

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

**APPLICATION OF BURLINGTON RESOURCES  
OIL & GAS COMPANY TO AMEND THE  
SPECIAL RULES AND REGULATIONS FOR THE  
BASIN-DAKOTA GAS POOL,  
RIO ARriba AND SAN JUAN COUNTIES, NEW MEXICO**

**CASE NO. 12290**

**BURLINGTON RESOURCES OIL & GAS COMPANY'S  
MEMORANDUM**

This memorandum is submitted on behalf of Burlington Resources Oil & Gas Company ("Burlington") in response to a request by Division Examiner Michael E. Stogner concerning the issue of potential correlative rights violations within a federal unit should the Division grant Burlington's request to relax the well locations requirements within these units for wells drilled and completed in the Basin Dakota Gas Pool.

**ISSUES**

There are numerous federal exploratory units in the San Juan Basin all of which are divided type units employing the concept of participating areas ("PAs"). The issues are: (a) whether owners within a federal unit but **outside** of that unit's Basin-Dakota PA

and who are adjacent to a Basin-Dakota well which is drilled in an adjoining drill block<sup>1</sup> at a location 10 feet from the common boundary line to those owners will have their correlative rights impaired by drainage from this well; or (b) whether owners within a federal unit but **inside** of that unit's Basin-Dakota PA and who are adjacent to a Basin-Dakota well which is drilled in an adjoining drill block at a location 10 feet from the common boundary line to those owners will have their correlative rights impaired by drainage from this well.<sup>2</sup>

### ANSWER

The New Mexico Oil Conservation Division ("Division") may relax the well locations requirements for wells in the Basin-Dakota Gas Pool within the interiors of federal exploratory units in the San Juan Basin because these federal exploratory units, whether named or numbered by township, contain provisions in either the unit agreement or the unit operating agreement, or both, which protect the correlative rights of all working interest owners and royalty owners in the circumstances described above.<sup>3</sup> Finally, the underlying lease obligations, in addition to the unit agreement, provide protection for the royalty and overriding royalty interest owners.

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<sup>1</sup> a standard drill block in the Dakota formation will be a 320-acre spacing and proration unit ("GPU") consisting of one-half of a governmental section. **See Drill Block "A" on illustration.**

<sup>2</sup> See Drill Block "B" on illustration.

<sup>3</sup> To aid in understanding, attached to this Memorandum is a Definition of Terms applicable to this issue.

## DISCUSSION

These unit agreements and unit operating agreements, while not identical, all provide that the boundaries of a Dakota PA will be continually revised as more wells are drilled and more data is obtained which would reasonable prove what lands are commercially productive of unitized substances in paying quantities. In addition, the federal rules and regulations that govern the operation of these federal units provide a process for the unit operator, opposing working interest owners, the BLM or the Commissioner of Public Lands to resolve issues concerning expansion of a PA.

The following four examples illustrate how correlative rights are protected:

### Example A:

Assume that there is a prospective drill block<sup>4</sup> which is **outside** of the current Dakota PA but **within** the unit area and the unit operator, with the agreement of the working interest owners in that drill block, wants to drill a Dakota well in that prospective drill block only 10 feet from a drill block **already** in the Dakota PA. The correlative rights of the interest owners in the PA towards whom encroachment will occur are not impaired because the Dakota PA will be expanded to include this drill block and

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<sup>4</sup> A "prospective drill block" will be a 320-acre spacing unit ("GPU") consisting of one-half of a governmental section but the well has not yet been drilled. See **Drill Block "B" on illustration**

its new well<sup>5</sup> if it is deemed commercial. That expansion will result in the "common ownership" of production between the drill block with the "encroaching well" and the drill block in the PA being encroached upon, thus eliminating any impairment of correlative rights. **See illustration.**

**Example B:**

Assume that the Dakota PA has been expanded to include a drill block which has a Dakota well deemed commercial which is only 10 feet from the outer boundary of the PA and which encroaches towards a prospective drill block **not** in the PA.<sup>6</sup> There are no correlative rights impairments because:

- (a) the unit agreement contains provisions for expanding a PA by geologic inference to include the prospective Dakota drill block being encroached upon without having to drill another Dakota well on that drill block;
- (b) in the alternative, the interest owners in the prospective drill block being encroached upon may drill a Dakota well **at any location** within 10 feet of the outer boundary of that drill block and if it is deemed commercial, the PA will be expanded to include this drill block. The drilling of this additional well, at any location in its GPU, will result in the expansion of the PA provided the well is deemed commercial.

