

11954

SENATE

RESOURCES

thereafter for such further period as is provided by law, the lease or other agreement.

16.4 *Salvaging Equipment Upon Termination.* Working Interest Owners shall have the right for such period of time as may reasonably be necessary (but not less than three (3) years) after the date of termination of this agreement to salvage and remove Unit Equipment. The Director may extend such period of time for salvage and removal when in his opinion such action is warranted.

16.5 *Certificate of Termination.* Upon termination of this agreement, Unit Operators shall file for record in the Barrow Recording District and in the filing office of the Division of Lands in Anchorage, Alaska a certificate declaring that this agreement has terminated and its termination date.

ARTICLE 17

EXECUTION

17.1 *Original, Counterpart, or Other Instrument.* An owner of Oil or Gas Rights may become a party to this agreement by executing the original of this instrument, a counterpart thereof, or other instrument agreeing to become a party hereto. The execution of any such instrument shall have the same effect as if all the parties had executed the same instrument.

17.2 *Joinder in Dual Capacity.* Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests within the Unit Area owned or controlled by such party.

ARTICLE 18

RELATIONSHIP OF AGREEMENTS

18.1 *Unit Agreement and Unit Operating Agreement.* Insofar as the respective rights and obligations of Working Interest Owners on the one hand and the State of Alaska on the other hand are concerned, this agreement shall control in case of any conflict between it and the Unit Operating Agreement. Insofar as the rights and obligations of the Royalty Interest Owners other than the State

of Alaska and of the Working Interest Owners are concerned, the Unit Operating Agreement shall control in cases of conflict between the two agreements. If they so desire and if they so provide in the Unit Operating Agreement, the Working Interest Owners and the Royalty Owners other than the State of Alaska shall have the right to establish a different method of accounting between themselves from that here provided as between the State of Alaska and the other parties hereto.

ARTICLE 19

GENERAL

19.1 *Amendments Affecting Working Interest Owners.* Amendments hereto relating wholly to Working Interest Owners may be made if executed by all Working Interest Owners.

19.2 *Action by Working Interest Owners.* Any action, determination or approval required or permitted by Working Interest Owners hereunder shall be in accordance with the provisions of the Unit Operating Agreement.

19.3 *Lien and Security Interest of Unit Operators.* Unit Operators shall have a lien upon and a security interest in seven-eighths ($\frac{7}{8}$) of all Unitized Substances and in all other interests of Working Interest Owners in the Unit Area as provided in the Unit Operating Agreement.

19.4 *Gender and Number.* As used herein, whenever the context so requires, the neuter gender includes the masculine and the feminine, and the singular includes the plural, and vice versa.

19.5 *Headings.* The table of contents contained in this agreement and the title headings of the respective articles of this agreement are inserted for convenience only and shall not be deemed to be part of this agreement or considered in construing this agreement.

**EXCERPTS OF
ALASKA
STATUTES
(Title 46)**

Sec. 46.03.822. Strict liability for the release of hazardous substances.

(a) Notwithstanding any other provision or rule of law and subject only to the defenses set out in (b) of this section, the exception set out in (i) of this section, the exception set out in AS 09.65.240, and the limitation on liability provided under AS 46.03.825, the following persons are strictly liable, jointly and severally, for damages, for the costs of response, containment, removal, or remedial action incurred by the state, a municipality, or a village, and for the additional costs of a function or service, including administrative expenses for the incremental costs of providing the function or service, that are incurred by the state, a municipality, or a village, and the costs of projects or activities that are delayed or lost because of the efforts of the state, the municipality, or the village, resulting from an unpermitted release of a hazardous substance or, with respect to response costs, the substantial threat of an unpermitted release of a hazardous substance:

(1) the owner of, and the person having control over, the hazardous substance at the time of the release or threatened release; this paragraph does not apply to a consumer product in consumer use;

(2) the owner and the operator of a vessel or facility, from which there is a release, or a threatened release that causes the incurrence of response costs, of a hazardous substance;

(3) any person who at the time of disposal of any hazardous substance owned or operated any facility or vessel at which the hazardous substances were disposed of, from which there is a release, or a threatened release that causes the incurrence of response costs, of a hazardous substance;

(4) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by the person, other than domestic sewage, or by any other party or entity, at any facility or vessel owned or operated by another party or entity and containing hazardous substances, from which there is a release, or a threatened release that causes the incurrence of response costs, of a hazardous substance;

(5) any person who accepts or accepted any hazardous substances, other than refined oil, for transport to disposal or treatment facilities, vessels or sites selected by the person, from which there is a release, or a threatened release that causes the incurrence of response costs, of a hazardous substance.

AS 46.03.822(m)

(m) In this section, "damages" has the meaning given in AS 46.03.824 and includes damage to persons or to public or private property, damage to the natural resources of the state or a municipality, and damage caused by acts or omissions of a response action contractor for which the response action contractor is not liable under AS 46.03.823 or 46.03.825.

...

Sec. 46.03.824. Damages.

Damages include but are not limited to injury to or loss of persons or property, real or personal, loss of income, loss of the means of producing income, or the loss of an economic benefit.

...

Sec. 46.03.760. Civil action for pollution; damages.

(a) A person who violates or causes or permits to be violated a provision of this chapter other than AS 46.03.250 - 46.03.313, or a provision of AS 46.04 or AS 46.09, or a regulation, a lawful order of the department, or a permit, approval, or acceptance, or term or condition of a permit, approval, or acceptance issued under this chapter or AS 46.04 or AS 46.09 is liable, in a civil action, to the state for a sum to be assessed by the court of not less than \$500 nor more than \$100,000 for the initial violation, nor more than \$5,000 for each day after that on which the violation continues, and that shall reflect, when applicable,

(1) reasonable compensation in the nature of liquidated damages for any adverse environmental effects caused by the violation, which shall be determined by the court according to the toxicity, degradability, and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

(2) reasonable costs incurred by the state in detection, investigation, and attempted correction of the violation;

(3) the economic savings realized by the person in not complying with the requirement for which a violation is charged.

(b) Except as determined by the court under (e)(4) of this section, actions under this section may not be used for punitive purposes, and sums assessed by the court must be compensatory and remedial in nature.

(c) The court, upon motion of the department or upon its own motion, may defer assessment of all or part of that portion of the sum imposed upon a person under (a)(3) of this section conditioned upon the person complying, within the shortest feasible time, with the requirement for which a violation is shown.

(d) In addition to liability under (a) - (c) of this section, a person who violates or causes or permits to be violated a provision of AS 46.03.740 - 46.03.750 is liable to the state, in a civil action brought under AS 46.03.822, for the full amount of actual damages caused to the state by the violation, including

(1) direct and indirect costs associated with the abatement, containment, or removal of the pollutant;

(2) restoration of the environment to its former state;

(3) amounts paid as grants under AS 29.60.510 - 29.60.599 and as emergency first response advances and reimbursements under AS 46.08.070(c); and

(4) all incidental administrative costs.

...

Sec. 46.03.740. Oil pollution.

A person may not discharge, cause to be discharged, or permit the discharge of petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or a residuary product of petroleum, into, or upon the waters or land of the state except in quantities, and at times and locations or under circumstances and conditions as the department may by regulation permit or where permitted under art. IV of the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended.

**EXCERPTS OF
ALASKA
STATUTES
(Criminal – Title 46)**

Sec. 46.03.710. Pollution prohibited.

Article 09. PROHIBITED ACTS AND PENALTIES

A person may not pollute or add to the pollution of the air, land, subsurface land, or water of the state.

...

Sec. 46.03.740. Oil pollution.

A person may not discharge, cause to be discharged, or permit the discharge of petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or a residuary product of petroleum, into, or upon the waters or land of the state except in quantities, and at times and locations or under circumstances and conditions as the department may by regulation permit or where permitted under art. IV of the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended.

...

Sec. 46.03.755. Discharge reporting.

(a) A person in charge of a facility, operation, or vessel, as soon as the person has knowledge of any discharge from the facility, operation, or vessel in violation of AS 46.03.740 or 46.03.750, shall immediately notify the department of the discharge.

...

Sec. 46.03.790. Criminal penalties.

(a) Except as provided in (d) of this section, a person is guilty of a class A misdemeanor if the person with criminal negligence

(1) violates a provision of this chapter, AS 46.04, AS 46.09, or AS 46.14, a regulation or order of the department, or a permit, approval, or acceptance, or a term or condition of a permit, approval, or acceptance issued under this chapter, AS 46.04, AS 46.09, or AS 46.14;

(2) fails to provide information or provides false information required by AS 46.03.465, 46.03.475, 46.03.755, AS 46.04, or AS 46.09, or by a regulation adopted by the department under AS 46.03.020 (12), 46.03.460, 46.03.755, AS 46.04, or AS 46.09;

(3) makes a false statement or representation in an application, label, manifest, record, report, permit, or other document filed, maintained, or used for purposes of compliance with AS 46.03.250 - 46.03.313 applicable to hazardous wastes or a regulation adopted by the department under AS 46.03.250 - 46.03.313;

(4) makes a false statement, representation, or certification in an application, notice, record, report, permit, or other document filed, maintained, or used for purposes of compliance with AS 46.03.460 - 46.03.475, AS 46.14, or a regulation adopted under AS 46.03.020 (12), 46.03.460, or AS 46.14; or

(5) renders inaccurate a monitoring device or method required to be maintained under AS 46.14, a regulation adopted under AS 46.03.020 (12) or AS 46.14, a permit issued by the department or a local air quality control program under AS 46.14, or a permit issued by the department under the program authorized by AS 46.03.020 (12).

(b) *[Repealed, Sec. 5 ch 141 SLA 1990].*

(c) Each day on which a violation described in this section occurs is considered a separate violation.

(d) Notwithstanding (a) of this section, a person who with criminal negligence discharges oil in violation of AS 46.03.740 or who, when required by an oil discharge to comply with the provisions of an oil discharge contingency plan approved under AS 46.04.030, with criminal negligence fails to comply with the plan is guilty of

(1) a class C felony if the oil discharge is 10,000 barrels or more;

(2) a class A misdemeanor if the oil discharge is less than 10,000 barrels.

(e) *[Repealed, Sec. 5 ch 141 SLA 1990].*

(f) *[Repealed, Sec. 5 ch 141 SLA 1990].*

(g) In this section,

(1) "barrel" has the meaning given in AS 46.04.900;

(2) "criminal negligence" has the meaning given in AS 11.81.900;

(3) *[Repealed, Sec. 62 ch 21 SLA 1991].*

(h) Notwithstanding AS 12.55.035 (b), upon conviction of a violation of a regulation adopted under AS 46.03.020 (12) or of a violation related to AS 46.14 and described in (a) of this section, a defendant who is not an organization may be sentenced to pay a fine of not more than \$10,000 for each separate violation.

Article 06. DEFINITIONS

Sec. 11.81.900. Definitions.

(a) For purposes of this title, unless the context requires otherwise, ...

(4) a person acts with "criminal negligence" with respect to a result or to a circumstance described by a provision of law defining an offense when the person fails to perceive a substantial and unjustifiable risk that the result will occur or that the circumstance exists; the risk must be of such a nature and degree that the failure to perceive it constitutes a gross deviation from the standard of care that a reasonable person would observe in the situation.

**COMPETITIVE
OIL AND GAS
LEASE
(Form No. DL-1)**

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
Division of Lands

25637

LEASE NO. ADL _____

Competitive Oil and Gas Lease

THIS LEASE is made by and between the State of Alaska, acting by and through the Director of the Division of Lands, Department of Natural Resources or his authorized agent, hereinafter called "Lessor", and

BP EXPLORATION COMPANY (ALASKA) INC., as to an undivided 50% interest, and

SINCLAIR OIL & GAS COMPANY, as to an undivided 50% interest,

hereinafter called "Lessee", whether one or more.

1. GRANT. For and in consideration of a cash bonus and the first year's rental, the receipt of which is hereby acknowledged, and of the rentals, royalties, covenants, and conditions herein contained on the part of the Lessee to be paid, kept and performed, and subject to the conditions and reservations herein contained, Lessor does hereby grant and lease unto Lessee, exclusively, without warranty, for the sole and only purposes of exploration, development, production, processing and marketing of oil, gas, and associated substances produced therewith, and of installing pipe lines and structures thereon to find, produce, save, store, treat, process, transport, take care of and market all such substances, and for drilling water wells and taking underground and surface water for use in its operations thereon, and for housing and boarding employees in its operation thereon, the following described tract of land in Alaska:

Tract No. U-3-6-12

All Section 13, T12N, R10E, UM
All Section 14, " " "
All Section 23, " " "
All Section 24, " " "

containing 2560.00 acres, more or less, hereinafter called "said land".

For the purposes of this lease, said land contains the legal subdivisions, as shown on the plat of said land attached hereto, marked Exhibit A and by this reference made a part of this lease.

If said land is described above by protracted legal subdivision and Lessor hereafter causes said land to be surveyed under the public land rectangular system, the boundaries of said land shall be those established by such survey, when approved, subject, however, to the provisions of the regulations relating to such surveys.

2. "OIL AND GAS". "Oil" means crude petroleum oil and other hydrocarbons regardless of gravity which are produced and saved in liquid form at the well by ordinary production methods. "Gas" means all natural gas and all hydrocarbons produced at the well not defined herein as oil. "Associated substances" mean all substances produced in association with oil or gas and not defined herein as oil or gas.

3. TERM. This lease is issued for an initial primary term of ten years from date hereof, subject to extension as provided in Paragraph 4 hereof, and shall continue so long thereafter as oil and gas or either - any of them are produced in paying quantities from said land; provided, that this lease may be extended beyond its primary term as provided in Paragraph 5 hereof and shall not expire under the conditions set forth in Paragraphs 4, 7, and 8 hereof.

4. EXTENSION BY SUSPENSION OF OPERATIONS. If, prior to the expiration of the primary term, Lessor, in the interest of conservation, directs or assents to the suspension of all operations and production, if any, hereunder, the primary term will be extended by adding the period of suspension thereto.

5. EXTENSION BY UNIT PRODUCTION. (a) This lease shall without application be extended beyond its primary term if upon or prior to the expiration date of such term the lease is committed to a unit agreement approved or prescribed by Lessor as provided in the regulations, production of oil or gas is had in paying quantities under the agreement, and a portion of such production is allocated to said land under the agreement. In such event this lease shall continue in effect so long as it remains subject to such agreement and actual production under said agreement is allocated to said land; (b) The Commissioner may, in his discretion provide for the extension of the term of this lease, if such lease is on the expiration date thereof included in an approved unit plan or if it is included in a program of secondary recovery operation designed to bring about or restore production, provided, however, that if any lease or portion thereof is eliminated from such unit plan or recovery program, or if such unit plan or recovery program is terminated, then any such lease or portion thereof shall continue in full force and effect for ninety (90) days from the date of such elimination or termination and so long thereafter as drilling or re-drilling operations are being conducted thereon and so long thereafter as oil or gas is produced in paying quantities.

6. EXTENSION BY DRILLING. (a) If production shall have been obtained in paying quantities during the primary term, and if, at the end of the primary term, or at any time prior to the end of the primary term, such production shall have ceased from any cause, or in the event production shall at any time or times after the expiration of the primary term cease from any cause, then this lease shall not terminate if the Lessee commences drilling or reworking operations (either in a well from which such production has ceased or in a new well) within sixty days after the cessation of production, and the lease shall remain in full force and effect so long as such operations are prosecuted with reasonable diligence or are suspended under Paragraph 27 hereof, and, if such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect so long as oil or gas is produced therefrom in paying quantities; (b) if actual drilling has commenced on the expiration date of the primary term of the lease and is continued with reasonable diligence, such operations to include re-drilling, sidetracking or other means necessary to reach the originally proposed bottom hole location, the lease shall continue in full force and effect until ninety (90) days after such drilling had ceased and for so long thereafter as oil or gas is produced in paying quantities; (c) if all or part of the lands covered by the lease are lands that have been selected by Alaska under the laws of the United States granting lands to Alaska and the conditional lease was issued thereon, the term of the lease shall be extended for a period equal to the period during which the lease was conditional.

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7. **EXTENSION BY SHUT-IN PRODUCTION.** If, upon the expiration of the primary term or at any time or times thereafter, there is on said land a well capable of producing oil or gas in paying quantities, this lease shall not expire because Lessee fails to produce the same unless Lessor gives notice to Lessee allowing a reasonable time, which shall not be less than sixty days, after such notice to place the well on a producing status, and Lessee fails to do so; provided, that after such status is established such production shall continue on the said land unless and until suspension of production is allowed by Lessor.

8. **EXTENSION BY SUSPENSION OF PRODUCTION.** This lease shall not expire because of any suspension of operations in or upon or production from said land if such suspension is made under any order or with the consent of Lessor.

9. **RENTAL.** This lease shall terminate on any anniversary date hereof prior to the completion on said land of a well capable of producing oil or gas in paying quantities, unless on or before said anniversary date Lessee shall pay or tender to Lessor as annual rental a sum equal to \$1.00 per acre, or fraction thereof, then included in this lease, or unless such annual rental has been waived or suspended as provided in Paragraph 13 of this lease. If Lessor's office is not open for business on the anniversary date, the time for payment is extended to include the next day on which said office is open for business.

10. **MINIMUM ROYALTY.** Commencing with the lease year beginning on or after completion on said land of a well capable of producing oil or gas in paying quantities, Lessee shall pay Lessor, at the expiration of each lease year, in lieu of rental a minimum royalty equal to \$1.00 per acre, or fraction thereof, then included in this lease, or the difference between the actual royalty paid on production during the year if less than \$1.00 per acre and the prescribed minimum royalty.

11. **ROYALTY ON PRODUCTION.** Except for oil and gas used on said land for development and production or unavoidably lost, Lessee shall pay Lessor as royalty the following:

- (a) On oil 12.5 per cent in amount or value of the oil produced and saved and removed or sold from said land.
- (b) On gas 12.5 per cent in amount or value of the gas produced and saved and sold or used off said land or used for the extraction of natural gasoline or other products therefrom.
- (c) On associated substances 12.5 per cent in amount or value of such substances produced and saved and removed or sold from said lands.

12. **REDUCTION OF ROYALTY RATES FOR DISCOVERY.** If Lessee shall drill on said land and make the first discovery of oil or gas in commercial quantities in any geological structure, the royalty rate under this lease shall, instead of the rates prescribed in Paragraph 11, be five per cent for a period of ten years following the date of such discovery, and thereafter the royalty rates shall be those prescribed in Paragraph 11. If this lease is committed to a unit agreement approved or prescribed by Lessor as provided in the regulations, the five per cent royalty rate shall not apply to all, but only, the production allocated to this lease under such agreement.

13. **REDUCTION OF RENTAL AND ROYALTY.** Rental or minimum royalty may be waived, suspended, or reduced, or royalty may be reduced on all of said land or any tract or portion thereof segregated for royalty purposes if Lessor finds that such relief is necessary for the purpose of encouraging the greatest ultimate recovery of oil or gas and is in the interest of conservation of natural resources and either that such relief is necessary in order to promote development or that the lease cannot be successfully operated under the terms provided herein.

14. **ROYALTY IN KIND.** Whenever, at the option of Lessor, which may be exercised from time to time upon not less than six months notice to Lessee, Lessor elects to take its royalty in kind, Lessee shall deliver free of charge (on said land or at such place as Lessor and Lessee mutually agree upon) to Lessor or to such individual, firm, or corporation as Lessor may designate all royalty oil and/or gas produced and saved from said land. Such oil and/or gas shall be in good and merchantable condition. Lessee shall, if necessary, furnish storage for royalty oil free of charge for thirty days after the end of the calendar month in which the oil is produced from said land; provided, that Lessee shall not be held liable for loss or destruction of royalty oil and/or gas from causes beyond Lessee's reasonable control. Should Lessee dehydrate or clean the oil or gas produced from said land, Lessee shall be entitled to an allowance of the actual cost of dehydrating or cleaning said royalty oil or gas.

15. **ROYALTY IN VALUE.** At the option of Lessor, which may be exercised from time to time upon not less than six months notice to Lessee, and in lieu of royalty in kind, Lessee shall pay to Lessor the field market price or value at the well of all royalty oil and/or gas. All royalty that may become payable in money to Lessor shall be paid on or before the last day of the calendar month following the month in which the oil or gas is produced. The payments shall be accompanied by copies of run tickets or other satisfactory evidence of sales, shipments, and amounts of gross production.

16. **PRICE.** The field market price or value of royalty oil or gas shall not be less than the highest of: (1) The price actually paid or agreed to be paid to Lessee at the well by the purchaser thereof, if any; or (2) The posted price of Lessee in the field for such oil or gas at the well, if any; or, (3) The prevailing price received by other producers in the field at the well for oil of like grade and gravity or gas of like kind and quality at the time such oil or gas is removed from said land or run into storage, or such gas is delivered to an extraction plant.

17. **PAYMENTS.** All payments to Lessor under this lease shall be made payable to the Department of Revenue of the State of Alaska and shall be tendered to Lessor at the place designated under Paragraph 43 for giving notices to Lessor.

18. **OFFSET WELLS.** Lessee shall drill such wells as a reasonably prudent operator would drill to protect Lessor adequately from loss by reason of drainage resulting from production on other land. Without limiting the generality of the foregoing sentence, if oil or gas should be produced in a well on other land not owned by Lessor or on which Lessor receives a lower rate of royalty than the royalty under this lease, which well is within 500 feet in the case of an oil well or 1,500 feet in the case of a gas well of lands then subject to this lease, and such well shall produce oil or gas in paying quantities for a period of thirty consecutive days, and if, after notice to Lessee and an opportunity to be heard, Lessor finds that production from such well is draining lands then subject to this lease, Lessee shall within 120 days after written demand by Lessor begin in good faith and prosecute diligently drilling operations for an offset well on said land. In lieu of drilling any well required by this paragraph, Lessee may with Lessor's consent compensate Lessor in full each month for the estimated lost of royalty through drainage in the amount determined by Lessor.

