

GAS SALE AND PURCHASE AGREEMENT

Prudhoe Bay Unit, Alaska

Between

EXXON CORPORATION, "Seller

And

NORTHERN NATURAL GAS COMPANY

Dated APRIL 30, 1979

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GAS SALE AND PURCHASE AGREEMENT

Prudhoe Bay Unit, Alaska

THIS AGREEMENT, made and entered into as of the 30<sup>th</sup> day of APRIL, 1979, by and between EXXON CORPORATION, a New Jersey corporation, hereinafter referred to as "Seller", and NORTHERN NATURAL GAS COMPANY, a Delaware corporation, hereinafter referred to as "Buyer";

WITNESSETH:

WHEREAS, Seller is the owner of an interest in certain oil and gas leases included in the Prudhoe Bay Unit of Alaska, and desires to sell to Buyer a portion of Seller's natural gas which may be produced from certain wells completed within the Prudhoe Bay (Permo-Triassic) Reservoir underlying such Unit; and

WHEREAS, Buyer requires natural gas to supply its markets and desires to purchase said gas from Seller;

NOW, THEREFORE, in consideration of the premises and mutual benefits and covenants herein contained, the parties hereto have agreed and do hereby covenant and agree as follows:

ARTICLE I.

DEFINITIONS

The following terms when used in this Agreement shall have the meanings set forth in this Article unless the

context indicates otherwise:

1.1 The term "Leases" shall mean Seller's interest in the oil and gas leases described in Exhibit "A" hereto covering lands included within the Prudhoe Bay Unit and subject to the Prudhoe Bay Unit Agreement ("Unit Agreement") and the Prudhoe Bay Unit Operating Agreement ("Unit Operating Agreement") both dated as of April 1, 1977, and more particularly described hereinafter, insofar only as such leases cover the Prudhoe Bay (Permo-Triassic) Reservoir within the Initial Participating Areas.

1.2 The term "Initial Participating Areas" shall mean the Prudhoe Bay (Permo-Triassic) Oil Rim Participating Area and Gas Cap Participating Area as described in Sections 5.1(c) and 5.1(e) of the Unit Agreement, as such Initial Participating Areas are outlined on maps attached as Exhibits "D-1" and "D-2" to the Unit Agreement.

1.3 The term "Prudhoe Bay (Permo-Triassic) Reservoir" means the accumulation of oil, gas and associated substances found in the A. R. Co.-Humble (now A. R. Co.-Exxon) Prudhoe Bay State No. 1 well between the depths of 8,117 feet and 8,785 feet below Kelly Bushing as measured by the Schlumberger Dual Induction Laterolog, Run 4, dated February 8, 1968, and in Run 5, dated March 9, 1968 (including also the Put River Sandstone, which is that sandstone interval that correlates with the interval 9,638 to 9,719 measured feet on the Borehold Compensated Sonic Log, Run 2, dated September 28,



1975, in the Atlantic Richfield-Exxon NGI No. 1 well) within the Prudhoe Bay Unit, as such Reservoir is now constituted. The Prudhoe Bay (Permo-Triassic) Reservoir is outlined on the map attached as Exhibit "F" to the Unit Agreement, which map is subject to modification to reflect the Reservoir as now constituted. Seller will provide Buyer with such modified map, to be an Exhibit "B" hereto, when available.

1.4 The term "Prudhoe Bay Unit" (sometimes called "Unit") shall mean the geographic area subject to the Unit Agreement and Unit Operating Agreement approved by the Commissioner of the Department of Natural Resources of the State of Alaska on June 2, 1977, and referred to as the "affected area" in Conservation Order No. 145 of the Alaska Oil and Gas Conservation Committee, Division of Oil and Gas Conservation, Department of Natural Resources of the State of Alaska, as such order was in effect on June 1, 1977.

1.5 The term "Separator Off-Gas" shall mean hydrocarbon and nonhydrocarbon natural gas, including natural gas liquids, as produced from unit wells and which is recovered in a vapor state from any separation facility handling gas provided from unit wells.

1.6 The term "Seller's Gas" shall mean Seller's share of Separator Off-Gas Production (as that term is defined in Section 26.002 of the Unit Operating Agreement) which is attributable to Seller's Leases and available for taking and disposal under Section 27.701 or Section 27.702 of the Unit Operating Agreement less that portion thereof reserved by Seller in ARTICLE IV.

1.7 The term "Contract Volume" shall mean the volume of gas determined pursuant to Section 5.1 hereof.

1.8 The term "day" shall mean a period of twenty-four (24) consecutive hours beginning at 12:01 a.m., Prudhoe Bay time.

1.9 The term "month" shall mean the period beginning at 12:01 a.m., Prudhoe Bay time, on the first (1st) day of a calendar month and ending at the same time on the first (1st) day of the next succeeding calendar month.

1.10 The term "year" shall mean each successive period of twelve (12) consecutive months beginning on the first day of the month following the month in which deliveries of gas are commenced hereunder to Buyer and any anniversary of such date.

1.11 The term "Mcf" shall mean 1,000 cubic feet of gas as determined on the measurement basis set forth in Section 10.1 hereof.

1.12 The term "Btu" shall mean British thermal unit.

1.13 The term "psia" shall mean pounds per square inch absolute.

1.14 The term "psig" shall mean pounds per square inch gauge.

1.15 The term "Btu content" or "gross heating value" shall mean the total heating value determined as provided in Section 10.14 hereof.

## ARTICLE II.

### SCOPE OF AGREEMENT

2.1 Subject to all of the terms and provisions herein-after set forth, Seller agrees to deliver for sale to Buyer, and Buyer agrees to take and purchase from Seller each day during the term hereof, one-third (1/3) of Seller's Gas, as produced. Seller may deliver and sell to Buyer and Buyer shall purchase and take, to the extent that Buyer has available pipeline capacity to do so, quantities of Seller's Gas each day in excess of that committed to Buyer hereunder.

2.2 It is recognized that Seller is entering into or has entered into agreements with other purchasers ("Other Purchasers") providing for the sale and purchase of the remainder of Seller's Gas as produced each day. Buyer and Other Purchasers will receive Seller's Gas at the same delivery point, as hereinafter described, and it will be the responsibility of Buyer and Other Purchasers to take all of Seller's Gas as produced every day and to coordinate the taking so as to avoid any continuing or permanent imbalance between their obligations to take and their actual takes of Seller's Gas. Seller shall have no obligation to Buyer or to Other Purchasers to allocate deliveries of Seller's Gas between Buyer and Other Purchasers to avoid or offset imbalances in their respective purchases of Seller's Gas.

2.3 It is recognized further that Seller's Leases are subject to the Unit Agreement and Unit Operating Agreement



executed by and between Seller and other owners of interests in the oil and gas in and under the Prudhoe Bay Unit, and that this Agreement shall be subordinate to such Unit Agreement and Unit Operating Agreement, and Seller's obligations thereunder. Seller shall provide Buyer with copies of said Unit Agreement and Unit Operating Agreement, which have been filed in the Division of Minerals and Energy Management, Department of Natural Resources, State of Alaska. In particular, the sale of Seller's Gas hereunder is subject to the right of the State of Alaska, as lessor, to take its royalty share of gas in kind.

It is recognized that the owners of interests in oil and gas leases included in the Initial Participating Areas will be selling gas to several purchasers, all of whom will be transporting such gas in the Alaska Natural Gas Transportation System (ANGTS). Buyer agrees to use reasonable efforts to coordinate its purchase of gas with the purchases by other purchasers to the end that all purchasers will have an opportunity to take their contractual amount of gas. Buyer further agrees to use reasonable efforts to arrange balancing agreements with other purchasers in order to better assure that all purchasers will have greater flexibility in their purchases of gas from the Initial Participating Areas. Seller shall have no obligation to avoid or offset imbalances in the rights of purchasers to receive and actual receipts of gas entering the ANGTS at Prudhoe Bay.

2.4 As hereinafter provided, Buyer shall acquire in the purchase of Seller's Gas the net volume of natural gas liquids attributable to Seller's Gas which is required to be removed to condition that gas for transport through pipeline facilities used by Buyer to transport gas from the Prudhoe Bay area. The volume of natural gas liquids so acquired by Buyer shall not exceed the minimum required to be removed prior to transportation of the gas in the pipeline for efficient pipeline operation under pipeline specifications on the date of initial deliveries hereunder. (For the allocation of natural gas liquids attributable to Seller's Gas, refer to ARTICLE IX hereof, entitled "Natural Gas Liquids Allocation").