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<sup>5</sup> This will occur on the first day of the month following the date of its completion once this new well is deemed commercial.

<sup>6</sup> See Drill Block "A" on illustration

Either of these expansions will result in the "common ownership" of production between the drill block with the "encroaching well" and the drill block being encroached upon, thus eliminating any impairment of correlative rights. **See illustration.**

**Example C:**

Assume that the Dakota well in Example A, instead of being deemed commercial, is deemed **non-commercial**<sup>7</sup>. In that case, then correlative rights are protected because the owners being encroached upon can chose to drill a Dakota well for that drill block someplace within the drill block other than directly offsetting this non-commercial well. In the alternative, they may consider the non-commercial encroaching well to pose no serious risk for uncompensated drainage, or it may have condemned the probability for a commercial well on their own drill block. In either event, they will have the opportunity to exercise their correlative rights and thus no impairment will occur. **See Illustration.**

**Example D:**

There are occasions when the fee royalty owners have not ratified the unit agreement and therefore their royalty interests are not committed to the unit. In these instances, the Dakota drill block is defined as "partially committed" to the unit which means that these uncommitted royalty owners are paid their royalty on a drill block basis,

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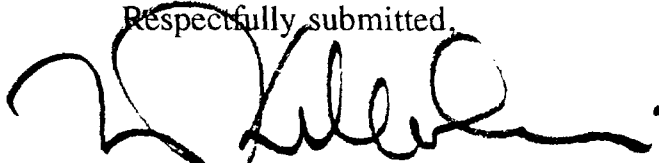
<sup>7</sup> Generally, a "commercial well" for PA expansion purposes is a well which will produce sufficient quantities of gas over a reasonable period of time to pay its cost plus a profit.

and not on a PA basis, if and when a commercial Dakota well is drilled and produced in that drill block. If the PA is expanded to include this type of drill block, the uncommitted royalty owners continued to be paid only on a drill block basis. Their correlative rights are not impaired because they have two contractual remedies: (i) they can petition to be included in the unit and its Dakota PA; (ii) they can sue the working interest owners in their drill block for compensatory royalties for allowing their drill block to be drained by an encroaching Dakota well; or (iii) the working interest owners in this partially committed drill block can drill a protection well at the optimum location in that drill block. **See Illustration.**

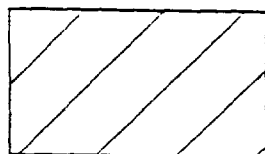
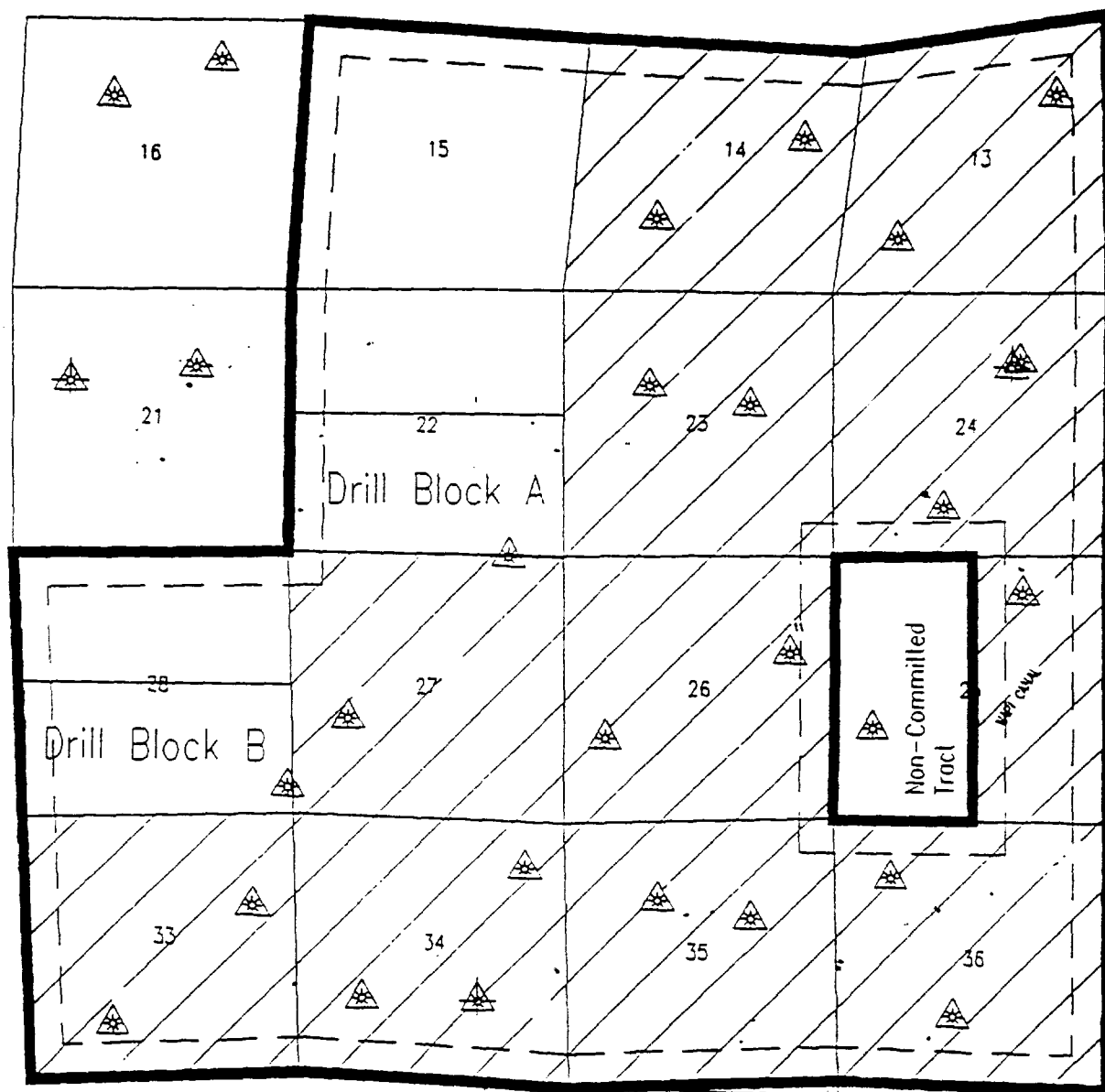
### CONCLUSION

