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April 1, 1997

HAND-DELIVERED

William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
2040 South Pacheco Street
Santa Fe, New Mexico 87501

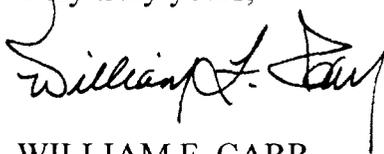
Re: Oil Conservation Commission Case No. 11745:
Application of Burlington Resources Oil & Gas Company to Amend Division
Rules 104.B(2)(a) and 104.C(3)(a) and to Adopt New Rules 104.B(2)(b) and
104.C(3)(b) for the Establishment of 640-Acre Spacing, Including Well
Location Requirements for Gas Production Below the Base of the Dakota
Formation in San Juan, Rio Arriba, Sandoval and McKinley Counties, New
Mexico

Dear Mr. LeMay:

Pursuant to your request, enclosed for your consideration is Amoco Production Company's
proposed Order pertaining to the February 13, 1997 Examiner hearing in the above-captioned
case.

If you need anything further from Amoco Production Company to proceed with your
consideration of this matter, please advise.

Very truly yours,



WILLIAM F. CARR
ATTORNEY FOR AMOCO PRODUCTION COMPANY

WFC:mlh

Enclosure

cc: W. Thomas Kellahin, Esq., (w/enclosure)

Pam Staley (w/enclosure)

035

Jami Bailey (w/enclosure)
William W. Weiss (w/enclosure)

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

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

**APPLICATION OF BURLINGTON
RESOURCES OIL & GAS COMPANY
TO AMEND DIVISION RULES 104.B(2)(a)
AND 104.C(3)(a) AND TO ADOPT NEW
RULES 104.B(2)(b) AND 104.C(3)(b) FOR
THE ESTABLISHMENT OF 640-ACRE
SPACING, INCLUDING WELL LOCATION
REQUIREMENTS FOR GAS PRODUCTION
BELOW THE BASE OF THE DAKOTA
FORMATION IN SAN JUAN, RIO ARRIBA,
SANDOVAL AND McKINLEY,
COUNTIES, NEW MEXICO.**

**CASE NO. 11745
ORDER NO. R-_____**

**AMOCO PRODUCTION COMPANY'S
PROPOSED ORDER OF THE COMMISSION**

BY THE COMMISSION:

This cause came on for hearing at 9:00 o'clock a. m. on February 13, 1997, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this ____ day of April, 1997, the Commission, a quorum being present, having considered the testimony, the exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Burlington Resources Oil & Gas Company ("Burlington"), seeks the Amendment of Division Rules 104.B(2)(a) and 104.C(3)(a) and the adoption of new rules for 104.B(2)(b) and 104 C(3)(b) for the establishment of 640-acre spacing, including well location requirements, for gas production below the base of the Dakota formation in San Juan, Rio Arriba, Sandoval and McKinley Counties, New Mexico ("the San Juan Basin").

(3) Amoco Production Company, an operator in the area affected by the proposed new spacing requirements, appeared in support of 640-acre spacing rules for the San Juan Basin but recommended that additional data was needed on the deep gas pools in the San Juan Basin prior to the adoption of permanent 640-acre spacing rules.

(4) Burlington presented information on three analogous deep gas pools which are the closest examples of gas development in the Paradox-Pennsylvanian formation (the Barker Creek Gas Pool, The Ute Dome Gas Pool and the Alkali Gulch Gas Pool) and presented evidence which demonstrated that:

- A. If data from these analogous pools was indicative of the characteristics of the deep gas pools across the San Juan Basin, these pools should be developed 640-acre spacing units;
- B. Deep gas wells in the San Juan Basin consistently drain more than 160-acres and 640-acre spacing would avoid competitive development on too dense a spacing pattern;
- C. 160-acre spacing was too small to provide sufficient gas-in-place to economically justify the drilling of deep gas wells adequate incentive to drill deep gas wells in the San Juan Basin;
- D. Development of deep gas pools in the San Juan Basin on 640-acre spacing make it easier to compulsory pool large tracts for natural gas development.

(5) These analogous pools are located on the Four Corners Platform, across the Hogback Fault System, on the northwest side of the San Juan Basin and the characteristics of the formations in this area differ from the reservoir characteristics of the deep gas formations encountered in much of the San Juan Basin because the evidence established that:

- A. The deep gas formations are not comprised of blanket sands (Testimony of Lane);

- B. Seismic data demonstrates the existence of numerous small algal mounds in these deep gas formations which can be economically developed (Testimony of Staley);
- C. More than one algal mound is often located within in a single 640-acre spacing unit and these small reservoirs would not be produced with 640-acre spacing (Testimony of Staley).

(6) With 3D seismic it has recently become easier to identify the small algal mounds in the San Juan Basin (Testimony of Staley).

(7) While Burlington's analogous pools were spaced in 1950 on 640-acre units, as data has been developed on these pools, many have had the spacing requirements reduced. In the Barker Dome area, the spacing has been reduced in three of the four deep gas pools: the Barker Dome Akah-Upper Barker Creek Pool to 320-acre spacing, the Barker Dome-Desert Creek Pool To 320-acre spacing and the Barker Dome-Ismay Pool to 160-acre spacing.

