# STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

NOMENCLATURE CASE NO. 10494 Order No. R-9697

APPLICATION OF UNION OIL COMPANY OF CALIFORNIA D/B/A/ UNOCAL FOR POOL CONTRACTION, POOL CREATION AND SPECIAL POOL RULES, LEA COUNTY, NEW MEXICO.

## ORDER OF THE DIVISION

#### BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 25, 1992, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this <u>22nd</u> day of July, 1992, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Union Oil Company of California d/b/a Unocal, seeks the contraction of the vertical limits of the Red Hills-Pennsylvanian Gas Pool which currently comprises all of Sections 31 through 33, Township 25 South, Range 33 East, and Sections 4 through 6, Township 26 South, Range 33 East, NMPM, Lea County, New Mexico, to include only the interval from the top of the Lower Atoka lime to the base of the Morrow formation.
- (3) The applicant further seeks the creation of a new pool for the production of gas from the Upper Atoka formation underlying all of Section 5, Township 26 South, Range 33 East, NMPM, Lea County, New Mexico, and the promulgation of special rules therefor, including provisions for 640-acre spacing and proration units and designated well location requirements.

- (4) The Red Hills-Pennsylvanian Gas Pool was discovered in 1964 by the Pure Oil Company Red Hills Unit Well No. 1 located 330 feet from the South line and 2310 feet from the East line (Unit O) of Section 32, Township 25 South, Range 33 East, NMPM.
- (5) To date, four wells have been completed in the Red Hills-Pennsylvanian Gas Pool, these being the Red Hills Unit Well Nos. 1, 2 and 3 located, respectively, in Unit O of Section 32, Unit B of Section 5, and Unit K of Section 5, and the Federal Well No. 1 located in Unit A of Section 6.
- (6) Unocal operates the Red Hills Unit Well Nos. 1, 2 and 3 and the Federal Well No. 1 is currently operated by Kaiser-Francis Oil Company.
- (7) The Red Hills Unit Well Nos. 1 and 2 and the Federal Well No. 1 have all been abandoned in the Pennsylvanian formation and are currently producing from the Wolfcamp formation.
- (8) The applicant has recently plugged back the Red Hills Unit Well No. 3 from the Devonian formation and has completed in the Atoka formation through perforations from 14,528 feet to 14,545 feet.
- (9) The Red Hills Unit Well No. 3 is producing from a sandstone interval within the Atoka formation which is well above the limestone intervals previously produced by the Red Hills Unit Well Nos. 1 and 2 and the Federal Well No. 1.
- (10) The applicant's geologic evidence indicates that the subject sandstone producing interval is likely limited in horizontal extent to portions of Sections 5, 6, 8 and 9 of Township 26 South, Range 33 East, NMPM.
- (11) The geologic evidence further indicates that the subject sandstone producing interval is present in the Red Hills Unit Well Nos. 1 and 2, but is significantly thinner and less developed in these wellbores.
- (12) Applicant testified that due to the limited size of the reservoir, the Red Hills Unit Well No. 3 will likely be the only well utilized to produce the gas reserves from this interval.
- (13) The Red Hills Unit Well No. 3 initially tested in the subject interval at 1.9 MMCFG per day at a flowing tubing pressure of 8,130 psi. Subsequent to running a liner in the well, it was tested at a rate of 1.5 MMCFG per day at a flowing tubing pressure of 2,500 psi. The well was last tested on January 28, 1992 at a rate of 40 MCFG per day.

- (14) The applicant contends that severe formation damage occurred when the 7 5/8 inch liner was run in the well and that the well should be capable of production substantially in excess of 1.9 MMCFG per day.
- (15) The applicant plans to conduct workover operations on the subject well in order to attempt to reverse the formation damage and restore production at or above the original rate.
- (16) In support of its request for 640-acre spacing, the applicant presented only the production data described in Finding No. (13) above.
- (17) It is unknown at this point whether the applicant will be successful in restoring initial production rates to the subject well.
- (18) In addition, initial production data by itself is not sufficient to justify, even on a temporary basis, the creation of a new pool and the promulgation of special rules and regulations including 640-acre spacing.
- (19) According to Division records, virtually all of the Atoka or Pennsylvanian gas pools within Southeast New Mexico are currently spaced on 320 acres.
- (20) The applicant further did not demonstrate that approval of the subject application would prevent the drilling of unnecessary wells, prevent waste, or serve to protect correlative rights.
  - (21) The application of Unocal should be denied.

### IT IS THEREFORE ORDERED THAT:

- (1) The application of Union Oil Company of California d/b/a Unocal for the contraction of the vertical limits of the Red Hills-Pennsylvanian Gas Pool located in Sections 31 through 33, Township 25 South, Range 33 East, and Sections 4 through 6, Township 26 South, Range 33 East, NMPM, Lea County, New Mexico, and for the concomitant creation of a new gas pool for Upper Atoka production, and for the promulgation of special rules and regulations for said pool including provisions for 640-acre spacing and proration units and designated well location requirements is hereby denied.
- (2) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMA

Director