In summary, the comprehensive nature of the unit agreement and unit operating agreement, and the underlying lease obligations, provide protection of correlative rights in these circumstances such that the Oil Conservation Division can relax well locations requirements within a federal exploratory unit without concern about the potential impairment of correlative rights.

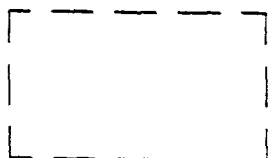
Respectfully submitted,



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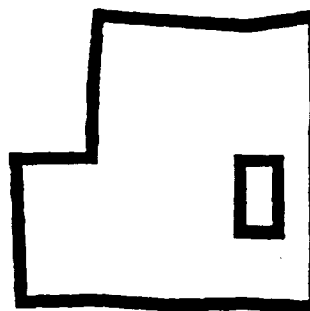


Participating Area



Buffer Zone

660' From Boundary



Unit Boundary

## DEFINITION OF TERMS

To aid in understanding this issue, it is essential to define certain terms:

### **"Divided Type Units":**

All divided type units involve the concept of an extension well, that is a well proposed and drilled within the Unit but **outside** the boundaries of the existing PA.

The unit agreement will adopt for the unit royalty owners the same effective date for PA revisions as set forth in the unit operating agreement (sometimes called the "unit accounting agreement") so that all interest owners' equity will be calculated from the same point in time using the same acreage area for participating in production.

While divided type units may use different "appropriate effective dates" for PA revision, all types rely on participating areas ("PAs") established under the terms of the unit agreement to fix the point in time for allocating revenues between royalty owners and working interest owners and for allocating costs and revenues among the working interest owners.

(a) **Inclusive type unit:** In an "inclusive" type of divided unit, such as the Huerfano Unit, it is anticipated and expected that the PA will change and so the unit operating agreement provides for the investment adjustments which are to be made among the working interest owners upon the creation of an initial PA and each subsequent expansion or contraction.

(b) **Exclusive type unit:** Other types of divided units, the "exclusive type", do not employ investment adjustments for well costs and risk. For example, the San Juan 30-6 Unit for well costs and risks in the formations from the surface to the base of the Mesaverde formation is an "exclusive" type. However, please note that the San Juan 30-6 Unit **does** employ these investment adjustments for formations below the base of the Mesaverde formation and therefore would be an "inclusive type" as to these deeper formations.



### **The "Inclusive" Type Divided Unit:**

In many divided type units the issue is not whether the well has actually recovered the costs to drill, complete and produce, including any penalties but whether it will recover such costs and penalties plus a reasonable profit ("payout"). If the extension well has demonstrated sufficient productivity and analysis has demonstrated the reasonable probably of "payout", then the agencies may adopt the completion date as the date to expand the PA. If the data is insufficient or premature, then the agencies should postpone confirming that determination.

