

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 1634
Order No. R-1382

APPLICATION OF THE PURE OIL COMPANY
FOR AN ORDER PROMULGATING TEMPORARY
SPECIAL RULES AND REGULATIONS FOR THE
SOUTH VACUUM-DEVONIAN POOL IN LEA
COUNTY, NEW MEXICO, TO PROVIDE FOR
80-ACRE PRORATION UNITS.

BRIEF IN SUPPORT OF APPLICATION FOR REHEARING

Comes now The Pure Oil Company, Applicant for rehearing in the above case, and respectfully submits this Brief in support of its Application for Rehearing previously filed.

POINT I

THE EVIDENCE DOES NOT SUPPORT THE BASIC
FINDINGS OF THE COMMISSION UPON WHICH
ITS ORDER NO. R-1382 WAS BASED

In the above case, The Pure Oil Company applied for temporary rules for the South Vacuum-Devonian Pool for a period of one year. The temporary rules requested were that proration units of 80 acres be established, but that the proportional depth factor for 40-acre well spacing be continued for determining allowables. It was further requested that permission be granted to shut in one well for this period and transfer its allowable so that pressure determinations could be taken from the shut-in well for the one-year period. The Application was denied.

The primary basis upon which the Application was denied is contained in Finding No. 4, with a further basis being contained in

Finding No. 5. These Findings are:

"(4) That the applicant has failed to prove that the South Vacuum-Devonian Pool can be efficiently drained and developed on an 80-acre spacing pattern.

(5) That development of the South Vacuum-Devonian Pool on 40-acre proration units will not cause the drilling of unnecessary wells."

Based upon those Findings, the Commission denied the Application for temporary 80-acre spacing, and held that in view of its determinations there was no necessity for shutting in a well and conducting pressure tests. It is respectfully submitted that the record does not contain evidence upon which the Findings could be based. Jack Duree, a production engineer for Pure Oil Company, was the only engineering witness who testified. He introduced Exhibit No. 3 showing the physical properties of the reservoir rock, including an average permeability of 226 millidarcys.(Tr. 29). He testified that in his opinion this is excellent permeability for effective drainage.(Tr. 30). The other physical properties of the reservoir are set forth on Exhibit No. 3, and from that information, Mr. Duree testified that the viscosity of the oil is such that it could easily be displaced out of the reservoir. He further testified that the pool has a water-drive mechanism, and that the permeability and mechanism are such that one well can efficiently drain 80 acres. (Tr. 31). Exhibit No. 4 demonstrated that the pool is in an early stage of development. (Tr. 33). Exhibit No. 5 is a graphic demonstration of bottom-hole pressure determinations made on each of the wells in the field. This Exhibit proves that reservoir pressure is being lost at spots where no production has occurred. Mr. Duree testified that in his opinion the Exhibit proved that one well will efficiently drain 80 acres.(Tr. 37). He further testified that in his opinion if the field is developed on an 80-acre spacing pattern there will be ultimately recovered as much oil as there would be if it were drilled on a 40-acre pattern. (Tr. 55).

It is submitted that the Applicant introduced all available pertinent information relative to the field at this point in its history. This evidence shows excellent permeability, a water-drive mechanism, and pressure drops in the later wells in the pool. All of this information establishes that on the basis of all presently available information, it can only be concluded that one well will efficiently drain at least 80 acres. There is no evidence in the record, either in the Exhibits or in the opinion of the expert engineering witness which would indicate that one well will not efficiently drain 80 acres. All available evidence indicates that the drilling of wells on 40-acre pattern will not produce additional oil, but will result only in an economic loss in the drilling of ten or twelve unnecessary wells at a cost of approximately \$275,000.00 each.(Tr. 45, 55). Upon the evidence contained in the record, there is no basis for Findings Nos. 4 and 5 of the Commission, without which there is no foundation for the Order which was entered denying the application.

POINT II

THE COMMISSION SHOULD GRANT ON A
TEMPORARY BASIS RULES FOR THE WIDEST
FEASIBLE SPACING IN A NEW POOL

The Application in the above case requested temporary special rules for a period of one year. Eighty-acre spacing was requested during that time with no increase in allowables above that which could now be produced from a 40-acre tract. Permission was further requested to shut in one well, transfer its allowable to an adjoining well, and to take pressure tests during that one year for the purpose of obtaining further information as to the effective drainage area of a well. The Order of the Commission reflects a policy that in considering this case, the Commission required that the Applicant should conclusively establish that one well will drain 80 acres. It would indicate that

the policy of the Commission is to require the same proof as it would if the request was for permanent rules. It is submitted that this approach is not in the best interest of either the State of New Mexico or the oil industry, including both operators and royalty owners.