### ARTICLE III.

#### CONDITIONS

3.1 Buyer and Seller recognize that in order for Buyer to purchase and receive the gas covered hereby, it will be necessary for Buyer to arrange for the installation of a transportation system therefor, which "transportation system" for the purposes hereof shall include conditioning facilities and pipeline necessary to transport the gas from the delivery point herein to Buyer's pipeline facilities in the contiguous United States. Upon execution of this Agreement, Buyer shall promptly seek to conclude all agreements and contractual arrangements necessary for the transportation system for gas to be purchased hereunder. If necessary for the successful

THIS MAY  
IMPACT COST  
OF CONDITIONING  
FACILITY & HAS  
IMPLICATIONS FOR  
INSTATE RETRO-  
CHEMICALS



completion of the transportation system for Alaska gas authorized by the President's Decision under the Alaska Natural Gas Transportation Act of 1976, Buyer shall participate in the ownership of such transportation system. Not later than January 1, 1980, Buyer shall complete its contractual arrangements for the transportation system and shall provide Seller with such documentation of such arrangements as Seller may request. It is recognized that the Federal Energy Regulatory Commission has instituted a proceeding, Docket No. RM79-19, concerning the conditioning facilities for gas entering the Alaska Natural Gas Transportation System. If the decision in such proceeding affects Buyer's ability to perform its responsibility as to such conditioning facilities, and if the decision is not acceptable to either Seller or Buyer, then either party may terminate this Agreement. If the Federal Energy Regulatory Commission fails to approve Buyer's arrangements for the transportation system, in a form acceptable to both Seller and Buyer, or Buyer fails to assure Seller to Seller's satisfaction with respect thereto, by March 1, 1980, either Seller or Buyer shall have the right and option at any time thereafter to declare this Agreement terminated.

3.2 As soon as practicable after the execution of this Agreement, Buyer shall file or cause to be filed applications for all certificates, permits and other authorizations which Buyer will require from the Federal Energy Regulatory

Commission and other governmental agencies to commence the purchase of gas hereunder. In particular, Buyer shall promptly file a copy of this Agreement with the Federal Energy Regulatory Commission for approval pursuant to Section 5.V.2. of the President's Decision under the Alaska Natural Gas Transportation Act. Buyer may accept or reject any certificate, permit or other authorization issued to it. If Seller is dissatisfied with the certificate, permit or other authorization received by Buyer, Seller shall have the right to terminate this contract by giving Buyer written notice of such termination together with its reasons therefor. Buyer agrees to furnish Seller with a copy of any certificate, permit or other authorization received by it, together with a copy of its notice of acceptance or rejection thereof, in which latter event Buyer will include its reasons for such rejection.

3.3 Buyer shall use due diligence in an effort to obtain, not later than January 1, 1982, on terms and conditions acceptable to both parties all certificates, permits or other authorizations from the Federal Energy Regulatory Commission and other governmental agencies which Buyer deems necessary for Buyer to perform its obligations under this Agreement, including a certificate of public convenience and necessity to construct, own and operate facilities required for Buyer to carry out its obligations under this Agreement. Buyer shall notify Seller at such time as Buyer

has received all such certificates, permits and authorizations, and in the event that Buyer has not so notified Seller by March 1, 1982, Seller shall thereafter have the right and option, to be exercised at any time, to terminate this Agreement by giving notice of termination to Buyer. If Buyer fails to obtain the required authorization by such date, or rejects same upon issuance thereof, then either party may terminate this Agreement by giving notice to the other party and neither party shall be liable thereafter hereunder.

3.4 Upon the fulfillment of the foregoing conditions, Buyer will proceed with due diligence to install or make arrangements for installation of all facilities necessary to receive delivery of gas from Seller hereunder no later than January 1, 1986, and Seller will proceed to install any necessary facilities and use due diligence to make delivery of such gas to Buyer at the delivery point hereinafter specified.

#### ARTICLE IV.

##### RESERVATIONS OF SELLER

4.1 Seller hereby expressly reserves from this Agreement the following prior rights, together with sufficient volumes of gas to exercise any such rights and to meet the obligations set forth hereinafter:

4.1.1 To operate the Leases covered hereby free from any control by Buyer in such manner as Seller, in Seller's sole discretion, may deem advisable, including



without limitation the right, but never the obligation, to drill new unit wells, to repair and rework old unit wells, to renew or extend, in whole or in part, Seller's Leases and to abandon any unit well or surrender Seller's Leases, in whole or in part.

4.1.2 To sell Seller's Gas committed hereunder on a day-to-day basis to any purchaser, when said gas is available for sale and before the date of initial deliveries hereunder.

4.1.3 To use or to sell such quantities of Seller's Gas as required to fulfill Seller's obligations pursuant to the terms of any agreements under which Seller now or hereafter delivers gas for fuel for operation of the Trans Alaska Pipeline System.

4.1.4 To use Seller's Gas in such quantities as Seller in its sole discretion deems necessary:

(a) For developing and operating Seller's Leases, including but not limited to gas for drilling or sale to drilling contractors; gas for fuel, gas lift, pressure maintenance, additional recovery, cycling or related operations; gas for the operation of Unit Equipment or other facilities, whether located on or off Seller's Leases, installed to handle oil or gas production from or attributed to any reservoir underlying such Leases or other leases adjacent to or in the vicinity of the Prudhoe Bay Unit, in which Seller may have an interest.

(b) For drilling or sale to drilling contractors and for fuel in developing and operating other lands and leases adjacent to or in the vicinity of Seller's Leases.

(c) For uses such as heating, lighting, cooking, etc., for housing, office buildings and other facilities utilized by or for personnel employed in the development and operation of Seller's Leases and other leases in the vicinity.

4.1.5 To fulfill Seller's obligations to deliver gas to its lessor, the State of Alaska, pursuant to the terms of Seller's Leases, and the Unit Agreement and Unit Operating Agreement, as they now exist.

4.1.6 To alter the Initial Participating Areas by agreement with the other parties to the Unit Agreement, in which event this Agreement will cover Seller's Gas produced from any such altered Participating Area to the extent that such gas is attributed to Seller's Leases covered hereby; Seller's interest in lands and leases not within the Initial Participating Areas shall not become subject to this Agreement by reason of any such alteration except on mutual agreement of the parties. Seller shall promptly notify Buyer of any agreement affecting Seller's Leases; however, Seller shall not be liable if through oversight it fails to give Buyer such notice.



4.1.7 Subject to Section 2.4, to process or cause Seller's Gas to be processed after delivery to Buyer, as hereinafter provided in ARTICLE XIX.

ARTICLE V.

QUANTITY

5.1 Upon fulfillment of the conditions set forth in Article III above, delivery and receipt of gas shall commence under this Agreement. Commencing on the date of first delivery of gas hereunder and thereafter during the term hereof, Buyer shall take delivery or arrange for the taking on each and every day, of one-third (1/3) of Seller's Gas which is available for delivery and sale at the delivery point. Such one-third (1/3) of Seller's Gas shall be the "Contract Volume" each day, and Buyer shall take delivery of or arrange for the taking of such Contract Volume of gas. If Buyer takes less than the Contract Volume on any day for any reason, other than force majeure which results in the ANGTS not receiving gas at Prudhoe Bay, Seller shall have the right, as elsewhere provided herein, to sell any such gas not taken by Buyer to another purchaser if Buyer does not first arrange for such gas to be taken by another purchaser. The sale or delivery of such gas to another purchaser shall discharge Buyer's obligation hereunder to the extent Seller receives payment equivalent to that it would have received had Buyer purchased such gas.

5.2 The Prudhoe Bay (Permo-Triassic) Reservoir is an associated oil and gas reservoir. Accordingly, the production of Seller's Gas will not permit Buyer to take certain quantities of gas on a fixed schedule or to make up for gas which Buyer is unable or fails to take on any day. Under existing State of Alaska regulations, the annual average gas production from the Prudhoe Bay (Permo-Triassic) Reservoir may not exceed 2.7 billion standard cubic feet (2.7 Bcf) per day. It is estimated that the Contract Volume hereunder (one-third (1/3) of Seller's Gas available for delivery and sale at the delivery point) will be about 290,000 Mcf per day at the delivery point, and will have a gross heating value of about 1060 Btu's per cubic foot. Seller shall furnish Buyer a revised estimate of the Contract Volume as soon as practicable after Seller becomes aware that such estimate or any subsequently furnished estimate should be changed by more than ten (10) per cent.

5.3 Subject to Section 5.1 above, Seller shall have the right to deliver and sell to another purchaser any part or all of the Contract Volume of Seller's Gas which Buyer fails to take on any day, but Buyer shall not be excused for failure to perform this Agreement by reason of said right whether or not exercised. Unless otherwise excused, Buyer shall be liable to Seller for the price for any of Seller's Gas taken at the delivery point without compensation as a result of Buyer's failure to take, or for the difference in

the price which Seller receives for sale of Seller's Gas to another and the price applicable hereunder, if the latter is the greater. Even though Buyer's failure to take may be excused under any other provision of this Agreement, Buyer shall not have a right to make up for gas which Buyer fails to take on any day.