19. **OTHER WELLS.** This lease contemplates the reasonable development of said land for oil and gas as the facts may justify. Upon discovery of oil or gas in paying quantities on said land, Lessee shall drill such wells as a reasonably prudent operator would drill having due regard for the interests of Lessor or as well as the interests of Lessee.

20. **DILIGENCE; PREVENTION OF WASTE.** Lessee shall exercise reasonable diligence in drilling, producing, and operating wells on said land unless consent to suspend operations temporarily is granted by Lessor; shall carry on all operations hereunder in a good and workmanlike manner in accordance with approved methods and practices, having due regard for the prevention of waste of oil and gas and the entrance of water to the oil and gas bearing sands or strata to the destruction or injury of such deposits and the preservation and conservation of the property for the future productive operations; shall use reasonable care and all proper safeguards to prevent the pollution of water; shall plug securely in an approved manner any well before abandoning it; shall allow Lessor to inspect all operations at any time; shall carry out at Lessee's expense all reasonable orders and requirements of Lessor relative to the prevention of waste and the preservation of said land, and on failure of Lessee so to do, Lessor shall have the right together with any other recourse available to it to enter on said land to repair damage or prevent waste at Lessee's expense; and shall, abide by and conform to valid applicable rules and regulations of the Alaska Oil and Gas Conservation Commission and the regulations of Lessor relating to the matters covered by this paragraph in effect on the effective date hereof or hereafter in effect if not inconsistent with any specific provisions of this lease.

21. **WELL LOCATIONS.** Lessee shall within five days after spudding in a well advise Lessor in writing of the location and date of spudding of said well.

22. **APPROVAL OF PLANS.** Lessee shall not place into actual operation any plan or method for the purpose of stimulating or increasing production on said land other than plans and methods in common use without first having obtained the written approval of Lessor.

23. **LOGS AND RECORDS.** An electric log or radioactive log, if taken, and a descriptive geologic sample log, if taken, and a record of all tests run for each well drilled on said land, together with a plat showing the exact location of each such well, shall be filed with Lessor within thirty (30) days after such well has been completed, suspended, or abandoned. Any and all information filed by Lessee with Lessor in connection with this lease shall be available at all times for the confidential use of Lessor for the purpose of enforcing compliance with the terms, covenants, and conditions of this lease and the regulations of the Lessor but shall not be open for inspection by any person other than officers, or employees of Lessor and persons performing any function or work assigned to them by Lessor for a period of twenty-four (24) months after the thirty (30) day filing period, except upon written consent of Lessee. Notwithstanding any other provision hereof, said information may be disclosed to any person where such disclosure is reasonably necessary for the administration of the functions, responsibilities, and duties vested by law in the Commissioner of the Department of Natural Resources or in the Division of Lands or the Director thereof, including but not limited to functions, responsibilities, and duties arising in connection with any litigation or administrative action relating to this lease or to the rights, interests, and obligations arising hereunder.

24. **RECORDS.** Lessee shall keep and maintain accurate books and records showing the production and disposition of all oil and gas produced on said land and shall permit Lessor, its agents, and assigns at all reasonable hours to examine the books, records and reports of production shall be based on such methods and techniques as shall be required by the most accurate figures reasonably available with the understanding that the Lessee to provide appropriate

payment for all damages sustained by said owner by reason of entering on said land; provided, that if said owner for any cause whatever refuses or neglects to settle said damages, Lessor or its Lessee shall have the right to institute such legal proceedings in any court of competent jurisdiction wherein the land is situated as may be necessary to settle said damages which the owner of such land shall offer. Lessee hereby agrees to pay any damages that may become payable under said statutory provisions and to indemnify Lessor and hold it harmless from and against any claims, demands, liabilities, and expenses arising from or in connection with such damage. The furnishing of a bond in compliance with this Lease will be regarded by Lessor as a sufficient provision for the payment of all damage that may become payable under said statutory provisions.

26. BONDS.

(a) If required by Lessor, Lessee shall furnish a bond prior to the issuance of this lease in an amount equal to or least \$2.00 per acre or fraction thereof contained in said land but not less than \$1,000.00 and shall maintain said bond as long as required by Lessor.

(b) Before beginning drilling operations on said land Lessee must have furnished and shall maintain a bond in an amount of at least \$3,000.00.

(c) Lessee may, in lieu of the foregoing, furnish and maintain a statewide bond in the amount of \$100,000.00.

(d) Lessor may, after notice to Lessee and an opportunity to be heard, require a bond in a reasonable amount greater than the amount specified above in this paragraph where such greater amount is justified by the nature of the surface and its uses and improvements in the vicinity of said land and the degree of the risks involved in the types of operations being or to be carried out under this lease. A statewide bond will not satisfy any requirement of a bond imposed under this subparagraph but will be considered by Lessor in determining the need for and the amount of any additional bond under this subparagraph.

(e) If said land is committed in whole or in part to a cooperative or unit agreement approved or prescribed by Lessor pursuant to law and the regulations and a unit bond is furnished in accordance with the regulations, Lessee need not thereafter maintain any bond with respect to the portion of said land so committed to such agreement.

27. ACTS OF GOD. Should Lessee be prevented from complying with any expressed or implied covenant of this lease, from conducting drilling operations thereon, or from producing or marketing oil or gas from said land after efforts made in good faith, by reason of war, riots, acts of God, severe weather in the area of said land, acts of governmental authorities, failure or lack of adequate transportation facilities, or any other cause beyond Lessee's reasonable control whether similar to those enumerated or not, then while so prevented and for a reasonable time thereafter within which to resume operations, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply therewith. If drilling or reworking operations are suspended by virtue of this paragraph and the prosecution of such operations would have had the effect of preventing the expiration or termination of this lease, then this lease shall not terminate during the period which the obligation to perform such operations is suspended under this paragraph; provided, however, that nothing in this paragraph shall be construed to suspend the payment of rentals or of minimum royalties.

28. SUSPENSION. Lessor may from time to time direct or assent to the suspension of production or other operations or both under this lease if such action is necessary or justified in the interest of conservation.

29. RESERVATIONS. Lessor reserves the right to dispose of the surface of said land to others subject to this lease, and the right to authorize others by grant, lease, or permit subject to this lease and under such conditions as will prevent unnecessary or unreasonable interference with the rights of Lessee and operations under this lease, to enter upon and use said land:

(a) To explore for oil or gas by geological or geophysical means including the drilling of shallow core holes or stratigraphic tests to a depth of not more than 1,000 feet.

(b) To explore for, develop and remove natural resources other than oil, gas, and associated substances on or from said land.

(c) For nonexclusive easements and rights of way for any lawful purpose including shafts and tunnels necessary or appropriate for the working of said land or other lands for natural resources other than oil, gas or associated substances.

(d) For well sites and well bores of wells drilled from or through said land to explore for or produce oil, gas, and associated substances in and from other lands.

(e) For any other purpose now or hereafter authorized by law and not inconsistent with the rights of Lessee under this lease.

30. UNDERGROUND STORAGE. This lease does not authorize the subsurface storage of oil or gas except as a necessary incident to recycling pressure maintenance, repressuring, or other similar operation designed to increase the ultimate recovery of oil or gas. Lessor reserves the right to authorize the subsurface storage of oil or gas in said land by Lessee or by others in order to avoid waste or to promote conservation of natural resources and upon such conditions as will prevent unnecessary or unreasonable interference with the rights and operations of Lessee under this lease, including conditions prohibiting the storage of oil or gas without the consent of Lessee in any reservoir covered by this lease capable of producing oil or gas in paying quantities.

31. ASSIGNMENTS. This lease or any undivided interest herein may with the approval of Lessor be assigned or subleased as to said land or any one or more legal subdivisions included therein, or any separate and distinct zone or geological horizon underlying said land or such one or more legal subdivisions, to any person or persons qualified to hold a lease. No transfer of any interest in this lease including assignments of working or royalty interests and operating agreements and subleases shall be binding upon Lessor unless approved by Lessor. Lessee shall remain liable for all obligations under this lease accruing prior to the approval of such transfer. Approval of transfer of this lease or an interest therein will not be denied except (1) for failure to comply with the regulations, (2) in the discretion of Lessor, where the transfer covers any distinct zone or geological horizon, or (3) where Lessor determines that the best interests of Lessor justify such action. Applications for approval of a transfer under this paragraph must comply with the regulations and must be filed within ninety days after the date of final execution of the instrument of transfer. Where a transfer is made of all or a part of Lessee's interest in and to a portion of the acreage in said land the assigned acreage shall, at the option of Lessor, or may upon request of the transferee and with the approval of Lessor be segregated into a separate and distinct lease having the same effective date as this lease.

32. UNITIZATION. Whenever determined and certified by Lessor to be necessary or advisable in the public interest for the purpose of properly conserving the natural resources of any oil or gas pool, field or like area or any part thereof, which includes or underlies said land or any part thereof, Lessee may unite with other Lessees of Lessor or with others owning or operating lands not belonging to Lessor including lands belonging to the United States and with others, jointly or separately, in collectively adopting and operating under a cooperative or unit agreement for the development or operation of the pool or field or like area or part thereof. Lessee shall within thirty days after demand by Lessor subscribe to such a cooperative or unit agreement, which agreement shall be reasonable and shall adequately protect all parties in interest including Lessor. Lessor may with the consent of Lessee establish, alter, change, or revoke drilling, producing, rental, minimum royalty, and royalty requirements of this lease if committed to any such cooperative or unit agreement and may make such regulations with reference to this lease with the like consent of Lessee in connection with the institution and operation of any such cooperative or unit agreement as Lessor may determine to be necessary or proper to secure the proper protection of the public interest. If a portion of said land is committed to an approved or prescribed unit agreement, the committed acreage shall at the option of Lessor and may upon the request of Lessee and with the approval of Lessor be segregated into a separate and distinct lease having the same effective date as this lease.

33. SURRENDER. Lessee may at any time make and file with Lessor a written surrender of all rights under this lease or any portion thereof comprising one or more legal subdivisions or, with the consent of Lessor, of any separate and distinct zone or geological horizon underlying said lands or such one or more legal subdivisions thereof. Such a surrender shall be effective as of the date of filing subject to the continued obligations of Lessee and his surety to make payment of all royalties theretofore accrued and to place all wells on the surrendered land or in the surrendered zones or horizons in condition satisfactory to Lessor for suspension or abandonment; thereupon, Lessee shall be released from all other obligations accrued or to accrue under this lease with respect to the surrendered lands, zones, or horizons.

34. DEFAULT; TERMINATION. Whenever Lessee fails to comply with any of the provisions of this lease other than the payment of rental and Lessee fails within sixty days after written notice of such default to commence to remedy and thereafter prosecute diligently operations to remedy such default, Lessor may cancel this lease if at that time there is no well on said land capable of producing oil or gas in paying quantities. If at such time there is on said land a well capable of producing oil or gas in paying quantities, this lease may be cancelled only by judicial proceedings. In the event of any cancellation under this paragraph, Lessee shall have the right to retain under this lease any and all drilling or producing wells as to which no default exists together with a parcel of land surrounding each such well or wells and such rights of way through said land as may be reasonably necessary to enable Lessee to drill and operate such retained well or wells.

35. EXCESS AREA. If for any reason said land includes more acreage than the maximum permitted under applicable laws and/or regulations, this lease shall not be void but the acreage included in said land shall be reduced to the permitted maximum. Whenever Lessor determines that this lease so exceeds the permitted acreage and notifies Lessee stating the amount of acreage that must be eliminated, Lessee may within sixty days after such notice surrender one or more legal subdivisions included in said lands comprising at least the amount of acreage that must be eliminated. If such a surrender is not filed within such sixty days Lessor may terminate this lease as to the acreage that must be eliminated by mailing notice of such termination to Lessee describing the parcel or parcels eliminated. Such a notice shall have the effect of terminating this lease as to the parcel or parcels described in such notice.

36. RIGHTS ON TERMINATION. Upon the expiration or earlier termination of this lease as to all or any portion of said lands, Lessee shall have the privilege at any time within a period of six months thereafter, or such extension thereof as may be granted Lessor, of removing from said land or portion thereof all machinery, equipment, tools, and materials other than improvements needed for producing wells. Any materials, tools, appliances, machinery, structures, and equipment subject to removal as above provided which are allowed to remain on said land or portion thereof shall become the property of Lessor upon expiration of such period; provided, that Lessee shall remove any and all of such properties when so directed by Lessor. Subject to the foregoing, Lessee shall deliver up said lands or such portion or portions thereof in good order and condition.

37. INTEREST IN LAND. It is the intention of the parties that the rights vested in Lessee by this lease shall constitute an interest in real property in said land.

38. LESSOR INTEREST. If Lessor owns a lesser interest in the oil and gas deposits in said land than the entire and undivided fee simple estate, then the royalties and rentals herein provided shall be paid Lessor only in the proportion which its interest bears to the whole and undivided fee.

39. CONDITIONAL LEASE. If all or a part of said land is land that has been selected by the Lessor under laws of the United States granting lands to Lessor, but such land has not been patented to Lessor by the United States, then this lease is a conditional lease as provided by law until such patent becomes effective. If for any reason such a selection is not finally approved or such a patent does not become effective, any rental, royalty or minimum royalty payments made to Lessor under this lease will not be refunded.

40. DRILLING OPERATIONS. As used in this lease "drilling operations" mean any work or actual operations undertaken or commenced in good faith for the purpose of carrying out any of the rights, privileges or duties of Lessee under this lease, followed diligently and in due course by the construction of a road or derrick and/or other necessary structures for the drilling of an oil or gas well, and by the actual operation of drilling in the ground. Any such work or operations preliminary to drilling in the ground may be undertaken either on said land or in the vicinity of said land in any order Lessee shall see fit.

41. ACTUAL DRILLING. As used in this lease, "actual drilling" means any and all operations necessary or convenient to the drilling of a well in the ground after the first drilling or spudding with equipment of sufficient size and capacity to drill to the total depth proposed for the well.

42. RULES AND REGULATIONS. As used in this lease "regulations" mean the applicable and valid oil and gas leasing regulations of the Commissioner of the Department of Natural Resources in effect on the effective date of this lease unless otherwise specified.

43. INTERPRETATION. As used in this lease words which are defined in the regulations have the meaning assigned by such definition except where the context clearly requires a different meaning. The paragraph headings are not a part of this lease and are inserted only for convenience.

44. NOTICES. Any notice required or permitted under this lease shall be in writing and shall be given by registered or certified mail, return receipt requested, addressed as follows:

To Lessor

Director, Division of Lands
State of Alaska
344 Sixth Avenue
Anchorage, Alaska

To Lessee:

BP EXPLORATION COMPANY (ALASKA) INC.
900 Wilshire Boulevard
Los Angeles, California 90017

Any such notice shall be deemed given when delivered to the foregoing address. Either party may change the address to which such notices are to be sent, by a notice given in accordance with this paragraph.

45. HEIRS AND ASSIGNS. Subject to the other provisions of this lease, the covenants, conditions, and agreements contained in this lease shall extend to and be binding upon the heirs, executors, administrators, successors, or assigns of Lessor and Lessee.

46. WILDLIFE STIPULATIONS. This lease is subject to such stipulations as are attached.

IN WITNESS WHEREOF the parties have executed this lease effective as of the _____ day of FEB 1 1965 19____

BP EXPLORATION COMPANY (ALASKA) INC.

By [Signature] Vice President

STATE OF ALASKA

By [Signature] Secretary

SINCLAIR OIL & GAS COMPANY

By [Signature] Vice President

By [Signature]

Attest: [Signature] Asst. Secretary
LESSEE

Title: Minerals Officer LESSOR

THE UNITED STATES OF AMERICA }
STATE OF ALASKA }

This certifies that on the 29th day of January, 1965, before me, a notary public in and for the State of Alaska, duly

commissioned and sworn, personally appeared Norris C. Bakke, Jr., to me known and known to me to be the person described in and who executed the foregoing lease on behalf of the State of Alaska as Director of the Division of Lands, Depart-

ment of Natural Resources, or his authorized agent. The said Norris C. Bakke, Jr. executed said lease in my presence and, after being duly sworn according to law, stated to me under oath that he is the Director of the Division of Lands, Department of Natural Resources, or his authorized agent, and has authority pursuant to law to execute the foregoing lease as such Director, or authorized agent, on behalf of the State of Alaska, acting through the Division of Lands, Department of Natural Resources and that he executed the same freely and voluntarily as the free and voluntary act and deed of the said State of Alaska and for the Division of Lands, Department of Natural Resources.

WITNESS my hand and official seal of the day and year in this certificate above written.

Alberta V. Spracher Notary Public in and for Alaska. My Commission expires June 7, 1967

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

Division of Lands

LEASE NO. ADL _____

Competitive Oil and Gas Lease

THIS LEASE is made by and between the State of Alaska, acting by and through the Director of the Division of Lands, Department of Natural Resources or his authorized agent, hereinafter called "Lessor", and

hereinafter called "Lessee", whether one or more.

1. GRANT. For and in consideration of a cash bonus and the first year's rental, the receipt of which is hereby acknowledged, and of the rentals, royalties, covenants, and conditions herein contained on the part of the Lessee to be paid, kept and performed, and subject to the covenants and reservations herein contained, Lessor does hereby grant and lease unto Lessee, exclusively, without warranty, for the sole and only purposes of exploration, development, production, processing and marketing of oil, gas, and associated substances produced therefrom, and of installing pipe lines and structures thereon to find, produce, save, store, treat, process, transport, take care of and market all such substances, and for drilling water wells and using underground and surface water for use in its operations thereon, and for housing and boarding employees in its operation thereon, the following described tract of land in Alaska:

containing _____ acres, more or less, hereinafter called "said land".

For the purposes of this lease, said land contains the legal subdivisions, as shown on the plat of said land attached hereto, marked Exhibit A and B, this reference made a part of this lease.

If said land is described above by protected legal subdivision and Lessor hereafter causes said land to be surveyed under the public land rectangular system, the boundaries of said land shall be those established by such survey, when approved, subject, however, to the provisions of the regulations relating to such surveys.

2. "OIL AND GAS". "Oil" means crude petroleum oil and other hydrocarbons regardless of gravity which are produced and saved in liquid form at the well by ordinary production methods. "Gas" means all natural gas and all hydrocarbons produced at the well not defined herein as oil. "Associated substances" mean all substances produced in association with oil or gas and not defined herein as oil or gas.

3. TERM. This lease is issued for an initial primary term of _____ years from date hereof, subject to extension as provided in Paragraph 4 hereof, and shall continue so long thereafter as oil and gas or either or any of them are produced in paying quantities from said land; provided, that this lease may be extended beyond its primary term as provided in Paragraph 5 hereof and shall not expire under the conditions set forth in Paragraphs 4, 7, and 8 hereof.

4. EXTENSION BY SUSPENSION OF OPERATIONS. If, prior to the expiration of the primary term, Lessor, in the interest of conservation, directs or consents to the suspension of all operations and production, if any, hereunder, the primary term will be extended by adding the period of suspension thereto.

5. EXTENSION BY UNIT PRODUCTION. (a) This lease shall without application be extended beyond its primary term if upon or prior to the expiration date of such term the lease is committed to a unit agreement approved or prescribed by Lessor as provided in the regulations, production of oil or gas is had in paying quantities under the agreement, and a portion of such production is allocated to said land under the agreement. In such event this lease shall continue in effect so long as it remains subject to such agreement and actual production under said agreement is allocated to said land; (b) The Commissioner may, in his discretion provide for the extension of the term of this lease, if such lease is on the expiration date thereof included in an approved unit plan or if it is included in a program of secondary recovery operation designed to bring about or restore production, provided, however, that if any lease or portion thereof is eliminated from such unit plan or recovery program, or if such unit plan or recovery program is terminated, then any such lease or portion thereof shall continue in full force and effect for ninety (90) days from the date of such elimination or termination and so long thereafter as drilling or re-drilling operations are being conducted thereon and so long thereafter as oil or gas is produced in paying quantities.

6. EXTENSION BY DRILLING. (a) If production shall have been obtained in paying quantities during the primary term, and if, at the end of the primary term, or at any time prior to the end of the primary term, such production shall have ceased from any cause, then this lease shall not terminate if, the Lessee commences drilling or reworking operations (either in a well from which such production has ceased or at a new well) within sixty days after the cessation of production, and the lease shall remain in full force and effect so long as such operations are prosecuted with reasonable diligence as provided under Paragraph 27 hereof; and, if such drilling or reworking operations result in the production of oil or gas, the lease shall remain in full force and effect so long as oil or gas is produced therefrom in paying quantities; (b) If actual drilling has commenced on the expiration date of the primary term of the lease and is continued with reasonable diligence, such operations to include re-drilling, sidetracking or other means necessary to reach the originally proposed bottom hole location, the lease shall continue in full force and effect until ninety (90) days after such drilling had ceased and for so long thereafter as oil or gas is produced in paying quantities; (c) If all or part of the lands covered by the lease are lands that have been selected by Alaska under the laws of the United States granting lands to Alaska and the conditions at lease was issued thereon, the term of the lease shall be extended for a period equal to the period during which the lease was conditional.

7. **EXTENSION BY SHORT-TERM PRODUCTION.** If, upon the expiration of the primary term or any time thereafter, there is on said land a well capable of producing oil or gas in paying quantities, the lease shall not expire because Lessee fails to produce the same unless Lessee gives notice to Lessor allowing a reasonable time, which shall not be less than sixty days, after such notice is placed the well on a producing status, and Lessee fails to do so provided, that after such status is established such production shall continue on the said land unless and until suspension of production is allowed to lapse.

