FAX NO. 505-599-3442

DATE: 2/14/96

TIME SENT: 11:35

TOTAL PAGES: ~~4~~ 5

TO: RAND CARROLL

COMPANY: NMOCD

LOCATION: SANTA FE

FAX NO.: (505) 827-8177

FROM: PAT NOAH

COMPANY: PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON, NEW MEXICO 87401

TELEPHONE: 505-599-3410

MESSAGE: HERE IS COPY OF WRITTEN STATEMENT. I NEED TIME SUFFICIENT TO SUMMARIZE ONLY (5 MIN.). I ALSO INTEND TO MAKE AN [redacted] VERY BRIEF (30 SEC.) COMMENT ON THE PROPOSED PRORATED GAS ALLOWABLES.

Pat

faxtrans.ga

# STATEMENT REGARDING PROPOSED RULE 303 AND THE NEED FOR DOWNHOLE COMMINGLING

Submitted by Phillips Petroleum Company

Prepared by Kirk L. Czirr & Patrick H. Noah

February 13, 1996

# DOWNHOLE COMMINGLING

## I. Background

Phillips Petroleum Company ("Phillips") has been committed to the exploration and development of natural resources in the State of New Mexico for nearly fifty years. Our commitment to this state has rewarded us by allowing our company to consistently be among the top three or four producers of oil and gas in the State of New Mexico.

In the northwest New Mexico counties of San Juan and Rio Arriba alone, Phillips' efforts in the early 1950's resulted in the formation of six federal units covering in excess of 111,000 acres of federal, state and fee leasehold. Phillips is the current operator of these six federal units, operating approximately eight hundred (800) gas wells in a two-county area which comprises the heart of the San Juan Basin. In addition, our company owns a working interest in nearly one thousand (1000) wells operated by others in this basin.

Less than one-quarter of these wells (operated both by Phillips and others) are coalseam wells, this formation having been developed primarily over the last five to six years. With respect to the San Juan Basin, the development of this formation is substantially complete. The remainder of the producing wells in the basin represents production from conventional formations, with the investment to develop these resources having been committed throughout the past forty to fifty years and continuing to be committed currently by Phillips and other operators.

The long-term success of the San Juan Basin depends primarily upon the ability of its oil and gas producers to economically develop conventional gas formations.

With respect to Phillips, the ability to economically develop the Mesaverde and Dakota Formations is of particular importance. Our company operates units or owns an interest in lands in the San Juan Basin which contain approximately fifty (50) completely undeveloped Mesaverde potential locations (three hundred twenty acre drillblocks) and more than three hundred (300) additional infill Mesaverde locations. As concerns the Dakota Formation, Phillips operates units or owns an interest in lands which contain approximately three hundred seventy-five (375) completely undeveloped Dakota Formation locations (three hundred twenty acre drillblocks) with the additional potential for more than four hundred fifty (450) infill locations.

Phillips and other operators continually evaluate the potential to develop conventional formations, with additional drilling occurring as feasible each year. However, the ability to economically develop these resources is severely impaired by gathering costs that are consistently high combined with mainline gas prices that are consistently low. Given that there is little opportunity to impact these factors, the focus of our industry necessarily turns to efforts to control and reduce the cost to drill and complete wells. Downhole commingling is a key to these efforts.

## II. The Need to Commingle

It is Phillips' belief that the majority of remaining conventional reserve resources in the San Juan Basin cannot be developed by drilling and completing wells through either single or dual completions. Our own efforts in 1995 to drill four dual Mesaverde/Dakota wells are a good example of the basis for this position. In drilling and completing these wells, significant additional costs were incurred that were attributable primarily to the necessity to establish pressure barriers between the Mesaverde and Dakota Formations. In light of this, it is Phillips' belief that the majority of these remaining Mesaverde and Dakota resources can only be economically developed through downhole commingling.

How will downhole commingling promote the economic development of Mesaverde and Dakota reserves?

1. Drilling and production costs will be reduced by:
   - utilization of a smaller casing string
   - only requiring a single tubing string
   - requiring only a single production facility
   - eliminating need for a packer

2. Workover costs will be reduced by:
   - eliminating the current requirement to workover dual wells which develop communication between strings
   - reducing the tubulars which must be retrieved and reinstalled
   - simplification of workovers (single completions vs. dual completions)

3. Overall production will increase because:
   - more prospects will be economically viable to develop
   - better tubing performance will result by flowing two zones up a single production string. In particular, fluid loading problems should reduce and the need for timers substantially eliminated.
   - where compression is required, only a single compressor, instead of two, will be required

4. Royalty Impact:
   - Royalty owners will benefit through the development of reserves that could not be economically justified without commingling

## III. Proposed Rule 303

Phillips strongly favors the proposed changes to current Rule 303 as an effort to allow additional development of remaining conventional reserves. However, we have significant concerns as to the impact of portions of the proposed rule as it affects commingling of the Mesaverde and Dakota Formations. These concerns are outlined as follows:

1) A high percentage of conventional formation commingling in the San Juan Basin could involve infill drilling within federal units. Such drilling would be within the boundaries of participating areas, where multiple federal, state and fee working interest, overriding royalty interest and royalty interest owners would be common across the entire participating area. Whenever possible, the Commission should use its authority to establish "reference cases" (as provided in 303(C)(2))for use within such areas.

2) Rule 303 (D)(5) contains certain requirements as to the maximum bottomhole pressure differential between the two zones which are intended to be commingled. This provision is of particular importance as concerns potential commingling of the Mesaverde and Dakota Formations. Typically, the static reservoir pressure of the Dakota Formation in the San Juan Basin is twice that which is experienced in the Mesaverde. As such, the proposed rules may be interpreted to prohibit such commingling. However, the Commission should take notice of the fact that Dakota shut-in pressures decline significantly after the formation produces for a relatively short period of time (thirty to sixty days), as is evidenced by the results of the biannual seven day pressure build-up tests. This is characteristic of low permeability formations such as the Dakota. The proposed rule should allow commingling of the Mesaverde and Dakota Formations if the historical pressure build-up test data for the adjoining Dakota wells reflects that formation pressures have declined so that they are no more than modestly in excess of Mesaverde pressures.