



Texaco Exploration
and Production Inc

500 North Lorraine
Midland TX 79701

P.O. Box 3107
Midland TX 79702

DATE: January 4, 2001

TO: ALL WORKING INTEREST OWNERS

SUBJECT: Amendment to Vacuum (Grayburg-San Andres)
Cooperative Water Injection Agreement
Central Vacuum Unit
Lea County, New Mexico

Ladies and Gentlemen:

Please find attached your copy of the captioned Amendment to allow for the expansion of our successful CO2 injection operations to the common boundary between the Central Vacuum Unit and the Vacuum Grayburg-San Andres Unit.

J. M. (Jeff) Woliver
Asset Team Manager – Permian CO2

BEFORE THE OIL CONSERVATION
DIVISION

Santa Fe, New Mexico

Case No. 12592 Exhibit No. 5

Submitted by:

Texaco Exploration & Production, Inc.

Hearing Date: February 8, 2001

**AMENDMENT TO VACUUM (GRAYBURG-SAN ANDRES)
COOPERATIVE WATER INJECTION AGREEMENT**

THIS AMENDMENT shall be effective as of January 1, 2001, by and between the Central Vacuum Unit, represented by Texaco Exploration and Production Inc. , as Unit Operator, hereinafter referred to as "Unit Operator", and the Vacuum Grayburg-San Andres Unit, represented by Texaco Exploration and Production Inc. , as Unit Operator, hereinafter referred to as "Texaco".

WITNESSETH:

WHEREAS, Unit Operator and Texaco are parties to that certain Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement, dated April 14, 1978, hereinafter referred to as "Agreement", providing for injection of water into the Grayburg-San Andres formation through various wells (Central Vacuum Unit Wells numbered 133 through 141) located in Townships 17 South and 18 South, Ranges 34 East and 35 East, Lea County, New Mexico. A copy of the Agreement is attached hereto.

WHEREAS, Unit Operator has initiated a project for the injection of CO₂, produced gas, and water in the Central Vacuum Unit.

WHEREAS, Unit Operator and Texaco desire to inject CO₂ and/or produced gas through certain water injection wells subject to the Agreement.

WHEREAS, Unit Operator and Texaco have secured adequate CO₂ supply for their respective Units.

WHEREAS, Unit Operator has an existing agreement with the Buckeye CO₂ Processing Plant for the processing and redelivery of Central Vacuum Unit contaminated produced gas.

WHEREAS, Texaco intends to secure an agreement with the Buckeye CO₂ Processing Plant for the processing and redelivery of Vacuum Grayburg-San Andres Unit contaminated produced gas.

NOW THEREFORE, in consideration of the premises it is agreed that the Agreement is amended as follows:

CO₂, produced gas, water, or any combination thereof, are acceptable injectants for all water injection wells identified in the Agreement.

When an injection well is on its water cycle, Unit Operator will continue to provide the necessary injection water from the Central Vacuum Injection System, as per the Agreement. When an injection well is on a gas (aka solvent) cycle, Unit Operator will deliver the necessary CO₂ and/or produced gas through the Central Vacuum Injection System. The respective working interest owners of the Central Vacuum Unit and the Vacuum Grayburg-San Andres Unit reserve the right to supply in-kind CO₂ and/or produced gas for their proportionate share of each well's volumes. Further, Unit Operator will coordinate the necessary volumes of in-kind CO₂ and/or produced gas to be delivered to the Central Vacuum Injection System. In-kind deliveries of CO₂ and/or produced gas into the Central Vacuum Injection System will only be allowed if pressures, rates, concentrations, temperatures and delivery point(s) are acceptable to Unit Operator.

Determination of the injected solvent volume allocated to the injection wells will be by the following procedure and formula:

Metering on the injection wells will be through common turbine meters, or future technologies as approved by both parties. Monthly solvent injection volume allocations will be factored to the injection wells based on a ratio of the Unit's total volume of solvent metered through the Llano Pipeline CVU CO2 Delivery Meter plus the Buckeye CO2 Processing Plant re-delivery volumes into the Central Vacuum Injection System to the aggregate of all individual Unit solvent well meters.