8. **EXTENSION BY SUSPENSION OF PRODUCTION.** This lease shall not expire because of any suspension of operations in or upon or production in or upon said land if such suspension is made under any order or with the consent of Lessor.

9. **RENTAL.** This lease shall terminate on any anniversary date hereof prior to the completion on said land of a well capable of producing oil or gas in paying quantities, unless on or before said anniversary date Lessee shall pay or tender to Lessor as annual rental a sum equal to \$1,000 per acre, or first ten feet, then included in this lease, or unless such annual rental has been waived or suspended as provided in Paragraph 13 of this lease. If Lessor's option is not open for business on the anniversary date, the time for payment is extended to include the next day on which said office is open for business.

10. **MINIMUM ROYALTY.** Commencing with the lease year beginning on or after completion on said land of a well capable of producing oil or gas in paying quantities, Lessee shall pay Lessor, at the expiration of each lease year, in lieu of rental a minimum royalty equal to \$1,000 per acre, or fraction thereof, then included in this lease, or the difference between the actual royalty paid on production during the year if less than \$1,000 per acre and the prescribed minimum royalty.

11. **ROYALTY ON PRODUCTION.** Except for oil and gas used on said land for development and production or unavoidably lost, Lessee shall pay Lessor as royalty the following:

(a) On oil per cent in amount or value of the oil produced and saved and removed or sold from said land.
(b) On gas per cent in amount or value of the gas produced and saved and sold or used off said land or used for the extraction of natural gasolene or other products therefrom.

(c) On associated substances per cent in amount or value of such substances produced and saved and removed or sold from said land.

12. **REDUCTION OF ROYALTY RATES FOR DISCOVERY.** If Lessee shall drill on said land and make the first discovery of oil or gas in commercial quantities in any geological structure, the royalty rate under this lease shall, instead of the rates prescribed in Paragraph 11, be five per cent for a period of five years following the date of such discovery, and thereafter the royalty rate shall be those prescribed in Paragraph 11. If this lease is committed to a unit agreement approved or prescribed by Lessor as provided in the regulations, the five per cent royalty rate shall not apply to all, but only, the production allocated to this lease under such agreement.

13. **REDUCTION OF RENTAL AND ROYALTY.** Rental or minimum royalty may be waived, suspended, or reduced, or royalty may be reduced on all of said land or any tract or portion thereof appropriated for royalty purposes if Lessor finds that such relief is necessary for the purpose of encouraging the greatest ultimate recovery of oil or gas and if in the interest of conservation of natural resources and other that such relief is necessary in order to promote development or that the lease cannot be successfully operated under the terms provided herein.

14. **ROYALTY IN KIND.** Whenever, at the option of Lessor, which may be exercised from time to time upon not less than six months notice to Lessee, Lessor elects to take its royalty in kind, Lessee shall deliver, free of charge (on said land or at such place as Lessor and Lessee mutually agree upon) to Lessor or to such individual, firm, or corporation as Lessor may designate all royalty oil and/or gas produced and saved from said land. Such oil and/or gas shall be in good and merchantable condition. Lessee shall, if necessary, furnish storage for royalty oil free of charge for thirty days after the end of the calendar month in which the oil is produced from said land; provided, that Lessee shall not be held liable for loss or destruction of royalty oil and/or gas from causes beyond Lessee's reasonable control. Should Lessee dehydrate or clean the oil or gas produced from said land, Lessee shall be entitled to an allowance of the actual cost of dehydrating or cleaning said royalty oil or gas.

15. **ROYALTY IN VALUE.** At the option of Lessor, which may be exercised from time to time upon not less than six months notice to Lessee, and in lieu of royalty in kind, Lessee shall pay to Lessor the field market price or value of the well of all royalty oil and/or gas. All royalty that may become payable in money to Lessor shall be paid on or before the last day of the calendar month following the month in which the oil or gas is produced. The payment shall be accompanied by copies of run sheets or other satisfactory evidence of sales, shipments, and amounts of gross production.

16. **PRICE.** The field market price or value of royalty oil or gas shall not be less than the highest of: (1) The price actually paid or agreed to be paid by Lessee at the well by the purchaser thereof, if any; or (2) The posted price of Lessee in the field for such oil or gas at the well. If any or (3) The price actually received by other producers in the field at the well for oil of like grade and quality or gas of like kind and quality at the time such oil or gas is produced from said land or run into storage, or such gas is delivered to an extraction plant.

17. **PAYMENTS.** All payments to Lessor under this lease shall be made payable to the Department of Revenue of the State of Alaska and shall be rendered to Lessor at the place designated under Paragraph 44 for giving notices to Lessor.

18. **OFFSET WELLS.** Lessee shall drill such wells as a reasonably prudent operator would drill to protect Lessor adequately from loss by reason of discharge resulting from production on other land. Without limiting the generality of the foregoing sentence, if oil or gas should be produced in a well on other land not owned by Lessor or on which Lessor receives a lower rate of royalty than the royalty under this lease, which well is within 500 feet in the case of oil and well or 1,500 feet in the case of a gas well of lands then subject to this lease, and such well shall produce oil or gas in paying quantities for a period of thirty consecutive days, and if, after notice to Lessee and an opportunity to be heard, Lessor finds that production from such well is draining land then subject to this lease, Lessee shall within 120 days after written demand by Lessor begin in good faith and prosecute diligently drilling operations for an offset well on said land, in lieu of drilling any well required by this paragraph. Lessee may with Lessor's consent compensate Lessor in full each month for the estimated loss of royalty through drainage in the amount determined by Lessee.

19. **OTHER WELLS.** This lease encompasses the reasonable development of said land for oil and gas as the facts may justify. Upon discovery of oil or gas in paying quantities on said land, Lessee shall drill such wells as a reasonably prudent operator would drill having due regard for the interests of Lessor or in well as the interests of Lessee.

20. **DILIGENCE, PREVENTION OF WASTE.** Lessee shall exercise reasonable diligence in drilling, producing, and operating wells on said land unless consent to suspend operations temporarily is granted by Lessor. Lessee shall carry on all operations hereunder in a good and workmanlike manner in accordance with approved methods and practices, having due regard for the prevention of waste of oil and gas and the conservation of water to the oil and gas bearing sands or strata to the destruction or injury of such deposits and the preservation and conservation of the property for the future productive operations; shall use reasonable care and all proper safeguards to prevent the pollution of water; shall plug securely in an approved manner any well before abandoning it; shall allow Lessor to inspect all operations at any time; shall carry out at Lessee's expense all reasonable orders and requirements of Lessor relative to the prevention of waste and the preservation of said land, and all failure of Lessee to do so, Lessor shall have the right together with any other recourses available to it to enter on said land to repair damage or prevent waste at Lessee's expense; and shall, abide by and conform to valid and applicable rules and regulations of the Alaska Oil and Gas Conservation Commission and the regulations of Lessor relating to the matters covered by this paragraph in effect on the effective date hereof or hereafter in effect if not inconsistent with any specific provisions of this lease.

21. **WELL LOCATIONS.** Lessee shall within five days after spotting in a well advise Lessor in writing of the location and date of spotting of said well.

22. **APPROVAL OF PLANS.** Lessee shall not place his actual operation any plan or method for the purpose of stimulating or increasing production on said land other than plans and methods in common use without first having obtained the written approval of Lessor.

23. **LOGS AND RECORDS.** An electric log or radioactive log, if taken, and a descriptive geologic template log, if taken, and a record of all tests run for each well drilled on said land, together with a plot showing the exact location of each such well, shall be filed with Lessor within thirty (30) days after such well has been completed, suspended, or abandoned. Any and all information filed by Lessee in connection with any test shall be available at all times for the confidential use of Lessor for the purpose of enforcing compliance with the terms, covenants, and conditions of this lease and the regulations of the Lessor but shall not be open for inspection by any person other than officers, or employees of Lessor and persons performing any function or work assigned to them by Lessor for a period of twenty-four (24) months after the thirty (30) day filing period, except upon written consent of Lessee. Notwithstanding any other provision hereof, said information may be disclosed to any person where such disclosure is necessary for the administration of the functions—responsibilities, and duties assigned by the Alaska Commissioner of the Department of Natural Resources or in the Division of Lands or the Director thereof, but not limited to functions, responsibilities, and duties arising in connection with any litigation or administrative adjudication relating to this lease or to the rights, duties, and obligations arising hereunder.

24. **RECORDS.** Lessee shall keep and have in its possession books and records showing in production and disposition of all oil and gas produced upon said land and shall permit Lessor or its agents at all reasonable times to examine the same. Such records and reports of production shall be based upon such methods and techniques as shall insure the most accurate figures reasonably available without requiring the Lessee to provide a fair language for such well.

25. **DAMAGES.** AS 38.05.130 provides in part that no rights under reservations contained in certain leases or grants of Alaska land shall be exercised

by Lessor or its Lessee until provision has been made to pay the owner of the land upon which the reserved right is sought to be exercised the payment for all damages sustained by said owner by reason of entering on said land provided, that if said owner for any cause whatever refuses to waive said damages, Lessor or its Lessee shall have the right to institute such legal proceeding in a court of competent jurisdiction where the land is situated as may be necessary to determine the damage which the owner of such land may suffer. Lessee hereby agrees to pay any damages that may become payable under said statutory provisions, and the indemnifying Lessor and hold it harmless from and against any claims, demands, judgments, and expenses arising from or in connection with such damage. The furnishing of a bond in compliance with this lease will be regarded by Lessor as a sufficient provision for the payment of all damage that may become payable under said statutory provisions.

26. ~~RENTS.~~

(a) If required by Lessor, Lessee shall furnish a bond prior to the issuance of this lease in an amount equal to at least \$2.00 per acre or fraction thereof contained in said land but not less than \$1,000.00 and shall maintain said bond as long as required by Lessor.

(b) Before beginning drilling operations on said land Lessee must have furnished and shall maintain a bond in an amount of at least \$5,000.00.

(c) Lessee may, in lieu of the foregoing, furnish and maintain a state-wide bond in the amount of \$100,000.00

(d) Lessee may, after notice to Lessor and an opportunity to be heard, require a bond in a reasonable amount greater than the amount specified above in this paragraph where such greater amount is justified by the nature of the surface and its uses and improvement in the vicinity of said land and the degree of the risks involved in the types of operations being or to be carried on under this lease. A state-wide bond will not satisfy any requirement of a bond imposed under this subparagraph but will be considered by Lessor in determining the need for and the amount of any additional bond under this subparagraph.

(e) If said land is committed in whole or in part to a cooperative or unit agreement approved or prescribed by Lessor pursuant to the provisions of the regulations and a unit bond is furnished in accordance with the regulations, Lessee need not thereafter maintain any bond with respect to the portion of said land so committed to such agreement.

27. **ACTS OF GOD.** Should Lessee be prevented from complying with any expressed or implied covenant of this lease, from conducting drilling operations thereon, or from producing or marketing oil or gas from said land after efforts made in good faith, by reason of war, pest, fire or God, severe weather in the area of said land, acts of governmental authorities, failure or lack of adequate transportation facilities, or other cause beyond Lessee's reasonable control, similar to those enumerated or not, then while so prevented and for a reasonable time thereafter within which to resume operations, Lessee's obligation to comply with such covenant shall be suspended and Lessee shall not be liable for damages for failure to comply therewith. If drilling or marketing operations are suspended by virtue of this paragraph and the production of operations would have had the effect of preventing the expiration or termination of this lease, then this lease shall not terminate during the period which the obligation to perform such operations is suspended under this paragraph provided, however, that nothing in this paragraph shall be deemed to suspend the payment of rentals or of minimum royalties.

28. **SUSPENSION.** Lessee may from time to time direct or assent to the suspension of production or other operations on both under this lease if such action is necessary or justified in the interest of conservation.

29. **RESERVATIONS.** Lessor reserves the right to dispose of the surface of said land to others subject to this lease, and the right to authorize others by grant, lease, or permit subject to this lease and under such conditions as will prevent unnecessary or unreasonable interference with the rights of Lessee and operations under this lease, to enter upon and use said land.

(a) To explore for oil or gas by geological or geophysical means including the drilling of shallow core holes or stratigraphic tests to a depth of not more than 1,000 feet.

(b) To explore for, develop and remove natural resources other than oil, gas, and associated substances on or from said land.

(c) For nonexclusive easements and rights of way for any lawful purpose including shafts and tunnels necessary or appropriate for the working of said land or other lands for natural resources other than oil, gas or associated substances.

(d) For well sites and well bores of wells drilled from or through said land to explore for or produce oil, gas, and associated substances in and from other lands.

(e) For any other purpose now or hereafter authorized by law and not inconsistent with the rights of Lessee under this lease.

30. **UNDERGROUND STORAGE.** This lease does not authorize the subsurface storage of oil or gas except as a necessary incident to storing pressure maintenance, repressuring, or other similar operation designed to increase the ultimate recovery of oil or gas or prevent the waste of oil or gas produced from said land or from any unit area of which the said land is a part. Lessor reserves the right to authorize the subsurface storage of oil or gas in said land by Lessee or by others in order to avoid waste or to promote conservation of natural resources and upon such conditions as will prevent unnecessary or unreasonable interference with the rights and operations of Lessee under this lease, including conditions prohibiting the storage of oil or gas without the consent of Lessee in any reservoir covered by this lease capable of producing oil or gas in paying quantities.

31. **ASSIGNMENTS.** This lease or any undivided interest therein may with the approval of Lessor be assigned or subleased as to said land or any acre or more legal subdivision included therein, or any separate and distinct zone or geological horizon underlying said land or any part thereof, to any person or persons qualified to hold a lease. No transfer of any interest in this lease including assignments of working or royalty interests and operating agreements, and subleases shall be binding upon Lessee unless approved by Lessor. Lessee shall remain liable for all obligations under this lease accruing prior to the approval of such transfer. Approval of transfer of this lease or an interest therein will not be deemed except (1) for failure to comply with the regulations, (2) in the discretion of Lessor, where the transfer covers any distinct zone or geological horizon, or (3) where Lessor determines that the best interests of Lessor justify such action. Applications for approval of a transfer under this paragraph must comply with the regulations and must be filed within ninety days after the date of final execution of the instrument of transfer. Where a transfer is made of all or a part of Lessee's interest in and to the portion of the acreage in said land the assigned acreage shall, at the option of Lessor, or may upon request of the transferee and with the approval of Lessor be segregated into a separate and distinct lease having the same effective date as this lease.

32. **UNITIZATION.** Whenever determined and certified by Lessor to be necessary or advisable in the public interest for the purpose of properly conserving the natural resources of any oil or gas pool, field or like area on any part thereof, which includes or underlies said land or any part thereof, Lessee may unite with other Lessees of Lessor or with others owning or operating lands, now belonging to Lessor including lands belonging to the United States and with others, jointly or separately, in collectively adopting and operating under a cooperative or unit agreement for the development or production of this pool or field or like area or part thereof. Lessee shall within thirty days after demand by Lessor subscribe to such a cooperative or unit agreement, which agreement shall be reasonable and shall adequately protect all parties in interest including Lessee, Lessor may with the consent of Lessee establish, alter, change, or revoke drilling, producing, rental, minimum royalty, and royalty requirements of this lease if committed to any such cooperative or unit agreement and may make such regulations with reference to this lease with the like consent of Lessee in connection with the production and operation of any such cooperative or unit agreement as Lessor may determine to be necessary or proper to secure the proper protection of the public interest. If a portion of said land is committed to an approved or prescribed unit agreement, the committed acreage shall at the option of Lessor and may upon the request of Lessor be segregated into a separate and distinct lease having the same effective date as this lease.

33. **SURRENDER.** Lessee may at any time make and file with Lessor a written surrender of all rights under this lease or any portion thereof comprising one or more legal subdivisions or, with the consent of Lessor, of any separate and distinct zone or geological horizon underlying said land or such one or more legal subdivisions thereof. Such a surrender shall be effective as of the date of filing subject to the continued obligations of Lessee and his surety to make payment of all royalties therefor as accrued and to make all wells on the surrendered land or in the surrendered zone or horizons in condition satisfactory to Lessor for suspension or abandonment; nevertheless, Lessor shall be released from all other obligations, covenants or agreements under this lease with respect to the surrendered lands, zones, or horizons.

34. **DEFAULT.** TERMINATION. Whenever Lessee fails to comply with any of the provisions of this lease other than the payment of rental and Lessee fails within sixty days after written notice of such default to commence to remedy and thereafter procure diligently operations to remedy such default, Lessor may cancel this lease if at that time there is no well on said land capable of producing oil or gas in paying quantities. If at such time there is on said land a well capable of producing oil or gas in paying quantities, Lessor may be considered only by Lessor as being in default. In the event of any cancellation under this paragraph, Lessee shall have the right to rein under this lease any and all drilling or producing wells as to which no default exists together with a part of the land surrounding each such well or wells and with rights of way through said land as may be reasonably necessary to enable Lessee to drill and operate wells, abandoned wells or wells.

35. EXCESS AREA. If for any reason said land includes more acreage than the maximum permitted in or applicable laws and/or regulations, this lease shall not be valid but the acreage included in said land shall be reduced to the permitted maximum. Whenever Lessor determines that this lease so exceeds the permitted acreage and notifies Lessee stating the amount of acreage that must be eliminated, Lessee may within sixty days after such notice surrender one or more legal subdivisions included in said lands comprising at least the amount of acreage that must be eliminated. If such a surrender is not filed within such sixty days Lessor may terminate this lease as to the acreage that must be eliminated by mailing notice of such termination to Lessee describing the parcel or parcels eliminated. Such a notice shall have the effect of terminating this lease as to the parcel or parcels described in such notice.

36. RIGHTS ON TERMINATION. Upon the expiration or earlier termination of this lease as to all or any portion of said lands, Lessee shall have the privilege at any time within a period of six months thereafter, or such extension thereof as may be granted Lessor, of removing from said land or portion thereof all machinery, equipment, tools, and materials other than improvements needed for producing wells. Any materials, tools, appliances, machinery, structures, and equipment subject to removal as above provided which are allowed to remain on said land or portion thereof shall become the property of Lessor upon expiration of such period; provided that Lessee shall remove any and all of such properties when so directed by Lessor. Subject to the foregoing, Lessee shall deliver up said lands or such portion or portions thereof in good order and condition.

37. INTEREST IN LAND. It is the intention of the parties that the rights vested in Lessee by this lease shall constitute an interest in real property in said land.

38. LESSEE INTEREST. If Lessor owns a lesser interest in the oil and gas deposits in said land than the entire and undivided fee simple estate, then the royalties and rentals herein provided shall be paid Lessor only in the proportion which its interest bears to the whole and undivided fee simple estate.

39. CONDITIONAL LEASE. If all or a part of said land is land that has been selected by the Lessor under laws of the United States granting lands to Lessor, but such land has not been granted to Lessor by the United States, then this lease is a conditional lease as provided by law until such patent becomes effective. If for any reason such a selection is not finally approved or such a patent does not become effective, any rental, royalty or minimum royalty payments made to Lessor under this lease will not be refunded.

40. DRILLING OPERATIONS. As used in this lease "drilling operations" mean any work or actual operations undertaken or commenced in good faith for the purpose of carrying out any of the rights, privileges or duties of Lessee under this lease, followed diligently and in due course by the construction of a road or derrick and/or other necessary structures for the drilling of an oil or gas well, and by the actual operation of drilling in the ground. Any such work or operations preliminary to drilling in the ground may be undertaken either on said land or in the vicinity of said land in any order Lessee shall see fit.

41. ACTUAL DRILLING. As used in this lease, "actual drilling" means any and all operations necessary or convenient to the drilling of a well in the ground after the first drilling or spudding with equipment of sufficient size and capacity to drill to the total depth proposed for the well.

42. RULES AND REGULATIONS. As used in this lease "regulations" mean the applicable and valid oil and gas leasing regulations of the Commissioner of the Department of Natural Resources in effect on the effective date of this lease unless otherwise specified.

43. INTERPRETATION. As used in this lease words which are defined in the regulations have the meaning assigned by such definition except where the context clearly requires a different meaning. The paragraph headings are not a part of this lease and are inserted only for convenience.

44. NOTICES. Any notice required or permitted under this lease shall be in writing and shall be given by registered or certified mail, return receipt requested, addressed as follows:

To Lessee

Director, Division of Lands
State of Alaska
344 Sixth Avenue
Anchorage, Alaska 99501

To Lessor

Any such notice shall be deemed given when delivered to the foregoing address. Either party may change the address to which such notices are to be sent, by a notice given in accordance with this paragraph.

45. HEIRS AND ASSIGNS. Subject to the other provisions of this lease, the covenants, conditions, and agreements contained in this lease shall extend to and be binding upon the heirs, executors, administrators, successors, or assigns of Lessor and Lessee.

46. WILDLIFE STIPULATIONS. This lease is subject to such stipulations as are attached.

IN WITNESS WHEREOF the parties have executed this lease effective as of the _____ day of _____ 19____

STATE OF ALASKA

By _____

LESSEE

This _____ LESSOR

THE UNITED STATES OF AMERICA }
STATE OF ALASKA }

This certifies that on the _____ day of _____ 19____ before me, a notary public in and for the State of Alaska, duly commissioned and sworn, personally appeared _____ to me known and known to me to be the person described in and who executed the foregoing lease on behalf of the State of Alaska as Director of the Division of Lands, Department of Natural Resources, or his authorized agent. The said _____ executed said lease in my presence and alive being duly sworn according to law, stated to me under oath that he is the Director of the Division of Lands, Department of Natural Resources, or his authorized agent, and has authority pursuant to law to execute the foregoing lease as such Director, or authorized agent, on behalf of the State of Alaska, acting through the Division of Lands, Department of Natural Resources and that he executed the same freely and voluntarily as the free and voluntary act and deed of the said State of Alaska and for the Division of Lands, Department of Natural Resources.