5.4 Buyer and Other Purchasers shall have the right to allocate gas purchases from Seller among themselves to the end that all of the Contract Volume will be taken hereunder on any day. Performance by Other Purchasers of Buyer's obligation to take the Contract Volume shall be deemed adequate performance hereunder provided payment is made to Seller as required hereunder.

#### ARTICLE VI.

##### POINT OF DELIVERY

6.1 The point of delivery for gas sold hereunder shall be at the outlet of the Unit gas gathering system, downstream of the gas/oil separators and Unit gas dehydration and certain compression and cooling facilities, at such point as may be mutually acceptable to Seller and Buyer and at or near the inlet of the gas conditioning facility. If other parties to the Unit Agreement execute agreements for the sale of Separator Off-Gas at the gas/oil separator or elsewhere upstream of the point of delivery herein described, Seller shall have the option to designate the same delivery point as designated by said other parties. In the event of

such designation, Seller shall have an option to require that this Agreement be amended to conform to approximately the same terms and conditions as such other Agreement or Agreements.

6.2 Title to Seller's Gas shall pass from Seller to Buyer at the point of delivery. Seller will provide all facilities upstream of the point of delivery including facilities necessary to separate Seller's Gas from oil, to gather, dehydrate, compress and cool said gas to the quality standards hereinafter specified. Buyer will provide all facilities at the delivery point for receipt and measurement of Seller's Gas and all downstream facilities necessary for the transportation of such gas.

6.3 Seller shall be in control and possession of Seller's Gas prior to delivery thereof to Buyer and Seller shall be responsible for any damage or injury or death caused thereby prior to such delivery. Following such delivery, Buyer shall be deemed to be in exclusive control and possession of Seller's Gas and shall bear responsibility for any and all claims, causes of action or judgments arising from property damage or injury or death caused thereby or arising from the conduct of Buyer.

## ARTICLE VII.

### DELIVERY PRESSURE

7.1 Seller agrees to deliver Seller's Gas at a pressure which is the greater of (i) the operating pressure of Seller's facilities at the point of delivery, or (ii) a pressure of



500 psig. To the extent that compression of Seller's Gas is required in order to enter Buyer's facilities at the point of delivery, Seller agrees to install and operate such equipment for compression of the gas to a pressure sufficient to enter Buyer's facilities at the point of delivery up to but not in excess of 500 psig.

#### ARTICLE VIII.

##### QUALITY

8.1 Seller's Gas sold and delivered to Buyer hereunder shall be as produced in its natural state, except that such gas may be compressed as specified in Section 7.1 above, and shall be dehydrated to contain not more than two-tenths (.2) of a pound of water per million cubic feet and cooled to a temperature not in excess of 120 degrees Fahrenheit (120° F.). Seller shall install separation and dehydration equipment for removal of oil, condensate, and nonhydrocarbon liquids and objectionable solids from such gas prior to its delivery to Buyer. All such liquids and solids so separated by Seller shall be and remain the property of Seller.

#### ARTICLE IX.

##### NATURAL GAS LIQUIDS ALLOCATION

9.1 As provided in Section 3.1 herein, Buyer intends to join with other gas purchasers to construct or have constructed a transportation system which includes a gas conditioning facility. For purposes of this Agreement, any such gas conditioning facility located in the Unit Area, or



its vicinity, is hereinafter referred to as Conditioning Facility. Gas purchased hereunder will be commingled in the Conditioning Facility with gas owned by other purchasers for conditioning prior to delivery into a pipeline for transportation to Buyer's markets, it is anticipated that in the operation of the Conditioning Facility, certain quantities of natural gas liquids (as such term is defined in the Unit Operating Agreement) will be extracted from Seller's Gas and, unless purchased by Seller as provided in Section 9.2, such natural gas liquids so extracted, shall be owned by Buyer. Allocation of natural gas liquids to Seller's Gas shall be accomplished as provided in Article 29 of the Unit Operating Agreement. Buyer shall conduct such tests and measurements as may be required and Buyer and Seller shall furnish each other monthly statements concerning the operations conducted by each which will contain whatever information is necessary for Seller to make or cause to be made such allocation in compliance with the Unit Operating Agreement. Seller and Buyer agree that the detailed information to be furnished by each to the other will be determined prior to the commencement of gas deliveries so that when gas deliveries do commence there will be no delay in determining the volume of natural gas liquids allocated to Seller's Gas and the volume and Btu content of Seller's Gas sold and delivered.

9.2 In the event Buyer elects to sell to an unaffiliated party natural gas liquids recovered by operation of the Conditioning Facility and attributable to Seller's Gas, Seller

shall have the right of first refusal to purchase and receive such quantities thereof that Buyer desires to sell. From time to time if Buyer offers such natural gas liquids for sale to others, Seller shall have the option to meet the terms of any bona fide offer that Buyer receives for the purchase thereof. Upon receipt of an offer which is acceptable to Buyer, Seller agrees to meet the terms of such offer within sixty (60) days of receipt of written notice from Buyer or to then be deemed to have forfeited its option to purchase said natural gas liquids but only with regard to the terms of such offer.

9.3 Buyer shall transport in the transportation system, as gas, all of the natural gas liquids recovered in the Conditioning Facility and attributable to Seller's Gas except that portion of the liquids which, as provided in Section 2.4 hereof, Buyer must remove for efficient pipeline operation. It is not anticipated that Buyer will have difficulty in using or disposing of such natural gas liquids acquired by Buyer pursuant to Section 2.4; nevertheless, if Buyer is unable to use, transport, sell, or otherwise dispose of all such natural gas liquids, Buyer may return to Seller the volume thereof which Seller can use or can transport in an oil pipeline (such liquids are referred to herein as "Usable Natural Gas Liquids"). It shall be necessary, however, for Buyer to give Seller written notice not less than three (3) months in advance of any return of such liquids, and Buyer shall specify in such notice the daily quantity and composition of the Usable Natural Gas Liquids to be tendered to Seller.

Natural gas liquids shall be deemed Usable Natural Gas Liquids to the extent that (1) Seller, under terms and conditions acceptable to Seller, may be able to use such liquids as an alternate fuel in accordance with the terms and provisions of Section 30.007 of the Prudhoe Bay Unit Operating Agreement and/or (2) Seller, under terms and conditions acceptable to Seller, may be able to tender such liquids for transport through an oil pipeline.

The total Btu's of the Usable Natural Gas Liquids that Seller takes from Buyer and uses as fuel shall be deducted from the amount of Btu's for which Buyer is obligated to pay Seller, and it shall be deemed that the ownership of such Btu's as contained in Seller's Gas when delivered to Buyer was never transferred to Buyer. However, Buyer shall reimburse Seller for any fuel substitution costs incurred by Seller in accordance with the provisions of Section 30.007 of the Unit Operating Agreement.

The total Btu's of the Usable Natural Gas Liquids that Seller takes from Buyer for transport through an oil pipeline shall be deducted from the amount of Btu's for which Buyer is obligated to pay Seller for gas delivered hereunder, and it shall be deemed that the ownership of such Btu's was never transferred to Buyer. However, Buyer shall reimburse Seller for any costs incurred by Seller associated with putting such natural gas liquids into an oil pipeline for transport, including any reduction in Btu value as a result thereof.



In addition to volumes of Usable Natural Gas Liquids, if any, there may be volumes of natural gas liquids (herein referred to as "Surplus Natural Gas Liquids") acquired by Buyer pursuant to Section 2.4 that Buyer cannot use, transport, sell or otherwise dispose of and that Seller may not be able to use or transport. To the extent there are Surplus Natural Gas Liquids attributable to Seller's Gas, Seller shall make a good faith effort to obtain rights for Buyer to inject, at Buyer's sole expense, such Surplus Natural Gas Liquids into the Prudhoe Bay (Permo-Triassic) Reservoir in accordance with the terms and provisions of Sections 27.802 and 27.803 of the Unit Operating Agreement and under terms and conditions acceptable to the Seller and Buyer.

Upon the injection of Surplus Natural Gas Liquids into the Reservoir, all rights and interests of Buyer in such liquids shall revert to Seller. The total Btu's of such Surplus Natural Gas Liquids so injected into the said Reservoir shall be deducted from the amount of Btu's for which Buyer is obligated to pay Seller for gas delivered hereunder; and it shall be deemed that the ownership of such Btu's was never transferred to Buyer. However, Buyer shall reimburse Seller for any costs incurred by Seller associated with injecting such liquids into the Reservoir including any penalties Seller may incur for injecting such liquids.

9.4 If the Conditioning Facility is operated to remove carbon dioxide ("CO<sub>2</sub>") from the inlet stream of gas, Buyer may have, in addition to the gas to be transported, a volume of

residue gas composed of a high percentage of CO<sub>2</sub>. If such residue CO<sub>2</sub> gas has sufficient hydrocarbons to be usable as fuel, then at Buyer's request, and if the Unit owners are agreeable to using or allowing the use of the residue CO<sub>2</sub> gas as fuel by Seller under terms and conditions acceptable to Seller, Buyer may return to Seller a volume of such gas attributable to the Seller's Gas sold at the inlet of the Conditioning Facility under the terms of this Agreement.

