800	6000
Kuparuk River Unit	600	900	1100
Milne Point Area	0	60	95
Gwydyr Bay Area	0	0	10
Shallow Cretaceous Sands	0	1500	3000
Prudhoe Bay Lisburne Reservoir	280	380	580
Endicott	270	370	445
Point Thomson Area and Flexman Island Area (2)	0	0	350
Beaufort Sea	0	0	300
Totals	5250	8010	11880
Totals (minus Prudhoe Bay)	1150	3210	5880

(1) As of 1/88, estimates by W. Van Dyke, Department of Natural Resources
Division of Oil & Gas.

(2) Oil and gas condensate.

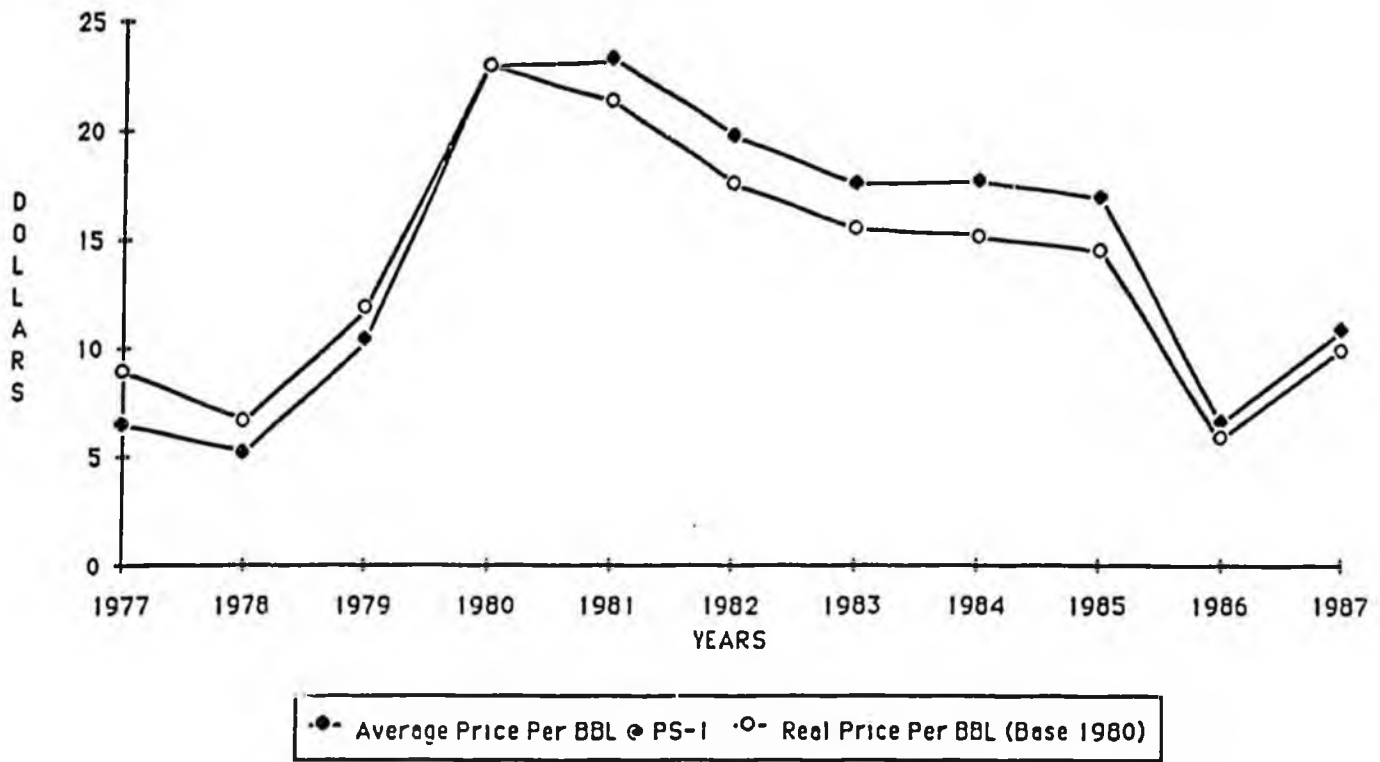
Constant Dollar
Petroleum Production Revenue Forecast
(Values in Millions of 1987 Dollars)

Fiscal Year	Total Severance and Conservation Taxes	Total Royalties	Total Petroleum Revenues
1987	642.86	604.06	1246.92
1988	700.81	843.40	1544.22
1989	604.13	748.08	1352.21
1990	655.63	803.20	1458.83
1991	606.79	760.50	1367.29
1992	551.96	710.97	1262.93
1993	512.47	679.20	1191.67
1994	451.00	613.87	1064.87
1995	394.82	552.95	947.77
1996	349.44	507.44	856.88
1997	315.59	473.25	788.85
1998	278.82	440.27	719.08
1999	241.53	399.50	641.03
2000	213.35	363.64	576.99
2001	187.45	331.06	518.51
2002	168.26	296.55	464.81
2003	149.86	264.10	413.96

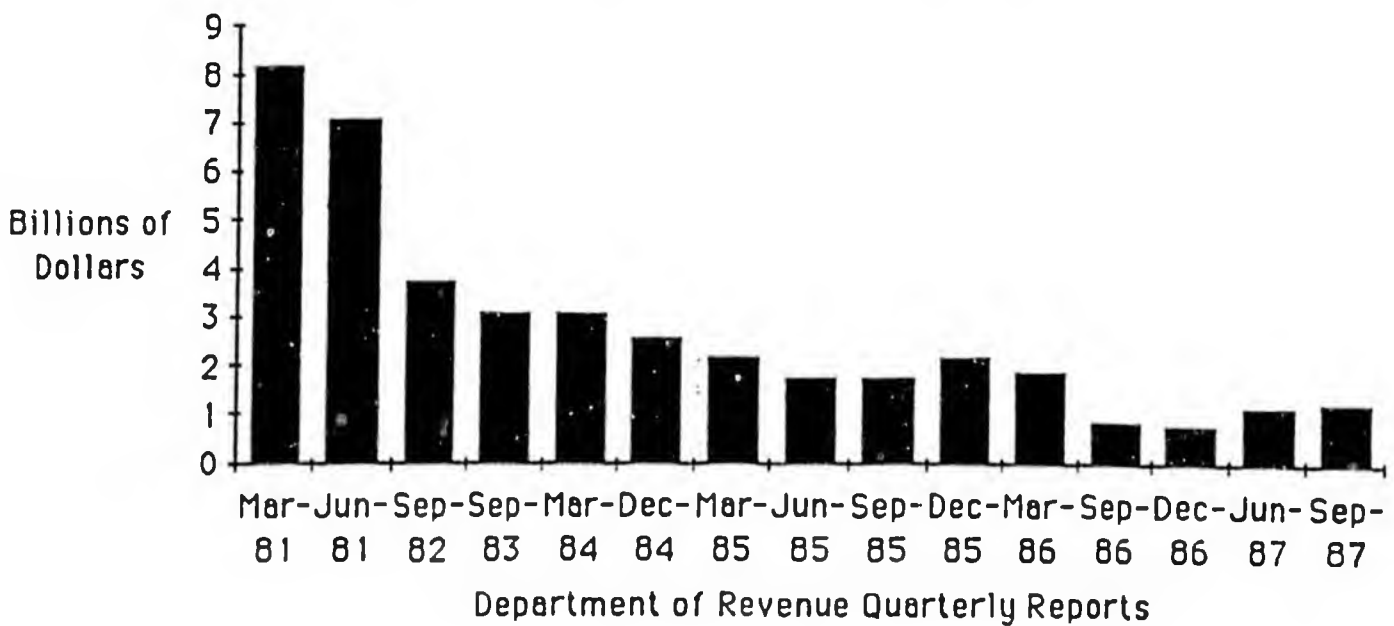


Source: Alaska Dept. of Revenue, Petroleum Production Revenue Forecast, Quarterly Report, Sept. 1987

Average Price Per Barrel at Pump Station No. 1



State Revenue Forecasts for Fiscal '87



North Slope Petroleum Development Summary (as of October 1987)

FIELD NAME	Prudhoe Bay	Lisburne	Kuparuk	Milne Point	Endicott
Discovery Date	12/67	12/67	4/69	10/69	3/78
Size of Oil Pool (sq. mi.)	400	125	400	45	40
Production Start-up Date	6/77	12/86	12/81	11/85	10/87
Production to Date (mill. bbls)	4,918	5	292	5 (1)	(2)
1986 Average Production Rate (barrels/day)	1,554,000	40,000	257,000	12,900	100,000
Remaining Reserves:					
million barrels	4,672	395	1,308	55	375
billion cubic feet	26,000	625	565	0	730
Existing Wells	828	37	505	29	4 (3)
Drill Sites/Pads	38	5	34	4	2
Production Centers	6	1	3	1	1
Base Camps	2	1	1	1	1
Construction Camps	2	0	1	1	1
Power Plants	1	1	1	1	1
Topping Plants	1	0	1	0	0
Gas Compression Plants	1	1	1	1	1
Sea water Treatment Plants	1	0	1	0	1
Enhanced Oil Recovery Plants	1	0	1	0	0
Docks	1	0	1	0	1
Causeways	1	2	0	0	1
Water Injection Centers	2	0	(4)	(4)	0
Associated Support and Industrial Sites	1	0	1	0	0
Airports and Company Operated Airstrips	2	0	1	0	0
Pipelines (miles)	63 (5)	(5)	418	15	28
Roads (miles)	218 (5)	(5)	94	19	15
Acresage Filled (acres)	5374 (5)	(5)	1409	54	198
River Crossings (number)	3 (5)	(5)	5	1	1

(1) Field shut in January 1987

(2) Production commenced October 1987

(3) 80-100 wells planned

(4) Water Injection system included in production centers

(5) Lisburne numbers included with Prudhoe Bay

Standard Alaska Production Company has recently applied for discovery royalty for a new field, Niakuk, located offshore between the Lisburne and Endicott fields. Standard currently is considering various development plans. No estimate of reserves is available at this time.

Camp Lonely, located 80 miles west of Oliktok Point and the Kuparuk field, has served as a staging area for western Beaufort Sea activities. The camp was constructed by the federal government for exploration activities in the National Petroleum Reserve Alaska. The Cook Inlet Region, Incorporated (CIRI) bought the camp in 1982. CIRI plans to operate the facility as a joint venture with Arctic Slope Regional Corporation. Infrastructure includes a 100 person camp, offices, carpentry shop, communications shop, sewage treatment plant, generating system, vehicle maintenance shop, a large tank farm, and warm and cold storage warehouses. Inventory on hand consists of drill pipe, casing and drilling mud.

In addition to these areas, future development is possible from the West Sak Reservoir in the Prudhoe Bay Unit, Seal Island, Tern Island, Sandpiper Island, Colville Delta, Flaxman Island/Point Thomson, Hemi Springs Unit, ARCO Alaska's K-10 and Bullen Point Staging Area.

