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:

CASE NO. 13671
ORDER NO. R-12585

APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY, LP FOR AN EXCEPTION TO THE WELL DENSITY REQUIREMENTS OF THE BLANCO-MESAVERDE GAS POOL, RIO ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 16, 2006, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 6th day of July, 2006, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, Burlington Resources Oil & Gas Company, LP ("Burlington" or "applicant"), seeks an exception to the well density provisions of the Special Rules and Regulations of the Blanco-Mesaverde (Prorated Gas) Pool (72319) within an existing standard 320-acre Mesaverde spacing and proration unit ("GPU") consisting of the W/2 of Section 33, Township 29 North, Range 7 West, NMPM, Rio Arriba County, New Mexico by approval of simultaneous production from the following two gas wells within the NE/4 NW/4:

(a) San Juan 29-7 Unit Well No. 97B (API No. 30-039-25861) located 1195 feet from the North line 2135 feet from the West line, Unit C of Section 33; and the

(b) San Juan 29-7 Unit Well No. 114M (API No. 30-039-22425) located 790 feet from the North line and 1530 feet from the West line, Unit C of Section 33.

(3) No other party entered an appearance in this case or otherwise opposed this application.

(4) Spacing and location of wells within the Blanco-Mesaverde (Prorated Gas) Pool, are governed by the Special Rules and Regulations as detailed in Division Order No. R-10987-A(1) effective December 2, 2002, which read in part as follows:

I. ACREAGE AND WELL LOCATION REQUIREMENTS

A. Standard GPU (Gas Proration Unit): *A standard GPU in the Blanco-Mesaverde Pool shall be 320 acres, more or less, comprising any two contiguous quarter sections of a single section that is a legal subdivision of the U. S. Public Land Surveys.*

B. Well density:

(1) Up to four (4) wells may be drilled on a standard GPU, as follows:

(a) the FIRST OPTIONAL INFILL WELL drilled on a GPU shall be located in the quarter section not containing the INITIAL Mesaverde well;

(b) the SECOND OPTIONAL INFILL WELL drilled on a GPU shall be located in a quarter-quarter section not containing a Mesaverde well and within a quarter section not containing more than one (1) Mesaverde well;

(c) the THIRD OPTIONAL INFILL WELL drilled on a GPU shall be located in a quarter-quarter section not containing a Mesaverde well and within a quarter section not containing more than one (1) Mesaverde well;

(d) at the discretion of the operator, the second or third optional infill well may be drilled prior to the drilling of the first optional infill well;

(e) no more than two wells shall be located within either quarter section in a GPU; and

(f) any deviation from the above-described well density requirements shall be authorized only after hearing.

(5) Prior to Order No. R-10987-A(1), pilot 80-acre infill wells were approved within a defined portion of the San Juan 29-7 Unit under Order R-10720, effective January 9, 1997.

(6) The applicant presented the following background:

(a) Within the past year, Burlington has gone through a process of examining its Mesaverde wells for regulatory compliance. Out of 1150 completions, Burlington found eight spacing and proration units which are out of compliance by way of having more than two gas wells located within the same quarter-quarter section. The circumstances leading to each situation was not the same. Therefore, Burlington examined internal processes and now requires a latitude and longitude to be input into a database for any well candidate prior to workover or drilling. This examination process is continuing, especially for compliance with other pools and will be aided in the future by utilizing GIS technology with a new detailed aerial survey.

(b) Since discovering the problems, Burlington has shut-in one of the wells on each of the eight out-of-compliance spacing units, self-reported the situation to the Division, and is now asking for relief from the Special Rules and Regulations for the Blanco-Mesaverde Gas Pool by way of resuming production from the shut-in wells.

(c) Burlington has determined proposed criteria to evaluate each of these situations including an examination of the production rate versus time plots for each well to look for interference and a no-flow boundary calculation to see if gas flow is predominantly migrating from offsetting GPUs. The no-flow boundary calculation is made with the assumption of uniform geologic and reservoir properties.

(7) The applicant presented exhibits and expert testimony at the hearing. The following facts were presented:

(a) Burlington re-completed the San Juan 29-7 Unit Well No. 114M in December of 2000 to the Mesaverde formation on the same NE/4 NW/4 quarter-quarter section as the San Juan 29-7 Unit Well No. 97B. The well was at that time downhole commingled in the Dakota and the Mesaverde formations; approved under administrative order DHC-109az with 64 percent of the total gas being attributed to the Mesaverde formation. The No. 97B well was shut-in during February 2006 after Burlington discovered that these two wells were both located on the same quarter-quarter section.