To the extent Seller takes from Buyer such residue CO<sub>2</sub> gas as fuel, the total Btu's contained therein shall be deducted from the amount of Btu's for which Buyer is obligated to pay Seller for gas sold hereunder. However, Buyer shall reimburse Seller for any fuel substitution costs incurred by Seller in accordance with the provisions of Section 30.007 of the Prudhoe Bay Unit Operating Agreement. Further, it is agreed that there shall be no conditioning charges paid by Seller as a result of taking residue CO<sub>2</sub> gas.

If Buyer is required to dispose by subsurface injection of residue CO<sub>2</sub> gas, Seller shall make a good faith effort to obtain rights for Buyer, at Buyer's sole cost, to inject such residue CO<sub>2</sub> gas attributable to Seller's Gas into the Prudhoe Bay (Permo-Triassic) Reservoir in accordance with the terms and provisions of Sections 27.802 and 27.803 of the Prudhoe Bay Unit Operating Agreement and under terms and conditions acceptable to Seller.

To the extent residue CO<sub>2</sub> gas is injected into the Reservoir, the Btu content thereof (determined in accordance



with Section 10.14) shall be deducted from the amount of Btu's Buyer is obligated to pay Seller for gas sold hereunder. However, Buyer shall reimburse Seller for any costs incurred by Seller associated with the injection of such residue CO<sub>2</sub> gas, including any penalties Seller may incur for such injection. Upon injection of residue CO<sub>2</sub> gas into such Reservoir all rights and interests of Buyer in such residue CO<sub>2</sub> gas shall revert to and be vested in Seller.

## ARTICLE X.

### GAS MEASUREMENT AND TESTS

10.1 Units of Volume. The unit of volume for purposes of measurement of volumes hereunder shall be that amount of gas which will occupy one (1) cubic foot of space when held at a base temperature of sixty degrees Fahrenheit (60° F.) and when under a base pressure of fourteen and sixty-five hundredths (14.65) pounds per square inch absolute; the volume measured shall be adjusted for deviation from the Ideal Gas Law.

10.2 Calculation of Volumes. The computation of volumes delivered hereunder shall be made by Buyer, using the orifice meter equation prescribed in American Petroleum Institute Publication 2530, "Orifice Metering of Natural Gas", as amended or revised from time to time.

10.3 Barometric Pressure. The atmospheric pressure shall be assumed to be 14.70 psia, irrespective of the actual

atmospheric pressure at the point of delivery or any factors that may cause fluctuation in the barometric pressure.

10.4 Flowing Gas Temperature. The temperature of the gas shall be determined by a recording thermometer(s) continuously used and installed so as to properly record the temperature of the gas. The arithmetic average of gas temperatures recorded during the periods of flow only shall be deemed the daily average gas temperature for the purpose of calculating volumes.

10.5 Specific Gravity. The specific gravity of the gas shall be determined by the use of a continuous recording gravitometer of make and type agreed upon by Buyer and Seller and so installed that it will monitor the specific gravity of the gas measured. The daily average specific gravity recorded during the periods of flow only shall be deemed the specific gravity of the gas for the purpose of calculating volumes. The continuous recording gravitometer shall be checked at least once each month by the use of the Acme gravity balance or any other approved method mutually agreed upon.

10.6 Ideal Gas Law Deviation. Except as otherwise agreed by Seller and Buyer, the gas delivered shall be assumed to deviate from the Ideal Gas Law to the extent determined from the American Gas Association's "Manual for the Determination of Supercompressibility Factors for Natural Gas" developed under P.A.R. Research Project NX-19 completed December 1962, as such manual may be hereafter

amended or changed, at the specific gravity and average flowing temperature of the gas, and at the arithmetic average static pressure recorded during period of gas flow only. At the request of either Seller or Buyer the deviation from the Ideal Gas Law for the gas delivered hereunder shall be experimentally determined by a method mutually agreed upon. If the results of such determination indicate that use of the above AGA Manual for the calculation of gas volumes will result in an error of one-half of one percent (.5%) or more then the experimentally determined deviation from the Ideal Gas Law shall be used.

10.7 Measurement Records. The original copy of all records and chart recordings shall remain the property of the owner of the equipment from which such record or recording was obtained, and shall be retained for a period of three (3) years, or such longer period as may be required by any public authority having jurisdiction, with the other party having the right to examine these records or recordings during this period. At the end of the three-year period or such longer required period, the owner shall have the right to destroy the records without permission or recourse from the other party; provided, however, that the owner electing to destroy any such records shall first give the other party advance notice thereof in writing and a period of sixty (60) days after receipt of such notice to request that such records be delivered into its possession for retention, as long as such party desires.



10.8 Measuring Equipment. Volumes delivered hereunder shall be calculated or otherwise determined from records and chart recordings which will be made from an orifice type metering station fabricated to conform to the "Construction and Installation Specifications" the American Petroleum Institute Publication 2530, "Orifice Metering of Natural Gas", as amended or revised from time to time.

10.9 Primary Measuring Equipment. Buyer shall install, maintain and operate at no expense to Seller all equipment required for the measurement, calculation and allocation of volumes delivered hereunder and the calibration and adjustment thereof shall be done by Buyer unless it is agreed by the parties hereto that Seller shall change charts. Seller shall be permitted to connect computerized production control monitoring devices to Buyer's measuring equipment.

10.10 Check Measuring Equipment. Seller shall have the option to install any measuring equipment it may desire, but same shall be installed so as not to interfere with Buyer's equipment, nor shall the recordings from such check measuring equipment be used in determination of deliveries hereunder unless Buyer's equipment be out of service or be found by test to be in error by an amount exceeding allowed tolerances as set out in Section 10.12 hereof.

10.11 Equipment Inspections. Buyer shall calibrate, test and otherwise inspect all measurement recorders, devices and equipment used in measuring gas delivered hereunder prior to the commencement of delivery, and thereafter at



least twice during each succeeding month that gas deliveries are made or at other mutually acceptable intervals. Buyer shall inspect orifice plates and meter tubes not less often than twice each year. Additional tests and inspections shall be made at irregular and non-scheduled intervals when in the judgment of either Buyer or Seller the equipment is believed not to be recording satisfactorily. Meter tubes may be inspected by use of a borescope or other comparable method.

Seller shall have the right to have a representative present to witness the installation, calibration, testing, cleaning, changing, repairing or adjustment of any portion of the primary measurement equipment or other equipment used in determining the volume delivered hereunder.

Seller and Buyer will each inform the other with reasonable notice of the date and time an equipment inspection or test is desired.

Any labor and transportation costs accruing as a result of a regularly scheduled test or inspection shall be borne by both Buyer and Seller to the extent each shall defray the expense of its own personnel. However, should either party request a test or inspection at an irregular interval, the cost accruing to the other party shall be reimbursed by the party requesting the test if it is found that the equipment is functioning within the allowed tolerance of accuracy; otherwise, each party shall defray its own expense.

10.12 Equipment Accuracy Tolerances. If, upon testing and inspecting all recorders and other equipment comprising a single metering installation, the aggregate volumetric error is found not to exceed plus or minus one percent (1%) of accuracy, then previous recordings shall be considered accurate in computing deliveries hereunder, but such equipment shall forthwith be adjusted to record accurately.

If, upon testing and inspecting all recorders and other equipment comprising a single metering installation, the aggregate volumetric error is found to exceed plus or minus one percent (1%) of accuracy, such equipment shall forthwith be adjusted to record accurately, and compensating adjustment shall be made to previous recordings and volumetric calculations for the period of time the recording was in error, if known. If the period of time is not known, recordings and calculations shall be adjusted for a period of time agreed to by Buyer and Seller, or in the absence of agreement, such correction shall be for a period covering the last half of the time elapsed since the previous test, but not exceeding a period of eight (8) days.

10.13 Failure of Measuring Equipment. If, for any reason, the measuring equipment installed for Buyer is out of service or out of tolerance, with the result that the quantity of gas delivered is not correctly indicated by the reading thereof, the gas delivered during the period in

which such measuring equipment is out of service or out of tolerance shall be estimated and agreed upon on the basis of the best data available, using one of the following methods listed in order of preference unless some other order is adjudged by both parties as more feasible:

(a) By using the registration of any check measuring equipment, if installed and accurately registering, or

(b) By adjusting for the error, if the percentage of error is ascertainable by calibrating, test, or mathematical calculations, or

(c) By estimating the quantity of delivery, by use of other metered volumes which may be available in Seller's facilities, or by reference to actual deliveries during preceding periods under similar conditions when the equipment in question was measuring accurately.