This "inclusive" type of divided unit requires costs to be allocated when the PA is expanded. This type of divided unit will have an operating agreement which requires the unit operator to include all well development costs at the time the PA is revised. The consenting owners of the Drill Block recover all drilling, completing, equipping and penalty costs from revenues derived from the revised PA. The effective date for PA revision is the first of the month following the completion date.

An example of this "inclusive" type of divided unit is the San Juan 30-6 Unit in so far as it applies to formations from the surface to the base of the Mesaverde formation.

### **The "Exclusive" Type Divided Unit:**

The Huerfano Unit is an example of an "Exclusive" Type of Divided Unit. Typically, this type was adopted for use in areas where at the time the unit was formed, there was substantial risk that the well drilled in the Drill Block would not pay out and the owners in the participating area did not want be compelled to pay for those risky wells. Thus, in order to encourage further unit development, the agencies approved unit agreements which provided an incentive for that risky drilling and adopted an accounting method set forth in the unit operating agreement which postponed the date at which the Drill Block qualified to be included in the PA until the parties in the drill block paying for this risky well had recovered their costs and a stipulated penalty.

Prior to payout, the royalty and working interest owners in the drill block will be paid accordingly to their percentage interest in the Drill Block. Then, after payout, the drill block is added to the PA and all interests (including royalty and working interests) are recalculated at that time based upon their respective percentage interest in the expanded PA. Of interest is the San Juan 30-6 Unit which is a divided unit which uses both types; that is, before payout the Drill Block is **excluded** from the PA for gas production below the base of the Mesaverde formation ("deep gas") but **includes** the Drill Block in the PA for gas production above the base of the Mesaverde formation ("shallow gas").

**Extension Well:**

An extension well is defined as a well drilled after discovery of unitized substances in paying quantities in the unit area and is located outside an existing PA. Where an extension well is involved, the working interest owners in that well's drill block make elections to participate or to go non-consent subject to the prescribed penalties.

**Drill Block:**

A drill block is established as a basis for allocating costs of an extension well in the event it proves to be a dry hole and for certain types of divided units to allow for the recovery of costs and penalties from the owners of that drill block prior to its inclusion in the PA. The size and shape of the Drill Block is determined by the spacing rules adopted by State of New Mexico Oil Conservation Division. If production is obtained, an existing PA will be expanded to include the newly proved lands based upon an "appropriate effective date" which, depending upon the terms of the agreements, could be either before or after payout of the extension well.

**Determining Production in Paying Quantities:**

The term "paying quantities" is defined in the unit agreement as "quantities sufficient to repay the costs of drilling, completing, and producing operations with a reasonable profit..." The costs of producing operations is defined as "the costs of maintaining the lease and producing the wells, including the costs of marketing the product." For purposes of revising a PA, the BLM is not limited nor required to use only the date at which "paying quantities" is achieved, but rather can and should use the "more appropriate effective date".

**Revision of a Participating Area:**

Upon completion of an extension well, the unit operator has the primary duty to the BLM, Commissioner of Public Lands and Oil Conservation Division of New Mexico (the "agencies") of determining that the well is capable of production in paying quantities. When questionable, such a determination may be delayed while the operator produces the well to obtain production history which will be used to make the "paying well" determination.

### **Effective Date of Revision of PA:**

A revision of a PA is effective the first day of the month in which the knowledge or information for making the revision is obtained. For many of the units in the San Juan Basin, the effective date usually has been deferred until the first of the month following the completion date of the well. However, a more appropriate date can be provided by the operator and approved by the agencies if justified. Such is the case in the Huerfano Unit which uses *a different effective date*. There is no retroactive adjustment of production obtained prior to the effective date of a revision. The same effective date must be used by all parties to the Agreements.

### **Allocation of Production:**

The Unit Agreement (including that used in the Huerfano Unit) specifically adopts the allocation procedures detailed in the Unit Operating Agreement (ie. Unit Accounting Agreement) by providing "and there shall be a financial adjustment between the parties who financed the well and the working interest owners in the participating area concerning their respective drilling and other investment cost, all as provided in the unit accounting agreement." See Section 12 of Huerfano Unit Agreement at page 11.

### **Calculation of Interest Percentage:**

Royalty interests and working interests are **always** calculated based upon their relative share of production attributed to the **same** surface area **at the same point in time**. For example, Section 22 of the Huerfano Unit Agreement illustrates that royalties have to "follow" the working interest in order to correctly pay taxes.