The fraction of purchased solvent will be calculated as follows:

$$V_p / (V_r + V_p) = \text{fraction of total solvent injection purchased}$$

Where, V_r = Buckeye CO2 Processing Plant re-delivery meter volumes
 V_p = Llano Pipeline's CO2 Delivery Meter volume

The fraction of recycled solvent will be the difference between one (1) and the previously calculated fraction of total solvent injection purchased.

All Vacuum Grayburg-San Andres Unit volumes will be considered "purchased" until such time as the Vacuum Grayburg-San Andres Unit elects to allocate produced gas from the Buckeye CO2 Processing Plant to the Central Vacuum Injection System. It is intended that all Vacuum Grayburg-San Andres Unit volumes will be in-kind deliveries, either purchased CO2, produced gas, or any combination thereof.

Except as expressly herein amended the Agreement as originally written shall remain in full force and effect. In the event any conflict between the provisions of this Amendment and the provisions of the Agreement, the provisions of this Amendment shall govern.

Texaco Exploration and Production Inc.
as Operator of the Central Vacuum Unit

By: 

Attorney-in-Fact

Texaco Exploration and Production Inc.
as Operator of the Vacuum Grayburg-San Andres Unit

By: 

Attorney-in-Fact

COOPERATIVE WATER INJECTION AGREEMENT

THIS AGREEMENT, entered into effective as of the date of execution, to be known as the Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement, by and between the Central Vacuum Unit, represented by Texaco Inc. as Unit Operator, herein-after referred to as "Unit Operator", and the Vacuum Grayburg-San Andres Unit, represented by Texaco Inc. as Unit Operator, herein-after referred to as "Texaco",

W I T N E S S E T H:

WHEREAS, Unit Operator is the Operator of the Central Vacuum Unit covering certain leases and lands, located in Townships 17 South and 18 South, Ranges 34 East and 35 East, Lea County, New Mexico, as more particularly described in the Central Vacuum Unit Agreement to which reference is made for purposes of description; and

WHEREAS, Texaco is the Operator of the Vacuum Grayburg-San Andres Unit covering, among other lands, the following described land in Lea County, New Mexico:

Section 1, Township 18 South, Range 34 East, Lea County, New Mexico, as more particularly described in the Vacuum Grayburg-San Andres Unit Agreement to which reference is made for purposes of description;

and

WHEREAS, Unit Operator and Texaco desire to provide for the operation of water injection wells on or near the common boundary of the Central Vacuum Unit and the Vacuum Grayburg-San Andres Unit, and to provide for the injection of water into the underlying Grayburg-San Andres formation through said injection wells so that the leases and lands mentioned above will be benefited by an increase in the production of crude oil.

NOW, THEREFORE, in consideration of the premises it is agreed as follows:

1. Unit Operator, as soon as practical following the effective date of this agreement agrees to drill, complete and equip nine (9) water injection wells in the Grayburg-San Andres formation at the approximate locations shown on the plat attached hereto as Exhibit "A", and with location descriptions and Working Interest Ownership percentages tabulated on Exhibit "B", also attached and made a part hereof for all purposes.

The term "injection well" shall mean any and all injection wells described and identified herein. Unit Operator shall operate any and all water injection wells and furnish suitable water as required for injection through the Central Vacuum Unit

water injection system. Injection of water into any of the injection wells covered by this agreement in the Grayburg-San Andres formation shall be at such rates and at such pressures that will comply with the rules and regulations of the New Mexico Oil Conservation Commission.

2. Unit Operator agrees to advance all costs and expenses incurred in connection with drilling, completing and equipping the wells which they shall drill hereunder and shall charge Texaco with the ownership percentage shown for each well in Exhibit "B" of all such costs and expenses on the basis provided for herein.

3. Upon drilling, completing and equipping the wells provided for above, each injection well will be operated by Unit Operator with Texaco to be charged the percentage of all operating costs and expenses on the basis provided for herein and in accordance with the ownership percentage shown in Exhibit "B" for each well.

4. Unit Operator agrees to furnish water suitable for injection purposes through the Central Vacuum Injection System at the price and on the basis hereinafter set forth. The water delivered hereunder to the injection well by Unit Operator shall be measured by standard type water metering equipment installed and operated by Unit Operator.

5. For proration purposes, each party will be entitled to receive credit for all water injected, through the injection wells in accordance with their ownership in each of the individual injection wells covered by this agreement.