10.14 Heating Value. The gross (or total) heating value of the gas delivered by Seller to Buyer, expressed in Btu's per cubic foot, shall be determined by Buyer by means of a continuous sampler or other mutually agreeable method(s) in general use in the gas industry, as selected by Buyer and approved by Seller. Seller shall have the right to determine, at such time or times as it may desire, the gross heating value of the gas in British Thermal Units per cubic foot by means of any method in general use in the gas industry. Each party shall give to the other notice of the time of all

tests for determining the Btu content of the gas to be conducted by such party reasonably in advance of making the test in order that the other party may conveniently have its representative present. Should there be any material variance between tests by Buyer and Seller, a joint test will be run employing a mutually agreeable method and the result thereof will be controlling, effective from the first day of the calendar month preceding such joint test.

The Btu content per cubic foot shall be determined for a cubic foot of gas as such unit of volume is defined in Section 10.1 and said Btu content shall be adjusted for the actual water vapor content of the gas at the Point of Delivery hereunder. The actual water vapor content of the gas shall be determined periodically at mutually agreeable intervals using mutually agreeable methods in general use in the gas industry.

#### ARTICLE XI.

##### PRICE

11.1 Buyer shall pay Seller for Seller's Gas sold and delivered hereunder the price specified below for the applicable period indicated in subsections (a), (b), (c) and (d), or the price determined in subsection (e) below, whichever is highest. Each calculated price shall be expressed to four (4) decimal places. The price shall be determined as follows:



- (a) Effective on the first day of the month next following the date of this Agreement, the price hereunder shall be Two Dollars (\$2.00) per million Btu's.
- (b) Commencing on the first day of the second (2nd) month following the date of this agreement and continuing through the sixtieth (60th) month following the date of initial delivery of gas to Buyer hereunder, the price specified in Section 11.1 (a) above shall increase each month by multiplying the price for the preceding month by the monthly equivalent of the annual inflation adjustment factor applicable for such month, determined in the manner provided in Title I of the Natural Gas Policy Act of 1978.
- (c) On the first day of the sixty-first (61st) month following the date of initial delivery of gas to Buyer hereunder, the price per million Btu's as determined for the sixtieth (60th) month in accordance with (b) above shall increase by multiplying the price for the preceding month by the monthly

equivalent of the annual inflation adjustment factor applicable for such month, determined in the manner provided in Title I of the Natural Gas Policy Act of 1978, plus one-fourth of one percent (0.25%) per month.

- (d) On the first day of the sixty-second (62nd) month following the date of initial delivery of gas to Buyer hereunder and thereafter on the first day of each succeeding month during the term of this agreement, the price per million Btu's as determined for the immediately preceding month shall be increased by multiplying the price for the preceding month by the monthly equivalent of the annual inflation adjustment factor applicable for such month, determined in the manner provided in Title I of the Natural Gas Policy Act of 1978, plus one-fourth of one percent (0.25%) per month.
- (e) During each month the price for gas delivered to Buyer hereunder shall be equal to the maximum lawful price per million Btu's prescribed under Section 109, plus the amounts to compensate Seller for severance taxes and costs allowed under Section 110

of the Natural Gas Policy Act of 1978 for the month in which the gas is delivered. The price for gas delivered for sale to Buyer hereunder during any month shall be increased to any higher adjusted rate permitted or allowed by the Federal Energy Regulatory Commission (FERC) or any other governmental authority having jurisdiction in the premises, as hereinafter provided.

In no event, however, shall the price due hereunder exceed the price which Seller may lawfully collect nor the amount which Buyer is permitted to include in its rates and charges to its jurisdictional customers.

11.2 If Congress, the Federal Energy Regulatory Commission, or any other governmental authority having jurisdiction in the premises, shall at any time enact legislation, prescribe or allow by law, order, rule, regulation, or in any other manner a ceiling price(s) which is (i) higher than the effective price or prices then being paid hereunder, and (ii) applicable to any portion(s) of Seller's Gas committed hereunder, then the price(s) hereunder shall be increased to the level of such higher price(s) for that portion(s) of Seller's Gas which is of the type, quality and vintage for which such price(s) is prescribed or allowed. Such higher price(s) shall include any adjustment for gathering, taxes and any other factors permitted by law, the FERC, or other governmental authority having jurisdiction. Such

higher price(s) shall become effective as of the date such higher price(s) becomes law or is prescribed or allowed.

In the event such higher price(s) is not applicable to Seller's Gas because this Agreement does not contain those terms and conditions set forth in such law, order, rule, or regulation as requisite to collection of such higher price(s), the Seller may elect to amend, and Buyer shall agree to amend, this Agreement in a manner set forth by Seller and to the extent necessary to permit Seller to collect hereunder such higher price(s), including any allowances. Any amendment shall be effective as of the effective date hereof, subject to the receipt of all necessary governmental certificates, permits and other authorizations, provided that Buyer shall not be required to make retroactive price adjustments for prior deliveries, except to the extent permitted by such law, order, rule or regulation.

Regardless of the level of area or nationwide price(s) applicable (or made applicable by amendment) hereunder, the price to be paid for Seller's Gas from any particular well at any given time shall be no lower than the highest price allowed by the Federal Energy Regulatory Commission or any governmental authority for the said Seller's Gas taking into consideration in determining said price all of the factors which the Federal Energy Regulatory Commission or such governmental authority deems relevant to such a determination, including elements of price justified



on an industry basis or by Seller.

11.3 Whenever an increase in price occurs under this agreement which increased price exceeds levels provided in Sections 11.1(a), (b), (c) or (d) hereof, such increased price shall thereupon be substituted for and become the price hereunder in 11.1(a), (b), (c) and (d) for the applicable month and such increased price shall thereafter be subject to future increases in accordance with the provisions of this Agreement.

11.4 Deregulation. If at any time during the term of this Agreement the Federal Energy Regulatory Commission or any other governmental authority having jurisdiction over the price or prices of gas sold and delivered hereunder, ceases to have jurisdiction over the price or prices of gas sold and delivered hereunder, ceases to have jurisdiction over all or any portion of the subject matter or ceases to have or exercise price control over this Agreement, then Seller shall have the right to request that the base price or prices at which gas is sold hereunder be redetermined effective as of the later of (i) the date of such request or (ii) the effective date of such deregulation. Any such request shall be made to Buyer in writing.

When such a request has been made, representatives of Buyer and Seller shall promptly meet to redetermine the base price or prices of the gas sold hereunder. Such redetermination shall establish a base price or prices equal to the

highest of (i) the average of the two highest prices paid or contracted to be paid by Buyer or any other interstate purchaser(s) of gas in the Prudhoe Bay area (hereinafter called "Area") under any gas sales contracts in effect in the Area at the time of such redetermination between a producer(s) and an interstate pipeline company purchasing gas for resale; and (ii) the Btu equivalent price of Distillate (Fuel Oil No. 2) per million Btu's, less Buyer's transportation costs per million Btu's of Prudhoe Bay gas incurred between the delivery point for gas specified herein and the city gate at Minneapolis, Minnesota. In determining the price under (i) above, appropriate adjustments shall be made in such price for significant differences in quality, quantity, delivery pressure and other delivery conditions which exist between the provisions of this Agreement and such other agreements or contracts under consideration. In determining the price under (ii) above, Distillate (Fuel Oil No. 2) shall be assumed to have a heat content of 5,880,000 Btu per barrel and shall be valued at the price for such commodity (Fuel Oil No. 2 to Resellers, West North Central) as published monthly by the U. S. Department of Labor-Bureau of Labor Statistics in its publication entitled "Producer Prices and Price Indexes" during the latest monthly period for which such publication is available to the parties. In the event the U. S. Department of Labor ceases to make such information available, the parties will agree upon a substitute method

for determining an average price for such commodity. In the event that the price determined under (ii) above shall become the price hereunder, the provisions of ARTICLE XII hereof shall not apply; further, such price shall be adjusted each month, as necessary, to reflect the latest monthly price published for Fuel Oil No. 2 to Resellers, West North Central. Notwithstanding the price or price terms selected, the redetermined price or prices shall, in being made applicable to this Agreement between Seller and Buyer, be substituted for the price provided herein and in the case of the price determined under (i) above only shall thereafter be subjected to the escalations and adjustments provided for in this ARTICLE XI.

Thereafter during the term of this Agreement, Seller may request similar price redeterminations; provided, however, that such requests from Seller shall not be made sooner than one (1) year following the effective date of the last redetermined price.