EXPLORATION INCENTIVE CREDITS
Report Month: October 1987

ADL	WELL	COMPANY	CERTIFICATION DATE	TOTAL AMOUNT
343109	G-2 Well	Exxon	10/5/83	\$6,197,625.00
		Standard Alaska	12/27/83	\$4,152,408.75
		BP&E	10/5/83	\$2,045,216.25
344010	Leffingwell	Arco	10/2/84	\$3,706,000.00
		Union	10/2/84	\$3,706,000.00
344033	J-1 Well	Exxon	10/31/84	\$5,119,500.00
355005	Long Island Well	Exxon	11/14/84	\$1,378,076.00
		Standard Alaska	11/14/84	\$1,378,076.00
345126	Totek Hills	Arco Alaska	8/02/85	\$715,530.81
355037	Colville Delta #1	Texaco	07/09/86	\$637,500.00
		Amerada Hess	07/09/86	\$888,594.00
		Diamond Shamrock(A)	07/09/86	\$100,128.00
		Mobil	02/05/87	\$432,511.00
		Placid Oil (C)	07/09/86	\$314,679.00
		Union Texas (B)	07/09/86	\$475,631.00
		Rosewood Resources	07/09/86	\$12,662.00
		Hunt Pet Co.	07/09/86	\$11,213.00
364478	Colville Delta Area AHC 25-13-6 #1 well	Amerada Hess	10/12/87	\$677,853.00
		Union Texas	10/12/87	\$508,390.00
		Texaco	10/12/87	\$225,951.00
		Maxus Expl.	10/12/87	\$225,951.00
		Placid Oil	10/12/87	\$129,115.00
		Rosewood Res.	10/12/87	\$21,360.00
		Hunt Pet Co.	10/12/87	\$18,987.00
		355038	Colville Delta #2	Amerada Hess
Union Texas	10/28/87			\$205,106.95
Texaco	10/28/87			\$273,475.93
Maxus Expl.	10/28/87			\$273,475.93
Placid Oil	10/28/87			\$423,982.26
Rosewood Res.	10/28/87			\$77,561.49
Hunt Pet Co.	10/28/87			\$68,943.50
355039	Colville Delta #3			Amerada Hess
		Union Texas	10/28/87	\$91,012.03
		Texaco	10/28/87	\$364,048.13
		Maxus Expl.	10/28/87	\$364,048.13
		Placid Oil	10/28/87	\$178,918.37
		Rosewood Res.	10/28/87	\$34,416.31
		Hunt Pet Co.	10/28/87	\$30,592.28
GRAND TOTAL				\$36,575,980.71

- (A) Assigned \$432,511 of EIC to Mobil Oil Corp. effective 02/05/87
 (B) Assigned entire EIC to BP Alaska effective 02/03/87
 (C) Assigned entire EIC to Texaco Inc. effective 03/31/87

Source: Alaska Department of Natural Resources, Division of Oil and Gas

SUMMARY OF PAST COMPETITIVE LEASE SALES

<u>Sale No.</u>	<u>Acres Offered</u>	<u>Percent Leased</u>	<u>Acres Leased</u>	<u>Average \$/Acre</u>	<u>Tracts Offered</u>	<u>Tracts Leased</u>	<u>Bonus Received</u>
1.	88,055.00	87.66	77,191.00	52.08	37	31	\$4,020,342.43
2.	17,567.51	93.96	16,505.57	24.70	27	26	407,654.54
3.	73,047.70	31.30	22,866.70	1.55	26	9	35,325.31
4.	400.00	100.00	400.00	679.04	3	3	271,614.40
5.	97,876.00	98.06	95,980.00	74.71	102	99	7,170,464.88
6.	13,257.00	100.00	13,257.00	8.35	6	6	110,671.55
7.	255,708.44	73.14	187,025.40	79.47	68	53	14,863,049.33
8.	1,061.70	100.00	1,061.70	4.80	8	8	5,097.00
9.	315,668.93	87.77	264,437.13	59.43	89	76	15,714,112.60
10.	167,583.06	84.43	141,490.51	29.23	200	158	4,136,224.92
11.		C A N C E L L E D					
12.	346,782.40	71.25	247,089.00	12.31	308	207	3,042,680.74
13.	1,194,373.00	60.51	722,659.00	7.66	610	341	5,537,100.94
14.	754,033.00	53.45	403,000.00	15.25	297	159	6,145,472.59
15.	403,042.06	74.87	301,751.28	15.49	293	216	4,674,343.74
16.	184,410.05	72.66	133,987.29	52.55	205	153	7,040,880.17
17.	19,229.70	96.67	18,589.70	7.33	36	35	136,279.67
18.	47,729.00	88.82	42,397.00	34.88	23	19	1,478,777.23
19.	2,560.00	R E J E C T E D 12/9/74					
20.	311,249.89	82.39	256,447.31	73.14	295	220	18,757,340.88
21.	346,623.00	47.59	164,961.00	18.24	308	147	3,009,224.00
22.	111,199.48	54.20	60,272.15	17.29	230	125	1,042,219.90
23.	450,858.47	91.50	412,548.47	2,181.66	179	164	900,041,605.34
24.	196,635.07	47.10	92,617.97	4.92	244	106	455,640.57
25.	325,401.42	54.78	178,244.71	7.43	259	152	1,324,673.40
26.	399,920.96	44.50	177,972.56	8.75	218	105	1,557,848.84
27.	308,400.81	36.93	113,891.71	9.93	210	96	1,130,324.51
28.	166,648.04	58.69	97,803.69	253.77	98	62	24,819,189.91
29.	278,269.43	50.00	127,119.65	8.19	164	82	1,040,909.98
29A.		C A N C E L L E D					
29B.	34,678.04	100.00	34,678.04	4.56	20	20	158,041.78
30.	341,140.18	86.80	296,307.65	1,914.87	71	62	567,391,497.48
31.	196,268.00	100.00	196,268.00	63.12	78	78	12,387,469.60
33.	815,000.00	50.99	429,978.16	10.00	202	103	4,299,781.60
32.	202,836.74	75.15	152,428.22	10.00	78	59	1,524,282.20
35.	601,171.50	21.82	131,190.69	10.00	149	31	1,311,906.90
36.	56,862.41	100.00	56,862.41	573.02	13	13	32,583,451.87
37.	852,603.08	19.80	168,849.00	3.33	217	33	562,943.90
37A.	1,874.60	100.00	1,874.60	52.00	1	1	97,479.20
34.	1,231,517.00	46.44	571,954.00	46.71	261	119	26,713,018.17
38.		C A N C E L L E D					
39.	211,988.08	100.00	211,988.08	99.05	42	42	20,998,100.98
40.	1,044,745.02	42.44	443,354.88	7.17	284	140	3,177,178.26
43&43A.	374,152.89	95.64	357,863.02	94.53	84	81	33,827,377.15
41.	1,437,930.46	19.39	278,938.96	3.03	308	63	843,964.92
46A.	248,584.64	76.45	190,041.54	13.28	65	50	2,523,333.71
45A.	606,385.00	27.19	164,885.00	28.25	113	32	4,657,478.08
47.	192,568.81	94.80	182,559.81	63.79	50	48	11,645,003.26
48.	526,101.00	50.70	266,736.00	9.16	104	54	2,444,341.85
48A.	42,053.00	100.00	42,053.00	12.13	11	11	510,255.16
49.	1,189,099.61	33.21	394,880.74	2.40	260	98	947,171.27
51.	592,142.00	17.99	100,632.00	2.88	119	26	289,624.90
50.	118,147.31	100.00	118,147.31	56.05	35	35	6,621,722.81
	17,797,475.92	52.63	9,165,038.61	189.54	7,108	4,057	1,763,484,494.32

STATE COMPETITIVE SALE AREAS

<u>SALE</u>	<u>DATE</u>	<u>DESCRIPTION</u>	<u>BIDDING METHOD</u>
1. Wide Bay; offshore Kenai to Ninilichik; Kachemak Bay	12/10/59	Offshore	Cash Bonus Bid with fixed Royalty
2. Kenai Peninsula; West Forelands; Nushagak Bay	7/13/60	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
3. Katalla; Kalifonsky Beach; Herendeen Bay; offsh. Kodiak	12/7/60	Offshore	Cash Bonus Bid with fixed Royalty
4. Uplands Ninilichik	1/25/61	Uplands	Cash Bonus Bid with fixed Royalty
5. Tyonek, Controller Bay; Pavlov Bay	5/23/61	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
6. Controller Bay (Special Sale)	8/4/61	Tidelands	Cash Bonus Bid with fixed Royalty
7. Icy, Yakutat & Kachemak Bays; So. Kenai Penin.; N. Cook Inlet	12/19/61	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
8. Big Lake	4/24/62	Uplands	Cash Bonus Bid with fixed Royalty
9. Tyonek; W. Forelands; Knik Arm/Kalgin Island; Chisik Island; So. Kenai Penin.; Wide Bay	7/11/62	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
10. Tyonek; Kenai Offshore & Uplands	5/8/63	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
11. Yakutat Bay	C A N C E L L E D		
12. S. of Forelands; Knik & Turnagain Arms; Upper Cook Inlet; Kenai Pen.; Tyonek to Katunui River	12/11/63	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
13. Fire Island; W. Forelands; Trinity Islands; Prudhoe West	12/9/64	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
14. Prudhoe West to Canning River	7/14/65	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
15. Fire Island & N. Cook Inlet; Kalgin Island & Redoubt Bay; Knik; S. Kenai Peninsula	9/28/65	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
16. Kenai Penin. & Knik; Middleton Island; Fire Island, Redoubt Bay; Kalgin Island, Iliamna Mt.; N. Cook Inlet	7/19/66	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
17. Big Lake; Kenai	11/22/66	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
18. Katalla; Prudhoe	1/24/67	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
19. Lower Cook Inlet	3/28/67	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
20. Big Lake; Knik; Iliamna Mt.; Belukha; N. Cook Inlet; Kalgin Island; Ninilichik	7/25/67	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
21. Fort Helden & Port Moller	3/26/68	Offshore	Cash Bonus Bid with fixed Royalty
22. Big Lake; Knik; Belukha; West Forelands; Ninilichik; Kachemak & Kenai	10/29/68	Uplands	Cash Bonus Bid with fixed Royalty

STATE COMPETITIVE SALE AREAS

<u>SALE</u>	<u>DATE</u>	<u>DESCRIPTION</u>	<u>BIDDING METHOD</u>
23. Colville to Canning River	9/10/69	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
24. Big Lake; Knik; Kenai; West Forelands	5/12/71	Uplands	Cash Bonus Bid with fixed Royalty
25. Big Lake; Knik; Belukha; North Cook Inlet	9/26/72	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
26. Cook Inlet (Between Forelands & Turnagain Arm)	12/11/72	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
27. Tuxedni; Ninilichik; Kenai; Kalgin	5/9/73	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
28. Ninilichik; Kachemak Bay; Belukha	12/13/73	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
29. Kalgin & West Forelands; Chisik; Ninilichik N. Cook Inlet; Turnagain; Big Lake	10/23/74	Offshore Uplands	Cash Bonus Bid with fixed Royalty
29A. Point Thomson	C A N C E L L E D		
29B. Copper River Basin	7/24/79	Uplands	Cash Bonus Bid with fixed Royalty
30. Beaufort Sea (Joint Federal & State Sale)	12/12/79	Offshore	Cash Bonus w/fixed Sliding Scale Royalty; Net Profit Share (NPS) Bid w/fixed Royalty and fixed Cash Bonus
31. Prudhoe Uplands	9/16/80	Uplands	Cash Bonus Bid with fixed Royalty and fixed NPS
32. Lower Cook Inlet	8/25/81	Offshore/Uplands	Royalty Bid with fixed Cash Bonus
33. Upper Cook Inlet	5/13/81	Offshore/Uplands	Royalty Bid with fixed Cash Bonus
35. Lower Cook Inlet	2/2/82	Offshore/Uplands	Royalty Bid with fixed Cash Bonus
36. Beaufort Sea	5/26/82	Offshore/Uplands	Cash Bonus Bid with fixed Royalty and fixed NPS
37. Middle Tanana & Copper River Basins	8/24/82	Uplands	Cash Bonus Bid with fixed Royalty and fixed NPS
37A. Chukchi River, Exempt	8/24/82	Uplands	Cash Bonus Bid with fixed Royalty
34. Prudhoe Uplands	9/28/82	Uplands	Cash Bonus Bid with fixed Royalty and fixed NPS
38. Norton Basin	C A N C E L L E D		