6. It is agreed by the parties hereto that the payments to be made for water delivered by Unit Operator to the injection wells are intended to reimburse Unit Operator as nearly as possible for Texaco's proportionate share of the costs and expense actually incurred by Unit Operator in acquiring, transporting and furnishing such water to the injection well site, it being intended that Unit Operator shall not make a profit from the operations conducted hereunder. The rate of \$0.02 per barrel shall be used in determining charges for injection water for the first year of operation. The first year of operation shall commence the first day of the month in which injection was initiated. At the end of the first year of operation, Unit Operator's actual costs and expenses of acquiring, transporting and delivering said water under the terms of this agreement shall be computed for the first year to determine the actual cost or rate per barrel, and Texaco's share of such costs shall, by mutual agreement, be retroactively adjusted so as to be based on the actual costs and expenses for such year. If Texaco's share of the actual costs and expenses is less than the estimated charge provided for the first year, then appropriate reimbursement shall be made by Unit Operator for the overpayment, but if Texaco's share exceeds the estimated charge provided for the first year, then Texaco agrees to reimburse Unit Operator for its applicable share of such costs and expenses as actually accrued for the first year. The actual rate per barrel determined in the manner provided then shall be the rate for the next ensuing year; provided that Unit Operator may make use of the experience base

developed hereunder to project costs and expenses and set a reasonable rate per barrel for ensuing year or period. It is further understood that Unit Operator may at any time recalculate its actual cost of acquiring, transporting and delivering water to the injection well sites for any subsequent year or twelve (12) months' period in the manner provided for the first year, and if it should occur that the rate for charges again should be adjusted, then Unit Operator shall so notify Texaco of such adjustment. Any new rate based upon the recalculation by Unit Operator shall become effective as of the first day of the calendar month following the date that Texaco is notified thereof, and there shall be a retroactive adjustment for such prior period. This same procedure shall be followed during the term of this agreement.

7. The term of this agreement shall commence as of the date hereof and shall continue for so long as oil and gas are produced from the leases which cover the above described lands. At any time that a party hereto shall be of the opinion that the water injection operation being conducted hereunder is no longer economically profitable to that party, then said party shall have the right to terminate its participation in the water injection operations upon giving thirty (30) days advance written notice to the other party of this intention to terminate participation. The other party hereto then shall have the option at its risk and expense to take over and operate the water injection wells. In such event, the party taking over the water injection wells is to be granted the right of ingress and egress to said injection wells, together with rights-of-way and easements necessary to continue operation of the water injection wells, but this grant is to be made without representation and any warranty whatsoever and only insofar as the terminating party then can legally make such a grant. The party taking over operations of the water injection wells shall pay the other party for its proportionate part of the equipment therein on the basis of the current salvage value thereof in place, and when said party wishes to discontinue the water injection operations, such party shall plug and abandon the water injection wells in compliance with all contractual obligations and rules and regulations of each governmental body having jurisdiction, at its sole cost, risk and expense. The party taking over said wells hereby shall indemnify and hold the other party hereto harmless from and against any and all claims, charges, suits and any liabilities arising out of or in any way associated with subsequent operations. The parties agree to execute and deliver, each to the other, such instruments or assurances as may be required to accomplish its intents and purposes of this article.

8. In the event that any party hereto is rendered unable, wholly or in part, by force majeure to carry out its obligations under this agreement, other than the obligation to make payments of amounts due hereunder, upon such party's giving notice and reasonably full particulars of such force majeure in writing or by telegraph to the other party or parties hereto within a reasonable time after the occurrence of the cause relied upon, the obligations of the party giving said notice, insofar 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 the cause of the force majeure so far as possible shall be remedied with all reasonable dispatch.

The term "force majeure" as employed herein shall mean an act of God, strike, lockout or other industrial disturbance, act of the public enemy, war, blockade, riot, lightning, fire, storm, flood, explosion, governmental restraint, failure of water supply, and any other cause, whether of the kind herein enumerated or otherwise, not reasonably within the control of the party claiming suspension.

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

9. The rights, duties, obligations and liabilities of the parties hereto shall be several, and not joint or collective, and nothing herein contained shall ever be construed as creating a partnership of any kind, joint venture, an association or a trust or as imposing upon any or all of the parties hereto a partnership duty, obligation or liability. Each party hereto shall be individually responsible only for its obligations, as set out in this agreement.