(8) Amoco testified that the extrapolation of data from the analogous pools was inadequate to support San Juan Basin-wide permanent 640-acre spacing rules and recommended the adoption of Exploratory Spacing Orders that would permit an operator to designate a 640-acre drillsite, pool the interest owners therein if necessary, drill its well and then after data becomes available on the well (6 to 18 months) reopen the case for the consideration of permanent rules. Under the Amoco proposal the applicant could also designate up to a 9 section area around the 640-acre drillsite that would also be subject to the temporary spacing rules to prevent the drilling of offsetting wells on too dense a drilling pattern while the initial well is being drilled and data developed to support permanent rules.

(9) There is inadequate information on the deep gas reservoirs in the San Juan Basin to support the adoption of 640-acre spacing rules on a permanent basis and the application of Burlington Resources Oil & Gas Company should therefore be **denied**. Adoption of 640-acre spacing for the deep gas formations in the San Juan Basin will encourage the development of these reservoirs thereby preventing the waste of natural gas and an Exploratory Spacing Order should be entered which will permit operators to develop deep gas reservoirs on a temporary 640-acre spacing unit and after data on the reservoir has been obtained, the case reopened for the adoption of permanent rules.

IT IS THEREFORE ORDERED THAT:

(1) The application of Burlington Resources Oil & Gas Company to amend and adopt the spacing rules for gas production from formations below the base of the Dakota formation in San Juan, Rio Arriba, Sandoval and McKinley counties, New Mexico is hereby **denied**.

(2) Exploratory Spacing Units are hereby approved for all gas production from formations below the base of the Dakota formation in San Juan, Rio Arriba, Sandoval and McKinley Counties New Mexico. The creation of Exploratory Spacing Units and the development of these Exploratory Spacing Units shall be governed by the Special Rules and Regulations For Exploratory Spacing Units set forth on Exhibit "A" attached to this order and incorporated herein, which are hereby **adopted**.

(3) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

**STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION**

JAMI BAILEY, Member

WILLIAM W. WEISS, Member

WILLIAM J. LEMAY, Chairman

S E A L

In San Juan , Rio Arriba, Sandoval and McKinley Counties, a wildcat well which is projected to test gas-producing formations older than the stratigraphic equivalent of the Dakota shall be granted an exploratory spacing unit of 640 acres after application and hearing, consisting of the governmental section in which the well is proposed. The exploratory spacing unit shall be for the purpose of providing for the orderly development of the anticipated pool and not for the establishment of property rights. The granting of an exploratory spacing unit shall be deemed as a decision by the Commission to call a hearing for the establishment of drilling units and upon completion of the well, the Commission shall call such a hearing or in the alternative shall vacate the exploratory spacing unit, depending upon the data obtained from the completed well. Said well may be located anywhere within the legal location for 160 acre well but not less than 1200 feet from the section line. Exceptions may be granted by the Commission for good cause.

The Director shall have the discretion to determine the pattern location of wells adjacent to an area spaced by the Commission, or under application for spacing where there is sufficient evidence to indicate that the pool or reservoir spaced or about to be spaced may extend beyond the boundary of the spacing order or application and the uniformity of spacing patterns is necessary to insure orderly development of the reservoir or pool.

Operators who apply for a permit to drill a gas well may contemporaneously or subsequently file an application to establish spacing for an area not to exceed nine (9) sections, which application will be held in abeyance until the permitted well is completed. Notice of such application must be given to all owners within the area applied for. Upon completion of the permitted well or within six (6) months (whichever is the lesser time), the application to establish spacing will either be heard by the Commission or dismissed, depending upon the data obtained from the completed well. The Commission may extend this time after notice and hearing for good cause. During the pendency of the application to establish spacing, all permits to drill gas wells will be held in abeyance pursuant to the provisions of Rule 102, provided that permits to drill will be approved for additional wells in the area subject to the application on not less than a six hundred-forty (640) acre pattern at a location consistent with the initial well. A C-102 shall be filed with the appropriate District Supervisor in accordance with Rule 104.E indicating that the spacing is exploratory and including the exploratory spacing order number. The area to be spaced may be increased in size prior to the hearing upon a proper showing of need to the Director and after notice to all owners in the area to be added. Once the final spacing is determined the C-102 shall be amended by the operator to reflect such final spacing for that well.

WYOMING RULES

SECTION III. OPERATIONAL RULES, DRILLING RULES

301. NOTICES: GENERAL AND EMERGENCY

Any written notice of intention to do work or to change plans previously approved must be filed with the Supervisor in triplicate, unless otherwise directed, and must reach the Supervisor and receive his approval before the work is begun.

In case of emergency, or a situation where operations might be unduly delayed, any written notice required by these rules and regulations to be given the Supervisor may be given orally or by wire and, if approval is obtained, the transaction shall be confirmed in writing, as a matter of record.