STATE COMPETITIVE SALE AREAS

<u>SALE</u>	<u>DATE</u>	<u>DESCRIPTION</u>	<u>BIDDING METHOD</u>
39. Beaufort Sea	5/17/83	Offshore/Uplands	Cash Bonus Bid with fixed Royalty and fixed NPS
40. Upper Cook Inlet	9/28/83	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
43. Beaufort Sea	5/22/84	Offshore	Cash Bonus Bid with fixed Royalty
43A. Colville River Delta/Prudhoe Bay Uplands	5/22/84	Offshore/Uplands	Cash Bonus Bid with fixed Royalty and fixed NPS
41. Bristol Bay Uplands	9/18/84	Uplands	Cash Bonus Bid with fixed Royalty
46A. Cook Inlet Exempt	2/26/85	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
45A. North Slope Exempt	9/24/85	Uplands	Cash Bonus Bid with fixed Royalty
47. Kuparuk Uplands	9/24/85	Uplands	Cash Bonus Bid with fixed Royalty
48. Kuparuk Uplands	2/25/86	Uplands	Cash Bonus Bid with fixed Royalty
48A. Mikkelson	2/25/86	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
49. Cook Inlet	6/24/86	Offshore/Uplands	Cash Bonus Bid with fixed Royalty
51. Prudhoe Bay Uplands	1/27/87	Uplands	Cash Bonus Bid with fixed Royalty
50. Camden Bay	6/30/87	Offshore	Cash Bonus Bid with fixed Royalty

CURRENT STATE OIL & GAS LEASE INVENTORY
(December 1987)

CATEGORY	NO. OF LEASES	NO. OF ACRES
ACTIVE LEASES	1155	3,843,827
OFFSHORE		1,629,247
ONSHORE		2,214,580
TOTAL PRODUCING LEASES	278	548,719
UNITIZED LEASES	436	957,078
COMPETITIVE LEASES	1125	3,820,104
OFFSHORE		1,629,247
ONSHORE		2,190,857
NONCOMPETITIVE LEASES	12	8,890
OFFSHORE		-0-
ONSHORE		8,890
NET PROFIT SHARE LEASES	141	620,414
OFFSHORE		290,795
ONSHORE		329,620
CONDITIONAL LEASES (1)	84	176,950
OFFSHORE		17,382
ONSHORE		159,567
TRANSFERRED FEDERAL LEASES (2)	15	14,181
OFFSHORE		-0-
ONSHORE		14,180
SHORELAND PREFERENCE LEASES (3)	3	651

(1) State leases issued prior to May 6, 1969 on lands which the state has not yet received patent.

(2) Federal leases which have since been transferred to state ownership.

(3) State leases for the bottoms of navigable waterbodies issued to federal leaseholders whose tracts surround those waterbodies.

PARTICIPATING AREAS

Study shows as much as 25% error

by Ruth A. Maurer and Bruce C. Kirchhoff

Millions of dollars are invested in scientific exploration and development in federal oil and gas units. Yet participating area determinations are often made by simple observation.

And those determinations can be wrong.

Those are among the conclusions of a sample study of 30 successful exploratory wells in Colorado and Wyoming conducted at the Colorado School of Mines. Using a precise, computer-generated determination of the participating areas, the study showed 16 of the 30 improperly included or excluded acreage.

Even state-of-the-art technology cannot pinpoint the optimal well location within a reservoir.

Geophysical and geological information can only suggest, within a section or quarter-section of the public land survey, the well location having the greatest potential.

Geological data is of limited use or accuracy in determining, upon completion of a well, which lands are reasonably proved productive of unitized substances in paying quantities, such that certain lands should or should not be included in a participating area. Therefore, a technologically sound proxy must be developed to determine the boundaries from within which oil and gas are actually produced.

Several methods of allocation are used in the region, the study revealed. New Mexico uses a drilling block system, defined by a state well-spacing statute. Montana attempts, optimistically, to use only geological information in its determination of participating areas. Utah has reportedly processed relatively few operating federal units, but uses the circle-tangent method.

Off target

This chart shows both the working interest for each participating area as approved by working interest owners and accepted by the ELM, and as precisely determined by the software used in the study. Errors ranged up to 25%.

Colorado and Wyoming are the only Rocky Mountain states surveyed that extensively use the circle-tangent method. This method reasonably assumes that the fluid flow from the reservoir into the wellbore is in the radial direction.

The radius of this drainage boundary is determined primarily by geologic and engineering information. Consid-

eration is also given to the depth of the productive zone and whether oil or gas is the primary substance produced. Only after a well is determined to be productive in paying quantities is the circle-tangent method applied.

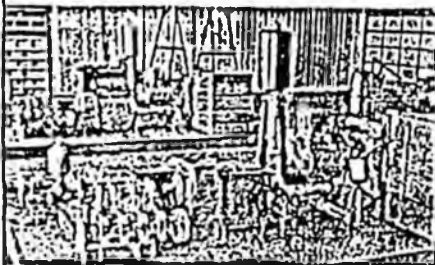
According to the circle-tangent method, 40- or 10-acre tracts entirely within the drainage boundary are included in the participating area. Tracts

Summary of working interest changes						
Calculated from precise participating area determinations						
Well No.	Working Interest	Errors	Approved By	Actual	Change	Comment
1	No	14/15	14/15			Operator holds no tracts
2	No	15/15	15/15			
3	No	10/17	10/17			
4	Yes	17/13	17/16		0.01423	Operator's benefit
5	Yes	8/8	6/8		0.25000	Operator's benefit
6	Yes	16/16	15/15			Operator's benefit subsequent well
7	Yes	8/14	8/15		0.038095	Operator's benefit
8	No	8/8	8/8			
9	Yes	8/8	8/8			Operator's benefit drilled to southwest
10	No	13/15	13/15			
11	No	11/15	11/15			
12	No	8/17	8/17			
13	No	0	0			
14	No	9/14	9/14			
15	Yes	15/16	14/15		0.00467	Operator's benefit
16	Yes	1/8	1/7		0.071429	Not operator's benefit
17	Yes	14/14	15/15			No consequence
18	No	11/15	11/15			
19	No	17/17	17/17			
20	Yes	15/17	14/16		0.007353	Operator's benefit
21	Yes	8/8	8/7			No consequence
22	No	16/16	16/16			
23	Yes	0/16	11/17		0.058824	Not operator's benefit
24	No	16/16	16/16			
25	Yes	14/15	13/14		0.052381	Not operator's benefit
26	Yes	15/15	16/16			Operator's benefit when P.A. enlarged
27	No	16/16	16/16			
28	Yes	8/8	8/8			No consequence
29	Yes	16/16	15/15			Operator's benefit subsequent well
30	Yes	3/14	3/15		0.014286	Operator's benefit



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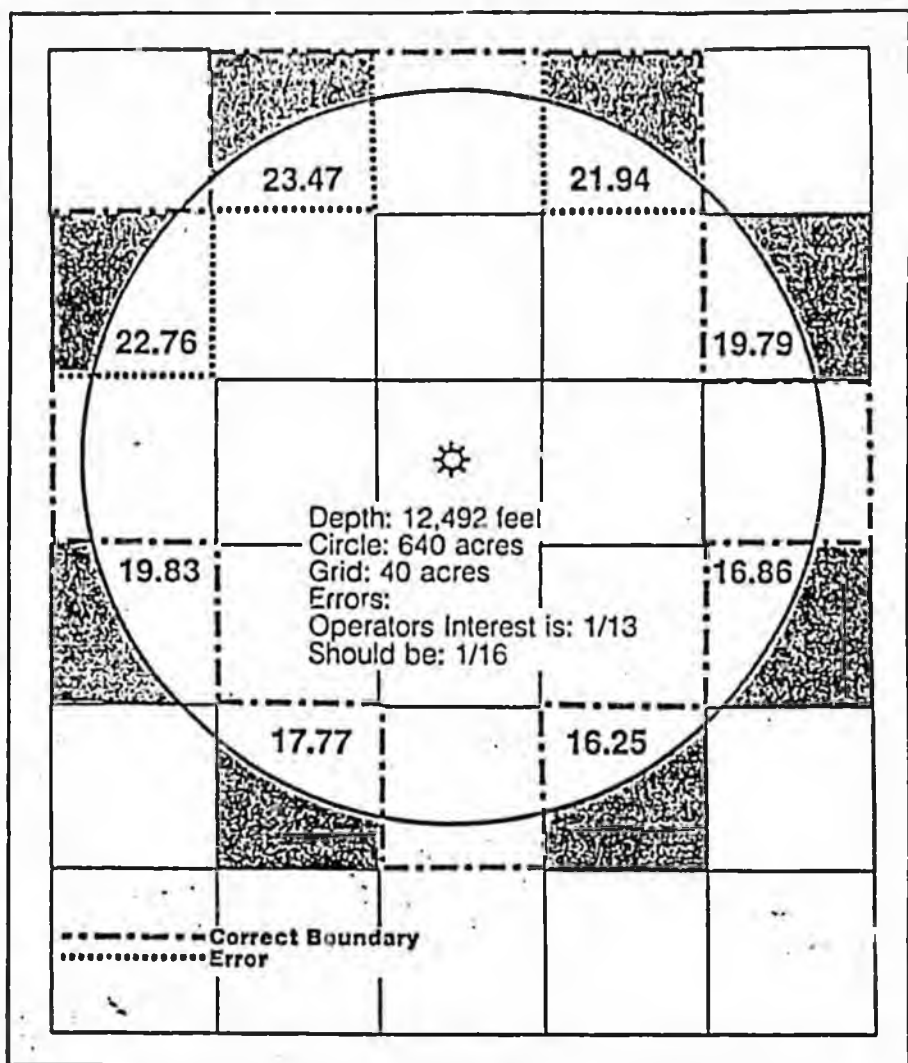
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Human error

One of the incorrectly determined participating areas. Computer-generated determinations showed that 16 out of 30 areas improperly included or excluded acreage. Most often operators benefited from the errors.

cut half or more by the boundary are also included.

When subsequent wells are drilled and determined to be productive from a common pool, the participating area is often enlarged. The revised participating area now includes all lands within each separate participating area by virtue of the common acreage drained.

An individual working interest within the participating area is determined by the proportion of acreage contributed by that working interest owner to the total acreage in the participating area.

Critical to this study is the rule that all acreage proved reasonably productive by this method shall be included in the participating area and will share in its expense and revenue.

Tools implementing the circle-tangent method today are basic. Wells are

located on a scaled map by ruler and pencil. Circles are drawn by compass. The "eyeball technique" determines whether, in a questionable situation, a given tract is cut half or more by the drainage boundary.