WITNESS my hand and official seal of the day and year in this certificate above written.

Notary Public in and for Alaska. My Commission expires _____

Relevant Sections from DL-1 Lease
(Sections 7 and 20)

"7. EXTENSION BY SHUT-IN PRODUCTION. If, upon the expiration of the primary term or times thereafter, there is on said land a well capable of producing oil or gas in paying quantities, this lease shall not expire because lessee fails to produce the same unless Lessor gives notice to Lessee allowing a reasonable time, which shall not be less than sixty days, after such notice to place the well on a producing status, and lessee fails to do so, provided that after such status is established such production shall continue on the said land unless and until suspension of production is allowed by Lessor." ...

"20. DILIGENCE, PREVENTION OF WASTE. Lessee shall exercise reasonable diligence in drilling, producing, and operating wells on said land unless consent to suspend operations temporarily is granted by Lessor shall carry on all operations hereunder in a good and workmanlike manner in accordance with approved methods and practices, having due regard for the prevention of waste oil and gas and the entrance of water to the oil and gas bearing sands or strata to the destruction or injury of such deposits and the preservation and conservation of the property for the future productive operations; shall use reasonable care and all proper safeguards to prevent the pollution of water; shall plug securely in an approved manner any well before abandoning it; shall allow Lessor to inspect all operations at any time; shall carry out at Lessee's expense all reasonable orders and requirements of Lessor relative to the prevention of waste and the preservation of said land and on failure of Lessee to do so. Lessor shall have the right together with any other recourse available to it to enter on said land to repair damage or prevent waste at Lessee's expense; and shall abide by and conform to valid applicable rules and regulations of the Alaska Oil and Gas Commission and the regulations of Lessor relating to the matters covered by this paragraph in effect on the effective date hereof or hereafter in effect if not inconsistent with any specific provisions of this lease."

PRUDHOE

BAY

CORROSION

CRISIS,

8/18/06

(FILE 3)

Department of Environmental Conservation

Committee Handouts

Joint Senate and House Resources Committee Hearing
August 18, 2006

1. Six Elements of a Good Regulatory Program
2. Alaska's Oil Production, Transportation and Storage Network diagram
3. Regulated Flow Lines and Crude Oil Transmission Pipelines at North Slope
Production Facilities diagram
4. Charter Agreement documents (*binders provided to Committee in advance*)
5. Charter Agreement excerpt
6. Arctic Pipeline Technology Team MOA



**Alaska Department of
Environmental Conservation**

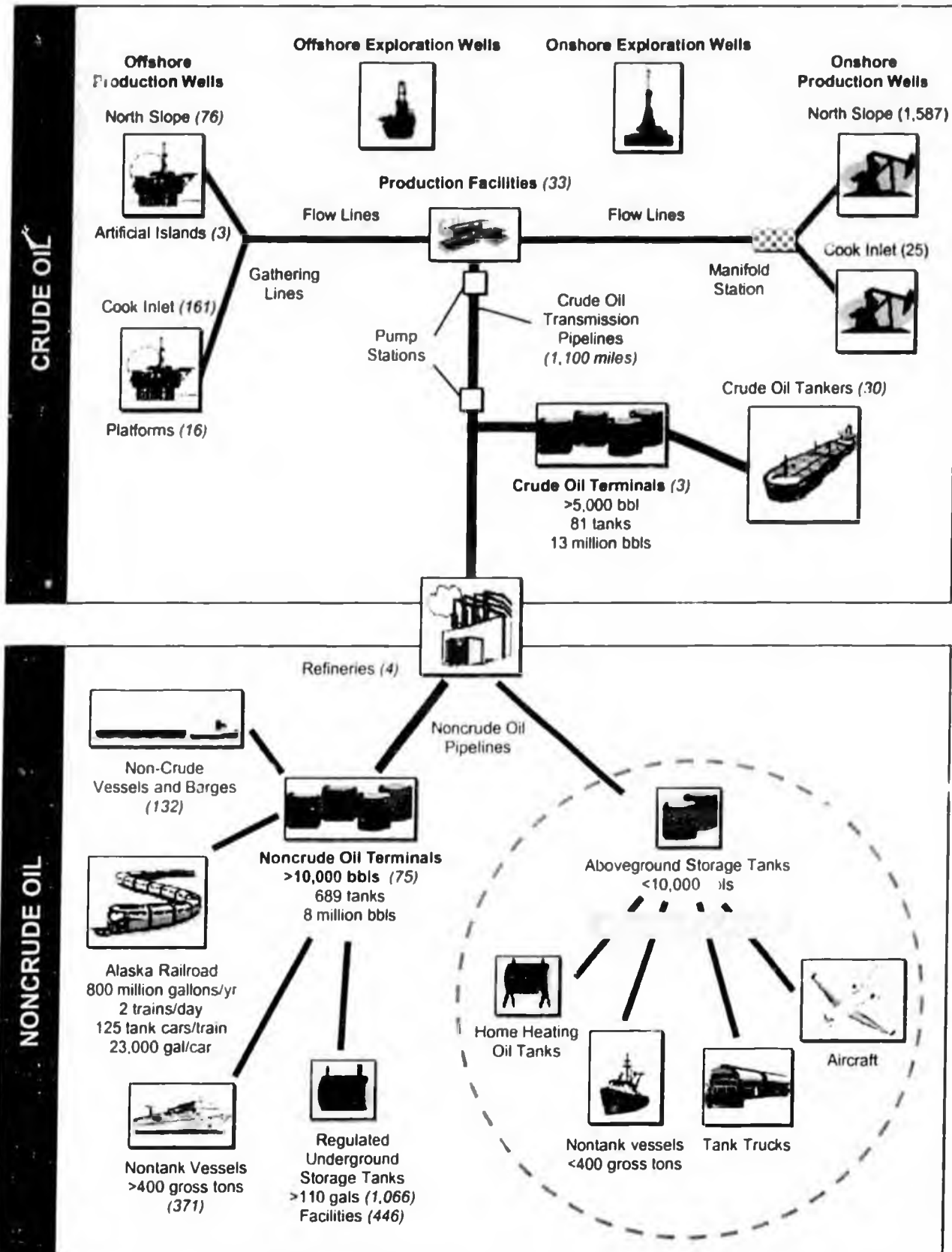


**SIX ELEMENTS OF A GOOD
REGULATORY PROGRAM:**

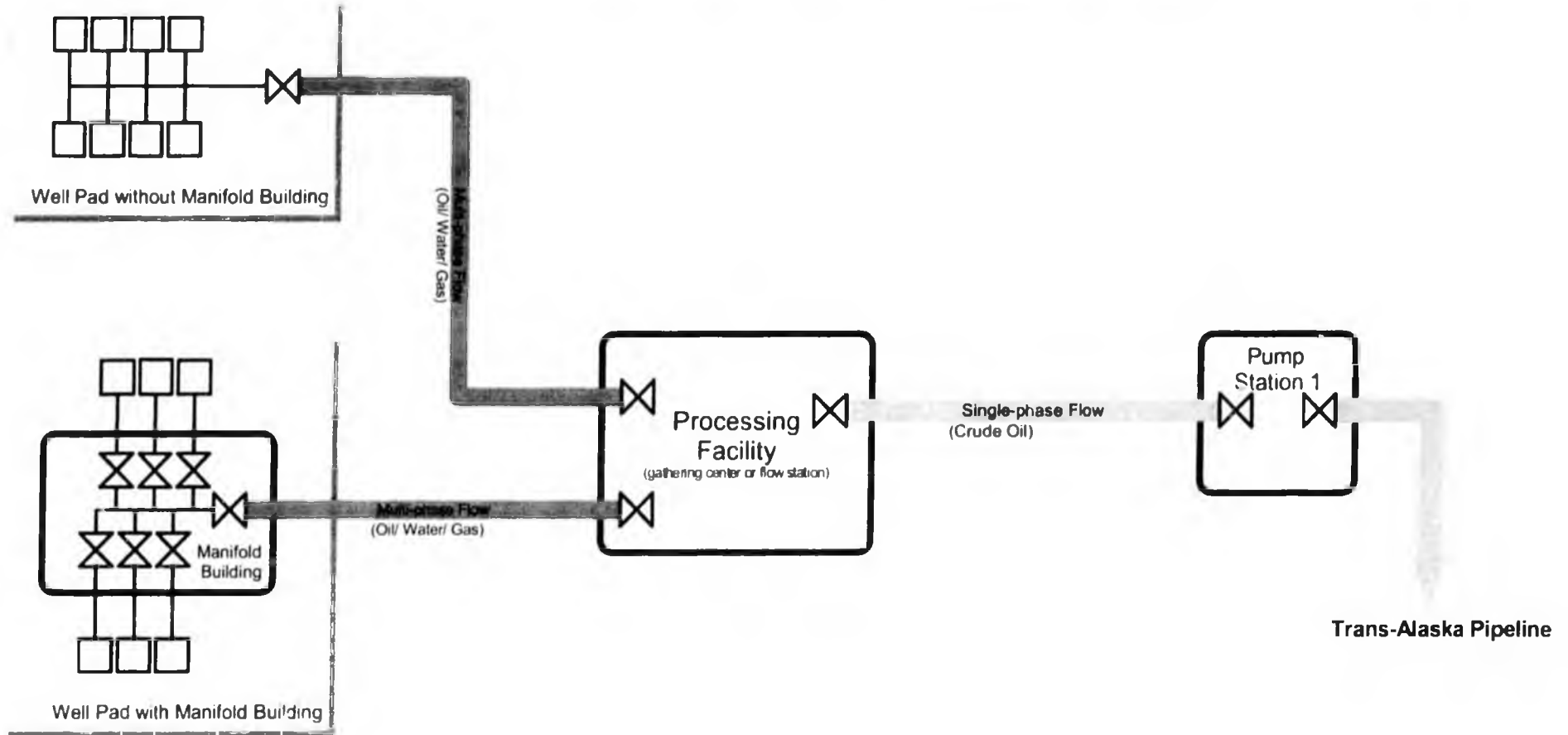
- 1. Unambiguous statutory authority**
- 2. Documented basis for concern**
- 3. Protective standards**
- 4. Rational regulatory scheme**
- 5. Documented compliance**
- 6. Enforcement**


Alaska's Oil Production, Transportation and Storage Network

The facilities designated as "non-regulated" are not required to have a state-approved oil discharge prevention and contingency plan. () Number of facilities.



Regulated Flow Lines and Crude Oil Transmission Pipelines at North Slope Production Facilities



-  Valve, Choke, Flange, or Interconnection
-  Wellhead

ADEC Regulated Gathering & Flow line (18 AAC 75.047) – corrosion monitoring

ADEC Regulated Crude Oil Transmission Pipeline (18 AAC 75.055) – leak detection

**Charter for Development of Alaska's North Slope
December 2, 1999**

Anti-trust Agreement Environmental Protection Provisions

Commitment to Corrosion Monitoring. BP and ARCO will, in consultation with ADEC, develop a performance management program for the regular review of BP's and ARCO's corrosion monitoring and related practices for non-common carrier North Slope pipelines operated by BP or ARCO. This program will include meet and confer working sessions between BP, ARCO and ADEC, scheduled on average twice per year, reports by BP and ARCO of their current and projected monitoring, maintenance and inspection practices to assess and to remedy potential or actual corrosion and other structural concerns related to these lines, and ongoing consultation with ADEC regarding environmental control technologies and management practices.

Additional Environmental Commitments:

- Cleanup of Abandoned Sites
- Cleanup of Abandoned Empty Barrels
- Cleanup of Existing BP and ARCO Sites
- Closure of Inactive Reserve Pits
- Commitment to North Slope Spill Response
- Renewed Commitment to OPA 90
- Replacement Vessels
- Marine Operations

ARCTIC PIPELINE TECHNOLOGY TEAM

MEMORANDUM OF AGREEMENT

BETWEEN

THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AND

THE ALASKA DEPARTMENT OF NATURAL RESOURCES

AND

THE ALASKA OIL AND GAS CONSERVATION COMMISSION

Governor Frank H. Murkowski has called for the creation of an Arctic Pipeline Technology Team consisting of state, federal and industry experts to ensure the integrity of Alaska's oil pipeline infrastructure, continued crude oil production and protection of the environment.

The Governor has called for monitoring and maintaining pipelines to the highest standards.

The Alaska Department of Environmental Conservation (DEC), Alaska Department of Natural Resources (DNR), and Alaska Oil and Gas Conservation Commission (AOGCC) (referred to hereafter as the "Parties") share a common interest in ensuring the integrity of oil and gas pipelines in Alaska and protection of the environment.

Exploration and production of oil and gas in Alaska depends on pipeline systems to safely transport oil and gas from the wellhead to processing facilities, refineries, storage, distribution and delivery to the consumer.

It is in the interest of the parties to coordinate efforts to maximize efficiency and share knowledge and expertise related to arctic pipeline integrity.

It is in the interest of the public and the environment to exchange technical knowledge and collaborate on pipeline integrity issues.

It is in the interest of the parties to ensure the integrity of Alaska's oil transportation infrastructure by employing the best available expertise within their respective organizations regarding technologies and practices in the design, operation and maintenance of Alaska's pipelines.

Now, therefore, the Parties agree, to the extent permitted by law, and consistent with their respective policies, available resources, statutory and regulatory authority, to establish the Alaska Pipeline Technical Team (APTT) to share technical expertise and knowledge for pipelines in Alaska.

PARTIES TO THE AGREEMENT

The parties to this agreement are the Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, and Alaska Oil and Gas Conservation Commission.

PURPOSE OF THE AGREEMENT

The purpose of this Memorandum of Agreement (MOA) is to create an Arctic Pipeline Technology Team in order to share and exchange technical knowledge, expertise and information related to corrosion prevention, monitoring, inspection and mitigation and other issues related to pipeline integrity in arctic climates. The Arctic Pipeline Technology Team shall share technical resources, troubleshoot design, construction, operation and maintenance problems, validate engineering approaches, examine technologies and ensure the best available resources within the respective agencies can be made available to any of the parties for evaluating pipeline integrity issues associated with Alaska's pipelines.

AGREEMENT

The signatory agencies, referred to as the "Parties", agree to:

Work together to communicate, coordinate and collaborate and provide a leadership role for arctic pipeline integrity.

Work together to cooperatively address pipeline integrity issues.

Make available the best expertise and resources within their respective agencies to any of the Parties to evaluate arctic or subarctic pipeline integrity issues.

Share technical resources and information related to pipeline integrity in Arctic and sub-Arctic climates.

Target work carried out under this agreement to corrosion management, monitoring, inspection and mitigation including strain based risk assessment for Alaska's North Slope pipelines upstream of Pump Station 1 of the Trans Alaska Pipeline System.

Extend collaboration, communication and coordination for other pipeline integrity issues in Alaska at the request of industry or any of the Parties.

Troubleshoot design, construction, operation and maintenance problems, validate engineering approaches, examine regulatory regimes and recommend changes to reflect latest technologies.

Maintain relationships and communication to promote efficiencies in resolving pipeline integrity issues.

Collaborate and share data and information that will assist in evaluating pipeline integrity issues.

Review corrosion inspection techniques and their timely implementation, including visual, ultrasonic, radiographic, guided wave, smart pig and other technologies.

Review internal and external corrosion programs including cased pipe inspection techniques.

Review strain induced problems associated with corrosion, wind induced vibration or other causes.

Evaluate corrosion mechanisms, corrosion monitoring, corrosion inspection, and corrosion mitigation technologies.

Exchange copies of correspondence and reports pertaining to pipeline integrity issues as appropriate.

Exchange the results of studies, monitoring and research related to pipeline integrity.

Anticipate pipeline integrity problems to prevent spills.

Evaluate monitoring and inspection methods and technologies.

Advise each other of any technical developments relevant to arctic or subarctic pipeline integrity.

Evaluate pipeline failure trends and causes.

Coordinate inspections and reviews as appropriate.

Review data and pipeline integrity programs.

Critique reports and investigative findings as appropriate.

Meet and confer with other experts from academia, outside consultants, industry or other state or federal agencies to acquire knowledge or expertise on specific pipeline integrity issues.

ORGANIZATION

There shall be an Executive Steering Committee (ESC) and a Working Group (WG).

ESC members are the signatories to this Memorandum of Agreement. They shall function as a policy-level group to provide overall direction for collaboration, coordination and work undertaken within the scope of this agreement. The members of the ESC shall meet and confer as they may determine to execute these responsibilities.

The ESC shall identify and prioritize specific pipelines and/or pipeline integrity issues for which collaboration, coordination or information sharing under this agreement is beneficial.

ESC members shall appoint a primary WG member to act as the single point of contact for purposes of this Agreement.

The WG shall be the operational arm of the ESC.

The work carried out and the recommendations made by the WG shall be consensus based.

The WG shall establish and identify the participants, process and procedures appropriate to evaluating specific pipeline integrity problems brought before it.

The participants, process and procedures for evaluating specific pipeline integrity problems shall be established by the WG.

The WG shall follow-up on pipeline integrity issues as may be requested by the ESC.

WG members must be able to represent the technical viewpoints and coordinate participation or access to the best available expertise of their respective agency.

WG members may identify specific pipeline integrity problems for discussion and evaluation.

Pipeline integrity issues from industry or other non-signatory agencies may be brought to the WG group for review, consideration and evaluation.

Work carried out by the WG shall be outlined in an annual calendar year work plan for ESC review and approval.

The WG may form standing or ad hoc teams, as needed, to study and make recommendations on specific issues of concern. The WG shall designate the

lead agency and the Parties may appoint members or other subject matter experts to participate.

The WG may, at its discretion, invite other industry or government representatives or other experts as "advisors" to provide expertise for specific issues.

UNDERSTANDING

This MOA represents a voluntary understanding between the Parties.

It is the express purpose of this MOA to share expertise and knowledge in a non-legally binding technical forum separate and apart from any action that may be taken by an individual agency acting under its own authority or jurisdiction.

This MOA in no way supplants or changes the individual authority or jurisdiction of individual agencies.

The terms of this MOA may be changed at any time through mutual consent of the Parties.

A Party may withdraw from this MOA by providing 30 days prior written notice to the other Parties.

No rights, duties, obligations, or liabilities enforceable by law are created by this MOA.

No action based upon this MOA may be brought against the United States or the State of Alaska by any person.

This MOA does not alter, modify, abridge, or in any way affect any rights, duties, obligations or liabilities of any person under the laws of the United States or the State of Alaska.

Nothing in this MOA shall alter, impede, or interfere with the authorities and procedures of the agencies involved in implementing their respective enforcement responsibilities.

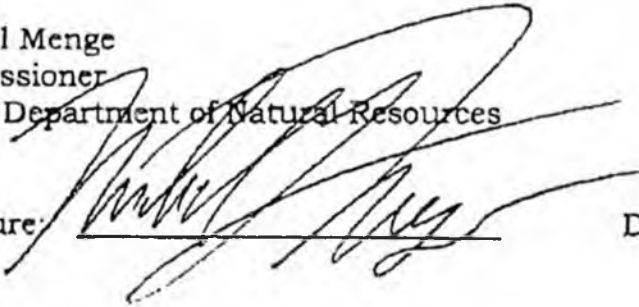
This MOA shall become effective upon the date of signing by the last Party hereto.

SIGNATURE PAGE

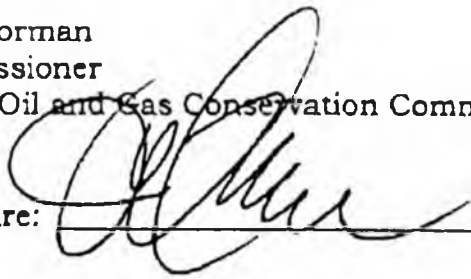
Kurt Fredriksson
Commissioner
Alaska Department of Environmental Conservation

Signature:  Date: 4-28-06

Michael Menge
Commissioner
Alaska Department of Natural Resources

Signature:  Date: 5/1/06

John Norman
Commissioner
Alaska Oil and Gas Conservation Commission

Signature:  Date: 5-3-06

Documents Related to The Charter for Development of the Alaska North Slope

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BP Annual Reports (2000-2005) (contains 2003, 2004, 2005)	Volume 2 of 2
ConocoPhillips Annual Reports (2000-2005)	Volume 1 of 1
Coffman Technical Analysis Reports (2000-2004)	Volume 1 of 1

CHARTER FOR DEVELOPMENT of the Alaskan North Slope

This Charter for Development of the Alaskan North Slope is entered between the State of Alaska, BP and ARCO on December 2, 1999.

BP and ARCO historically have been major participants in the development of oil resources on the North Slope of Alaska. ARCO discovered the giant Prudhoe Bay oil field in 1968. BP participated in the discovery of Kuparuk the following year. Both were leaders in building the Trans Alaska Pipeline System. Today, they are two of the largest interest owners and operators on the North Slope.

The environment for finding, developing and producing oil and gas is challenging and complex, in Alaska and the world. The giant Prudhoe Bay and Kuparuk fields are in decline. World energy markets continue to experience price volatility, competition for capital and opportunities, and financial and technical challenges to discover, develop and produce new fields. These challenges have led to large-scale industry consolidation in recent years.

Earlier this year, BP and ARCO proposed to merge. The merger and its potential impact on Alaska have been analyzed and discussed by the Governor, his Cabinet-level review team, the Legislature and the public in private, in hearings and in the media since the announcement.

There is potential both for benefit and risk to Alaska in the merger as initially proposed. In BP and ARCO's view, Alaska would benefit from the combination's financial strength and expertise, and the increased efficiencies and synergies of the combination would help make Alaska more attractive in a global oil marketplace. But Alaska would, in the State's view, lose a measure of competition, diversity and balance in the exploration, development and production of North Slope resources, and Alaska would lose the varied contributions of a leading corporate citizen.