302. LOCATION OF WELLS (All Lands Except Indian)

In the absence of special orders of the Commission establishing drilling units or authorizing different well density or location patterns for particular pools or parts thereof, each oil and gas well shall be located in the center of a forty (40) acre governmental quarter quarter section or lot or tract or combination of lots or tracts substantially equivalent thereto as shown by the most recent governmental survey, with a tolerance of 200 feet in any direction from the center location (a "window" 400 feet square); provided, that no oil or gas well shall be drilled less than 920 feet from any other well drilling to or capable of producing oil or gas from the same pool, and no oil or gas well shall be completed in a known pool unless it is located more than 920 feet from any other well completed in and capable of producing oil or gas from the same pool.

Any gas wells drilled in the area described as Township 12 North through Township 28 North and Range 89 West through Range 121 West shall be located in the center of a one hundredsixty (160) acre subdivision, or lot or tract or combination of lots or tracts substantially equivalent thereto, not closer than one thousand one hundred-twenty feet (1,120') to the exterior boundaries of the quarter section. All areas subject to existing orders for drilling and spacing units in the above described area shall be exempt from the aforesaid gas well location requirements. Further, Rule 302 is vacated for all federal exploratory units in the above described area provided that no gas well will be drilled closer than one thousand one hundred-twenty feet (1,120') to the exterior boundaries of the unit nor to any uncommitted acreage within the unit. Upon unit contraction, lands deleted from the unit shall thereafter be subject to Rule 302.

Any proposed exploratory wells in the Powder River Basin projected to test the Frontier, Muddy, and/or Dakota Formations in excess of 11,000 feet total depth shall be granted a temporary spacing unit of 640 acres consisting of the governmental section in which the well is proposed. The temporary spacing unit shall be for the purpose of providing for the orderly development of the anticipated pool and not for the establishment of property rights. The granting of a temporary spacing unit shall be deemed as a decision by the Commission to call a hearing for the establishment of drilling units and upon completion of the well, the Commission shall call such hearing or in the alternative shall vacate the temporary spacing unit, depending upon the data obtained from the completed well. Said well may be located anywhere within the 160 acre "window" (i.e. SE $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$) but not less than 1,320 feet from the section line. Exceptions may be granted by the Commission for good cause.

The Supervisor shall have the discretion to determine the pattern location of wells adjacent to an area spaced by the Commission, or under application for spacing, where there is sufficient evidence to indicate that the pool or reservoir spaced or about to be spaced may extend beyond the boundary of the spacing order or application and the uniformity of spacing patterns is necessary to insure orderly development of the reservoir or pool.

Operators who apply for a permit to drill a gas well in the area described in Paragraphs 2 and 3 may contemporaneously or subsequently file an application to establish spacing for an area not to exceed nine (9) sections, which application will be held in abeyance until the permitted well is completed. Notice of such application must be given to all owners within the area applied for. Upon completion of the permitted well, the application to establish spacing will either be heard by the Commission or dismissed, depending upon the data obtained from the completed well. During the pendency of the application to establish spacing, all permits to drill gas wells will be held in abeyance pursuant to the provisions of Rule 305, provided that permits to drill will be approved for additional gas wells in the area subject to the application on not less than a six hundred-forty (640) acre pattern at a location consistent with the initial well. The area to be spaced may be increased in size prior to the hearing upon a proper showing of need to the Supervisor and after notice to all owners in the area to be added.

303. EXCEPTIONS TO LOCATIONS OF WELLS AND WELL SPACING ORDERS

Upon proper application therefore, the Supervisor

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

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W. THOMAS KELLAHIN*

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

April 1, 1997

Mr. William J. LeMay
Oil Conservation Commission
2040 South Pacheco
Santa Fe, New Mexico 87502

Mrs. Jami Bailey
Office of Commissioner of Public Lands
State Land Office Building
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

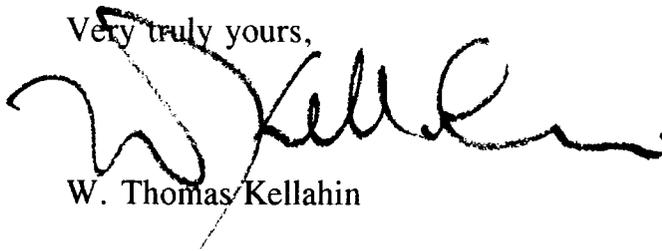
Mr. William Weiss
New Mexico Petroleum Recovery
Research Center, Kelly Building
New Mexico Tech Campus
Socorro, New Mexico 87801

Re: *NMOCD Case No. 11745*
Application of Burlington Resources Oil & Gas
Company for 640-acre Deep Gas Spacing, San
Juan Basin, New Mexico

Dear Members of the Commission:

On behalf of Burlington Resources Oil & Gas Company, please find enclosed our proposed order for your consideration in the referenced case.

Very truly yours,



W. Thomas Kellahin

cc: *Lyn Hebert, Esq.*
Attorney for the Commission
Rand Carroll, Esq.
Attorney for the Division
William F. Carr, Esq.
Attorney for Amoco Production Company

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