A second technique attempts to be more accurate. A scaled grid system is employed to determine whether a given tract is cut half or more by the drainage boundary. For example, the number of grids in a questionable tract contained within the drainage boundary are counted and converted to an acreage figure. Such a tedious technique must assume the accuracy of the graph paper, the ruler and the compass.

Clearly, a problem exists where millions of dollars are invested in scientific exploration and development, but the participative determinations are made by simple observation. In order to de-

REGIONAL NEWS

termine the problem's magnitude, a study was conducted at Colorado School of Mines.

A sample of 30 successful exploratory wells was studied to determine whether the corresponding participating areas were correctly determined. Data was obtained from several Bureau of Land Management (BLM) offices in Colorado and Wyoming. The information requested included the unitized substance produced, productive zone depths, well location coordinates and land maps showing participating area boundaries.

Using a newly available software package by Precision Units Inc., the participating area for each well was precisely determined, based on the circle-tangent method and the following assumptions:

- Unless otherwise noted on state well completion forms, surface well location coordinates indicate the bottomhole location, the true predicate for participating area determination.

- All information received concerned participating areas determined by the circle-tangent method, rather

than by an exception to the method.

Of the 30 participating areas, 16 were in error. Of the 16 errors made by operators and approved by other working interest owners, 10 accrued, or likely would accrue to the operator's benefit. Of the remaining six errors, three were neutral and three decreased the operator's working interest.

In the study, differences between correct operator's working interests and working interests as approved ranged from 0.4167% to 25%.

Three of the errors deserve special mention. In one application, interest owners approved a participating area based on a well location established in the wrong 40-acre tract.

In another application, the operator submitted a completed well drilled in SW NW 17 and incorrectly determined the participating area to include all of the section. The operator omitted the acreage reasonably proved productive in Section 18. Incredibly, no acreage in Section 17 was leased by the operator, who held all of Section 18 under lease. The participating area was modified to include some of the operator's acreage,

in Section 18, but one 40-acre tract too many was included.

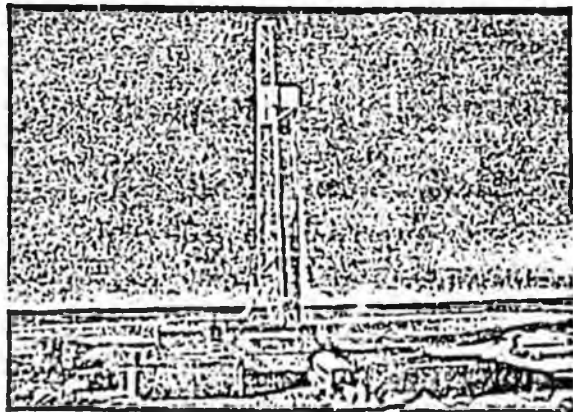
In a third case, an operator submitted a participating area which could only have been determined from a state regulatory commission spacing order. But no such order was issued for the acreage in question. The adjoining interest owners approved an 8/8 working interest in favor of a single party. That party's correct interest was 6/8. In this case, a single working interest owner lost the 1/4 interest in the well. □

About the authors

Ruth A. Maurer, Ph.D., is associate professor of mineral economics at the Colorado School of Mines, Golden, Colo. She has served as a consultant for several firms.

Bruce C. Kirchhoff will graduate this month from the Colorado School of Mines with a master of science degree in mineral economics. He completed his law degree at the University of Denver and is employed by a Denver law firm. He is also founder and president of Precision Units Inc., Denver, consultants in unitization.

Save Time!

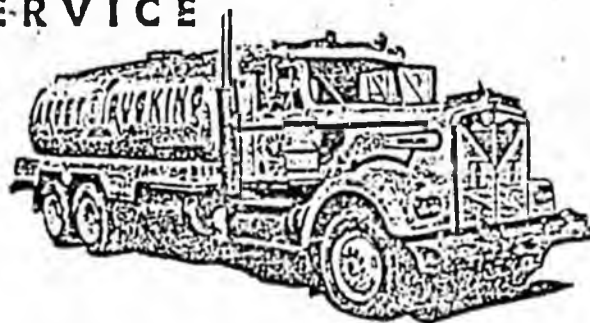


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(303) 824-7706
Craig, CO

1. What is the purpose of establishing a P.A. (participating area: (-11 AAC 83.351)?
2. How does determination of a P.A. effect state revenues?
3. Why is it necessary to compromise P.A. s?
4. Who determines whether or not a P.A. compromise (revenue compromise) is in the State of Alaska or any other parties' best interest?
5. What state agency has statutory or regulatory authority to "compromise" geological, geophysical and engineering data used to establish an initial P.A.?
6. How many gas fields have been clearly delineated (defined) in the State of Alaska?
7. Is the drilling of delineation wells the most accurate method of determining the productive limits of a gas field?
8. Is there any consistent procedure or common industry knowledge (i.e. basic engineering principles used by the DO&G (Division of Oil & Gas) to "compromise" data used to determine P.A. s?
9. In general would a single gas pool with one producing well estimated to contain 50 BCF of gas reserves have a larger or smaller initial P.A. than one producing well in a single gas pool estimated to contain 400 BCF of gas reserves?
10. Does the DO&G feel it should have to comply with statutes and regulations adopted by the AOGCC?
11. Does the AOGCC feel it should have to comply and abide by the statutes and regulations adopted by the DO&G?
12. According to state regulation 20 AAC 25.055 Drilling Units and Well Spacing, what is the minimum area (acres) drained by a productive gas well as determined by the AOGCC (ALASKA OIL AND GAS CONSERVATION COMMISSION)?
13. When a gas well has been certified by the DO&G as capable of producing in paying quantities (11 AAC 83.105) is it reasonably known that at least 640 acres around the well bore is contributing to the gas being produced from a producing gas well?

C. Burglin
Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907) 452-5149

April 7, 1987

Katherine Fortney
State Division of Oil and Gas
Pouch 7-034
Anchorage, Alaska 99510-0734

Dear Kate:

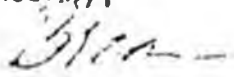
Burglin et al (Burglin) is requesting a written policy from the Division of Oil and Gas regarding PA (participating area) review. It is clear under II AAC 83.351 (c) "A participating area must be expanded to include acreage reasonably estimated through use of geological, geophysical, and engineering data to be capable of producing or contributing to the production of hydrocarbons in paying quantities, and must be contracted to exclude acreage reasonably proven through use of geological, geophysical or engineering data to be incapable of producing hydrocarbons in paying quantities, subject to approval by the commissioner. A revised division of interest or formula allocating production and costs must be submitted for approval under II AAC 83.371 at the time of expansion or contraction of a participating area."

The Division of Oil and Gas staff has emphasized initial P.A.'s in their recent decisions concerning P.A.'s. Burglin is requesting the division address Burglin's following concerns:

- (1) How often are P.A.'s reviewed by division staff?
- (2) When does an initial P.A. become a final P.A.?
- (3) How are initial P.A.'s clearly delineated?
- (4) Does the division staff take any initiative to expand or contract P.A.'s based on additional information?
- (5) Does the unit operator have any obligation to expand or contract a P.A. when additional information dictates a P.A. expansion or contraction?

If you have any questions concerning Burglin's request you may contact Brian at 452-5149.

Sincerely,


Brian Burglin

PB/mhg

cc: James Patten
Bill Van Dyke
Comm. Edy Prewy

Senator Lettye Fahrenkamp
Senator Jack Coghill
Senator Dan Alquist

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

STEVE COWPER, GOVERNOR

PO BOX 7034
ANCHORAGE, ALASKA 99510-7034

April 17, 1987

(907) 762-4241

Mr. Brian Burglin
P. O. Box 131
Fairbanks, AK 99707

Dear Mr. Burglin:

I have reviewed your April 7, 1987 request to Ms. Catherine Fortney for a written policy regarding the Division of Oil and Gas's review and determination of participating areas (PAs) for oil and gas units.

In brief, the division agrees with you that the determination of participating areas is governed by 11 AAC 83.351, and that the configuration of participating areas, both initial and subsequent, must be determined on the basis of all geological and engineering data available at the time the PA is established or expanded/contracted. It is almost inevitable that some technical information pertaining to the establishment of participating areas will be proprietary, and not available to all parties within or adjacent to the unit; however, the division must, by the terms of 11 AAC 83.351, take all available information into account when approving a participating area.

The answers to your specific questions are as follows:

(1) Reviews of participating areas are generally triggered by internal unit action such as planned expansions or contractions of the unit area, or a request by one or more of the unit working interest owners for expansion or contraction of the participating area. However, the division may initiate a review and revision to an approved participating area on its own volition or at the request of others when new data are presented indicating that such a revision is necessary to protect the state's interest or the correlative rights of others.

(2) Generally there is no such thing as a "final" participating area until unit reserves are depleted. Participating areas are continually subject to review and expansion or contraction based on new technical data. For most oil and gas units, contraction of the unit area to exclude all lands outside of an approved participating area is tied to the date of establishment of the "initial" participating area (the first participating area within the unit). There may be no practical difference between "initial" participating areas and subsequent participating areas if sufficient data are available at the time the initial participating area is approved to confirm the distribution of reserves within the unit area.

Mr. Brian Burglin
April 17, 1987
Page 2

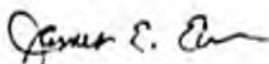
(3) Initial participating areas are delineated on the basis of all geological, geophysical, and engineering data available to the division at the time the participating area is established. Data may be available from more than one source, and the separate parties, which may not have access to all information regarding the participating area limits, may not agree with one another's interpretations. In the case of conflicting technical data, the division reviews all information available, and makes an independent determination of an appropriate participating area based on the terms of 11 AAC 83.351.

(4) Under certain circumstances, the division has initiated action for expansion or contraction of a participating area, particularly in those instances where data indicate that an existing participating area does not adequately and equitably represent the interests of all parties involved. However, normal practice is for one or more of the working interest owners of a unit to initiate action for expansion or contraction of a participating area. A lessee adjacent to the unit may also initiate expansion or contraction if that lessee possesses technical information showing that such action is warranted.

(5) In general, under the terms of 11 AAC 83.351, the unit operator, representing the working interest owners of a unit, is obligated to expand or contract when additional information indicates that such an expansion or contraction is appropriate. This obligation is also usually reflected in the provisions of the various unit agreements.

I hope this is responsive to your questions regarding the division's policy on the establishment and expansion/contraction of participating areas. If you have any additional questions on the above, please feel free to contact me.

Sincerely,


James E. Eason
Director

cc: Judith M. Brady, Commissioner
Catherine Fortney, DNR/DO&G
Bill Van Dyke, DNR/DO&G
Cass Arley, DNR/DO&G

Senator Bettye Fahrenkamp
Senator Jack Coghill
Senator Don Bennett

C. Burglin
Lead Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907) 452-5149

April 28, 1987

James Eason
Division of Oil and Gas
P. O. Box 7034
Anchorage, Alaska 99510-7034

Dear Jim:

As Burglin et al. (Burglin) understands your 4/17/87 letter, the division generally does not review participating areas unless requested to do so by an interested party.

Burglin's concern with this policy is that in undefined gas fields there can be many years and substantial drilling activity which change initial geological interpretation before a participating area is reviewed by the division.