The State of Alaska is committed to maintaining and enhancing competition, diversity and balance in the exploration, development and production of North Slope resources, sustaining and growing both oil and gas production, and ensuring that the State's natural resources are developed in an environmentally and socially sensitive and responsible manner. The State has determined therefore that its support for the merger must be conditioned upon BP and ARCO making substantial marketplace and community commitments to Alaska.

Therefore, in order to provide for greater competition, diversity, corporate responsibility, renewal and growth in the exploration, development and production of Alaskan North Slope oil and gas, the State, BP and ARCO agree to this Charter and its terms as set forth below.

I. BP and ARCO's Commitments Regarding Competition, Diversity and Growth.

A. Sale of Current Production. After the merger is completed, BP and ARCO will sell the following properties in the following manner:

1. Sale of Production. BP and ARCO will sell interests in North Slope properties producing in aggregate share not less than 175,000 barrels of gross working interest production per day to one or more purchasers. For purposes of this paragraph 1.A., quantity will be measured by 1999 average daily production, except the Colville River Unit will be deemed to produce a total of 80,000 barrels of production per day.

2. Sale of Interests including Kuparuk. As part of the sale required by subparagraph 1, BP and ARCO will enter into a contract of sale with a single qualified company ("Buyer A") for at least 125,000 barrels of gross working interest production per day, including at least 50.01% of the Kuparuk River Unit total interest, and will take all reasonable available steps to enable that company to become the operator of that unit. In no event will BP or ARCO continue as operator of that unit after sale of the working interest production. For purposes of this subparagraph 2, "qualified company" means a company which is currently a joint interest owner in the Kuparuk River Unit, or a company primarily in the energy business with assets of not less than \$8 billion.

3. Sale of Interest in Alpine. As part of the sale required by subparagraph 1, BP and ARCO will

enter into a contract of sale with a single qualified company ("Buyer B") for at least 40% of the total Colville River Unit interest and will take all reasonable available steps to enable that company to become the operator of that unit. In no event will BP or ARCO continue as operator of that unit after sale of the interest. For purposes of this subparagraph 3, "qualified company" means a company which is currently a joint interest owner in the Colville River Unit, or a company primarily in the energy business with assets of not less than \$3 billion.

4. Sale of Share of Pipelines. BP and ARCO will enter into a contract of sale with Buyer A and Buyer B for a commensurate interest in TAPS and intermediate pipelines as provided in paragraph H.

B. Sale of NPRA Lease Interests. BP and ARCO will sell not less than 220,000 net acres of their aggregate NPFA holdings to one or more purchasers. BP and ARCO will enter a contract of sale with either Buyer A or Buyer B for not less than 100,000 net NPRA acres, including at least 50.01% of BP and ARCO's combined interests in one of the sections of the NPRA designated on Exhibit A to this Charter, and will take all reasonable available steps to enable that company to become the exploration operator in that section.

C. Sale or Relinquishment of State Leases. BP and ARCO will sell or relinquish at least 400,000 net acres of undeveloped state leases, including sufficient interests in onshore/non-unitized state leases to reduce their aggregate holdings in such leases to not more than 500,000 net acres. BP and ARCO will manage the sale of this acreage to result in two exploration operatorships other than BP or ARCO in material and significant geologic play fairways on the North Slope (lease groupings which the parties agree meet this requirement are listed in Exhibit B to this Charter). As part of this sale or relinquishment of State acreage, BP and ARCO will enter contracts of sale with Buyer A and Buyer B in the combined amount of not less than 250,000 net acres of undeveloped state leases, including a minimum of 75,000 net acres for each buyer. BP and ARCO agree to meet and confer with representatives of the Alaska Department of Natural Resources, beginning within 10 days after the merger is completed and continuing for the period reasonably necessary to review the number, status, prospectivity and possible transfer options for all such holdings, as well as intended marketing or relinquishment plans.

D. Terms of Sales. Contracts for the full aggregate amount of the interests sold under paragraphs I.A. and I.B. will be signed within 6 months after the merger is completed and those transactions will be closed not later than 12 months after the merger is completed. Transfers under paragraph I.C. will be made within the period prescribed by law. All transfers of whole or partial interests in the properties and pipelines referenced in paragraphs I.A.-I.C. will be absolute, in good faith and with no minimum price. BP and ARCO agree that they will not reacquire interests transferred under paragraphs I.A.-I.C. by any means without advance approval of the State. Except as specifically provided in paragraphs I.A.-I.C. and otherwise in this Charter, the sales contemplated in paragraphs I.A.-I.C. may be to various parties and include interests from various units and leases as determined by BP and ARCO. BP and ARCO may retain an interest in the units and leases it sells under paragraphs I.A.-I.C., subject to the requirement that any interest retained in exploration leases be subject to non-consent provisions permitting investment by other interest owners without BP or ARCO's consent. Any transfer under paragraphs I.A.-I.C. will be subject to all necessary state and federal regulatory approvals and other requirements. BP and ARCO will use their best efforts to secure such approvals.

E. Data Availability. After the merger is completed, BP and ARCO will make their proprietary North Slope seismic and well data publicly available for purchase by any person where they have the legal right to do so. Where they do not currently have the legal right to do so, they will diligently and in good faith seek permission from the other joint interest owners to make the data available. Unless otherwise approved by the State, BP and ARCO will make the data available by contracting with a third party company, acting as marketing agent for BP and ARCO, that will market the data at prices it independently determines; except that, with respect to data generated before 1975, BP and ARCO will make the data publicly available without charge in such reasonable manner as it may determine. BP and ARCO will ensure that the data is publicly available as soon as is reasonably practicable but in all events not longer than 3 months after the merger is completed. BP and ARCO will provide the State with (1) a list of which of their North Slope seismic and well data can be made available on their own and which requires the consent of parties other than BP or ARCO, and (2) a list or lists showing all of BP and ARCO's North Slope seismic and well data from 1958 on indicating the acquisition area, the size of the acquisition area, the ownership status (sole, joint, group shoot, trade, purchase or license), when

the data was acquired, the survey type, and the operator and the contractor. For data acquired after 1984, these lists will be provided as soon as is reasonably practicable but in all events before December 31, 1999. For data acquired before 1985, these lists will be provided as soon as is reasonably practicable but in all events within 3 months after the merger is completed. This paragraph applies to data generated prior to and through the date this Charter is first signed by the parties.

F. Facilities Access.

1. In the State's view, the Commissioner of Natural Resources possesses the statutory, regulatory and contractual authority to require working interest owners to provide others access to production and other facilities, on terms that are non-discriminatory, just and reasonable. The Commissioner may require access whenever necessary to maximize the economic and physical recovery of the State's oil or gas resources, maximize competition among parties seeking to explore and develop the resources, minimize the adverse effects of exploration, development, production and transportation activity, or otherwise to protect the best interests of the State. Binding arbitration between BP or ARCO and others under subparagraph 2 does not affect the Commissioner's authority to resolve questions of facility access.

2. BP and ARCO currently take no position on the State's view. BP and ARCO nevertheless commit that, after the merger is completed, neither BP nor ARCO will unreasonably withhold their voting support as facilities owners for allowing nearby satellites to have access to existing unit facilities on reasonable commercial terms. BP and ARCO agree that if a nearby satellite owner reasonably and diligently negotiates to unsuccessful impasse with facilities owners that include BP or ARCO, and after 90 day advance notice to BP and ARCO, BP and ARCO agree to subject themselves to binding arbitration governed by the rules of the American Arbitration Association on the question of reasonable commercial terms for that access.

G. Purchases From Qualified Producers. After the merger is completed, BP and ARCO agree to offer to purchase any qualified producer's ANS leasehold production on the terms reflected in the form purchase contract which is Exhibit C to this Charter. BP and ARCO may limit the total purchased under all such contracts to 30,000 barrels per day. For purposes of this paragraph I.G., "qualified producer" means a person or entity with assets of less than \$1 billion (all parents, subsidiaries, affiliates and controlling parties inclusive) which produces not more than 10,000 barrels of gross working interest ANS liquid hydrocarbons per day at the time of proposed contract entry. In the event that any purchase contract under this paragraph I.G. is in effect and no RIK sales are made in a month, the State agrees to calculate the average value it received for RIV in that month for use as an alternative reference marker, and to update that average monthly to reflect retroactive revisions. The parties agree that the price at which the crude oil is purchased, and the pricing formula components of Exhibit C, will not be precedent in any royalty or severance tax proceeding or matter between them.

H. Divestiture of TAPS and Feeder Lines.

1. In order to satisfy the State's concern that the purchasers of the production interests sold under paragraph I.A. of this Charter (the "Transferee(s)") be similarly situated to BP and ARCO by ownership in TAPS, within the time frame established for paragraph I.A. transfers, BP or ARCO will enter into a contract with each Transferee to sell a share of BP or ARCO's interest in TAPS sufficient to carry the production sold to that Transferee. For purposes of this paragraph I.H., production quantity will be measured in the same manner as under paragraph I.A. and TAPS capacity will be measured in accordance with the Amended and Restated Capacity Settlement Agreement in the fixed amount of 1380 mbd.

2. After all contracts contemplated in subparagraph 1 have been entered, and during the remaining term of this Charter, BP or ARCO will offer to sell additional interests in TAPS to any person requesting to purchase a share in TAPS, up to a total aggregate amount under this paragraph I.H. of 22.295% of total TAPS ownership. The additional transfers contemplated by this subparagraph 2 will be in minimum increments of 2% of total TAPS ownership, valued at not more than the ad valorem tax value as of the time of the offer, less 5%. The parties agree that the price at which the TAPS interest is sold will not be precedent in any property tax proceeding regarding the value of TAPS.

3. Within the time frame established for paragraph I.A. transfers, BP and ARCO will enter into a contract with each Transferee to sell to that Transferee a separate share of BP and ARCO's

aggregate interest in the Oliktok pipeline and in each of the intermediate crude oil common carrier pipelines serving the specific units in which the production interests to be transferred to that Transferee are located (the "relevant intermediate pipelines"). The ownership interest in each relevant intermediate pipeline to be sold to each Transferee will be equal to the percentage which the production sold under paragraph I.A. to that Transferee flowing through that pipeline bears to the overall throughput of that pipeline. The relevant production and throughput levels will be measured in the same manner as under paragraph I.A. The percentage of the Oliktok pipeline to be sold will be equal to the percentage share of the KRU sold pursuant to subparagraph I.A.2.

4. Any transfer under this paragraph I.H. will be subject to all necessary state and federal regulatory approvals and any preference rights and required approvals of the other TAPS and relevant intermediate pipeline owners. BP and ARCO will use their best efforts to secure such approvals. BP and ARCO will vote their entire interest in TAPS and the relevant intermediate pipelines in support of any such transfer. In the event any other TAPS or relevant intermediate pipeline owner exercises its preference rights with respect to the sale of a pipeline interest pursuant to subparagraphs 1, 2 or 3 hereof, the sale to that other owner will be considered a sale satisfying the obligations of that subparagraph. BP and ARCO agree that they will not reacquire interests transferred under this paragraph I.H. by any means without advance approval of the State.

I. Offer to Sell Excess Jones Act Ships. If BP's and ARCO's combined long-term ANS Jones Act fleet requirements are such that one or more ships becomes surplus of those requirements, BP or ARCO (as the case may be), will offer to sell the surplus ship or ships to other ANS producers on reasonable commercial terms. If BP or ARCO does not own the ship or ships, it will not object to arrangements by another ANS producer to acquire the ship or ships from the owner. Further, in the event that the purchaser of the ship or ships seeks ship operation services from the Alaska Tanker Company, Inc., BP will not object. Nothing in this paragraph requires BP or ARCO to assume any liability of another ANS producer concerning any of these transactions.

J. Natural Gas.

1. During the period after the merger is completed through December 31, 2003, BP and Arco shall negotiate in good faith to make available to third parties at a commercially reasonable fair market price or transportation charge that is mutually agreeable to BP and Arco, the third party and the State, Alaska North Slope natural gas in sufficient quantities to support a qualified treatment and transmission project to domestic and/or international markets. A qualified treatment and transmission project must have the demonstrated ability to:

- a. obtain project construction financing;
- b. provide reasonable financial security with respect to a long term 100% take or pay arrangement if the project requires a long term gas sales commitment from the producer(s) (including, if commercially reasonable, an assignment or other back-to-back pass-through of the purchaser's take-or-pay commitment from a creditworthy ultimate purchaser); and
- c. obtain necessary approvals from other field interest owners.

2. BP and ARCO shall make reasonable efforts to assist in obtaining the approvals specified in subparagraph 1.c.

3. The delivery point for gas committed to the project will be the residue gas discharge point of the Low Temperature Separators at the Prudhoe Bay Central Gas Facility, or such other point as agreed by the parties.

4. During this period, BP and ARCO will give fair consideration to all reasonable approaches, projects and plans proposed by the State, joint interest owners and others, including LNG projects developed or proposed by the newly established port authority, the gas sponsor group, Yukon Pacific Corporation and any others, pipelines to the lower 48 including those currently proposed, gas-to-liquids projects, and any other reasonable approach, project or plan for the commercialization of North Slope gas. In giving fair consideration to these various approaches, projects and plans, BP and ARCO will consider, among other things, (a) achieving the highest total project wellhead value for the State and for the sellers over the life of the project(s) and (b) other potential benefits to Alaska such as bringing gas infrastructure for the delivery of North Slope gas to communities in Alaska. BP and ARCO will meet and confer with project sponsors on

reasonable request. Not less than every six months during this period, BP and ARCO will provide the Commissioner of Natural Resources with a report that identifies the name of the contact person for each project sponsor which contacted BP and ARCO during the prior 6 month period and the general nature and current status of the sponsor's project, subject to confidentiality requirements of the sponsor.

5. The obligation to negotiate with third parties does not preclude BP and ARCO from proceeding with their own project or projects to commercialize Alaska North Slope gas.

6. The obligations imposed by this section terminate before December 31, 2003 if BP and ARCO enter into a contract or contracts before that date committing Alaska North Slope gas to a qualified treatment and transmission project or projects for volumes that in the aggregate would constitute BP and ARCO's share of a Major Gas Sale under Article 26, Section 26.002 of the Prudhoe Bay Unit Operating Agreement or if the Board of Directors of BP and ARCO sanction the construction of such a project or projects before that date.

7. The parties agree that the terms of paragraph I.J. of this Charter shall be enforceable exclusively by arbitration between the State and BP and ARCO under the rules of the American Arbitration Association.

II. BP and ARCO's Environmental and Community Commitments.

A. North Slope Environmental Commitments. After the merger is completed, BP and ARCO will take the following steps to improve and protect the environment on the North Slope.

1. Cleanup of Abandoned Sites. BP and ARCO will take a leadership role in the assessment and environmental clean up of the North Slope "orphan sites" identified in Exhibit D1 (as currently written and as modified in accordance with the terms of this paragraph II.A.1.), and will spend \$10,000,000 (or such greater amount as may be created by ADEC funding requests under paragraph II. 7.) in performance of this commitment. In carrying out this role, BP and ARCO will consult with the Alaska Department of Environmental Conservation (ADEC) concerning site goals, standards and methods and will substantially complete the assessment and cleanup to the standards approved by ADEC under applicable law within six years after the merger is completed. In addition, BP and ARCO will work cooperatively with ADEC to develop a joint database of North Slope contaminated and solid waste "orphan sites" which includes the nature and location of the sites, the responsible parties and the relative priority for cleanup of each site based upon preliminary evaluation of the risk of harm to human health and the environment posed by the site. BP and ARCO will meet and confer with ADEC from time to time thereafter to arrange for priority re-ordering and substitutions and additions to Exhibit D1 as requested by ADEC, subject to the availability of funding in the spending amount identified above and to the further requirements that there is no known viable responsible party for any substitute or additional site and the site has been wholly vacated. The parties recognize that the available funding in the amount identified above may not be sufficient to assess and cleanup in full all sites identified in Exhibit D1 now or as it may be amended, and nothing in this subparagraph II.A.1. shall preclude the State from pursuing other parties for reimbursement or from seeking other funding sources for additional assessment or cleanup on any orphan site.

2. Cleanup of Abandoned Empty Barrels. BP and ARCO will require contractors conducting seismic or exploration work for them to collect and deliver abandoned empty barrels to BP or ARCO operations for handling, to inventory and map locations of empty barrels and barrels containing product, and to report any visible signs of ground contamination associated with the barrels. BP and ARCO will periodically report to ADEC regarding this effort and provide ADEC with the inventory lists, maps and reports which are developed.

3. Cleanup of Existing BP and ARCO Sites. BP and ARCO will assess and clean to the standards approved by ADEC under applicable law the contaminated sites listed on Exhibit D2. BP and ARCO will work cooperatively with ADEC and the land manager to develop cleanup plans and schedules to complete required assessment and cleanup activities at these sites. Assessment and cleanup activities at sites which are currently accessible will be substantially completed by year-end 2005 for the sites listed as "high" priority sites in Exhibit D2 and by year-

end 2007 for the remainder. Sites which due to operational restrictions cannot be fully cleaned until facility or equipment abandonment will be identified by BP, ARCO and ADEC for completion according to a mutually agreed schedule. Nothing in this paragraph is intended to eliminate or supercede any other obligations BP or ARCO may have to assess, cleanup or restore these or any other sites.

4. Closure of Inactive Reserve Pits. BP and ARCO will comply with the requirements of 18 AAC 60.440 with respect to their inactive reserve pit sites and will close the inactive reserve pits subject to the Order dated May 3, 1993 in Natural Resources Defense Council Inc. v. ARCO Alaska, Inc., No. A88-287 CIV (D. Alaska) as amended within the designated time period established by the court in that matter, and will close other ARCO and BP inactive reserve pits listed on Exhibit D3A by the end of 2007 (except that in the event of currently unprojected operational delay affecting any BP site, that site may be completed on a separate mutually agreed schedule). BP and ARCO will close the ARCO and BP inactive reserve pits listed on Exhibit D3B according to a mutually agreed schedule that ends a reasonable period after work on the D3A sites has been completed.

5. Commitment to North Slope Spill Response. BP and ARCO will support, at their proportionate share, an independent professional North Slope spill response organization, such as Alaska Clean Seas or a substantially equivalent organization, and will encourage the fullest possible participation in this organization by all North Slope producers. BP and ARCO will support and vote in favor of funding to the North Slope oil spill response organization for an Arctic spill response research and development program (jointly agreed to by the spill response organization, BP, ARCO and ADEC) at an average annual level of not less than \$200,000 during the 10 year period following completion of the merger.

6. Commitment to Corrosion Monitoring. BP and ARCO will, in consultation with ADEC, develop a performance management program for the regular review of BP's and ARCO's corrosion monitoring and related practices for non-common carrier North Slope pipelines operated by BP or ARCO. This program will include meet and confer working sessions between BP, ARCO and ADEC, scheduled on average twice per year, reports by BP and ARCO of their current and projected monitoring, maintenance and inspection practices to assess and to remedy potential or actual corrosion and other structural concerns related to these lines, and ongoing consultation with ADEC regarding environmental control technologies and management practices.

7. Additional Expenditure Commitment. BP and ARCO will pay or spend up to an aggregate total of \$500,000 each year during the 10 year period following completion of the merger for any combination of the following as requested annually in writing by the ADEC Commissioner: additional orphan site assessment or cleanup in excess of cap established in subparagraph 1; additional Arctic spill response research and development in excess of amount established in subparagraph 5; and/or an expert or experts chosen by ADEC to provide expert advice to ADEC regarding pipeline corrosion and/or other pipeline structural issues.

8. Payment of Unspent Funds. In the event that BP and ARCO fail to spend (or support and vote in favor of spending in the case of arctic spill response research and development) in the full amounts provided for under paragraphs II.A.1. (\$10,000,000), II.A.5. (\$2,000,000) or II.A.7. (\$5,000,000) when and as required in those paragraphs, then BP and ARCO will pay any unspent or unsupported balance as directed by the ADEC Commissioner.

B. Marine Environmental Commitments.

1. Renewed Commitment to OPA 90. BP and ARCO renew their commitment that neither of them will seek to be relieved of the vessel retirement or replacement requirements of the federal Oil Pollution Act of 1990 ("OPA 90"), nor will either of them lobby for a reduction in its current requirements, nor will they take any other action to extend the retirement dates of the non-double-hulled tankers in their combined fleet beyond the currently scheduled retirement dates. In the event that any trade association or other group of which BP or ARCO is a member takes a different or contrary position, BP and ARCO will, upon notification and request by ADEC, issue a statement clarifying that BP and ARCO do not join in that different or contrary position, and reaffirming the position stated in the first sentence of this paragraph.

2. Replacement Vessels. In furtherance of their continuing commitment to meet or exceed the

OPA 90 standards and timetable, BP and ARCO will complete the purchase and delivery of the three ARCO Millennium class tankers on current order to replace single hulled tankers now used in the combined ANS fleet, and will order and purchase additional tankers to meet their combined ANS fleet requirements on average one year earlier than required by OPA 90, with the expected result that the combined ANS fleet (including both owned and chartered vessels) will be entirely double-hulled by mid-year 2007. These additional purchased tankers will each have safety related attributes substantially equivalent to or better than Millennium or Cape class tankers, including new build double-hulls (wholly new construction), main power plant redundancy, twin propellers, twin rudders, twin independent sets of steering gear, and proven electronics (including navigation, course tracking, collision alarms, engine room monitoring, cargo and ballast monitoring, and fire and safety systems). In addition, BP and ARCO will continue to support a ship escort response vessel system for Prince William Sound at current or better levels of effectiveness.