In the event representatives of Buyer and Seller are unable to agree upon a redetermined base price or prices within a period of sixty (60) days of the written request for such redetermination, then either Buyer or Seller shall have the right to subject the matter to arbitration in the following manner: Upon written request for arbitration made by either party and served upon the other as provided by law, Buyer shall appoint one arbitrator and Seller shall appoint one arbitrator and the two arbitrators so appointed



shall select a third arbitrator. If either Buyer or Seller shall fail to appoint an arbitrator within fifteen (15) days after said request for arbitration is made by the other party in writing, or if the two arbitrators so appointed shall fail within fifteen (15) days after the appointment of the second of them to agree on a third arbitrator, the arbitrator or arbitrators necessary to complete a board of three arbitrators shall be appointed upon application by either party therefor by the Chief Judge of the United States Fifth Circuit Court of Appeals. Within thirty (30) days after three arbitrators are appointed pursuant to the foregoing provisions of this paragraph, they shall meet at a place selected by the third arbitrator, hear the parties with respect to the matter of said price, and arrive at a determination of the price or prices at which gas is to be sold hereunder during the particular period in question. Such determination shall be made not later than sixty (60) days after the receipt of evidence. Any determination agreed to in writing by at least two of said arbitrators shall be final and binding on the parties hereto. All arbitrators appointed pursuant to this paragraph shall be individuals qualified by education, knowledge and experience to determine the price of gas in accordance with the criteria set forth above and shall not be in the regular salaried employ of either party. The compensation and expenses of the arbitrator named for the Seller shall be paid by Seller; the compensation and expenses of the arbitrator named for



Buyer shall be paid by Buyer; and the compensation and expenses of the third arbitrator shall be paid in equal portions by Buyer and Seller.

In the event the price for Seller's Gas determined pursuant to this Section 11.4 is greater than the price in effect hereunder during the period immediately preceding Seller's request for redetermination and is greater than the price which Buyer is permitted to recover by the FERC or any successor governmental authority, then Buyer may terminate this Agreement thirty (30) days after giving written notice to Seller; provided, however, Seller may nullify such notice by advising Buyer in writing within fifteen (15) days thereafter that Seller elects to accept the price in effect hereunder during the period immediately preceding Seller's request for redetermination. In event of such election by Seller, this Agreement shall continue in force and effect subject to all the terms and conditions herein provided including future price redetermination as hereinabove provided. In the event Seller does not elect to continue this Agreement in force and effect, Buyer shall continue purchasing Seller's Gas under the terms of this Agreement at the price in effect hereunder during the period immediately preceding Seller's request for price redetermination until Seller has made arrangements for commencing delivery to an alternative disposition of Seller's Gas released by termination of this Agreement.

11.5 Excess Royalty Payments. Buyer agrees to make payments to Seller for Seller's Gas in addition to those

provided for elsewhere in this Agreement for the purpose of reimbursing Seller for "Excess Royalty Payments" made by Seller with respect to said Seller's Gas. "Excess Royalty Payments" shall mean actual royalty payments which Seller is required to pay on Seller's Gas delivered hereunder to the extent that such payments exceed the amount such payments would be if the royalty were computed on the basis of the price or prices paid by Buyer to Seller for such gas less Seller's gas marketing costs incurred for dehydration/cleaning, compression and transportation to the point of delivery. Seller agrees to provide monthly statements to Buyer identifying the quantities and Btu content of gas upon which Seller has made Excess Royalty Payments and the amount of Excess Royalty Payments. Buyer agrees to reimburse Seller for such payments within ten (10) days following receipt of said statement from Seller. Seller shall refund to Buyer any payments made pursuant to this provision if and to the extent that the FERC denies Buyer the right to include the same in its rates and charges to jurisdictional customers.

11.6 Economic-Hardship. If, for any reason, the delivered cost of Prudhoe Bay gas at Buyer's city gate delivery points, priced on the lower of (i) a rolled-in basis (excluding imported natural gas and LNG, as well as SNG), or (ii) an incremental basis, is such that Buyer determines the gas cannot be marketed, except at an economic loss to Buyer, the parties shall review the circumstances then existing in a good faith effort to determine such measures as are necessary to rectify the situation. Buyer

and Seller recognize that implementation of such measures will require the efforts of all those involved with the total transportation system, including owners of the system, gas producers, regulatory authorities having direct jurisdiction, and other participants in the transportation of Prudhoe Bay gas to the contiguous United States.

## ARTICLE XII.

### TAX REIMBURSEMENT

12.1 Buyer agrees to reimburse Seller for all State of Alaska and Federal production, gathering, delivery, sales, severance, excise or other taxes or assessments of a similar nature (except ad valorem and general property taxes, other than those on gas in place, and income taxes, franchise taxes and other taxes of a similar nature), upon or with respect to the production, severance or delivery of gas sold hereunder, or the value thereof in place or otherwise, now or hereafter levied or assessed upon Seller. The parties agree that there shall be added to the price(s) Buyer is obligated to pay Seller for gas delivered hereunder, so long as the tax or assessment shall be in effect, an amount per Mcf sufficient to reimburse Seller for one hundred percent (100%) of any such tax or assessment. Should all or any part of the liability of Seller not be determined by the end of any month, then the additional amount not determined shall be set forth monthly in a statement to be rendered by Seller to Buyer and Buyer shall pay Seller the amount due pursuant to such statement within ten (10) days, subject to later adjustment when the tax is finally determined.



## ARTICLE XIII.

### BILLING, PAYMENTS AND RECORDS

13.1 On or before the sixth (6th) day of each month after delivery of Seller's Gas is commenced hereunder, Buyer shall furnish to Seller a statement of the data pursuant to Section 9.1 during the preceding month.

13.2 Based upon Buyer's statement furnished under Section 13.1 above, and Seller's statement, if any, under Section 19.3, Seller will prepare an invoice setting forth (a) the quantity and Btu content of Seller's Gas delivered to Buyer and (b) the payment due Seller therefor. Seller shall submit such invoice to Buyer on or before the tenth (10th) day following receipt of said Buyer's statement. On or before the fifth (5th) day following receipt of said Seller's invoice, Buyer shall make payment to Seller of all amounts due hereunder in immediately available funds to a bank account to be designated by Seller. If the invoiced amount of any payment is not paid when due, interest on all unpaid amounts shall accrue at 125 percent (125%) of the prime rate in effect at Citibank N.A. of New York at the time payment is due, or at the maximum rate for short-term loans permitted by law in Alaska, whichever is less.

13.3 Each party shall have the right at reasonable times to examine the books, records and charts of the other party to the extent necessary to verify the accuracy of any statement, charge or computation made pursuant to the provisions of any Article hereof. If any such examination



reveals any inaccuracy in such billing or payments theretofore made, the necessary adjustment in such billing and payments shall be promptly made. Any such adjustment shall be subject to accrual of interest as set forth in Section 13.2 without prejudice to other remedies.

13.4 In the event Seller elects pursuant to ARTICLE XIX to process or cause Seller's Gas to be processed subsequent to delivery to Buyer, then Seller in preparing the invoice required in Section 13.2 shall deduct the Btu content attributable to fuel and shrinkage occurring in the gas processing facility in processing Seller's Gas. Also, Seller shall deduct in said invoice the cost of transporting fuel and shrinkage volumes to the processing facility, pursuant to Section 19.8 hereof; except that no such deduction for fuel and shrinkage or transportation shall be made if, as provided in Section 19.8, Seller shall restore the Btu equivalent of the gas used or lost to Buyer at a mutually agreeable point.

#### ARTICLE XIV.

##### FINANCIAL RESPONSIBILITY

14.1 If, during the term of this Agreement, the financial responsibility of the Buyer becomes impaired or unsatisfactory to Seller, advance cash payment or security satisfactory to Seller shall be given by the Buyer upon demand of Seller, and deliveries may be withheld until such payment or security is received. If such payment or security is not received within fifteen (15) days from Seller's

demand therefor, Seller may terminate this Agreement. In the event the Buyer makes an assignment for the benefit of creditors or any general arrangement with creditors, or if there are instituted by or against Buyer proceedings in bankruptcy or under any insolvency law or law for reorganization, receivership or dissolution, Seller may withhold deliveries or terminate this Agreement without notice. Seller's exercise of any right reserved under this ARTICLE shall be without prejudice to any claim for damages or any other right of Seller under this Agreement or applicable law.

#### ARTICLE XV.

##### TERM

15.1 This Agreement shall become effective as of the date first above written and shall continue and remain in effect for a term of twenty (20) years from the date of first delivery of gas to Buyer hereunder.

#### ARTICLE XVI.

##### WARRANTY OF TITLE AND PAYMENT OF ROYALTIES

16.1 Seller hereby warrants the title to all gas delivered hereunder, the right to sell such gas, and that it is free from all liens and adverse claims, and agrees, if notified thereof by Buyer, to indemnify Buyer against all suits, actions, debts, accounts, damages, costs, losses and expenses arising from or out of any adverse claims of any and all persons to or against said gas.

16.2 Seller shall pay or cause to be paid to the parties entitled thereto all royalties, overriding royalties, payments out of production, and other like charges on gas delivered hereunder.

ARTICLE XVII.