New Mexico has a big interest in a healthy domestic petroleum industry. Its economy is to a considerable extent geared to that industry and whatever affects the well-being of the industry consequently directly affects New Mexico. A somewhat more remote interest lies in the fact that the very life of the nation may be dependent upon sufficient quantities of petroleum being available to it in time of war during the next twenty or thirty years. At the moment there are probably sufficient reserves to care for the nation during a war period, although some have expressed doubt in this connection. However, a few years from now this undoubtedly will not be the case unless the industry is kept healthy and exploration minded.

It, therefore, behooves the State and this Commission to encourage practices that will tend to strengthen the industry and enable it better to meet the competition of foreign oil. Such encouragement will not only protect New Mexico's present strong position in the industry but will also help to attract the available funds of the industry to expenditures within the bounds of the State in the hope of uncovering additional reserves therein. Any company has a limited amount of money which it can allocate to exploration for new oil and gas reserves. In determining the area in which expenditures are to be made, one factor which is important in the determination is whether, if a discovery is made, there is a probability of development on a basis which will afford good return on invested money. If it is apparent that operators will be forced to develop properties on a close-well spacing pattern regardless of the fact that ultimately the evidence may prove that the well spacing pattern was too narrow, it will discourage investment of

exploration monies in New Mexico. This will be reflected in two ways. First, the prices which can be paid for leases will be depressed. The maximum price that can be paid for a lease is a direct reflection of the attractiveness of an area. If operators are convinced that they will not be afforded a reasonable opportunity to prove that a wide-spacing pattern will efficiently drain a pool, prices which will be paid for leases, including State and fee leases, will be directly depressed. Secondly, when leases are obtained, operators will be reluctant to engage in expensive exploration for oil where they feel that if a discovery is made they will not be afforded an opportunity to make a good return on a new pool. It is imperative that operators be afforded an opportunity to recover the maximum quantity of oil with minimum capital expenditures and operating costs. While finally wells should never be spaced so far apart that they cannot efficiently drain a pool, during the early development of the pool the evidence of the effective drainage area of a well is necessarily meager. The Commission should not use this inadequacy of satisfactory evidence as a basis for insisting on early close spacing. Inasmuch as once development starts on a certain spacing pattern, offset and further development obligations make it extremely difficult, if not impossible, to shift to a wider spacing pattern, the Commission should approach requests for temporary field rules involving wide spacing with the view that in cases of doubt temporary rules should be promulgated for the widest spacing recommended by the operators in the pool. A request for temporary wider spacing should be denied only where there is strong evidence that one well will not drain more than 40 acres. The Commission can retain full control of the situation by requiring that the temporary rules be reconsidered within a reasonable time. The Commission could further retain jurisdiction in the case to enter such further orders as it may deem advisable even during the temporary period of the rules.

In the best interest of the State, the Commission should avail itself of every reasonable opportunity to obtain further information as to the drainage area of wells in a new pool. In this instance, the Application requested permission to obtain further information by shutting in one well for the period of one year, transferring its allowable to an adjoining well, and conducting pressure determination tests. No additional allowable was requested for other wells in the pool. The Commission was offered the opportunity to obtain the best possible information upon which to enter permanent rules for the pool. It would appear unreasonable to expect that an operator would voluntarily shut in a well for so long a period of time and to be deprived of the volume of current income involved. Some opportunity should be afforded to transfer that allowable or to otherwise produce that allowable through a schedule authorized by the Commission. If the Commission should be concerned that the transfer of the full allowable to one well would result in damage to the well or the pool, it could by retaining jurisdiction of the case be ready to step in as soon as indications of damage should appear.

It is elementary that a well which has been drilled cannot be undrilled. By requiring conclusive evidence of wide drainage in the early development phase of a pool, the Commission effectively denies to the operators any reasonable opportunity to prove that one well will efficiently and economically drain more than 40 acres. In the majority of instances, offset and further development obligations make it impossible as a practical matter to maintain a wide spacing pattern in a pool for any period of time. In the best long-range interest of the State of New Mexico and of all concerned with the industry, the Commission should afford to the operators in a new pool a reasonable opportunity to prove what is the optimum efficient drainage area of a well in the pool. By retaining jurisdiction in a case, the Commission can remain in full control of the development.

of the pool.

A continuance of the present policy toward temporary wider spacing in new pools as reflected in Order No. R-1382 will ultimately have a serious adverse effect on the economy of the State of New Mexico. By the promulgation of temporary rules for wider spacing in new pools and by encouraging interference tests, the Commission can render a real service to the State and its principal industry.

This Brief is submitted in support of Applicant's Petition for Rehearing in the above case. Applicant will not tender further evidence at the rehearing, if granted, as all currently available evidence in the pool has been presented to the Commission. However, it is requested that a rehearing be granted and that upon rehearing the Commission reconsider its findings and determinations in Order No. R-1382, and that it rescind said Order and enter a new order granting temporary special rules as requested in the Application for the original hearing.

Respectfully submitted,

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By


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