3. Marine Operations. After the merger is completed, BP and ARCO will continue to encourage and support the company operating ANS tankers for them in using a performance management program for the regular review of its practices related to its management and operations including a safe environment, training and qualifications, and vessel operation, maintenance and management procedures. The parties expect this program to include meet and confer working sessions between the operating company and ADEC, scheduled on average once per year, reports at those working sessions by the operating company of their current and anticipated management and operations practices, ongoing consultation between the operating company and ADEC regarding ANS tanker management and operations practices, and the involvement of BP and ARCO in those sessions and consultations on a monitoring basis. In addition, BP and ARCO will encourage the operating company to allow the opportunity for ADEC to observe, and to be provided a copy of the written results of, management and vessel audits performed as part of a certification or re-certification process for the International Maritime Organization's International Safety Management Code or for the International Standards Organization.

C. Continued Commitment to Alaska Hire.

1. Alaska Hire Program. BP and ARCO agree that, after the merger is completed, they will continue with and extend their commitment to the people of Alaska to utilize a voluntary program to employ residents of Alaska and to use Alaska businesses. It is expected by the parties that this program will include the attributes that:

- a. BP and ARCO will comply with all valid federal, State and local hiring laws in hiring Alaska residents and contractors and will not discriminate against Alaska residents or contractors, and within the constraints of law will employ Alaska residents and contractors to the extent they are available and qualified;
- b. When recruiting for new hires, BP and ARCO will advertise for available positions locally and use Alaska job service organizations to notify the Alaskan public;
- c. BP and ARCO will use best efforts to contract with Alaska firms and fabricate modules in Alaska whenever feasible (in determining feasibility, BP and ARCO will consider commercial, health, safety, and environmental conditions and requirements to ensure maintenance of BP and ARCO's operational standards);
- and
- d. BP and ARCO will, to the extent permitted by law, encourage its contractors to employ, and train when necessary, residents of Alaska.

2. Reporting. BP and ARCO agree to submit to the Director, Division of Oil and Gas, for transmission to the Department of Labor, an annual report that details the specific measures that they and their contractors and subcontractors have taken or are planning to take to recruit qualified Alaska residents for available jobs, describes on-the-job training opportunities, and describes their efforts to use Alaska businesses for work in connection with their leases and associated activities. BP and ARCO will also furnish the Department of Labor a quarterly report regarding their employment of Alaska residents. The report will include statistical data concerning the number of resident personnel hired within the previous year.

3. Construction. The program and reporting described in this paragraph are intended to be fully consistent with the 1996 amendments to paragraphs 41 (1980 leases) and 31 (1983 lease) of the Northstar Unit leases between the State and BP.

4. Alaska Native Recruitment, Training and Hire. BP and ARCO further acknowledge their continuing support for the recruiting, training and hiring of Alaska Natives and the parties'

common understanding of the desirability of providing Alaska's first citizens opportunities to participate in the economic benefits of oil and gas development, most of which takes place in rural Alaska.

D. Community Charitable Commitment. Within three months after the merger is completed, BP and ARCO will establish a charitable entity dedicated to funding organizations and causes within Alaska. The entity will provide 30% of its giving to the University of Alaska Foundation and the remainder to general community needs. Funding decisions by the entity will be made by BP and ARCO, with the advice of a board of community advisors. BP and ARCO will provide ongoing funding to this entity in an amount that is equal to .2% of BP's and ARCO's combined aggregate net Alaska liquids production after royalty times the price for WTI. Specific entity funding levels will be calculated annually, on the same date each year, referencing the liquids production and the average NYMEX WTI prompt month settlement price for the 12 months immediately preceding the calculation.

E. Annual Report. Once every year beginning in March 2001, and continuing thereafter for the term of this Charter, BP and ARCO will provide the State and the public with a written report describing BP and ARCO's performance of the commitments in this Section II during the prior calendar year. Public distribution will be accomplished by posting the report on a company internet site and such other reasonable means of public distribution as BP and ARCO may choose. The report provided for under subparagraph II.C.2. will satisfy this paragraph II.E. as well with respect to its subject matter so long as that report is also publicly distributed, and timing differences will be disregarded so long as the II.C.2 report is provided and distributed according to the schedule applying to subparagraph II.C.2.

III. Alaska's Commitments.

The State of Alaska finds that this Charter adequately addresses the concerns raised by the State during its merger review, that this Charter will provide for greater competition, diversity, corporate responsibility, renewal and growth in the exploration, development and production of Alaskan North Slope oil and gas and is by virtue of these significant benefits in the best interest of Alaska and its people. The State accordingly agrees that, in exchange for BP's and ARCO's fulfillment of their obligations under this Charter, it will not seek to enjoin the merger or seek additional orders or judgments under AS 45.50.580 related to a claim that the merger is unlawful under AS 45.50.568.

IV. BP Amoco, p.l.c.'s Commitments.

BP Amoco, p.l.c. acknowledges that, after the merger is completed, it will be the ultimate parent company of the BP and ARCO corporate entities owning the Alaska assets which are the subject of this Charter and which accordingly are the primary parties with the State of Alaska herein. In order to provide further assurance to the State that the commitments made in this Charter by these primary parties are fulfilled in all respects, BP Amoco, p.l.c. guarantees that (1) these BP and ARCO corporate entities, or such other BP/ARCO Group companies to which the obligations under this Charter are assigned or otherwise transferred, will remain fully capable during the term of this Charter to fulfill all commitments made by them herein and (2) if for any reason a commitment made by them in this Charter goes unfulfilled past the time performance is due, BP Amoco, p.l.c. will cause that performance to be otherwise fulfilled.

V. General Provisions.

A. Definitions. As used in this Charter: "State" and "State of Alaska" means the State of Alaska, through its Governor, Attorney General and Commissioners of Natural Resources and Revenue; "BP" means BP Exploration (Alaska) Inc.; "ARCO" means ARCO Alaska, Inc.; "merger" means the proposed merger between BP and ARCO's parent companies; the merger is "completed" on the earliest of the date of closing, the effective date of the merger, or the first day after ARCO parent stock is exchanged for BP parent stock; "sell" and "transfer" mean divest; "gross working interest production" means BP and ARCO's share of actual liquid hydrocarbon production, including any State royalty share; "well data" includes, in digital and analog format, any mud log, lithology log, wireline well logs, conventional core and sidewall core descriptions, repeat formation

tester, log curve, directional survey, velocity survey, vertical seismic profile, geologic markers, test result, test summary, porosity and permeability data, biostratigraphic data, palynology and paleontology data, geochemical data, vitrinite reflectance data, petrographic data, and completion reports, regarding onshore or offshore exploration acreage west of the Canning River onshore and west of and including the Kuvlum prospect offshore; "seismic data" includes all seismic and ancillary data required to interpret or reprocess a seismic survey including digital files in standard exchange formats containing survey and location data, original field records, final stack and migrated processed data, final stacking and migration velocities, and a report describing the acquisition and processing of the data, regarding onshore or offshore acreage west of the Canning River onshore and west of and including the Kuvlum prospect offshore; "fair market" as used in paragraph I.J.1. will be determined with reference to the well-head netbacks pertinent to the available market(s) reasonably accessed by North Slope gas.

B. Enforcement. This Charter is governed by Alaska law. The parties agree that, except as provided in paragraphs I.J.7. and V.C., it may be enforced as a contract by (a) the Attorney General (for Alaska) and (b) its authorized representatives (for BP and ARCO) in any state or federal court in Alaska, the commitments made in this Charter may be specifically enforced, a trustee may be appointed by the court in such an action to effectuate any property transfers not accomplished as committed, and the court may also order any other appropriate remedy consistent with law. If BP, ARCO and the Federal Trade Commission enter into a consent decree or other agreement related to the merger, the terms of that decree or agreement that relate directly to or affect Alaskan assets or activities within or touching Alaskan waters may be incorporated by the State into this Charter by reference, and are enforceable by the State as though fully set forth herein. BP and ARCO acknowledge that they are subject to the personal jurisdiction of any state or federal court within the State of Alaska for the purposes of enforcing the terms of this Charter. BP Amoco, p.l.c. consents to the jurisdiction of any state or federal court within the State of Alaska for the purposes of enforcing its commitments under section IV of this Charter. No action alleging a failure of performance under this Charter may be commenced more than four years after the alleged failure, and no action alleging a failure of performance under this Charter may be commenced in any event after January 15, 2009, except that an action as provided in the final sentence of paragraph V.C. may be commenced through January 15, 2011.

C. Enforcement of Section II. Commitments. In the event that BP and ARCO fail to perform their commitments under subparagraph II.A.8. or paragraph II.E., the State may bring an action to enforce those provisions. The other provisions of Section II of this Charter are corporate citizenship commitments to the Alaskan community at large. The parties do not intend for these other commitments of Section II to be enforced by lawsuits, and no right of action is created with respect to them.

D. Construction. This Charter may be amended only in writing by the principals to this agreement or their successors. This Charter will be binding on the parties and their respective successors and assigns, and is not intended to confer any rights or remedies upon any other persons (as used herein, "assigns" includes a transferee of substantially all of the assets of BP or ARCO but does not otherwise include a transferee of property, under this Charter or otherwise). Except as otherwise provided in this Charter, nothing herein shall be construed to impose a duty or obligation on BP or ARCO to make any additional agreements with or concessions to any other governmental or regulatory body. Where an act required of BP or ARCO under this Charter is subject to regulatory approval or action, the time limits stated in this Charter will be deemed extended as may be necessary to accommodate the time involved in securing those regulatory approvals if BP and ARCO have acted with reasonable diligence in obtaining those approvals.

E. Reporting, Notice and Access to Records.

1. BP and ARCO will submit an initial compliance report at the time they execute this Charter and will submit additional compliance reports beginning thirty (30) days from the date when this Charter is entered, and every thirty (30) days thereafter until the divestitures required under Section I have been completed or a trustee is appointed. Such reports will be in writing and each such report shall include, for each person who during the preceding thirty (30) days made an offer, expressed an interest or desire to acquire, entered into negotiations to acquire, or made an inquiry about acquiring any ownership interest in all or any portion of the divestiture assets, the name, address, and telephone number of that person and a detailed description of each contact with that person during that period. BP and ARCO will maintain full records of all efforts made to divest the assets under Section I.

2. BP and ARCO will notify the State of any proposed divestiture within two (2) business days following execution of a letter of intent or agreement for sale of the assets under Section I. The notice shall set forth the details of the proposed transaction and list the name, address, and telephone number of each person not previously identified who offered or expressed an interest in or desire to acquire any ownership interest in the divestiture assets. Within ten (10) days after receipt of the notice, the State may request additional information concerning the proposed divestiture, the proposed Purchaser, and any other potential Purchaser. BP Amoco and ARCO will furnish the additional information within ten (10) days of the receipt of the request. Within twenty (20) days after receipt of the notice or within ten (10) days after receipt of the additional information, whichever is later, the State will notify BP and ARCO in writing if it objects to the proposed divestiture. If the State fails to object within the period specified, or if the State provides notice that it does not object, then the divestiture may be consummated. If the State objects, the proposed divestiture may not be accomplished unless ordered by a court of competent jurisdiction.

3. For the purpose of determining or securing compliance with this Charter, and subject to any legally recognized privilege and reasonable notice, the State will be permitted access during office hours to inspect and copy all books, ledgers, accounts, correspondence, memoranda, and other records and documents in the possession or under the control of BP or ARCO relevant to BP or ARCO's compliance with this Charter. Subject to the reasonable convenience of BP and ARCO, and without restraint or interference from them, the State may interview their directors, officers, employees, and agents regarding any such matters. No information or documents obtained by the State under this paragraph shall be divulged by any representative of the State to any person other than a duly authorized representative of the Attorney General, except in the course of legal proceedings to which the State is a party, or for the purpose of securing compliance with this Charter, or as otherwise required by law.

F. Effectiveness. This Charter shall be effective as of the date it is entered as written above. This Charter shall remain fully effective thereafter, except in the event that the merger agreement between BP and ARCO's parent companies is terminated, then any party may terminate this Charter by written notice to all other parties, in which event this Charter shall become null and void and of no effect, as if it were never entered.

G. Attorneys Fees. Within 30 days of the effective date of this Charter, BP and ARCO will pay the State \$1,512,198 as reimbursement for its attorney's fees and costs reasonably incurred in connection with the merger through the date of this Charter. In addition, BP and ARCO will make supplemental payments to reimburse the State for reasonable attorney's fees and costs incurred by the State related to Charter implementation and compliance between the date of this Charter and 12 months after the merger is completed. These supplemental payments will be made within 30 days after the State submits a reasonably supported written request to BP and ARCO for reimbursement.

H. Warranty of Authority. Each of the persons signing below on behalf of a corporate party represents and warrants that he has the authority to execute this Charter on behalf of the party for which he signs. Each of the persons signing below on behalf of the State represents and warrants that he holds the office shown and is authorized to exercise the powers of that office on behalf of the party for which he signs. In addition, BP and ARCO specifically warrant and represent that they are fully authorized and able to make, and to ensure the performance of, the commitments made herein and that, with respect to any Alaska assets currently owned by affiliates, they have taken or will take such steps as are necessary to ensure that the commitments they make herein are accomplished.

I. Other Obligations Not Reduced. Nothing in this Charter is intended to reduce, eliminate or supersede any other obligations BP or ARCO may have under any State or federal law or regulation.

Signatures:

STATE OF ALASKA

by _____
Tony Knowles, Governor

by _____
Bruce Botelho, Attorney General

by _____
John Shively, Commissioner of Natural Resources

by _____
Wilson Condon, Commissioner of Revenue

BP EXPLORATION (ALASKA) INC.

by _____
Richard Campbell, President

ARCO ALASKA, INC.

by _____
Kevin Meyers, President

BP AMOCO, p.l.c.

by _____
John Browne, CEO

by _____
Rodney Chase, Deputy CEO

[Exhibits click here](#)

[Charter Addendum \(03/15/00\) click here](#)

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SECTION FIVE SCOPE OF WORK

5.01 Scope of Work

The Department of Environmental Conservation, Division of Spill Prevention and Response is soliciting proposals for technical consultation services to provide ADEC with expert corrosion advise in regards to pipeline corrosion and/or other pipeline structural issues as part of the Charter for Development of the Alaskan North Slope, item II.A.6, "Commitment to Corrosion Monitoring." The professional consultant would perform the following tasks:

- a) Complete a review of BP's and Phillip's, annually submitted, corrosion monitoring performance management reports, which are to be submitted to ADEC on or before March 31 of each year. Determine if the reports satisfy the requirements of item II.A.6, "Commitment to Corrosion Monitoring," of the Charter for Development of the Alaskan North Slope and its associated work plan deliverables (see Attachment).
- b) Provide recommendations regarding the content and extent of topics covered within the annual reports. Determine if the topics included provide a complete and adequate view of the corrosion monitoring and corrective action activities necessary for maintaining pipeline integrity. Provide recommendations on the report format/content as required. This effort is intended as a continuous improvement process of ADEC's oversight of corrosion monitoring and performance management activities conducted by BP and Phillips for their North Slope, non-common carrier pipelines.
- c) Perform a comprehensive technical analysis of the specific information presented in the reports and determine if there are any specific corrosion or pipeline structural issues, which warrant further review or corrective action. Highlight any specific areas of concern and conduct further research as required to determine if corrosion monitoring, repair or corrosion management related issues meet acceptable industry practices, code and regulatory requirements. Also determine if corrosion performance trends are at expected levels. If any parameters significantly exceed expected levels (excessive corrosion rates or frequent corrosion or structural related failures/spills), provide any findings and/or recommendations for corrective actions in this area. Rank any issues of concern as: 1) a significant pipeline integrity or environmental issue requiring immediate corrective action; 2) a pipeline integrity or environmental issue warranting corrective action within a longer time period (six months); and 3) a pipeline integrity or environmental issue warranting further study to determine if any problem exists.
- d) Analyze corrosion technologies and techniques being utilized for corrosion surveys and performance assessments of the North Slope, non-common carrier pipelines. Determine if the methods and equipment employed provide for an adequate corrosion monitoring program. If not, list specific areas that should be considered for improvement.
- e) Participate in the semi-annual "meet and confer" sessions with BP and Phillips as ADEC's technical consultant. Provide feedback regarding review findings from the previously submitted annual reports as well as any new information presented at these meetings.
- f) Recommend an "annual bullet item(s)" that can be used as an indicator of the overall corrosion performance from the data provided. It should be a simply understood criteria which will allow for effective communication to the public of the yearly status of the "Commitment to Corrosion Monitoring" Charter item.

5.02 Deliverables

The contractor will be required to provide the following deliverables:

1. Prepare a detailed proposed schedule of project milestones for completing all tasks (a-f) described within the Scope of Work within the first week of the contract period.
2. By the tenth day after the close of the first full month and each succeeding month thereafter, the contractor shall submit a progress report to the contract manager. This report will discuss the status of each task, problems encountered, any delays, and any other items that could affect the successful completion of the contract. The contractor will maintain a project timeline throughout the course of the contract and will supply an updated version to the contract manager prior to biweekly meetings. Depending on the location of the contractor, biweekly meetings will be held in person or by teleconference.
3. Following the comprehensive technical review of BP's and Phillips' annual reports, the contractor will present to the Contract Manager a separate draft report for each owner's report (BP and Phillips) documenting his/her complete analysis and recommendations of all elements described in tasks (a-d). The Department will review the contractor's reports and will present written comments to the contractor. The contractor will incorporate the comments into the reports by either making changes where appropriate or defending his/her course of action. The contractor will finalize the reports, including the comments and response as an appendix, and will submit them to the Contract Manager in typed and electronic versions.
4. The contractor will participate, help coordinate and provide feedback as appropriate during each of the semi-annual "meet and confer" sessions with BP and Phillips per scope task "e". A written report of the meeting minutes, including a technical review and comments on the information presented, as well as any follow-up action items or recommended actions will be provided by the contractor to the Contract Manager. The contractor will also be responsible for additional correspondence with the individual owners (as per direction from the Contract Manager) on any issues warranting further follow-up action.
5. The contractor will provide a recommendation to the Contract Manager, following review of the data available described in the owner's reports, of an "annual bullet item(s)" as described under task (f) in the scope .

5.03 Work Schedule

The contract term and work schedule set out herein represent the State's best estimate of the schedule that will be followed. If a component of this schedule, such as the opening date, is delayed, the rest of the schedule will likely be shifted by the same number of days.

The length of the contract will be from the date of award, approximately *July 23, 2001*, for approximately 342 calendar days until completion, approximately *June 30, 2002*.

The approximate contract schedule is as follows:

- Issue *RFP June 11, 2001*.
- Pre-Proposal Conference *June 25, 2001*.
- Closing date *July 2, 2001 COB*.
- Open *RFP July 3, 2001*.
- Proposal Evaluation Committee complete evaluation by *July 10, 2001*.
- State issues Notice of Intent to Award Contract *July 11, 2001*.
- Protest period begins *July 12, 2001*
- State awards contract *July 23, 2001*.
- Contract begins *July 26, 2001*.
- Contractor provides detailed schedule of project milestones (Deliverable 1) to Contract manager by *August 2, 2001*.
- Contractor submits first draft report (Deliverable 3) to Contract Manager by *September 11, 2001*.
- State reviews first draft (Deliverable 3) from *September 11, 2001* to *September 18, 2001*.
- Contractor revises first draft (Deliverable 3) by *September 25, 2001*.
- Contractor coordinates and participates in *October 2001* "meet and confer" session with BP and Phillips.
- Contractor provides a written report on meeting minutes and follow-up recommendations to ADEC by *November 15, 2001*

-
- Any follow-up activity required from reports, meetings and outstanding deliverables are completed and submitted by the contractor to the Contract Manager by *June 30, 2002*.

METHODOLOGY AND MANAGEMENT PLAN

Methodology

The scope of the proposed work is to review and report on the corrosion monitoring and control technologies, and on the practices related to these technologies, that are being used at North Slope facilities. The main source of information will be reports prepared by BPXA and PAI.

Our proposed scope also is to research and report on those technologies available or in use globally, to determine those technologies applicable in Alaskan climates, recognizing the range of operating and climatic conditions throughout the state.

To accomplish this scope of work, we propose the following four tasks:

- Task 1 – 2001 Annual Report Review
- Task 2 – Meet & Confer Sessions
- Task 3 – Best Available Technology Report
- Task 4 – FY2002 Summary & Plan Forward

Task 1 – 2001 Annual Report Review

A comprehensive technical analysis of the March 2001 reports provided by PAI and BPXA will be made. The primary source of data for these analyses will be the reports provided by BPXA and PAI. Coffman realizes that these reports are the distillation of thousands of measurements and observations. Coffman recognizes the limited timeframe outlined in the project scope will not allow a rigorous review of all the details inherent in each aspect of the various corrosion programs.

The ability to perform this analysis to identify issues, compare methodologies to industry practice, and recommend changes (if any) is not feasible given the short duration defined by RFP. For example, some information presented in the summary reports will likely need clarification and/or amplification by BPXA and PAI before any remedial action can be defined. This will likely require interface with the respective corrosion group, which can be a time consuming process depending on personnel availability.

Therefore the focus of the initial analysis should be to determine if there are specific corrosion or structural issues that present immediate risks which need to be addressed near term. The information discovered in Task 3 will be used to continue development of a risk weighted approach to corrosion management and to identify issues that warrant further study.

Task 2 – Meet & Confer Sessions

The October 2001 and April 2002 sessions will bring all of the participants together for update and review of the current program. Coffman will help with meeting coordination, dissemination of information gathered from other tasks, participation during the meeting and post meeting, and finally a written report discussing the information presented with recommended actions. It is also

anticipated there will be some interaction with BPXA and PAI following these meetings to address any action items.