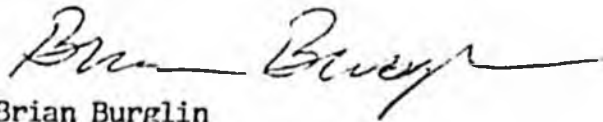
For example, the last participating area review and revision for the Beluga River Unit was made in 1977. From 1968 thru 1977 six (6) gas wells were drilled within the Beluga River Unit, during which time there were five participating area revisions of the Beluga River Field. From 1978 to 1987 twelve (12) gas wells have been drilled with no participating area review by the Division of Oil and Gas. Mr. Bill Van Dyke confirmed that the Beluga River Unit participating areas had not been reviewed by the division staff in over 2 1/2 years, and was unaware of any Beluga River Unit participating area review since 1978. From 1985 thru 1986 eight (8) additional wells have been drilled in the Beluga River Unit. There is no economic incentive for a unit operator to initiate a participating area expansion or contraction when additional well data confirms, modifies, or rejects initial structural interpretation and estimated productive limits, once the original Working Interest Owners have lost their interest in the surrounding acreage, through unit contraction. Well data is usually confidential to adjacent lease holders or interested parties for at least two years after wells have been drilled.

Burglin feels the State's interest would be better protected if participating areas were reviewed on an annual basis and

C. Burglin
Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907) 452-5149

this review incorporated into unit plans of a development and operation, especially in undefined gas pools.

Sincerely,



Brian Burglin

BB/kd

cc: Commissioner Brady
Bill Van Dyke
Senator Fahrenkamp
Senator Coghill
Senator Bennett
Commissioner C. Chatterton

C. Burglin
Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907) 452-5149

February 19, 1988

Mr. Bruce Geraghty
Administrative Aide to Senator Coghill
Post Office Box V
Juneau, Alaska 99811

Attention: Senator Jack Coghill and Senator Bettye Fahrenkamp

Dear Senators:

Enclosed is a copy of a check that I wrote personally to pay for bonds that were forced on myself and others as leaseholders.

Senator Fahrenkamp, as the late Senator Bennett, former Representative John Ringstad, Representative Steve Frank and yourself know and testified to during the public hearings concerning SB 232, bonding for these leases was definitely not the intent of the legislature according to your testimony.

Notwithstanding the fact that these leases carried a 20% overriding royalty to the State of Alaska plus a 30% net profits interest which in Burglin's case would have netted the State approximately 50% of production, the State was anything but cooperative. Burglin et al were the only ones who drilled a well on any of the leases acquired in Sale 31.

Despite the fact that it was the intent of the State Legislature to magnify the profits to the State and Burglin et al were the only leaseholders that worked dilligently to develop these leases. Despite the fact that Burglin et al did everything humanly possible even in the face of falling oil prices to develop these leases, the State penalized Burglin by enforcing bonding provisions that were never the intent of the legislation. By discouraging the development of these leases the responsible personnel in the Department of Natural Resources deliberately sabotaged the State's opportunity to increase its' income.

In going back over all of the correspondence between Burglin et al and the State Department of Natural Resources, the stand of the State is incomprehensible. The only way that these decisions make any sense would be if the Department of Natural Resources were being run as a branch of ARCO. The decision making State employees are all ex-employees of this company.

Page 2

Mr. Bruce Geraghty - February 19, 1988

As a result of terminating these potential productive and enormously profitable leases, some of these tracts are now being drained by the development of the Lisburne formation. If Burglin et al had been allowed to extend these leases and develop these tracts the benefit to the State could have been measured in tens of millions of dollars.

The State of Alaska has put some of these leases up for sale after forcing Burglin et al to relinquish them. The terms were for 12½% override, not 20% override and 30% net profits. The bonus bids brought in less money than the rental would have brought in if these leases had been extended. The Governor and Legislators should not look for any economic expertise from their bureaucratic employees in the Department of Natural Resources or the Attorney General's office. In an economic course, most if not all, of these employees would be wearing dunce caps.

The State's own geologic department and Oil and Gas Conservation Commission had these leases as part of the Lisburne field based on their accumulated data.

Senators, if the Geologic Division of the State Division of Oil and Gas will condescend to show you, our elected representatives, their data, it will bear out the truth of the above statement.

Burglin et al did everything humanly possible to try to develop these leases. The State Department of Natural Resources and Attorney General's office succeeded in blocking the development.

If you can put yourself in the position of an individual who has had the State government extort \$140,000.00 from him in deliberate contempt of legislative intent, then you will know exactly how I feel.

I am sending a copy of this letter and the enclosed documents to all of the parties who had an interest in these leases. The State Attorney General's office and the Department of Natural Resources, not only cheated the State, but all of the enclosed list of Alaskans and their families.

Yours very truly,



Cliff Burglin

CB:mkc

Enclosures

List of interested parties in these leases:

Arsenault, Lennie	Gustafson, Mary
Bogges, Bill	Johnson, J.
Brashier, Judy	Larson, Dennie
Burglin Family	Menefee, Mike
Bushey, Bill	Miller, Mildred
Cole, Charles	Morrison, Dean
Cook, Earl]	Nerland, Ron
Courtney, Rose	Pryor, Billy
Courtney, Wilburt	Dr. Ribar, Joe
Deiringer, Jim	Rushton, Jean
Droz, Olinda	Schikora, Fred
Everette, Kelley	Schlotfeldt, Leo
Gavora, Paul	Schlotfeldt, Walter
Grant, Alberta	Scollan, Kenneth
Gregory, Richard	Spake, Rodell
Greig, Albina	Thurman, James
Groseclose, Bob	Wagner, Rick
	Waugaman, William
	Witcher, William

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

STEVE COWPER, GOVERNOR

PO BOX 7034
ANCHORAGE, ALASKA 99510-7034

February 12, 1988

C. Burglin
P.O. Box 131
Fairbanks, Alaska 99707

Re: Work Commitment Bond
Forfeiture for State Oil
and Gas Leases ADL Nos.
318631, 318632, 318635, 318618,
318620, 318621, 318623

Dear Mr. Burglin:

The State of Alaska, Department of Natural Resources, Division of Oil and Gas is in receipt of your check for \$140,000. The receipt of funds pursuant to this check relieves Fidelity and Deposit Company of Maryland of its obligations under the performance bonds it posted to secure fulfillment of the work commitment obligations under the above referenced leases.

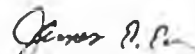
Your letter of January 27, 1988 indicated that the payment "will settle all claims in full of the State of Alaska vs. Burglin, et al and Burglin vs. State of Alaska." We are unaware of any litigation between the State of Alaska and Burglin at this time. If you intended to reference the litigation between the State of Alaska and Alaskan Crude Corporation (Supreme Court case numbers S-2276 and S-2277) we confirm that the receipt of funds under this check will allow the previously-agreed settlement between Alaskan Crude Corporation and the State of Alaska to become effective. A Stipulation and Order of Dismissal With Prejudice is being presented to the counsel for Alaskan Crude for execution and delivery to the Supreme Court at this time. Because the above-referenced leases have now all terminated, and the bond liability issue is resolved, you are correct in assuming that there are no further obligations or disputes with regard to these leases.

C. Burglin

- 2 -

February 12, 1988

Very truly yours,


James E. Eason
Director

MPW/JE:so

cc: Mark P. Worcester, Assistant Attorney General
George Trefry, Esquire, Counsel for Alaskan Crude Corporation
John Downes, Fidelity and Deposit Company of Maryland
Skyline Tower 10900
N.E. Fourth Street, Suite 1625
Bellevue, Washington 98004

C. Burglin
Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907)452-5149

January 27, 1988

Mr. James E. Eason
State of Alaska
Department of Natural Resources
Division of Management, Revenue Unit
P. O. Box 107036
Anchorage, AK 99510-7036


Re: Bonding ADL's 318631, 318632, 318635, 318618
318620, 318621, 318623

Fidelity and Deposit Company of Maryland

Dear Mr. Eason:

Enclosed is a check for \$140,000.00 which will cover the \$20,000.00 bond for each lease and will settle all claims in full of the State of Alaska vs. Burglin, et al and Burglin vs. State of Alaska. This payment will relieve the bonding company of all obligations concerning any or all disputes over these oil and gas leases.

Yours very truly.


Cliff Burglin

CH:mc

Encl.

C. BURGILIN
LAND CONSULTANT
P. O. BOX 131
FAIRBANKS, AK 99707

MAIN OFFICE
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OF FAIRBANKS
A MEMBER OF THE
FIRST NATIONAL BANK GROUP

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PAY
TO THE
ORDER OF

STATE OF ALASKA, DEPT. NATURAL RESOURCES

1/27 19 88
\$140,000.00

ONE HUNDRED FORTY THOUSAND AND 00/100

DOLLARS

FOR



Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907)452-5149

October 18, 1985

Kay Brown
State Department of Natural Resources
Pouch 7-034
Anchorage, Alaska 99510

Re: Applications for Waiver of Work Commitments

Dear Ms. Brown:

In accordance with 11 AAC 83.700 (b) and AAC 83.100-155, Burglin hereby submits the additional information requested by DNR to complete Burglin's application requesting abrogation of the work commitment terms in each of the oil and gas leases listed below:

ADL's 318618, 318620, 318621, 318623, 318624, 318626, 318665, 318666, 318667, 318668, 318669, 318670, 318671, 318674, 318677, 318678, 318680, 318681, 318682

1. Burglin has submitted geological data in support of Burglin's proposed Key Unit application. Burglin requests that this data be submitted in confidence with the application requesting waiver under 11 AAC 83.700 (b) of the work commitment for ADL's 318618, 318620, 318621, 318623, 318624, 318626, 318665, 318666, 318667, 318668, 318669, 318670, 318671, 318674, 318677, 318678, 318680, 318681, and 318682. Burglin feels that development of ADL's 318618, 318620, 318621, 318623, 318624, 318626, 318665, 318666, 318667, 318668, 318669, 318670, 318671, 318674, 318677, 318678, 318680, 318681, and 318682 cannot be conducted economically under Burglin's current interpretation of this geological data. Burglin's initial interpretation of the geological data submitted in support of Burglin's proposed Key Unit has not changed.
2. Burglin's exploratory plans for each lease have been outlined in Exhibit "g", "Unit Plan For Exploration" submitted with the proposed exploratory Key Unit application. Burglin would use data from initial exploration in order to determine further exploration or development plans on ADL's 318618, 318620, 318621, 318624, 318626, 318665, 318666, 318667, 318668, 318669, 318670, 318671, 318674, 318677, 318678, 318680, 318681, and 318682. At this time Burglin feels that unitization of ADL's 318618, 318620, 318621, 318624, 318626, 318665, 318666, 318667, 318668, 318669, 318670, 318671, 318674, 318677, 318678, 318680, 318681, and 318682 would be the most economically feasible way of exploring and developing any reservoirs or hydrocarbon accumulation discovered by drilling on ADL's 318618, 318620, 318621, 318624, 318626, 318665, 318666, 318667, 318668, 318669, 318670, 318671, 318674, 318677, 318678, 318680, 318681, and 318682.

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(907)452-5149

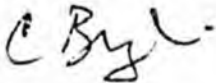
Kay Brown
October 18, 1985
Page 2

3. By granting Burglin's request for a waiver of work commitment, Burglin can proceed with plans to drill initial exploratory wells. Data from initial exploratory activities and from the interpretation of the prospective area would assist Burglin in determining further exploration or development plans on ADL's 318618, 318620, 318621, 318624, 318626, 318665, 318666, 318667, 318668, 318669, 318670, 318671, 318674, 318677, 318678, 318680, 318681, and 318682. It is Burglin's intent to proceed with exploration plans in an economically and environmentally sound manner.

