



BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

APPLICATION OF TEXACO INC.
FOR UNITIZATION AND UNIT
OPERATION, CENTRAL VACUUM
UNIT, LEA COUNTY,
NEW MEXICO

X
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X
X

CASE NO. 5970

APPLICATION

NOW COMES Texaco Inc. under the Statutory Unitization Act (N.M.S.A. 65-14-1) and makes this application for an Order creating the unit and providing for the unitization and unit operation of the Central Vacuum Unit, Lea County, New Mexico and shows:

I.

The proposed unit area is the following described portion of the Vacuum Grayburg-San Andres Pool:

SE/4 of NE/4 and S/2 of Section 25, Township 17
South, Range 34 East;
All of Section 36, Township 17 South, Range 34 East;
All of Section 30, Township 17 South, Range 35 East;
N/2, SW/4 and SW/4 of SE/4 of Section 31, Township 17
South, Range 35 East;
N/2 of NE/4 of Section 12, Township 18 South, Range
34 East;
All of Section 6, Township 18 South, Range 35 East;
NW/4 and NW/4 of NE/4 of Section 7, Township 18
South, Range 35 East.

Map or plat of the proposed unit area is attached and marked as Exhibit "A" hereto.

The vertical limits to be included in the proposed unit area, or the formation being unitized, is the Grayburg-San Andres

"O" (NCT-1) Well #23, located in the SW/4 SE/4 of Section 36, T-17-S, R-34-E, Lea County, New Mexico, and is to include all surface points throughout the Unit area correlative to those identified depths.

Applicant Texaco Inc. is the owner of the working interest in Tracts Nos. 1, 2, 6, 10, 17, 22, 24 and 26, said tracts having 36.15841% participation in the unit proposed herein.

The portion of the reservoir involved in this application has been reasonably defined by development, 76 oil wells having been drilled and completed therein and being designated on said plat attached marked as Exhibit "A" hereto.

III.

The type of operations contemplated for the unit area is pressure maintenance by water flooding and it is planned to implement a 40-acre five-spot flood pattern. This pattern will be developed by drilling 53 injection wells and converting 1 currently producing well to water injection. Water injection will be into the Vacuum Grayburg-San Andres formation at a depth of 3860' to 4860'. Injection will be down internally plastic-coated tubing with a packer set above the injection interval. Initial injection will be 900 barrels of water per day per well. Injection pressure will be maintained below fracture pressure. Injection water will be made up of formation water produced in the Central Vacuum Unit and fresh water from Texaco Inc. and Mobil Oil Co. water rights through supply wells in the Ogallala formation. Said plat or map marked as Exhibit "A" shows the current wells

- Getty Oil Co. - State "AN"
- State "BA"
- State "J"
- Marathon Oil Co. - McCallister State
- Marathon Oil Co. - Staplin State AC-1
- Warn State AC-1
- Warn State AC-2
- Mobil Oil Co. - State "I"
- State "H"
- Phillips Petroleum Co. - That portion of the "Santa Fe" lease in Section 30, Township 17 South, Range 35 East, and Section 31, Township 17 South, Range 35 East.
- Shell Oil Co. - State "A"
- State "B"
- State "D"
- State "E"
- Swigart
- Sohio Petroleum Co. - Humble State
- Sun Oil Co. - "B Lee" State
- Texaco Inc. - New Mexico "AB" State
- New Mexico "CG" State (NCT-1)
- New Mexico "N" State
- New Mexico "O" State (NCT-1)
- New Mexico "Q" State
- New Mexico "R" State (NCT-1)
- New Mexico "R" State (NCT-4)
- New Mexico "T" State (NCT-1)

Attached and marked as Exhibit "B" hereto is a plat showing proposed unit well numbers. Attached and marked as Exhibit "C" hereto is a diagramatic sketch of a typical water injection well. Attached and marked as Exhibit "D" hereto is a type log showing the vertical limits of the formation to be unitized. Attached and marked as Exhibit "E" is a structure map contoured on top of the said Grayburg-San Andres formation. Attached and marked as Exhibit "F" hereto is a list of off-set operators.

IV.

Attached and marked as Exhibit "G" hereto is copy of a proposed plan of unitization which applicant considers fair, rea-

V.

Attached and marked as Exhibit "H" hereto is copy of a proposed operating plan covering the manner in which the unit will be supervised and managed and costs allocated and paid, being designated "Unit Operating Agreement for the Development and Operation of the Central Vacuum Unit, County of Lea, State of New Mexico" containing 14 pages and Exhibits "A", "B", "C", "D", and "E" thereto.

VI.

The unitized management, operation and further development of the portion of the Vacuum Grayburg-San Andres Pool herein proposed to be unitized is reasonably necessary in order to effectively carry on pressure maintenance recovery operations to substantially increase the ultimate recovery of oil and gas from the portion of said pool herein proposed to be unitized. The above described and proposed pressure maintenance operation is feasible, will prevent waste and will result with reasonably probability in the increased recovery of substantially more oil and gas from the unitized portion of the pool than would otherwise be recovered.

VII.

The estimated additional costs, if any, of conducting such operations will not exceed the estimated value of the additional oil and gas so recovered plus a reasonable profit. Applicant estimates that the additional investment costs of conducting such pressure maintenance operations will be in the order of \$18,680,800; that the additional oil to be recovered from such

applicant estimates that the reserves recoverable under the proposed unit area by primary methods after August 1, 1977 is only 11,100,000 barrels of oil and that under such pressure maintenance operations applicant estimates that 58,964,000 barrels of oil will be recovered.

Therefore, applicant says that the proposed pressure maintenance operations within the unitized area will benefit the working interest owners and royalty owners of the oil and gas rights within the portion of the pool directly affected; and that the conduct of such operations will have no adverse effect upon other portions of the pool.

VIII.

Applicant has made a good faith effort to secure voluntary unitization of the area and as to the area proposed to be unitized and has, down to the date of filing of this Application, secured the approval of those parties who will be required to pay 82% of the costs of unit operations and by owners of 99.8% of the production that is to be credited free of cost (the State of New Mexico owns 98.6% of the production that is to be credited free of cost and has approved the said Unit Agreement for the Central Vacuum Unit by letter dated February 17, 1977 copy of which is marked and attached as Exhibit "I" hereto). Applicant has made oral and written proposals to the remaining 18% of the operators and royalty owners, who have not as yet approved voluntary unitization.

IX.

area on a fair, reasonable and equitable basis; and in this connection makes reference to Article 13, "Participation," page 6 of said Unit Agreement.

WHEREFORE, applicant prays that the Commission determine that sufficient showing has been made of the conditions required by the Statutory Unitization Act, N.M.S.A. 65-14-6; that the Commission make findings to that effect and make an order creating said Central Vacuum Unit and providing for the unitization and unitized operation of said portion of said Vacuum Grayburg-San Andres pool according to the terms and provisions of the hereinabove described Unit Agreement for the Development and Operation of the Central Vacuum Unit, County of Lea, State of New Mexico, and Unit Operating Agreement for the Development and Operation of the Central Vacuum Unit, County of Lea, State of New Mexico; or, in the alternative, upon such other terms and conditions as may be shown by the evidence to be fair, reasonable, equitable and which are necessary or proper to protect and safeguard the respective rights and obligations of the working interest owners and royalty owners.

Respectfully submitted,

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