Task 3 – Best Available Technology Report

The North Slope environment has necessitated innovations in a number of corrosion control areas. However, there have been rapid improvements in remote monitoring, online/remote monitoring, detection, and inhibition technologies. Broadly, Task 3 will compare new or different technology and practices that are being used by industry peers. Any new technology or practice and its applicability to North Slope operations will be evaluated. The comparisons between technologies and practices will be critically evaluated and conclusions drawn regarding the present state-of-the-art in Alaska versus that practiced by other organizations around the world. Where information is apparently lacking, recommendations will be provided that may allow more complete evaluations to be made in the future. This task would be completed between the October 2001 and April 2002 Meet & Confer Sessions.

Literature Search

The technical literature will be searched using relevant computer-based databases and other resources. The primary databases to be queried and the time period to be covered are the following:

- Cor-Ab (1980-present, NACE International)
- Engineering Index (1970-present)
- Corrosion Abstracts (1967-present, Chemical Abstracts)
- National Technical Information Service (1964-present)
- Science Abstracts (1969-present).

While some overlap is to be expected, these databases will provide the worldwide coverage of the corrosion literature desired. The search will use key words relevant to corrosion monitoring and control. Relevant articles will be obtained and reviewed. As a standard of comparison, recommended practices on corrosion control will be obtained from NACE International and API, as well as German (DIN), Det Norske Veritas (DNV), and British (British Standards Institute Code of Practice) standards.

Industry Survey

To provide a broader perspective, selected industry members in other countries, as well as the US, will be polled with regard to the search topics. While not all of the conditions and practices under which these companies operate are similar to the North Slope, they may provide some important contrasts in practices, procedures and technologies that transcend the physical location. A list of the companies to be contacted will be provided with the detailed schedule.

Prior to the start of interviews, a line of questioning will be drafted. Specific information and examples will be sought. The interviews will be conducted over the phone, or face-to-face if the opportunity presents itself. The information gathered will be summarized after each interview and compared to the current experience and conditions in Alaska.

The final task report will follow a format incorporating information from the literature review, and industry survey. The relevant literature will be presented, discussed, and referenced. The results of the industrial interviews will be presented in summary tabular form, with comparisons made, with extended information and data placed in appendices. Unless requested by the interviewee, the company will be identified.

Task 4 - FY2002 Summary & Plan Forward

A complete review of recommendations and conclusions as well as their present status from previous reports/meetings will be prepared. Additionally, we will work with DEC to develop a plan for areas requiring additional study/review and corrosion monitoring milestones for the coming fiscal year.

Management Plan

Reporting

Three types of reports are planned: biweekly status reports, written monthly progress reports, and draft and final task reports. ~~In addition we have the ability to show progress via the internet using Microsoft Project Central Server, which could allow DEC the ability to track the progress and costs as they are updated.~~

The biweekly status reports will consist of a short update of progress via telephone or email. For the monthly progress reports, the information from all of the active tasks will be provided in more detail and communicated to the Project Manager. Cost status, project problems and their resolution will be included in the monthly progress reports.

The draft and final reports will be written under each task based upon the Task description previously described. We also will provide three (3) bound copies of the final task reports, one electronic copy in Microsoft Word 2000 (or previous version) and Adobe Acrobat Portable Document Format (PDF).

Project Schedule

A tentative project schedule is provided as Appendix A. The scope of work can be accomplished during the remainder of the fiscal year. It is important to note the Start/Finish dates represent calendar time versus actual effort. Additionally, the dates for the Meet & Confer sessions were selected to be mid-month and if they slip, the report submittal for each session will slip an equal amount. A refined schedule will be provided per the RFP if we are the selected contractor. An additional component of scheduling, we have the ability to post the schedule on the internet for client access and updates.

Project Team Organization

Coffman has assembled an outstanding team of corrosion engineers with the necessary experience to successfully carry out the proposed scope of work. They collectively have over 50 years of experience in internal/external corrosion control. Moreover, they have a working

October, 2000

Work Plan

Commitment to Corrosion Monitoring

Phillips Alaska, Inc.
BP Exploration (Alaska) Inc.

"BP and Phillips will, in consultation with ADEC, develop a performance management program for the regular review of BP's and Phillips' corrosion monitoring and related practices for non-common carrier North Slope pipelines operated by BP or Phillips. This program will include meet and confer working sessions between BP, Phillips and ADEC, scheduled on average twice per year, reports by BP and Phillips of their current and projected monitoring, maintenance and inspection practices to assess and to remedy potential or actual corrosion and other structural concerns related to these lines, and ongoing consultation with ADEC regarding environmental control technologies and management practices."

Work Plan Purpose:

The purpose of this work plan is to clearly define the purpose, scope, content, reporting requirements, roles and responsibilities, and milestones/timing for the development and implementation of the Corrosion Monitoring Performance Management Program required by Paragraph II.A.6 of the North Slope Charter Agreement.

Corrosion Monitoring Performance Management Program

Purpose: To provide for 'the regular review of BP and PAI's corrosion monitoring and related practices for non-common carrier North Slope pipelines' operated by BP or PAI.

'Corrosion Monitoring' specifically refers to the activity of monitoring pipeline corrosion rates via corrosion probes, corrosion coupons, internal pipeline inspections, and external pipeline inspections.

'Related practices' refers to the assessment of corrosion monitoring data and the associated response to the assessment, specifically chemicals, inspection, and repairs.

Scope: Non-common carrier North Slope pipelines operated by BP or Phillips Alaska, Inc.

"Non-common carrier pipelines" refer to Non-DOT-regulated pipelines. Included in this designation are cross-country and on-pad pipelines in crude, gas, and other hydrocarbon services, as well as, produced water and seawater service pipelines. In module and inter-module on pad piping are not considered part of the scope of this review program.

Content: This Corrosion Monitoring Performance Management Program consists of the following:

1. BP and PAI will "meet and confer" with ADEC twice per year, on average. These sessions will be "working sessions" where BP and PAI will inform ADEC of the following:
 - A. Summary description of the inspection and maintenance practices used to assess and to remedy potential or actual corrosion, or other significant structural concerns relating to these lines, which have arisen from actual operating experience. This description will address overall areas of focus, the rationale for this focus, and the nature of monitoring and related practices used during the time since the last meeting. This description may be brief if strategies/focus areas have not changed since the last meeting.
 - B. Summary overview of ongoing coupon and probe monitoring results.
 - C. Summary overview of chemical optimization activities.
 - D. Summary overview of ongoing internal inspection activities.
 - E. Summary overview of ongoing external inspection activities.
 - F. Summary overview of ongoing structural concerns
 - G. Summary of conclusions drawn and responses taken to remedy potential or actual corrosion concerns relating to these lines.
 - H. Review/discussion of corrosion or structural related spills and incidents
 - I. Review the actions developed by the operator to address any corrosion performance trends that significantly exceed expected parameters.
 - J. Summary of program improvements and enhancements, if applicable.
 - K. Review of annual monitoring report (see below) at the next scheduled semi-annual meeting.

The agenda for these meetings will also include an opportunity for open discussion and an opportunity for ADEC to ask questions, provide feedback, etc.

These meetings will be targeted for April and October of each year, although this timing can be adjusted upon the mutual agreement of BP, PAI, and ADEC. The location of the meetings will alternate between the parties.

2. BP and PAI will submit annual reports to ADEC, which will provide the status of current and projected monitoring activities. These reports will be issued on or before March 31st of each year, and reflect the prior calendar year. The following information will be provided:
 - A. Annual bullet item reporting the progress of the Charter Agreement corrosion related commitment.
 - B. A general overview of the previous year's monitoring activities.
 - C. Metrics that depict coupon and probe corrosion rates.
 - D. Metrics that characterize chemical optimization activities.
 - E. Metrics that depict the number and type of internal/external inspections done, and, as applicable, the corrosion increases/rates and corresponding inspection intervals.
 - F. Metrics that characterize the quantity and type of repairs made in response to the internal/external inspections done per the above paragraph.
 - G. Metrics that depict the numbers and types of corrosion and structural related spills and incidents.
 - H. A forecast of the next year's monitoring activities in terms of focus areas and inspection goals. These forecasts cannot be viewed as binding, as corrosion strategies are dynamic and priorities will change over the course of the year. However, changes in focus will be communicated to ADEC during the semi-annual meetings described above.

Note: These reports will be presented in, and be part of, a comprehensive North Slope Charter Agreement status report.

3. In addition to the semi-annual "meet and confer" working sessions referenced above, BP and PAI will remain accessible to provide "ongoing consultation" to ADEC regarding environmental control technologies and management practices

'Environmental Control Technologies' refer to those technologies specifically related to corrosion monitoring and mitigation of the subject pipelines.

'Management practices' refer to corrosion monitoring and related practices as defined above.

4. During the semi-annual 'Meet and Confer' working meetings with BP and/or PAI, ADEC may use the services of a corrosion expert(s) (contracted from funds under Charter Commitment paragraph II.A.7) to assist in the review of performance trends and corrosion program features.

5. BP has assigned CIC Manager, R. Woollam/564-4437, and Phillips has assigned Kugaruk Engineering and Corrosion Supervisor M. Cherry and J. Huber/659-7384, to be the contacts responsible for ensuring these commitments are met, including ADEC notification of scheduled times for the semiannual presentations. The ADEC contact for this effort is (Pipeline Integrity Section Manager/S. Colberg/269-3078) who will notify interested personnel of the presentation times, maintain the reports for distribution to the public when requested and coordinate other issues relating to this commitment.

Annual Timetable

March 31st Annual Report

April 30th 1H Semi-Annual Review (Meet and Confer)

October 31st 2H Semi-Annual Review (Meet and Confer)

Guide for Performance Metric Reporting

General

- Different metrics show and reveal different aspects of the business and as a consequence there are rarely any 'right' or 'wrong' measures only 'right' or 'wrong' application and usage
- Summary statistics described below may be provided as a data appendix to the annual reports with the more pertinent tables and graphics being contained in the text as appropriate. The intent is not to clutter and interrupt the flow of the text with extraneous data
- Format of data, the order in which it is presented, etc. of each company's annual report may differ from the order presented below, depending on key messages and data context. For example, one company may choose to imbed Leak/Save data into an inspection graph as opposed to presenting the Leak/Save data in standalone tabular format.
- This is an initial document for implementation in the 2001 annual report to ADEC, it should be noted, that the guidelines provided below can and will be adjusted to improve the efficacy of the annual report and reporting mechanism

Timescale

- Data to be presented on an aggregate annualized basis
- Base year 1995 providing 5 year history before the start of the Charter Agreement and each year's annual report will add to time series starting in 1995

Equipment Classification

- **Well Line** Pipe work from the well head to the Well Pad Manifold Building, generally, the flow from a single well prior to commingling before transportation to the separation plant
- **Flow Line** Pipe work from the Well Pad Manifold Building to the Separation plant, generally, cross country and off pad pipe work which carries commingled flow to/from a well pad. Also, straight run flow from the wellhead to separation plant, without commingling, is classified at Flow Line pipe work
- **Exceptions** Pipe work not conforming to these basic definitions will be reported by exception

Service Definitions

- **Three Phase Production (3ø or OWG)** basic reservoir fluids (O/W/G – oil, water and gas) produced from down hole through to the main separation plants that typically see only see changes in temperature and pressure from reservoir conditions and are therefore essentially un-separated

- **Seawater (SW)** Water sourced typically from the Beaufort Sea that has undergone primary treatment at the Seawater Treatment Plant. Note, that the seawater treatment plants differ across the slope in the primary treatment methods, most importantly oxygen removal, with both production gas and vacuum stripping being employed
- **Produced Water (PW)** The water produced with the primary reservoir 3 phase production after passing through the separation and treatment
- **Commingled Water (CW) or Mixed Water (MW)** Water which has been commingled and is therefore multi-sourced, this is typically a mix of SW and PW although other combinations exist in the operations on the North Slope
- **Gas (G)** Generic term for a number of different gas systems which transport essentially dry gas between facilities including fuel gas, lift gas and miscible injectant
- **Processed Oil (PO)** The oil/hydrocarbon produced with the primary reservoir 3 phase production after separation and treatment, this is primarily black oil but could include black oil plus NGL's

Basic Summary Statistics

- **Distribution** The data is fundamentally of log-normal distribution, with a lower limit of zero or no-change and potentially unlimited upper extent
- **Count** A count of the number of activities completed i.e. coupons pulled in a given year
- **Average** The average or mean for the criteria being summarized i.e. average corrosion rate
- **Target Value** The target value against which non-conformance, see below, is reported
- **Number Non-conformant** The number of items not conforming to the control criteria i.e. the number of coupons exceeding the control value
- **Percentage Nonconformance** The percentage not conforming to the control value as a percentage of the total

Weight Loss Coupon Data

Table below summarizes the reporting of weight loss coupon data for the major fields on the North Slope

	Well Lines	CCL/FL
3 ø Production	All	All
Seawater	GPB	All
Prod. Water	GPB	GPB
Commingled Water	All	All

The data sets to be provided for both general corrosion rates and pitting rates are,

- Count of coupons
- Average corrosion rate
- Number non-conformant

- % Conformant i.e. 1 minus the % non-conformant
- A corrective action list for non-conformant flow lines (FL/LDF/CCL/CLs) will also be provided.

Internal Inspection Data

Table below summarizes the reporting of internal corrosion inspection data for the major fields on the North Slope

	Well Lines	CCL/FL
3 ø Production	All	All
Commingled Water	All	All

Note that no distinction will be made between water services across the North Slope since in many cases the service is variable making meaningful analysis and aggregation difficult.

The data sets to be provided for internal inspection are,

- Count of inspections
- Number of increases on repeat inspection locations
- Percentage of increases on repeat inspections

A corrective action list for flow lines (FL/LDF/CCL/CLs) with inspection increases will also be provided.

Corrosion Inhibition

The corrosion inhibition program is to be reported as the target and actual total annual gallons and gallons per day, and as concentration, ppm, based on a field wide average.

External Corrosion Inspection

External corrosion inspection program is to be reported as an aggregate of all piping systems without distinction or differentiation of service and equipment type with a summary of the overall program status.

The data sets to be provided for external inspection are,

- Count of inspected location
- Number of corroded locations
- Percentage of inspection locations corroded

Repair and Leak Statistics

The repair and leak/spill statistics to be reported for each year plus the historical trend back to 1995 consistent with other performance metrics. The basic definitions,

- **Leak/Spill** An agency reportable leak/spill for the pipelines covered under the Charter Agreement which was caused by corrosion and/or erosion

- **Save** A location which required repair action as a result of corrosion and/or erosion damage but which was found through inspection prior to causing a leak/spill

The data sets to be provided for Repair/Leak statistics,

- Count of Leaks/Saves by flow line and well lines
- Summary of leak/spill causes

Below Grade Piping

The data sets to be provided for Below Grade Piping (BGP) program,

- Number of segments/crossings inspected broken out by inspection method
- Number with anomalies and severity of anomaly

Results of casing digs, visual casing inspections and casing clean-out to be reported as appropriate.

Other Programs

Reporting of ER probe, smart pigging, maintenance pigging, structural issues, and details of individual spill incidents to be reported as dictated by the current year's program activity.

References to "Processed Oil" in BPXA Annual Reports

The BPXA Commitment to Corrosion Monitoring reports submitted for calendar years 2000 – 2005 have been carefully reviewed to find references to crude oil transit lines. The nomenclature for these pipelines varies throughout the reports, but primarily the lines are referred to as "processed oil" pipe lines; there are also references to "export oil", "sales oil", or "OT" – oil transit lines.

In 930 pages of the reports, crude oil transit lines are referenced 70 times; less than 1% of the reports have any reference to these lines. The BPXA reports include historical summaries, so most of the references are repeated in each report. For example, "Reference to non-common carrier pipelines on the North Slope" is the same in the 2001-2005 reports, and is different in the 2001 report only that the description does not include the North Slope, but instead states "...pipelines operated by BPXA."

The location of the following information in the reports changes over the years but is repeated in every report, with exceptions indicated below.

- Coupon Pull Frequency
- Non-common carrier pipelines description from 2000 work plan
- Glossary of Terms – the 2000 version does not include as much as following years
- Facility Schematic – not in 2000 report
- Corrosion monitoring location/corrosion coupon locations – not in 2000 report
- Summary of average corrosion rates for processed oil flow lines – not in 2000 report
- CUI inspections by services type – not in 2000 report
- Cased pipe survey results – not in 2000 report
- Repair activities/historical repairs by service – not in 2000 report
- Equipment classification for flow line – not in 2000 report
- Definition of processed oil service type – not in 2000 report
- Flow and well line general corrosion rate data – not in 2000 report
- Flow and well line pitting rate data – not in 2000 or 2001 reports
- Corrosion management system implementation – not in 2000 or 2001 reports
- Cased piping excavation history – not in 2000 or 2001 reports
- Repairs by service – not in 2000 or 2001 reports

BPXA 2000 calendar year report

53 pages – 8 references below – 4 references to "processed oil", "sales oil", "OT" or "export oil"

Reference Number	Location in Report	Name of Table, Figure, Section (if applicable) Description
1	Executive Summary 1 st paragraph	Reference to "non-common carrier pipelines operated by BPXA".
2	Page 9 Table 2	<i>Summary of Cross Country Pipelines.</i> Data regarding Export Oil Service pipelines
3	Page 10 Table 3	<i>Smart Pig Inspections.</i> In 1998, an OT (OT-21?) was inspected.
4	Page 21 Table 9	<i>Electromagnetic Inspections.</i> One cased oil export line was inspected, no anomalies found.
5	Page 25 Last paragraph	Brief discussion of in-line inspection – smart (intelligent) pigging
6	Page 30 Table 14	<i>Planned Coupon Pull Schedule for Greater Prudhoe Bay.</i> Sales oil line coupons are pulled every 3 months.
7	Page 47 Glossary of Terms	Processed oil, sales oil, export oil, oil transit lines not included
8	Page 49 Top of page	"Non-common carrier pipelines" description from 2000 Work Plan. These are non-DOT regulated pipelines.

BPXA 2001 calendar year report

149 pages – 14 references below – 10 references to “processed oil”, “sales oil”, or “export oil”

Reference Number	Location in Report	Name of Table, Figure, Section (if applicable) Description
1	Page i 3 rd line	Reference to “non-common carrier pipelines on the North Slope”
2	Page 45 Top of page	Description of processed oil.
3	Page 45 Table C.7	<i>Summary by Equipment and Service for Corrosion Coupon Data.</i> Shows number of weight loss coupon locations in processed oil lines, 1995-2001.
4	Page 46 2nd paragraph	Summary of average corrosion rates for Flow Line Processed Oil.
5	Page 63 Table E.3	<i>CUI Inspections by Service Type.</i> Shows that 277 external inspections for corrosion under insulation (CUI) were conducted at processed oil flow lines, 1995-2001; 3% found corrosion.
6	Page 64 Table E.5	<i>2001 Cased Pipe Survey Results.</i> 7 processed oil cased lines were inspected with 1 showing minor damage.
7	Page 81 Table F.1	<i>Repair Activities.</i> 3 repairs were made for internal corrosion at processed oil flow lines in 2001.
8	Page 91 Table H.1	<i>Coupon Pull Frequency.</i> Processed oil flow line coupons are pulled every 3 months.
9	Pages 117-118 Glossary of Terms	See CCL, CL, Cross Country Lines, FL, LDF, OIL, PO
10	Page 122 Top of page	“Non-common carrier pipelines” description from 2000 Work Plan. These are non-DOT regulated pipelines.
11	Page 125 3rd bullet from bottom	Equipment classification for flow line. These lines run from the well pad manifold building or the well pad to the separation plant.
12	Page 126 5th bullet	Definition of Processed Oil (PO) service type.
13	Page 137	<i>Facility Schematic.</i> Does not show crude oil transit lines.
14	Page 147 Table 5.1	<i>Aggregate GPB Flow and Well Line General Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes general corrosion rate data

BPXA 2002 calendar year report

197 pages – 19 references below – 14 references to "processed oil", "sales oil", or "export oil"

Reference Number	Location in Report	Name of Table, Figure, Section (if applicable) Description
1	Page i 3 rd line	Reference to "non-common carrier pipelines on the North Slope"
2	Page 14 Table B.8(a)	<i>Corrosion Monitoring Locations by Equipment and Service.</i> Shows number of weight loss coupon locations in processed oil lines, 1995-2002.
3	Page 41 Table B.13	<i>Corrosion Management System Implementation by Equip Type and Service.</i> Export oil in corrosion management system.
4	Page 64 2nd paragraph	Summary of average corrosion rates for Flow Line Processed Oil.
5	Page 89 Last paragraph	Processed oil lines have a lower rate of CUI occurrence.
6	Page 90 Table E.3	<i>CUI Inspections by Service Type.</i> Shows that 312 external inspections for corrosion under insulation (CUI) were conducted at processed oil flow lines, 1995-2002; 3% found corrosion.
7	Page 92 Table E.5	<i>2002 Cased Pipe Survey Results.</i> 7 processed oil cased lines were inspected with 3 showing minor damage and 1 showing significant damage.
8	Pages 106-108 Section E.5	<i>Smart Pigging.</i> No reference to processed oil lines but a good discussion to read.
9	Page 111 Table E.19	<i>Cased Piping Excavation History.</i> In 1996, a caribou crossing between FS1 and FS2 was excavated to conduct external inspections; a 14% wall loss was found on a 30" sales oil line.
10	Page 118 Figure F.2	<i>Repairs by Service.</i> Shows repairs to processed oil lines in 2001.
11	Page 121 Table F.5	<i>Historical Repairs by Service.</i> 3 repairs were made for internal corrosion at processed oil flow lines in 2001. No repairs in other years 2000-2002.
12	Page 133 Table H.1	<i>Coupon Pull Frequency.</i> Processed oil flow line coupons are pulled every 3 months.
13	Pages 167-168 Glossary of Terms	See CCL, CL, Cross Country Lines, FL, LDF, OIL, PO
14	Page 172 Top of page	"Non-common carrier pipelines" description from 2000 Work Plan. These are non-DOT regulated pipelines.
15	Page 175 3rd bullet from bottom	Equipment classification for flow line. These lines run from the well pad manifold building or the well pad to the separation plant.
16	Page 176 5th bullet	Definition of Processed Oil (PO) service type.
17	Page 187	<i>Facility Schematic</i> Does not show crude oil transit lines.
18	Page 193 Table 5.1	<i>Flow and Well Line General Corrosion Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes general corrosion rate data
19	Page 195 Table 5.2	<i>Flow and Well Line Pitting Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes pitting rate data