Each party hereby elects to be excluded from the application of Sub-chapter "K" of Chapter 1 of Subtitle "A" of the Internal Revenue Code of 1954, insofar as such Sub-chapter or any portion or portions thereof may be applicable to the parties in respect to the operations covered by this agreement. Operator is hereby authorized and directed to execute on behalf of each of the parties hereto such additional or further evidence of such election as may be required by regulations issued under such Sub-chapter "K", or should said regulations require each party to execute such further evidence, each party agrees to execute such evidence or to join in the execution thereof.

10. All of the wells described above are located on the Central Vacuum Unit. Subject to the terms hereof, it is intended that these wells are to be operated as Central Vacuum Unit wells. Both parties expressly recognize that to accomplish the intents and purposes of takeover as described by Paragraph 7, Texaco must have, hold and be entitled to exercise the same rights of entry, occupancy, use and control of the Central Vacuum Unit as Unit Operator has, holds and would be entitled if it were to continue to operate said wells on its Unit under this agreement. Such rights include, but are not limited to, ingress and egress to the Unit premises so as to be able to equip and take over operation of the jointly-owned wells located thereon, the right to use and occupy so much of the surface of the Unit premises as is required for the well locations and access thereto by roads and other means so as to be able to move in a drilling and/or workover rig and related equipment and material, and to lay water lines and inject water into said wells hereunder. Unit Operator, subject to the terms and provisions of this agreement, hereby grants to Texaco such rights, specifically empowering Texaco to make use of such rights hereunder including, but not limited to, those which Unit Operator has and holds under any lease, easement, right-of-way

agreement, or other agreement. Unit Operator further agrees to execute and deliver to Texaco such a grant in recordable form if this becomes necessary or desirable and/or to join with Texaco in executing any such agreement of a similar nature which may be necessary or desirable in this connection. However, Unit Operator is and shall remain Operator of the Central Vacuum Unit in all respects except to the extent of the limited grant provided herein under which said jointly-owned wells on such Unit as a matter of operational convenience are to be equipped and operated by Unit Operator under the terms and provisions of this agreement.

11. The terms and provisions hereof shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, legal representatives and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this agreement this 12th day of April, 1978.

APPROVED AS TO:

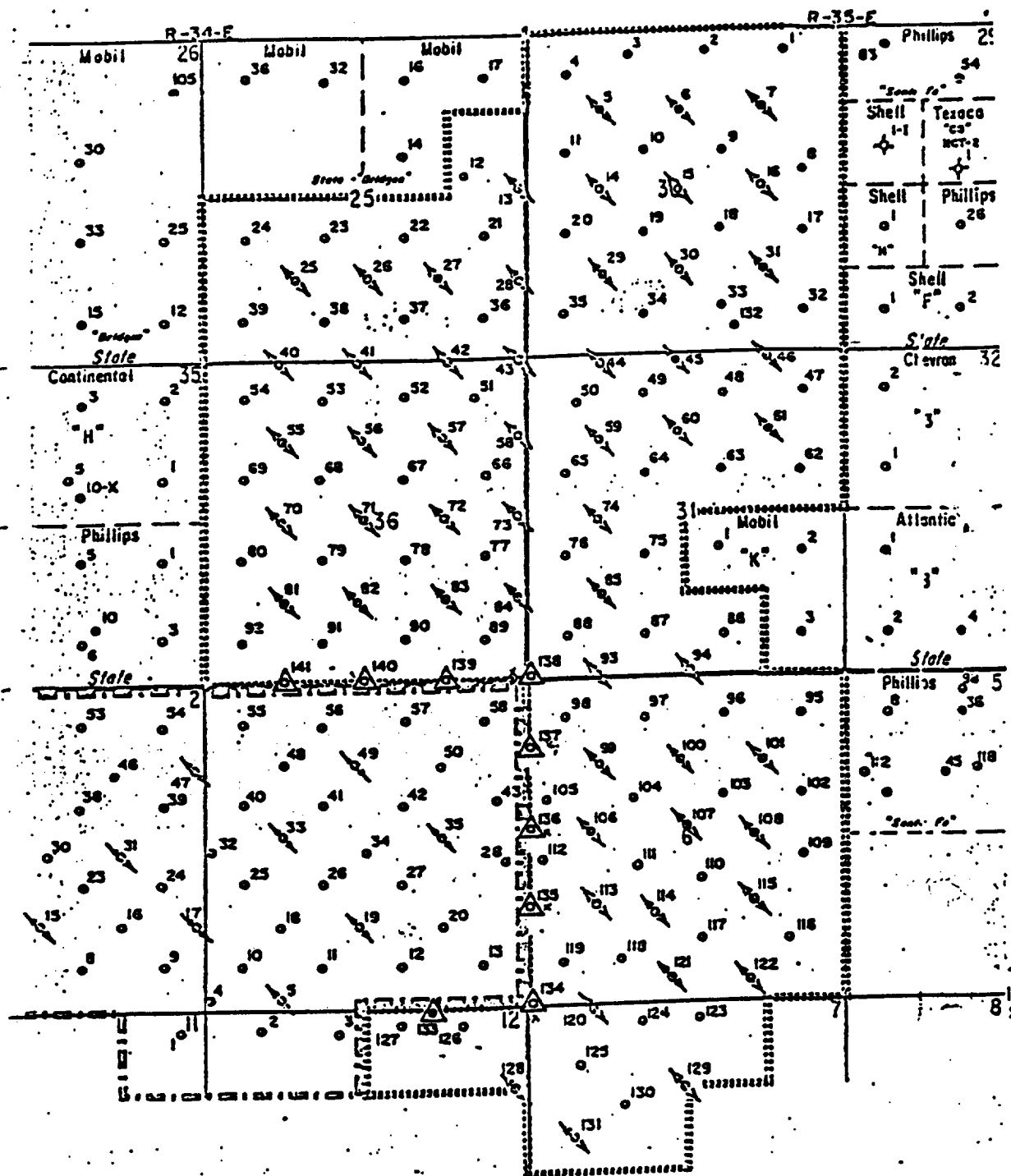
Contract: 6117/odt
Terms: NY
Form: 6281/113
Acctg: ACB

TEXACO INC.
as Operator of the Central
Vacuum Unit

By A. F. Clarke
Attorney-in-Fact

TEXACO INC.
as Operator of the Vacuum
Grayburg-San Andres Unit

By A. F. Clarke
Attorney-in-Fact



△ COOPERATIVE WATER INJECTION WELLS
 TO BE DRILLED BY THE CENTRAL VACUUM UNIT
 - - - - - CENTRAL VACUUM UNIT BOUNDARY
 ——— VACUUM GRAYBURG-SAN ANDRES UNIT BOUNDARY

EXHIBIT "A"
 COOPERATIVE WATER INJECTION AGREEMENT
 VACUUM GRAYBURG-SAN ANDRES UNIT
 & CENTRAL VACUUM UNIT
 VACUUM (GRAYBURG-SAN ANDRES) POOL
 LEA COUNTY, NEW MEXICO

EXHIBIT "B"

Vacuum (Grayburg-San Andres) Cooperative Water Injection Agreement between Central Vacuum Unit and Vacuum Grayburg-San Andres Unit Lea County, New Mexico

<u>Well No.</u>	<u>Well Location</u>	<u>Ownership</u>
133	10' FNL & 1550' FEL, Section 12 T18S - R34E	CVU - 50%, VGSAU - 50%
141	10' FSL & 1310' FWL, Section 36	CVU - 50%, VGSAU - 50%
140	10' FSL & 2630' FWL, Section 36	CVU - 50%, VGSAU - 50%
139	10' FSL & 1310' FEL, Section 36	CVU - 50%, VGSAU - 50%
	All in T17S - R34E	
138	10' FSL & 10' FWL, Section 31 T17S - R35E	CVU - 75%, VGSAU - 25%
137	10' FWL & 1100' FNL, Section 6	CVU - 50%, VGSAU - 50%
136	10' FWL & 2450' FNL, Section 6	CVU - 50%, VGSAU - 50%
135	10' FWL & 1600' FSL, Section 6	CVU - 50%, VGSAU - 50%
134	10' FWL & 10' FSL, Section 6	CVU - 75%, VGSAU - 25%
	All in T18S - R35E	

Note: CVU - Central Vacuum Unit
VGSAU - Vacuum Grayburg-San Andres Unit