Burglin has contacted Mr. Bill Van Dyke of the Department of Natural Resources for clarification concerning Ms. Brown's request for additional information. Burglin considers the original application requesting waiver under 11 AAC 83. 700 (b) of the work commitment to now be complete.

If there are any questions or if this application is still considered to be incomplete by DNR, please contact Brian Burglin immediately at 452-5149.

Regards,



C. Burglin



Brian Burglin

CB/BB/mbg/pb

enclosures

cc: James Eason
Bill Van Dyke
Commissioner Esther Wunnicke

Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907)452-5149

September 27, 1985

Commissioner Esther Wunnicke
State Department of Natural Resources
Pouch 7-034
Anchorage, Alaska 99510

APPLICATION FOR WAIVER OF WORK COMMITMENT

Re: ADL 318626

Dear Commissioner Wunnicke:

Pursuant to SB 232 and proposed AAC 83.700(d): "The commissioner will, in his or her discretion, grant a single waiver of any term of a work commitment imposed on a lease under (a) of this section for a period not to exceed two years if the commissioner makes a written finding that conditions preventing fulfillment of the work commitment were beyond the lessee's reasonable ability to foresee or control." Applicant, Burglin et al (Burglin) requests that the Department of Natural Resources waive the work commitments contained in ADL 318626 for a period of two years. In support of this application Burglin submits the following:

ADL 318626 was acquired by Burglin in Sale 31 in 1980. Burglin had to wait for several key events to happen in order to make tracts acquired in Sale 31 more economically feasible to develop. Some of these events included decisions by ARCO to produce the Lisburne formation and Sohio to produce the Endicott formation. These two events made it necessary for Burglin to wait for the Alaska Oil and Gas Conservation Commission to rule on the Lisburne and Endicott pool boundaries. The Lisburne pool boundary decision by the Alaska Oil and Gas Conservation Commission was not issued until January of 1984. After the Alaska Oil and Gas Conservation Commission decision on the Lisburne pool boundaries was made, Burglin and ACC, through farmout agreement, went ahead with plans to drill an exploratory well on ADL 318618. Burglin and ACC had hoped to be able to drill this exploratory well during the 1984-1985 drilling season. Permitting, logistics, drilling seasons, and other unforeseen problems prevented ACC from maintaining the time schedule for drilling the exploratory well on ADL 318618. ACC is still in the process of trying to obtain all necessary permits required to drill this exploratory well.

Burglin applied for the exploratory Key Unit to allow more time to implement Burglin's exploration plans on leases proposed to be included in the exploratory Key Unit. Burglin's lease with the State of Alaska allows for unitization for the purpose of exploration. Mr. Eason, in his June 13, 1984 letter to Mr. Burglin states, "The regulations which govern the department's administration of units, 11 AAC 83.300-395, became effective in June 1981, after the first Duck Island Unit expansion decision was issued. These regulations were adopted in response to widespread dissatisfaction within the Legislature with what was considered by many members to be lax administration of units and improper

Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907)452-5149

Commissioner Wunnicke
September 27, 1985
Page 2

extensions of primary lease terms by the formation of exploratory units without proper technical bases." Again, Burglin acquired ADL 318626 in 1980, before new regulations and policies toward unitization were implemented by DNR staff. Burglin could not foresee or control changes in policy by the State of Alaska toward unitization. Burglin feels that the exploratory Key Unit could be the only way that development of a potential oil reservoir could ever take place.

It is ACC's and Burglin's plan to obtain all necessary permits to commence an exploratory well within the Key Unit boundary before the start of the 1985-1986 drilling season. It is also ACC's and Burglin's intention, as prudent operators, to explore ADL 318626 and all leases proposed in the exploratory Key Unit in an economically and environmentally sound program. It is not ACC's or Burglin's intention to needlessly spend valuable exploration funds in order to recklessly explore ADL 318626 or any of the leases proposed for inclusion in the exploratory Key Unit. Burglin cannot foresee or control lack of timely decision by the Department of Natural Resources, Division of Oil and Gas staff concerning extension of ADL 318626. Funds cannot be committed to exploration without lease extensions.

Burglin has submitted the exploratory Key Unit Application to the Division of Oil and Gas for approval. Burglin has proposed an exploratory well to be drilled within the proposed Key Unit boundaries. ADL 318626 is included in the exploratory Key Unit Application.

Burglin believes that the State of Alaska should encourage and not discourage exploration of oil and gas leases. Burglin cannot meet work commitments on ADL 318626 or any Sale 31 leases if the Commissioner of DNR and the staff of the Division of Oil and Gas do not want exploration activities on Sale 31 leases.

Burglin requests that the Commissioner and the Division of Oil and Gas staff review all oral arguments presented at the public hearings concerning SB 232. Burglin feels that the legislative intent of SB 232 is very clear and that many good arguments were presented to support two year extensions on ADL 318626 and all Sale 31 leases.

The Commissioner's prompt consideration of this application is requested. As the Commissioner is aware, all delays greatly restrict the lessee's ability to meet work requirements.

Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907)452-5149

Commissioner Wunnicke
September 27, 1985
Page 3

If there are any questions concerning this application, please contact
Brian Burglin immediately at (907)452-5149.

Regards,



C. Burglin



Brian Burglin

CB/BB/mbg/pb

cc: Jim Eason
Kay Brown

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%



Chevron U.S.A. Inc.
6001 Bollinger Canyon Road, San Ramon, California
Mail Address: P.O. Box 6050, San Ramon, CA 94583 0905

September 27, 1985

DEPARTMENT OF
NATURAL RESOURCES

SEP 27 1985

COMMISSIONER'S OFFICE
ANCHORAGE

J.J. Anders
Manager, Alaska Division
Land Department, Western Region

Request for Abrogation
of Terms of Work Commitments
ADL-318601
ADL-318615
ADL-318616
ADL-318617
ADL-318622

Ms. Esther Wunnicke
Commissioner of the Department
of Natural Resources
Pouch 7-034
Anchorage, AK 99510

Dear Ms. Wunnicke:

In accordance with 11 AAC 83.700(b), Chevron U.S.A. Inc. hereby requests abrogation of the work commitment terms included as Stipulation No. 5 in each of the oil and gas leases listed and described as follows:

- ADL-318601: Tract C31-001
Secs. 25, 26, 35 and 36, T11N, R16E, U.M.
- ADL-318615: Tract C31-015
Secs. 1, 2, 11 and 12, T10N, R16E, U.M.
- ADL-318616: Tract C31-016
Secs. 13, 14, 23 and 24, T10N, R16E, U.M.
- ADL-318617: Tract C31-017
Secs. 25, 26, 35 and 36, T10N, R16E, U.M.
- ADL-318622: Tract C31-022
Secs. 29, 30, 31 and 32, T10N, R17E, U.M.

This should be considered as a separate request with respect to each of the aforementioned leases, for convenience combined in a single application.

Basis of application. Each such lease will be unproductive or uneconomic under the terms of the work commitment, as determined by the Department of Natural Resources in its consideration of data submitted to it and review of other well data by the Department.

Pertinent lease stipulations, regulations and law. Each lease was issued to Chevron U.S.A. Inc. effective November 1, 1980, and contains "Stipulation No. 5", reading as follows:

"Stipulation No. 5-Work Commitment

The Lessee must commence to drill a well by the end of the fifth year of the primary lease term unless the entire lease interest is committed to an approved unit as described in Paragraph 23. Failure to comply with this stipulation automatically terminates the lease as to all parties."

The end of the fifth year of each primary lease term is October 31, 1985.

Subsection (b) of 11 AAC 83.700 (eff. 11/9/79, Reg. 72) provides, in pertinent part,

"(b) The Commissioner of the Department of Natural Resources will, in his or her discretion, alter or abrogate the terms of the work commitment if the lessee demonstrates to the satisfaction of the Commissioner that the lease will be unproductive or uneconomic under the terms of the work commitment."

As modified by Senate Bill No. 232, AS 39.05.180(h), upon which the foregoing regulation is based, provides in pertinent part:

"...If it is demonstrated that a lease has been proven unproductive by actions of adjacent leaseholders, the Commissioner may set aside a work commitment."

Historical summary of activity. In mid-year, 1983, the Lessee of ADL-318619, located in the southerly portion of the Duck Island Unit two miles to the East of the Chevron block, had proposed a well on that lease and solicited support from Chevron in the form of a contribution of an interest in Chevron's five captioned leases. Chevron offered that Lessee an option to drill on one of Chevron's leases before June, 1985 and after drilling the Duck Island well, to earn a working interest in all five Chevron leases. No response to Chevron's offer was made pending obtaining financing for the Duck Island Unit well. Ultimately, because the Duck Island Unit well was never drilled, Chevron's farmout offer was never accepted and no agreement for drilling on the Chevron block was reached before the 1983-84 drilling season was over.

On December 13, 1984, Chevron filed for permits to re-enter the Arco Sag Delta #11 well which had been previously drilled on Chevron's lease ADL-318601, with plans to redrill this well to a new bottomhole location during the 1984-85 season. In January, 1985 Chevron made contacts with five other major oil companies to solicit their interest in taking a farmout of the Chevron block. None of these companies were able to allocate funds for 1985 drilling. Chevron followed with further similar contacts with two independents, neither of which resulted in an agreement. When it became apparent that the drilling season would be over before the well could be drilled, Chevron withdrew its permit applications.

At this juncture, because of seasonal restrictions, no well could be drilled to comply with the lease work commitments before the critical date, October 31, 1985. The only alternative would have been to unitize the leases.

On June 28, 1985, Clifford C. Burglin et al. applied for the formation of the "Key Unit" which, if approved, would have included the five Chevron leases within its area. Geological data in support of the unit were submitted to the state by Burglin et al. Chevron also presented a technical briefing to the Department of Natural Resources on August 22, 1985 supporting a substantial portion of the proposed unit area. In addition, other data from adjacent lands available to the Department (but not to Chevron) were considered by the Department in evaluating the hydrocarbon potential of the proposed unit area.

By decision and findings of the Commissioner, dated August 29, 1985, the Key Unit application was denied for the reason that (in the Department's view) there had not been demonstrated the existence of an oil or gas reservoir or potential hydrocarbon accumulation underlying the lands proposed for unitization. This was determined as the Department's sole judgment in assessing the submitted data and other data from adjacent lands.

Argument. In its denial of the unit application, the Department has found that no reservoir or potential hydrocarbon accumulation exists on the Chevron leases. Thus, the Department cannot do otherwise than conclude that compliance with the work obligation by drilling into what it has determined to be a non-existent reservoir or a non-existent potential accumulation would be both uneconomical and unproductive.

The Department, in its finding, has considered not only the data provided by the unit applicant and Chevron, but also confidential data from other adjacent wells to which Chevron has no access. It is known, however, without privity to specific technical data, that:

- a. Sohio Alaska Petroleum Company's Sag Delta No. 11 well, drilled in 1984-85 on lease ADL-28342, was plugged and abandoned. This lease is abutting on Chevron's lease ADL 318601 and cornering on Chevron's lease ADL 318615.
- b. The Arco Delta State #2 well was drilled and abandoned on land now included in Chevron's lease ADL 318601 and presently abutting on Chevron's lease ADL 318615.
- c. Arco's Delta State No. 1 well was drilled, plugged and abandoned on the Arco-Exxon lease ADL 28244, which lease abuts Chevron's lease ADL-318615 and corners on Chevron's leases ADL-318601 and ADL-318616.