BPXA 2003 calendar year report

193 pages – 18 references below – 13 references to "processed oil", "sales oil", or "export oil"

Reference Number	Location in Report	Name of Table, Figure, Section (If applicable) Description
1	Page i 3 rd line	Reference to "non-common carrier pipelines on the North Slope"
2	Page 15 Table B.6	<i>Corrosion Monitoring Locations by Equipment and Service.</i> Shows number of weight loss coupon locations in processed oil lines, 1995-2003.
3	Page 41 Table B.15	<i>Corrosion Management System Implementation by Equip Type and Service.</i> Export oil in corrosion management system.
4	Page 62 3 rd paragraph	Summary of average corrosion rates for Flow Line Processed Oil.
5	Page 82 Table 1	<i>CUI Inspections by Service Type, 1995-2003.</i> Shows that 2615 external inspections for corrosion under insulation (CUI) were conducted at processed oil flow lines, 1995-2003; 5% found corrosion.
6	Page 86 Table E.4	<i>Cased Pipe Survey Results.</i> 27 processed oil cased lines were inspected with 7 showing minor damage and 4 showing moderate damage.
7	Pages 98-101 Section E.5	<i>In-Line Inspection.</i> No reference to processed oil lines but a good discussion to read.
8	Page 103 Table E.8	<i>Cased Piping Excavation History.</i> In 1996, a caribou crossing between FS1 and FS2 was excavated to conduct external inspections; a 14% wall loss was found on a 30" sales oil line.
9	Page 110 Figure F.1	<i>Repairs by Service.</i> Shows repairs to processed oil lines in 2001.
10	Page 113 Table F.2	<i>Historical Repairs by Service.</i> 3 repairs were made for internal corrosion at processed oil flow lines in 2001. No repairs in other years 2000-2003.
11	Page 125 Table H.1	<i>Coupon Pull Frequency.</i> Processed oil flow line coupons are pulled every 3 months.
12	Pages 161-162 Glossary of Terms	See CCL, CL, Cross Country Lines, FL, LDF, OIL, PO
13	Page 166 Top of page	"Non-common carrier pipelines" description from 2000 Work Plan. These are non-DOT regulated pipelines.
14	Page 169 2 nd bullet from bottom	Equipment classification for flow line. These lines run from the well pad manifold building or the well pad to the separation plant.
15	Page 170 6 th bullet	Definition of Processed Oil (PO) service type.
16	Page 183	<i>Facility Schematic</i> Does not show crude oil transit lines.
17	Page 189 Table 5.1	<i>Flow and Well Line General Corrosion Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes general corrosion rate data
18	Page 191 Table 5.2	<i>Flow and Well Line Pitting Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes pitting rate data

BPXA 2004 calendar year report

168 pages – 18 references below – 13 references to “processed oil”, “sales oil”, or “export oil”

Reference Number	Location in Report	Name of Table, Figure, Section (if applicable) Description
1	Page i 3 rd line	Reference to “non-common carrier pipelines on the North Slope”
2	Page 15 Table C.1	<i>Corrosion Monitoring Locations by Equipment and Service.</i> Shows number of weight loss coupon locations in processed oil lines, 1995-2004.
3	Page 32 2nd paragraph	Summary of average corrosion rates for Flow Line Processed Oil.
4	Page 33 Table c.6	<i>Flow and Well Line General Corrosion Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes general corrosion rate data
5	Page 35 Table C.7	<i>Flow and Well Line Pitting Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes pitting rate data
6	Page 48 Table E.1	<i>CUI Inspections by Service Type, 1995-2004.</i> Shows that 5481 external inspections for corrosion under insulation (CUI) were conducted at processed oil flow lines, 1995-2004; 4% found corrosion.
7	Pages 50-51 Table E.3	<i>Cased Pipe Survey Results.</i> 5 processed oil cased lines were inspected with 2 showing minor damage, 1 showing moderate damage, 1 showing significant damage.
8	Page 55 Section E.4	<i>In-Line Inspection.</i> Brief discussion, does not mention processed oil lines.
9	Page 61 Table E.8	<i>Cased Piping Excavation History.</i> In 1996, a caribou crossing between FS1 and FS2 was excavated to conduct external inspections; a 14% wall loss was found on a 30" sales oil line.
10	Page 68 Figure F.1	<i>Repairs by Service.</i> Shows repairs to processed oil lines in 2001.
11	Page 71 Table F.2	<i>Historical Repairs by Service.</i> 3 repairs were made for internal corrosion at processed oil flow lines in 2001. No repairs in other years 2000-2004.
12	Page 81 Table H.1	<i>Coupon Pull Frequency.</i> Processed oil flow line coupons are pulled every 3 months.
13	Pages 117-118 Glossary of Terms	See CCL, CL, Cross Country Lines, FL, LDF, OIL, PO
14	Page 122 Top of page	“Non-common carrier pipelines” description from 2000 Work Plan. These are non-DOT regulated pipelines.
15	Page 125 2nd bullet from bottom	Equipment classification for flow line. These lines run from the well pad manifold building or the well pad to the separation plant.
16	Page 126 6th bullet	Definition of Processed Oil (PO) service type.
17	Page 162 Table 15	<i>Corrosion Management System Implementation by Equip Type and Service.</i> Export oil in corrosion management system.
18	Page 163 Figure 7	<i>Facility Schematic</i> Does not show crude oil transit lines.

BPXA 2005 calendar year report

170 pages – 20 references below – 16 references to "processed oil", "sales oil", or "export oil"

Reference Number	Location in Report	Name of Table, Figure, Section (if applicable) Description
1	Page i 3 rd line	Reference to "non-common carrier pipelines on the North Slope".
2	Page 7 Section B.2, item 4	<i>Corrosion Monitoring.</i> Processed oil flow line WLC (weight loss coupon) data showed 100% were <2 mpy with an average corrosion rate of 0.2 mpy.
3	Page 15 Table C.1	<i>Corrosion Monitoring Locations by Equipment and Service.</i> Shows number of weight loss coupons and ER probe locations in processed oil lines.
4	Page 30 Figure C.16	<i>Flow Line Corrosion Coupon Summary by Equipment and Service.</i> Shows the average corrosion rate for processed oil lines.
5	Page 33 3 rd paragraph	Summary of average corrosion rates for Flow Line Processed Oil.
6	Page 35 Table C.6	<i>Flow and Well Line General Corrosion Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes general corrosion rate data
7	Page 37 Table C.7	<i>Flow and Well Line Pitting Rate Data Summary.</i> Third category of equipment is Flow Lines, Processed Oil; summarizes pitting rate data
8	Page 49 Table E.1	<i>CUI Inspections by Service Type, 1995-2005.</i> Shows that 6084 external inspections for CUI (corrosion under insulation) were conducted at processed oil flow lines in the years 1995-2005; 4% found corrosion.
9	Page 51 Table E.3	<i>Cased Pipe Survey Results.</i> G-wave inspection at processed oil line found 1 minor anomaly; smart pig in 2006 to be conducted (at OT-21?)
10	Page 63 Table E.8	<i>Cased Piping Excavation History.</i> In 1996, a caribou crossing between FS1 and FS2 was excavated to conduct external inspections; a 14% wall loss was found on a 30" sales oil line.
11	Page 69 Table F.1	<i>Repair Activity.</i> No repairs at processed oil lines in 2005.
12	Page 70 Figure F.1	<i>Repairs by Service.</i> Shows repairs to processed oil lines in 2001 only.
13	Page 73 Table F.2	<i>Historical Repairs by Service.</i> 3 repairs were made for internal corrosion at processed oil flow lines in 2001. No repairs in other years 2000-2005.
14	Page 83 Table H.1	<i>Coupon Pull Frequency.</i> Processed oil flow line coupons are pulled every 3 months.
15	Pages 119-120 Glossary of Terms	See CCL, CL, Cross Country Lines, FL, LDF, OIL, PO
16	Page 124 Top of page	"Non-common carrier pipelines" description from 2000 Work Plan. These are non-DOT regulated pipelines.
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19	Page 164 Table 15	<i>Corrosion Management System Implementation by Equip Type and Service.</i> Export oil in corrosion management system.
20	Page 165 Figure 7	<i>Facility Schematic.</i> Does not show crude oil transit lines.

References to "Oil Sales" in CPA Annual Reports

The CPA Commitment to Corrosion Monitoring reports submitted for calendar years 2000 – 2005 have been carefully reviewed to find references to crude oil transit lines (called "oil sales" in these reports). The only place these lines are included is in the discussion regarding the below-grade piping program starting with the 2001 report and in each subsequent report. These lines are part of the "oil" service cased pipes which are defined as natural gas liquids, oil sales, three-phase production, two phase production (wet oil), Produced Water, and Mixed Water.

**PRUDHOE
BAY
CORROSION
CRISIS,
8/18/06
(FILE 4)**

**BP & ConocoPhillips
Commitment to Corrosion Monitoring
Meet and Confer Presentations
2001 – 2006**

**Charter for Development of the Alaskan North Slope
Section II.A.6**

SPRING 2001

*Commitment to Corrosion Monitoring
April 30th
9:00 am to 2:00 pm
Semi Annual Review (Meet and Confer)
Meeting 1*

Agenda

Opening Remarks – (9 to 9:30 am)

BP Presentation (9:30 to 10:30 am)

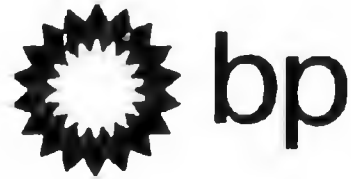
Break

Phillips Presentation (10:45 to 11:45 am)

Lunch Provided (12 to 1:00 pm)

Open discussion, questions, and feedback (1 to 2:00 pm)

BP



Commitment to Corrosion Monitoring

BP, Phillips & ADEC Meet and Confer

Session 1, April 2001

Presented by the

Corrosion Inspection & Chemicals Team

BPX Alaska

Commitment to Corrosion Monitoring



■ **Public perception – corrosion is severe and worsening**

□ **Anchorage Daily News**

- "Corrosion and abrasion are symptoms of aging oil fields, like Prudhoe, which started up 24 years ago".
- "Over the past 15 years, corrosion and abrasion in the Slope's 2,000 miles of oil, water and natural gas pipelines have worsened from occasional problems to constant headaches".

■ **BP perception – corrosion is manageable and we are improving**

□ **BP report to ADEC**

- We believe that the corrosion management programs we set to deliver long term integrity of the existing infrastructure on the North Slope, enabling BPX(A) to achieve its goals of expanding satellite production and the bridge to gas sales.
- Corrosion management and environmental protection are closely related and the progress made in corrosion management has resulted in lower corrosion rates and consequently lower risks associated with loss of containment of pipelines.

■ **Our intent is to work towards a healthy relationship with our stakeholders through open and forthright consultation and reporting**

Commitment to Corrosion Monitoring



- **Scope of non common carrier North Slope pipelines**
 - 1,000 miles of cross country pipelines
 - 300 miles of well pad pipelines
 - 50% longer than TAPS
 - 2,400 individual lines
 - 1/3 of a million weld packs
 - 1,800 cased pipe segments in 350 road / animal crossings
 - Original construction 25 years old
 - Major gas expansion pipelines 10 - 20 years old

- **High level aim of the corrosion management program**
 - Maintain integrity of the existing infrastructure
 - "No harm, no accidents, no damage to the environment"
 - Throughout existing field life — *50 years?*
 - Future satellite development *more*
 - Future gas production

April 30th 2001

BP ADEC Meet and Confer Session 1

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Commitment to Corrosion Monitoring



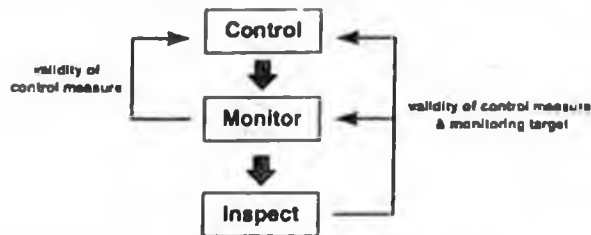
- **Relevant Metal Loss Mechanisms** *-12%*
 - Internal Corrosion – predominantly CO₂ corrosion
 - Causes widespread damage from wellhead to facility
 - Control methods well understood
 - The major threat to the pipeline infrastructure
 - Erosion – mechanical removal by solids
 - Restricted to upstream equipment - wellhead to manifold
 - Often associated with bringing wells on to production
 - Solids production difficult to monitor or predict
 - External Corrosion – oxygen corrosion in wet insulation
 - Causes highly localized damage, mainly at weld packs
 - Greatest exposure to leaks and reputation
 - Cause of:
 - Both of GPB's corrosion-related pipeline leaks in 2000

April 30th 2001

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Commitment to Corrosion Monitoring



Structure of the Corrosion Management Programs

- Control
 - Prevention or reduction of corrosion *to acceptable levels*
- Monitor
 - The measurement of success of the corrosion control activity
- Inspect
 - The final verification of the success of control activities
 - Determination of equipment's fitness for service
- Integration of all 3 elements is required to manage integrity

April 30th 2001

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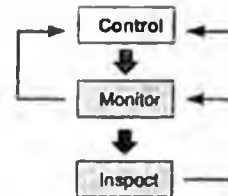
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Commitment to Corrosion Monitoring



■ **Internal corrosion & erosion control**

- Chemical inhibition
- Process
 - Flow velocity control
 - Well start up procedures
- Materials selection
- Engineering design
- Coatings
- Cathodic protection
- Repair / replacement



■ **Typical target values**

- Corrosion inhibitor concentration e.g. 150 ppm
- Flow velocity, based on diameter & water cut
- Erosional velocity $V/V_e < 2.0$

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Commitment to Corrosion Monitoring



GPB CO₂ Internal corrosion control

- Inhibition rates determined by monitoring & inspection data
 - Amount of inhibitor used is increasing
 - Amount of water handled is approximately constant
 - Concentration of inhibitor is increasing
- The purpose is to reduce corrosion rates

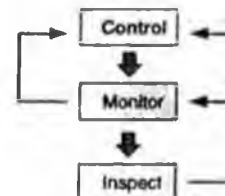


Table 7: Water production, corrosion inhibitor usage and concentration

Year	Water production (million barrels)	Inhibitor Usage (million gallons)	Concentration (ppm)
1996	458.4	2.05	108
1997	456.3	2.21	115
1998	426.0	2.53	141
1999	415.7	2.28	130
2000	436.3	2.73	149

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Commitment to Corrosion Monitoring



- Internal corrosion monitoring
 - Electrical resistance (ER) probes
 - Weight loss coupons
- Typical target values
 - ER probes 0.5 – 10 mpy
 - Coupons < 2 mpy general corrosion

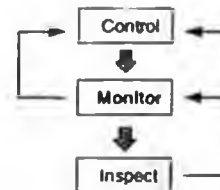


Table 4: Number of Corrosion Monitoring Coupons

Year	Cross country	Well Lines	PW	SW	GL & Inj	Total
1996	1,324	6,195	1,125	750	4	9,536
1996	1,469	7,676	1,140	744	10	11,193
1997	1,467	7,784	1,207	868	10	11,574
1998	1,490	7,562	1,138	732	10	11,094
1999	1,425	6,875	1,010	782	10	10,238
2000	1,371	5,855	816	782	10	8,970

Table 5: Corrosion Monitoring Probes

Location	No. of Probes
Well lines	78
Cross Country pipelines	84

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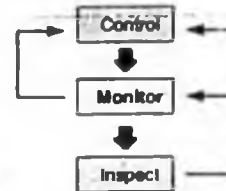
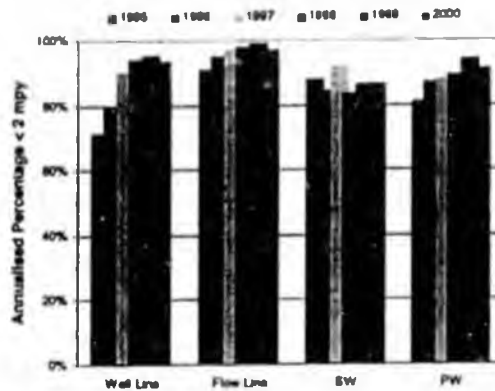
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Commitment to Corrosion Monitoring



GPB Internal corrosion monitoring data

- % of coupons meeting target is increasing
- Corrosion rates are reducing
- Reflects increase in corrosion inhibitor usage



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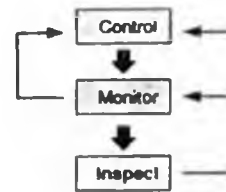
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Commitment to Corrosion Monitoring



■ *Internal inspection*

- **Metal loss rate**
 - Corrosion Rate Monitoring - CRM
 - Erosion Rate Monitoring - ERM
- **Mechanical Integrity**
 - Frequent Inspection Program - FIP
 - Comprehensive Integrity program - CIP
 - Smart pigging



■ *Typical target values*

- **Control**
 - Zero detectable corrosion
- **Mechanical Integrity**
 - Modified B31.G
 - 0.100" minimum wall
 - 100% MAOP
- Repairs scheduled at 105% of fitness for service criteria

April 30th 2001

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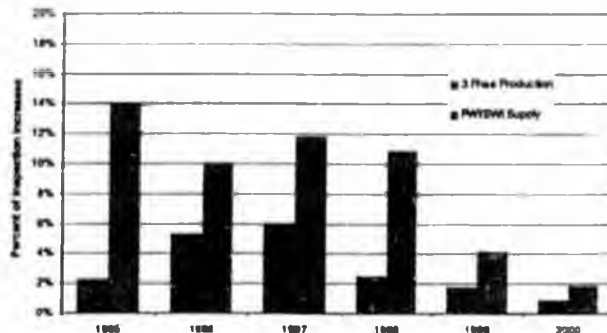
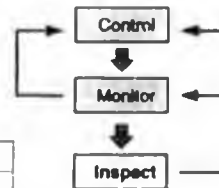
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Commitment to Corrosion Monitoring



GPB Internal Inspection data

- Pipewall corrosion rates are reducing
- o Reflects increase in corrosion inhibitor usage
- o Confirms trends seen in monitoring data



April 30th 2001

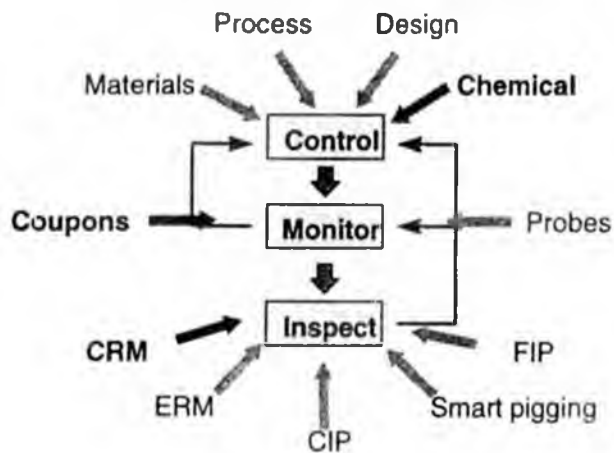
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Commitment to Corrosion Monitoring



Hollistic view of integrity management



April 30th 2001

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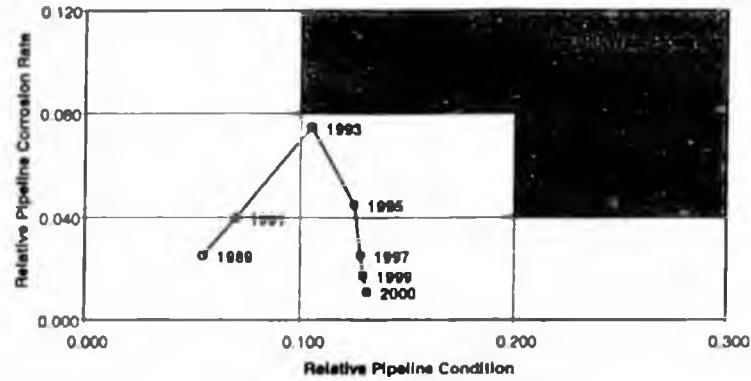
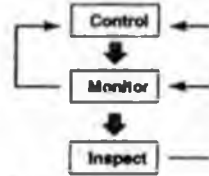
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Commitment to Corrosion Monitoring



End result of internal corrosion management programs

- Corrosion rates have fallen
- Control, monitoring & inspection show similar trends
- Corrosion rates are the lowest for 12 years



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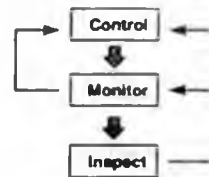
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Commitment to Corrosion Monitoring



Remaining life of pipeline network has increased

- Life has been increased by reducing corrosion rate
- Not necessary to manage life by replacing pipelines
- Corrosion management and field life are in alignment
- Successfully breaks the repair / replacement cycle associated with ageing oil fields



% Pipelines with Life Estimate Greater than Year 2050		
	West Pipelines	East Pipelines
1996 - 1999 Life Model	54%	na
1998 - 2001 Life Model	95%	96%

April 30th 2001

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