REMEDY FOR BREACH

17.1 Either party may, at its option, terminate this Agreement upon written notice to the other party if: (i) the other party fails to pay any sum due in accordance with this Agreement within thirty (30) calendar days of receipt of written notice from the terminating party demanding said payment, or (ii) the other party fails to perform any material covenant or obligation (other than payment of a sum) imposed upon it in this Agreement (except where such failure shall be excused under the provisions of ARTICLE XVIII hereof) within a reasonable time and not more than sixty (60) days, exercising all due diligence, after receipt of written notice from the terminating party stating with particularity the covenant or obligation not performed. Any such termination shall be an additional remedy and shall not prejudice the right of the party not in default to collect any amounts due it hereunder or any damage or loss suffered by it and shall not waive any other remedy to which the party not in default may be entitled for breach of this Agreement.

## ARTICLE XVIII.

### FORCE MAJEURE

18.1 In the event of either party hereto being rendered unable, wholly or in part, by force majeure, to carry out its obligations under this Agreement, other than to perform the conditions specified in ARTICLE III hereof and to make payments due hereunder, it is agreed that on such party's giving notice and full particulars of such force majeure in writing, or by telegraph, to the other party as soon as practicable after the occurrence of the cause relied on, then the obligations of the party giving such notice, so far as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused, but for no longer period, and such cause shall as far as possible be remedied with all reasonable dispatch.

18.2 The term "force majeure" as employed herein shall mean acts of God, strikes, lockouts or other industrial disturbances, acts of the public enemy, wars, blockades, military action, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms or storm warnings, crevasses, flood, washouts, arrests and restraints of governments and people, civil disturbances, explosions, breakage or accident to machinery or lines of pipe, the necessity for testing (as required by law, governmental regulation or for safe operation thereof, in the judgment of the testing party) or making repairs or alterations to machinery or



lines of pipe, freezing of wells or lines of pipe, partial or entire failure of wells, inability of any party hereto to obtain necessary materials, supplies or permits due to existing or future rules, regulations, orders, laws or proclamations of governmental authorities having jurisdiction over the operations of the facilities of either party hereto, including both civil and military authorities of the State of Alaska, the United States of America or the governments of Canada, and any other causes, whether of the kind herein enumerated or otherwise, not within the control of the party claiming suspension, and which by the exercise of due diligence such party is unable to prevent or overcome such term shall likewise include (a) in those instances where either party hereto is required to obtain servitudes, rights-of-way grants, permits or licenses to enable such party to fulfill its obligations hereunder, the inability of such party in acquiring, at reasonable cost and after the exercise of reasonable diligence, such servitudes, right-of-way grants, permits or licenses, and (b) in those instances where either party hereto is required to furnish materials and supplies for the purpose of constructing or maintaining facilities, the inability of such party to acquire, or the delays on the part of such party in acquiring, at reasonable cost and after the exercise of reasonable diligence, such materials and supplies, permits and permissions.

Such term shall not include any act on the part of any purchaser or purchasers of gas from Buyer to reduce such

purchaser or purchasers' takes of gas from Buyer; nor shall it include conditions described in ARTICLE III hereof.

18.3 The settlement of strikes or lockouts shall be entirely within the discretion of the party having the difficulty, and the above requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes or lockouts by acceding to the demands of opposing party when such course is inadvisable in the discretion of the party having the difficulty.

#### ARTICLE XIX.

##### PROCESSING

19.1 In the event Seller shall elect to process or cause the gas sold and delivered hereunder to be processed subsequent to delivery thereby to Buyer, such processing shall be at a location or locations acceptable to Seller and Buyer. If the location or locations agreed upon are on a pipeline system, it is recognized that the gas sold and delivered hereunder may have been commingled with other gas streams of different composition, or may have been diverted or used by Buyer, so that at the location or locations agreed upon for processing the composition of the gas in the pipeline system will not be the same as Seller's Gas sold and delivered hereunder. Buyer shall make available to Seller for processing a volume of gas flowing in the pipeline system sufficient to permit recovery of an amount of liquefiable hydrocarbons that would have been recovered if it were possible to process Seller's gas in a separate stream; provided, Buyer shall not be required to make available to

Seller any volume of gas, and the liquids attributable thereto, which Buyer has sold to purchasers upstream of Seller's processing facilities. At the time the parties agree upon the location of the facilities for gas processing, as herein provided, the parties shall agree concerning any subsequent arrangements for withdrawals of gas from the pipeline system upstream of Seller's processing facilities.

Buyer will install or cause to be installed all facilities and equipment including metering facilities, necessary to effectuate delivery of the volume of gas to be processed from said location or locations on the pipeline system to the processing plant or plants. Similarly, Buyer shall install or cause to be installed all facilities and equipment, including metering facilities, necessary to effectuate the redelivery of processed gas from the processing plant or plants to the pipeline system.

19.2 Seller shall reimburse Buyer for an equitable portion, to be determined by mutual agreement of the parties, of the costs incurred by Buyer for installation of pipelines connecting the processing plant or plants with the pipeline. Seller shall also reimburse Buyer for an equitable portion of the value of the gas vented by Buyer in making the required connections. In the event the parties shall be unable to agree upon Buyer's costs or the value of the gas vented, then either party may proceed to arbitration in accordance with the procedure provided in Section 11.4 hereof, mutatis mutandis.



19.3 Seller shall furnish or cause to be furnished to Buyer, on or before the sixth day of the second month after commencement of such processing and each succeeding month, an allocation statement setting forth the amount of shrinkage in gas volumes resulting from such processing expressed in Mcf and the heating value thereof attributable to gas processed by or for Seller during the second preceding month. Said allocation statement shall also set forth the percent of residue gas attributable to such gas. Buyer shall be entitled to adjust the payment otherwise due hereunder for the Btu content attributable to fuel and shrinkage in Seller's processing facility as set forth in Section 13.4 hereof.

19.4 Seller shall cause the installation, maintenance and operation of such measurement facilities, the conduct of such tests and analyses and the utilization of such procedures as are necessary for Seller or Seller's agent to determine the amount of shrinkage in gas volumes, the gross heating value thereof expressed in Btu's per cubic foot and the percent of residue gas attributed to gas processed by or for Seller. Seller shall not be required to measure the plant inlet or plant residue gas volumes in its determination of such volume of shrinkage or said percent of residue gas; however, Buyer shall have the right to have a representative present to witness the installation, calibration, testing,



cleaning, changing, repairing or adjustment of Seller's equipment or other equipment used in determining such shrinkage in gas volumes.

19.5 Seller agrees to restore (or cause to be restored) any pressure decline greater than fifty (50) psig measured from plant inlet to plant outlet resulting from such processing.

19.6 Seller shall return processed gas to Buyer which has a water content no greater than the lower of (a) the water content of the gas delivered by Buyer to Seller for processing; or (b) a water content of seven (7) pounds per 1,000,000 cubic feet of gas.

19.7 All Seller's gas processing operations shall be at Seller's sole cost and expense, and Seller shall be deemed to be in exclusive control and possession while the gas is in Seller's possession and shall hold Buyer harmless from all injuries or damages which may occur as the result of Seller's exercise of its right to process gas hereunder.

19.8 As consideration for transporting or arranging transportation and delivery of gas to Seller for processing, Seller shall pay Buyer the cost of transporting the volumes of gas lost as shrinkage or lost in the processing operation at such rates as the FERC and the National Energy Board (NEB) of Canada may allow; however, it is agreed that Seller shall have the option of using gas from other gas sources available to Seller for delivery to Buyer at the processing location and/or at a mutually agreeable point or points up to the extent of the Btu content of the volume of shrinkage

gas. The foregoing charge for transporting and delivering gas to Seller hereunder shall not be applicable if and to the extent that Seller restores the Btu equivalent of the gas used or lost in kind at the processing plant and/or at said mutually agreeable point.

#### ARTICLE XX.

##### MISCELLANEOUS AND ADDRESSES

20.1 No waiver by either party of one or more defaults by the other in the performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or of a different character.

20.2 This Agreement shall be binding upon and inure to the benefit of the legal representatives, successors and assigns of the respective parties hereto and shall be binding upon any purchaser or assignee of Buyer's properties or pipeline system and upon any purchaser or assignee of the properties of Seller which are subject to this Agreement, and Seller and Buyer both agree that no sale or assignment of said properties of Seller or any part thereof or all or substantially all of Buyer's system shall be made unless the purchaser or assignee thereof shall assume and agree to be bound by this Agreement insofar as it shall affect and relate to the property or interest sold or conveyed. It is agreed, however, that except as hereinafter provided, and as provided in Section 5.4, the respective rights and duties of the parties hereunder may not be assigned without the

written consent of the other, provided, however, that such consent shall not be unreasonably withheld.

(i) Seller may assign, transfer, convey, and hypothecate, in one or more transactions, all or part of the Leases, or create or carve out royalty or other interests in such Leases, but any such assignment, transfer or conveyance shall be expressly subject to this Agreement.