The above-mentioned wells clearly fall within the scope of "actions by adjacent leaseholders" under the language of AS 38.05.180(h).

Therefore, in view of the Department's own determination of non-existence of a reservoir or potential hydrocarbons on the Chevron leases and the dry holes previously drilled on and adjacent to Chevron's leases, Chevron is entitled to have the work commitment on each of the captioned leases abrogated. In view of the Department's stated lack of confidence in the area, to rule otherwise would frustrate the legislative intent of AS 38.05.180(h). If this law has any meaning, the

September 27, 1985

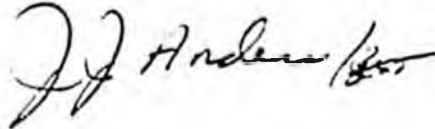
Commissioner must set aside the work commitments. We respectfully urge your favorable consideration of this request.

Enclosed with this application is our check for \$100 representing filing fees of \$20 for each of the captioned Chevron leases.

Chevron is paying annual rentals, due November 1, 1985, on each of such leases pending the state's action on this application.

The address to which any notice concerning this application may be mailed is: Mr. Clair Ghylin, Manager, Land Department, Chevron U.S.A. Inc., P. O. Box 5050, San Ramon, CA 94583-0905

Very truly yours,

A handwritten signature in cursive script, appearing to read "J. J. Anderson".

cc: Esther Wunnicke, Commissioner
Juneau, Alaska

C. Burglin
Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907)452-5149

July 1, 1985

Dear Alaskans:

The purpose of Senate Bill 232 was to extend all leases in Sales 30 and 31. These leases were 10 year leases with a 5 year work commitment. The work commitment provision was inserted at a time when oil was \$34.00/barrel and most people mistakenly thought that there was an oil shortage. In fact, in 1979 and 1980, the years of Sales 30 and 31, respectively, there was an oil glut. This fact was recognized by the State of Alaska when future sales did not contain the work commitment stipulation.

Through this same faulty reasoning, the leases from these two sales were the most heavily burdened of any leases sold by the State until that time. However, in Sale 30, there were several bidding procedures used simultaneously.

The leases from which the State derives approximately three billion dollars per year in revenue, pay a 12½% royalty to the State. All State leases pay severance tax in addition to the royalty.

The most productive leases on the North Slope were awarded in January of 1980. The total amount bid for all of these tracts was under \$1.5 million dollars ranging from a high bid of \$233.00/acre to a low of \$1.00/acre, giving an average bid of \$33.89 per acre. Nearly all of the leases except the \$1.00/acre tracts are producing about \$1 million dollars worth of oil per day. These leases are all owned by Arco, Exxon, BP, Shell and the State of Alaska.

The point is that the greatest ongoing revenue to the State comes from production, not high bonus bids. As a point of interest, both the Prudhoe Bay Field and the Kuparuk River Field were discovered by accident, not by seismic data. These fields are the two largest on the North American continent.

Senate Bill 232 passed the Legislature by a substantial margin, and was to correct the faulty reasoning that governed Sales 30 and 31. If these leases are proven capable of commercial production, they will pay the highest percentage of revenue to the State of Alaska of any acreage leases to this date.

Most Sale 31 leases were issued on or before November 1, 1980. The permitting process for drilling each well takes approximately 40 days. During the 1980 to 1981 drilling season, there was no time to get permits, arrange for a drilling rig, arrange for financing, or to take care of all the details that are required to commence a well on the North Slope. There can even be delays due to snow cover and inefficiencies by both the State bureaucracy and the drilling contractors. There was not one well drilled on Sale 31 acreage until 1984.

The Burglin interests have found that the State will not act on any request that we make in less than 30 days. This footdragging by the State bureaucracy has cost us at least an additional years delay on developing these leases. For example, we requested extension of two leases on the North Slope approximately 6 months ago. As yet we have not had a written answer to the request for these two extensions. We request written answers from the State employees because we have found that what they tell us on the telephone does not necessarily correspond to what the ultimate decision turns out to be.

W. S. Burglin
Land Consultant
P.O. Box 131
Fairbanks, Alaska 99707
(907)452-5149

Alaskans
Page 2
July 1, 1985

Due to delays by the State, and the timing of the issuing of these leases, 2 years out of the 5 year work commitment have been lost for potential development. In the remaining 15 months of drillable time within the 5 year work commitment leases, the Burglin interests have drilled 1 well at a cost of \$7 million dollars, built pads on two other leases at a cost of \$1.4 million dollars and applied for permits on a 4th lease, which we are ready to drill during the 1985-86 drilling season. The total cost for all these projects will be approximately \$40 million dollars. The Burglin interests have also done extensive geologic work, acquired seismic data, acquired satellite data, applied for units, and had expert evaluation done on all of our remaining tracts. The Burglin interests have approximately 109,000 acres that we have diligently worked to develop during the 5 year period. So far, we have only been able to extend 1 lease totalling 1280 acres by drilling and completing a well!

In contrast, Atlantic Richfield, Sohio-BP, Chevron, Mobil, Phillips, and Exxon have saved 110,000 acres by establishing the Hemi Springs Unit. Most of these leases were approximately 18 years old and carried a 12½% royalty. In contrast, Sale 31 leases carry a 20% royalty plus a 30% net profit interest to the State.

One of the reasons for establishing the Hemi Springs Unit was to have continuity for exploration purposes. The Burglin interests supported the major oil companies in this argument. We believe that the State of Alaska should keep as many active leases as they possibly can to enhance its future competitive position. The State can also use the money from ongoing lease rentals.

The Hemi Springs Unit was established to develop a shallow blanket sand called the West Sak. There were other shallower and deeper prospects in the Unit area, but the West Sak Sands were the primary publicized target. All that Arco et al had to do to save 18 year old leases, plus most of their Sale 31 leases, was to promise to drill two wells within 5 years.

Burglin has drilled 1 well, commenced drilling two other wells, has permitted 1 additional well, and the State has only extended 1 lease! According to geologic presentation by Atlantic Richfield, who has drilled over 400 wells, the West Sak Sands encompass an area 50 miles North and South by 80 miles East and West. According to geologic presentations by Atlantic Richfield and Mobil-Phillips, all of the West Sak Sands were not encompassed by the Hemi Springs Unit. This formation has an industry estimated 25 billion barrels of oil in place.

The reason for the passage of SB 232 was to give the Commissioner the legislative authority to extend the Sale 30 and 31 leases for an additional 2 years. Although the Commissioner had extended leases for Amerada Hess and Amoco prior to the passage of the bill, she testified to the legislature that she did not feel that she had the authority to extend the Sale 31 leases. Through SB 232 the Commissioner was specifically given that authority.

In dealing with the Department of Natural Resources, and through correspondence which is available to anyone, the Department has maintained that the reasons for the delays were always that they never have enough people to take care of their work requirements. However, after SB 232 was signed into law, the DNR promulgated within 3 days all the

C. 'in
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P.O. 31
Fairbanks, 99707
(907)4. }

Alaskans
Page 3
July 1, 1985

regulations that are being considered at this public meeting.

At the meetings to formulate these new regulations were Commissioner Esther Wunnicke, Director Kay Brown, Deputy Director James Eason, Petroleum Manager Bill Van Dyke and Catherine Fortney (who is in charge of Unit Agreements). These people compose the hierarchy of the Department of Natural Resources.

These regulations are so onerous, and contrary to the intent of the Bill 232, that they will eliminate all competition by Independents in the State of Alaska. I feel that these regulations were proposed to eliminate the Burglin interests on the North Slope

In reviewing correspondence from the State of Alaska, it is obvious that Commissioner Wunnicke, Director Kay Brown, and the Deputy Director James Eason are very prejudiced in regards to the Burglin leases. Because these persons cannot render fair and impartial decisions in relations to Independents, I strongly feel that they should resign their positions with the State of Alaska. They are certainly not acting in the best interest of the State.

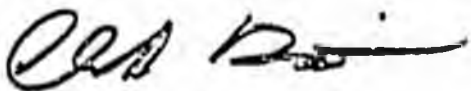
These proposed regulations are a clear attempt to stall and distort the legislative intent of this bill which corrects a bureaucratic injustice to all of the holders of work commitment leases. It is one of the most obvious attempts on the part of bureaucrats to circumvent the intent of the legislature. As a final irony, Commissioner Wunnicke testified in favor of this bill.

If the DNR cancels the Burglin leases and oil prices keep falling, there will be no incentive for the present operators on the North Slope to maximize production in Alaska. In the face of a world wide oil glut, it would make good economic sense to cut production in Alaska and produce oil from their better paying fields in the rest of the world. If Alaskan oil production were cut in half, it would have a devastating effect on every Alaskan. If the Sale 31 leases are denied unitization and extension so that they can be developed, cut backs in Alaskan oil production are a definite possibility. Falling oil prices are a certainty.

Most public hearings are a sham and a charade. The bureaucrats have already made up their minds. These public hearings are no exception.

Because of regulations such as these, small miners are financially and legally out of business. As soon as these regulations take effect, the independent oil industry will join the Alaskan miners.

Thank you,



Cliff Burglin

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF LAW

POUCH K - STATE CAPITOL
JUNEAU, ALASKA 99811
PHONE: (907) 465-3600

OFFICE OF THE ATTORNEY GENERAL

May 28, 1985

Honorable Bill Sheffield
Governor
State of Alaska
Pouch A
Juneau, AK 99811

Re: HCS CSSB 232(R1s) am H --
minimum work commitments
in oil and gas leases
Our file: 388-096-85

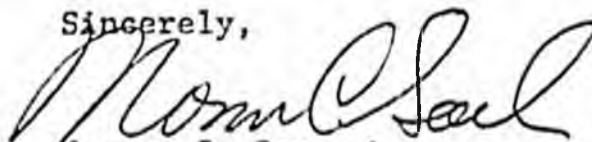
Dear Governor Sheffield:

At the request of Ray Gillespie on your behalf, we have reviewed HCS CSSB 232(R1s) am H. Although SB 232 was originally introduced by you for the approval of the Golden Valley Electric Association contract (our file no.: 377-061-85), the GVEA oil contract approval went forward under another vehicle. SB 232 was stripped and the present provisions were inserted at the behest of Senator Bettye Fahrenkamp.

The bill would give the commissioner of natural resources the authority to waive provisions for minimum work commitments that exist in some net profit oil and gas leases. The waiver could be for a period of up to two years if either (1) the commissioner makes a written finding that conditions preventing drilling or exploration are beyond the lessee's reasonable ability to foresee or control, or (2) the commissioner makes a written finding that the lessee has demonstrated through good faith efforts an intent and ability to drill or develop the lease during the term of the waiver.

We would note that the Department of Natural Resources does not oppose this provision. Further, the minimum work commitments provision is no longer being used in present oil and gas leases, and so this legislation speaks to only a limited group of leases issued under past policies. We see no constitutional or other legal objections to this bill.

Sincerely,



Norman C. Gorsuch
Attorney General

NCG:RMM:jf

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

POUCH 7-034
ANCHORAGE, ALASKA 99510

March 8, 1985

Mr. Brian Burglin
P.O. Box 131
Fairbanks, AK 99707

Reference: Key and Arsenault Units

Dear Brian:

This letter is in response to your recent question concerning inclusion (verses exclusion) of unleased acreage in proposed unit areas. While the Department has no fixed policy relating to unleased lands, it is our practice to establish the unit boundary based on the extent of the actual or potential hydrocarbon accumulation(s) and include all lands in the unit area that are eligible to participate based on the specific geology and geophysics. Initially, the state unleased lands would not be committed to the unit but would be eligible to be committed if the lands were leased at a later date.