(b) Currently, this GPU contains four vertical completions in the Mesaverde formation, all at standard locations. The NW/4 has two producers and

the SW/4 has two producers. Burlington has no intention to drill more than four producing wells within this GPU.

(c) This W/2 of Section 33 spacing unit is located internally within the San Juan 29-7 Unit. Notice was supplied to all working interest owners in the Mesaverde Participating Area of the San Juan 29-7 Unit. No protests were received.

(d) The offsetting spacing units to the east and northeast contain only three Mesaverde wells. The spacing unit to the north contains four Mesaverde wells.

(e) The initial well showed an immediate drop in production after the second well was put on line. Also at this same time, the local surface flow-line pressure increased.

(f) While both wells were last producing on the same quarter-quarter section, each well produced approximately 160 Mcf gas per day from the Mesaverde formation.

(8) After reviewing the facts presented in this case the examiner concluded the following:

(a) Burlington's case was presented without an analysis from a geologist. In particular as Burlington pointed out, the accuracy of using a simple production rate based "no-flow boundary calculation" even if aided with a single model simulator depends on uniform geologic rock and reservoir properties.

(b) The Mesaverde formation consists of at least three distinct members and no facts were presented as to the completion depths or producing members in the subject wells or in possibly affected offset wells.

(c) In order to look for actual interference or damage to affected offset wells, production rate versus time data from offsetting wells in other spacing units nearest to the subject quarter-quarter section was not compared to production rate versus time data from wells within the subject quarter-quarter section.

(d) When examining simultaneous production plots of the two wells within the same quarter section, Burlington assumed that any apparent interference was caused by changing line pressure and was too early to be reservoir interference effects. Burlington did not attempt to use other relationships such as Inflow Performance Relationship (IPR) analysis to back out the effects of the increased line pressure to truly determine if interference was happening.

(e) No estimate was made of the magnitude of increased reserves or the timing of its recovery or the economics involved with drilling or workovers of increased Mesaverde density. However, determining the magnitude of the increased reserves and the economics of drilling increased density wells are beyond the scope of this application.

(9) Notwithstanding these concerns, the examiner recommends this application be granted due to the following pertinent facts:

(a) Additional developed reserves were likely added by drilling the second well within this quarter-quarter section. Division records indicate that in the three months since the 97B well has been shut-in, production from the 114M well has not increased. This seems to indicate the two wells are not in direct communication and could have different drainage areas.

(b) Correlative rights of owners in offsetting spacing units are protected. This W/2 of Section 33 spacing unit is located internally within the Mesaverde Participating Area of the San Juan 29-7 Unit, which is operated by Burlington. The owners of production in both the subject wells are also the owners of all spacing units surrounding the subject spacing unit. Despite that fact, thorough notice was provided to all working interest owners and no protests were received.

(c) Allowing both wells completed within Unit C of Section 33 to simultaneously produce will allow prompt recovery of natural gas that may otherwise not be produced and will allow the use of a drilling investment that has already been made.

(d) If this application were approved, Burlington would be allowed to resume production from the San Juan 29-7 Unit Well No. 97B located in Unit C and increase production within this spacing unit approximately 160 Mcf gas per day.

(e) If this application is approved, then all spacing and location provisions of the Special Rules and Regulations of the Blanco-Mesaverde Gas Pool shall remain in effect except as exempted in this order including the provisions that no more than two wells shall simultaneously produce in any quarter section and no more than four wells shall simultaneously produce in any spacing unit.

(f) This application should be approved in order to prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The application of Burlington Resources Oil & Gas Company, LP ("Burlington) is approved and Burlington is hereby granted an exception to the well density provisions of the Special Rules and Regulations of the Blanco-Mesaverde (Prorated Gas) Pool (72319) as promulgated by Division Order No. R-10987-A(1) and allowed to simultaneously produce the following two wells within the NE/4 NW/4 of Section 33 within an existing standard 320-acre, more or less, Mesaverde spacing and proration unit consisting of the W/2 of Section 33, Township 29 North, Range 7 West, NMPM, Rio Arriba County, New Mexico:

(a) San Juan 29-7 Unit Well No. 97B (API No. 30-039-25861) in Unit C

(b) San Juan 29-7 Unit Well No. 114M (API No. 30-039-22425) in Unit C

(2) Except as granted above, all spacing and location provisions of the Special Rules and Regulations of the Blanco-Mesaverde Gas Pool shall remain in effect including the provisions that no more than two wells shall simultaneously produce in any quarter section and no more than four wells shall simultaneously produce in any spacing unit.

(3) 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

MARK E. FESMIRE, P.E.
Director

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