

STATE OF NEW MEXICO

## ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

TONEY ANAYA

December 13, 1983

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO B7501 (505) 827-5800

Administrative Order No. DHC-440

Tenneco Oil Company P.O. Box 3249 Englewood, CO 80155

Attention: Harry Hufft

Re: Jicarilla A8, Unit H, Sec. 17, Township 26-N, R-5-W, Tapacito Gallup and Basin Dakota, Rio Arriba, New Mexico

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations for the subject dually completed well to permit the removal of the down-hole separation equipment and to commingle the production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Administrative Order which may have authorized the dual completion and required separation of the two zones, is hereby placed in abeyance.

In accordance with the provisions of Rule 303.C.4., total commingled oil production from the subject well shall not exceed 40 barrels per day, and total water production from the well shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by the standard proration formula used in the Aztec district office as reflected in monthly gas proration schedule.



Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Tapacito GallupPool: Condensate 71 %, Gas 71 % Basin Dakota Pool: Condensate 29 %, Gas 29 %

Pursuant to Rule 303-C 5, the commingled authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Very truly yours,

// JOE D. RAMEY? Division Director

## Tenneco Oil Company

A Tenneco Company

Western Rocky Mountain Division P.O. Box 3249 Englewood, Colorado 80155 (303) 740-4800



Delivery Address: 6162 South Willow Drive Englewood, Colorado

October 12, 1983

New Mexico Oil Conservation Commission Box 2088 Santa Fe, New Mexico 87501

Attention: Gilbert Quintana

RE: Jicarilla A8 NE/4 Sec 17, T26N, R5W Rio Arriba County, NM

## Gentlemen:

We have enclosed all necessary data for administrative approval to commingle production in the referenced well.

Questions concerning this request can be directed to Mr. Mark Owen (303/740-4840).

Very truly yours.

TENNECO OIL COMPANY

Harry Hufft

Division Production Manager

HH/JO/gj

**Enclosures** 



OIL CON. DIV.

The Jicarilla A #8 was drilled as a Gallup-Dakota dual with 4-1/2" production casing in 1966. Because of the size restriction imposed by the 4-1/2" casing, only one string of production tubing can be run. Both zones were produced until April 15, 1974. At this point the Dakota was temporarily abandoned so that the Gallup could be produced up a single string of open-ended tubing. This was necessary due to operational problems that were associated with flowing the Gallup through a crossover tool that allowed the Gallup production to flow up the tubing.

Enclosed are decline curves for both the Dakota and Gallup zones.

The bottom-hole pressure of the Gallup zone was directly measured with a bottom-hole bomb after eight days of shut-in and was found to be 642 psig. Since the Dakota has been temporarily abandoned, it is not possible to obtain a measured bottom-hole pressure for that zone. Enclosed is the last well deliverability test report for the Dakota formation (dated May, 1973). The eight day surface shut-in pressure on this report is 684 psia. The bottom-hole pressure corresponding to this surface pressure was calculated to be 917 psia. A common datum of 6440' was chosen for the comparison of the two bottom-hole pressures. The Dakota pressure adjusted to this datum is 808 psia. The Gallup bottom-hole pressure can be expressed as an absolute pressure of 656 psia. This value is 81% of the adjusted Dakota bottom-hole pressure and therefore satisfies the requirement that the lower pressured zone have a pressure that is greater than 50% of the bottom-hole pressure of the higher pressured zone adjusted to a common datum.

A compatibility test was performed using the produced Gallup water from this well and the Dakota water from the Jicarilla B #5E, a nearby producer. The test indicated that no scale or precipitate problems should result from commingling the production from these two zones. In addition, the salinities of the waters are similar enough that no formation damage should occur due to the presence of produced water from another zone.

The purpose of commingling these two zones is to enable Tenneco to produce the reserves present in the Dakota at the same time we are producing the Gallup. It is important that both zones be produced while the wellbore is still in good condition since a new well could not be justified with the degree of depletion already experienced in either zone.

The total production from the well should increase by at least 100 MCFD This is the rate that the Dakota was producing at when it was abandoned in 1974. The greater velocity in the tubing due to this increased flow rate should also improve the liquid lifting capacity and keep the Gallup zone unloaded. This should improve the flow rate from the Gallup zone.

Based on the decline curves for each of these zones, I recommend that the production be split on a strict percentage basis with 71% of the production assigned to the Gallup and 29% assigned to the Dakota.

If you need additional information, feel free to call me at (303) 740-4804.

Mark N. Owen

Production Engineer

## NEW MEXICO OIL CONSERVATION COMMISSION GAS-OIL RATIO TESTS

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No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psis and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico OII Conservation Commission in accordance with Rule 301 and appropriate pool rules.

September 13, 1983 (Title)

is true and complete to the best of my know

ledge and belief.