I have also reviewed the draft Key and Arsenault unit outlines. The "A" block in the Key unit proposal was proposed to be included in part in the Prudhoe Bay Unit at one time and this same acreage in part was later proposed to be added to the Duck Island Unit. Neither proposal was ever finalized. To my knowledge the "B" block in the Key unit proposal and the Arsenault unit area has never been reviewed for unitization of any type by the Department. We would like to meet with you and the other effected working interest owners concerning both unit area proposals once everyone has been notified of your proposals and you have assembled a geologic report for each area.

Sincerely,



William Van Dyke
Petroleum Manager

WVD/HB:4141Z

AMERADA HESS CORPORATION

LEON HESS
Chairman of the Board

1185 AVENUE OF THE AMERICAS
NEW YORK, NEW YORK 10036
(212) 597-3400

March 2, 1988

Senator John B. Coghill
Alaska State Legislature
Senate Resources Committee
Box V
Juneau, Alaska 99511

Dear Senator Coghill:

I regret that I must decline your invitation to testify at the Senate Resources Committee hearings next Monday, March 7, regarding legislation to encourage oil and gas development activities in Alaska.

I believe fervently in the need for legislation to encourage development of smaller, offshore Alaskan oil fields. I am convinced there are many, isolated smaller fields in the immediate vicinity of Seal Island and Northstar which will be oil bearing. Historically, similar discoveries have been made in various parts of the world. Prudhoe Bay was the original large discovery, and special legislation should be considered to enable future smaller discoveries to come to the market so that Alaska may continue to benefit from its valuable potential oil reserves. The local jobs that will be created, and the auxiliary effect on the Alaskan economy of the substantial capital investments that will be made, will greatly benefit the people of Alaska, both now and far into the future. The State should act now to encourage development. Because of the hostile operating environment, the lead time for development in Alaska is much longer and the costs are much higher.

Governor Cowper had advised me that he does not at this time believe it is in the best interests of the people of Alaska to support any legislative changes. Under no circumstances will I promote taking any action that the Governor of Alaska would not fully support as being in the best interests of all concerned. Unfortunately, this particular bill has been proposed to your Committee without my knowledge that it presented the same proposal made to Governor Cowper. This was not authorized.

Senator John B. Coghill
Page 2

After I received your letter, I telephoned Governor Cowper to ascertain whether he had changed his views. If he had requested me to testify because he supported the bill, I would be very happy to come to Alaska to appear before your Committee.

I do appreciate your invitation and hope you will understand why I cannot attend. I will not be a party to promoting legislation which the Governor does not want to support.

Very truly yours,

Leon Hess

cc: Governor Steve Cowper

AMERADA HESS CORPORATION

LEON HESS
Chairman of the Board

1185 AVENUE OF THE AMERICAS
NEW YORK, NEW YORK 10036
(212) 997-8400

March 2, 1988

The Honorable Steve Cowper
Governor of the State of Alaska
P.O. Box A
Juneau, Alaska 99811-0101

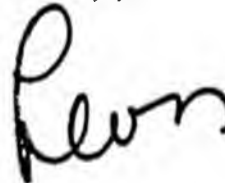
Dear Governor Cowper:

On January 28 you wrote to me advising that you could not support legislation proposed to encourage the discovery and development of smaller Alaskan oil fields. I accept the same. In my two visits to you last year, I stressed my belief that the passage of effective legislation in Alaska required your support and advised that Amerada Hess would not be a party to pushing legislation that was not supported by you.

Unbeknownst to me, it has been represented by others, to try to ram through a bill, that I would appear to testify on behalf of that legislation. I tried to contact you on Monday to ascertain whether you would want me to testify on behalf of this legislation and could not reach you. I farther understand that someone has written a letter to you stating that I would testify this coming Monday on the bill. This is not the case. Under no circumstances do I want to be a party to legislation unless you were fully supportive of that legislation. I will not push for legislation that you do not think is in the best interests of the people of the State of Alaska.

I apologize to you for other people trying to get me to participate in ramming through the very legislation you did not support. I do not operate in that way.

Sincerely,



cc: Senator John B. Coghill

LAW OFFICES

BIRCH, HORTON, BITTNER, PESTINGER AND ANDERSON

A PROFESSIONAL CORPORATION

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801, 306.9

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STEPHEN F. SORENSEN
SHERIDAN STRICKLAND**
JONATHAN R. TILLINGHAST
DANIEL W. WESTERBURG
T. HENRY WILSON

*D.C. BAR ONLY
**D.C. AND ALASKA BAR
ALL OTHERS ALASKA BAR ONLY

1127 WEST SEVENTH AVENUE
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TELECOPIER (907) 278-2822
TELEX 23-386

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100 CUSHMAN STREET, SUITE 311
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TELECOPIER (907) 456-9088

December 10, 1987

COPY

The Honorable Steve Cowper
Governor of the State of Alaska
P.O. Box A
Juneau, Alaska 99811-0101

VIA FEDERAL EXPRESS

Dear Governor Cowper:

At your request, and on behalf of Amerada Hess, I am pleased to forward draft legislation that would give your administration the power to encourage development of Alaska's smaller, offshore oil fields. Without that relief, development of these fields will be uneconomic, and will not occur.

It is conservative legislation. Many other oil producing jurisdictions have encouraged new oil development by forgiving royalties and severance taxes without regard to project economics and for the life of the field. The enclosed bill takes a more cautious approach, designed to foster development where it would not otherwise occur. Under the bill, if a company purchased its leases prior to January 1, 1986 -- in other words, at a time of radically different oil price expectations -- and the company can demonstrate that it cannot develop its field under current economic conditions, it can receive royalty and production tax relief, but only until recovery of initial development costs. Once those costs are recovered, the relief automatically ends, and the state will have in return: (1) a revenue-producing field that would not otherwise have been developed; (2) a net profit share of production, if the lease is not already a net profit share lease; (3) particularized local hire requirements developed on a constitutionally-defensible case-by-case basis by the Commissioner of Labor; and (4) if it desires, ownership of any affiliated common carrier pipeline.

Relief is available only to those oil fields where the costs of development are so high in relation to foreseeable production revenues as to make development uneconomic. As you have recognized, these are Alaska's smaller offshore fields that face

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particular hurdles such as distance from existing pipeline transportation, relatively deep water, sea ice, seasonal drilling restrictions, and high construction and operating costs. However, those constraints make a field uneconomic only if their associated costs exceed likely field production revenues. There is no fixed formula to determine what level of reserves will overcome any particular mix of cost impediments. By defining "uneconomic" fields as ones where development costs exceed production revenues, the bill necessarily takes account of all the engineering and operational difficulties that make development of small offshore fields so uniquely difficult.

The bill has been carefully tailored to limit relief to those instances where it is necessary and appropriate. Three particular aspects of the bill guarantee its limited scope:

(1) After relief is granted, your commissioners of Revenue and Natural Resources will keep a close watch on field revenues. Once the company has realized revenue sufficient to pay for development costs, they will terminate the relief. In this way, the state is assured that the moment a company begins to realize any profit from its investment, the company will have to pay royalty and production tax at the normal rate;

(2) The company must meet four distinct requirements to obtain any relief: One, relief is available only to those who bought their leases before the unanticipated collapse of oil prices in 1986; Two, the company must have explored its properties and delineated reserves; Three, relief is available only for fields that have never had commercial production; and Four, most fundamentally, the company must meet its burden of showing that unless relief is granted, it cannot recover its development costs in a commercially reasonable time; and

(3) Companies can apply for relief only during the next six years. The bill is thus an emergency measure, intended only to provide an immediate, short-term stimulus to Alaska's moribund economy and not to signal a permanent shift in Alaska's leasing policy. For this reason, the immediate economic benefit of this legislation to the State of Alaska will be substantial. Under the bill, a company must delineate its reserves before application is made. Lessees will thus have a strong incentive to accelerate their exploration plans in order to meet the application deadline.

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As you and your staff know, other states, and oil producing countries, have recognized the need to adjust royalties and severance taxes in order to stimulate new investment and employment. In 1983, for example, the United Kingdom acted swiftly in response to a downturn in new oil development. That year, Parliament provided that:

(1) Any new field north of the Southern Gas Basin approved for development after April 1, 1982 would be excused from the government's 12½ percent royalty over the life of the field; and

(2) To encourage small field development, 20,000 barrels per day of production from all fields would be exempt from the petroleum revenue tax, up to a 75 million barrel field limit.

In the same vein, the province of Alberta has provided that any exploratory well drilled between November, 1986 and October, 1987 will be free of royalties for a period of five years, while wells drilled in the subsequent two years will enjoy three and one year royalty holidays, respectively. Alberta has also cut royalty rates across the board for existing production by 2-3 percent in order to improve companies' cash flow. At the same time, the federal government has instituted the Canadian Exploration and Development Incentive Program, which provides cash grants of up to \$2.5 million (U.S.) for new exploration and development.

Finally, a number of producing states have provided for severance tax exemptions of varying duration for new wells. In Louisiana, for example, new wildcat wells are exempt from the severance tax until 1990, while all new oil production in Montana is exempt for two years. Other exemption "windows" to encourage new or enhanced production have been enacted by Mississippi, North Dakota, Oklahoma and Wyoming.

I would like to touch on one other component of the legislation. The bill allows the state to acquire the lessee's related pipeline interest as a condition of granting relief. We previously offered this option believing that it would substantially increase our proposal's benefits to the state. Since then, members of your administration have voiced particular concern over this aspect. We continue to believe it would be of substantial benefit to the state to own this pipeline, not only in terms of tariff revenues, but also to encourage development of nearby, prospective fields. However, we do not want this

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particular provision to in any way complicate the bill's progress or jeopardize your ability to support it. If you feel the provision would do either, we would concur that it be deleted.

I am confident that Amerasia Hess can meet the strict standards of this legislation for the Northstar/Seal Island project. I also believe that your sponsorship and active support of this legislation will signal strong and positive commitment to Alaska's economic future and will receive overwhelming public support. It will help break the current economic logjam in Alaska oil development. It will clearly demonstrate that your administration is committed to taking the forceful steps necessary to turn Alaska's economy around.

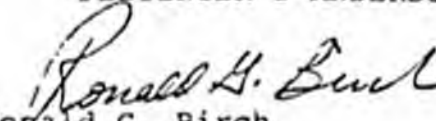
Legislation of this kind serves Alaska and the nation, and there should not be any opposition to it. It will advance development by at least a decade at the very time Alaska most needs that development.

Thank you for the interest you have shown on this issue. From this point, as we all have recognized, time is of the essence. Legislation removing the current barriers to Northstar/Seal Island development is critically important this session, and with one month remaining before the session convenes, we must find a sponsor who is anxious to make this bill a legislative priority. Your personal leadership in setting the agenda before Alaska's legislators return to Juneau would set this matter on the proper course.

With your permission, I will call next week, and I will be anxious to hear your reaction to our proposal.

Sincerely,

BIRCH, HORTON, BITTNER
PESTINGER & ANDERSON


Ronald G. Birch

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Enclosure

bcc copies:
John Tillinghast
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