(ii) Either party hereto may assign its rights hereunder in whole or in part to a wholly-owned subsidiary or to an affiliate. An affiliate is defined as a corporation controlling, controlled by or under common control with such party. No such assignment shall relieve a party hereto of any liability or responsibility hereunder.

20.3 Notwithstanding any other actual or constructive knowledge of or notice to Buyer, no change or division in ownership in this Agreement by Seller shall be binding upon Buyer for any purpose until after Buyer receives, at the place provided for herein, copies of the instrument or instruments constituting or accomplishing the change in ownership from the party acquiring the interest or right in this agreement or from Seller.

20.4 This Agreement is subject to all applicable state and federal laws and all present and future applicable orders, rules and regulations of any governmental authority having jurisdiction, so long as such orders, rules and regulations shall be in force and effect, provided, however, that no such governmental order, rule or regulations shall be deemed

effective to enlarge or increase the obligations of either party except after final judicial determination to that effect or the consent of the party affected.

20.5 Buyer is and shall be deemed to be a purchaser and transporter of Seller's Gas only and is not and shall not be deemed to be an owner, operator, partner, venturer, agent, participant, or otherwise involved in any of Seller's operations or facilities. Seller will be responsible for and will hold Buyer harmless from any damages or death or injury or civil penalties caused by or happening in connection with such operations or facilities. Buyer will be responsible for Buyer's facilities and will hold Seller harmless from any damages or death or injury caused by or happening in connection with operation of such facilities.

20.6 The parties hereto recognize that all operations conducted by or on behalf of Seller hereunder together with determining ownership and allocation of (i) Seller's Gas sold and delivered to Buyer and (ii) natural gas liquids which may be extracted from Seller's Gas, shall be governed by and subject to the Prudhoe Bay Unit Agreement and the Prudhoe Bay Unit Operating Agreement. It is therefore agreed that should any conflict arise between the Unit Agreements and this Agreement, the terms and provisions of the Unit Agreements shall be controlling.

20.7 All notices, requests and demands provided for in this Agreement shall be in writing and shall be addressed to the parties as follows:



Seller - Exxon Corporation  
ATTENTION: Natural Gas Department  
P. O. Box 2180  
Houston, Texas 77001

Buyer - Northern Natural Gas Company  
ATTENTION: Supplemental Supplies Department  
2223 Dodge Street  
Omaha, Nebraska 68102

All statements and invoices provided for herein shall  
be addressed to the parties as follows:

Seller - Exxon Company, U.S.A.  
(a Division of Exxon Corporation)  
ATTENTION: EPAC, Gas Accounting Services  
P. O. Box 2180  
Houston, Texas 77001

Buyer - Northern Natural Gas Company  
ATTENTION: Transmission Operating Division,  
Planning and Control Department  
2223 Dodge Street  
Omaha, Nebraska 68102

or such other address as either party may designate by notice.  
Communications, including monthly statements and payments,  
shall be considered as duly delivered when mailed by either  
registered or certified mail.

IN WITNESS WHEREOF, this instrument is executed as of  
the day and year first above written.

ATTEST OR WITNESS:

Edmunds Francis J.

SELLER:  
EXXON CORPORATION

By: W. May Booth  
Asst General Manager,  
Natural Gas Department  
Exxon Company, U.S.A.  
(a division of Exxon Corporation)

ATTEST OR WITNESS:

Rebecca A. A. A. A. A.

BUYER:  
NORTHERN NATURAL GAS COMPANY

By: Gordon Senora  
Group Vice President

EXHIBIT "A"  
TO  
GAS SALE AND PURCHASE AGREEMENT  
PRUDHOE BAY UNIT, ALASKA

Seller's Leases - Initial Participating Areas

Oil Rim Participating Area

<u>Tract No.</u>	<u>ADL No.</u>	<u>Description of Tract</u>
18	28239	Secs. 27,28,33,34 T12N,R11E,UM
19	28238	Secs. 25,26,35,36 T12N,R11E,UM
26	28299	Secs. 29,31,32 T12N,R14E,UM
27	28300	Secs. 27,28,33,34 T12N,R14E,UM
28	28301	Secs. 25,26,35,36 T12N,R14E,UM
29	34628	Secs. 29,30,31,32 T12N,R15E,UM
30	34629	Secs. 27,28,33,34 T12N,R15E,UM
39	34631	Secs. 3,4,9,10 T11N,R15E,UM
40	34632	Secs. 5,6,7,8 T11N,R15E,UM
41	28302	Secs. 1,2,11,12 T11N,R14E,UM
42	28303	Secs. 3,4,9,10 T11N,R14E,UM
43	28304	Secs. 5,6,7,8 T11N,R14E,UM
50	28240	Secs. 1,2,11,12 T11N,R11E,UM

<u>Tract No.</u>	<u>ADL No.</u>	<u>Description of Tract</u>
52	28244	Sec. 15 T11N,R11E,UM
53	28245	Secs. 13,14,24 T11N,R11E,UM
61	28306	Secs. 15,16,21,22 T11N,R14E,UM
62	28307	Secs. 13,14,23,24 T11N,R14E,UM
63	28321	Secs. 17,18,19,20 T11N,R15E,UM
64	28322	Secs. 15,16,21,22 T11N,R15E,UM
65	28323	Secs. 13,14,23,24 T11N,R15E,UM
70	28324	Secs. 25,26,35,36 T11N,R15E,UM
71	28325	Secs. 27,28,33,34 T11N,R15E,UM
72	28326	Secs. 29,30,31,32 T11N,R15E,UM
73	28308	Secs. 25,26,35,36 T11N,R14E,UM
79	28264	Secs. 25,26,35,36 T11N,R12E,UM
82	28246	Sec. 25 T11N,R11E,UM
84	28265	Secs. 1,2,11,12 T10N,R12E,UM
88	28313	Secs. 5,6,7,8 T10N,R14E,UM

<u>Tract No.</u>	<u>ADL No.</u>	<u>Description of Tract</u>
91	28329	Secs. 5,6,7,8 T10N,R15E,UM
92	28328	Secs. 3,4,9,10 T10N,R15E,UM
93	28327	Secs. 1,2,11,12 T10N,R15E,UM

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Seller owns a 50% working interest in all of the above listed leases.

Gas Cap Participating Area

<u>Tract No.</u>	<u>ADL No.</u>	<u>Description of Tract</u>
18	28239	Secs. 27,28,33,34 T12N,R11E,UM
19	28238	Secs. 25,26,35,36 T12N,R11E,UM
21	28258	Secs. 27,28,33,34 T12N,R12E,UM
26	28299	Secs. 29,31,32 T12N,R14E,UM
27	28300	Secs. 27,28,33,34 T12N,R14E,UM
40	34632	Secs. 5,6,7,8 T11N,R15E,UM
41	28302	Secs. 1,2,11,12 T11N,R14E,UM
42	28303	Secs. 3,4,9,10 T11N,R14E,UM
43	28304	Secs. 5,6,7,8 T11N,R14E,UM



<u>Tract No.</u>	<u>ADL No.</u>	<u>Description of Tract</u>
50	28240	Secs. 1,2,11,12 T11N,R11E,UM
52	28244	Sec. 15 T11N,R11E,UM
53	28245	Secs. 13,14,24 T11N,R11E,UM
61	28306	Secs. 15,16,21,22 T11N,R14E,UM
62	28307	Secs. 13,14,23,24 T11N,R14E,UM
63	28321	Secs. 17,18,19,20 T11N,R15E,UM
64	28322	Secs. 15,16,21,22 T11N,R15E,UM
65	28323	Secs. 13,14,23,24 T11N,R15E,UM
70	28324	Secs. 25,26,35,36 T11N,R15E,UM
71	28325	Secs. 27,28,33,34 T11N,R15E,UM
72	28326	Secs. 29,30,31,32 T11N,R15E,UM
73	28308	Secs. 25,26,35,36 T11N,R14E,UM
79	28264	Secs. 25,26,35,36 T11N,R12E,UM
82	28246	Sec. 25 T11N,R11E,UM
84	28265	Secs. 1,2,11,12 T10N,R12E,UM
88	28313	Secs. 5,6,7,8 T10N,R14E,Um

<u>Tract No.</u>	<u>ADL No.</u>	<u>Description of Tract</u>
91	28329	Secs. 5,6,7,8 T10N,R15E,UM
92	28328	Secs. 3,4,9,10 T10N,R15E,UM
93	28327	Secs. 1,2,11,12 T10N,R15E,UM
94	28345	Secs. 5,6,7,8 T10N,R16E,UM
97	28346	Secs. 17,18,19,20 T10N,R16E,UM
98	28332	Secs. 13,14,23,24 T10N,R15E,UM
104	47476	Secs. 13,14,24 T10N,R13E,UM

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Seller owns a 50% working interest in all of the above listed leases.

Seller's interest in said leases insofar only as such leases cover the Prudhoe Bay (Permo-Triassic) Reservoir within the Initial Participating Areas constitute the "Leases" subject on this Agreement.