

**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 NOS. 11601, 11626, 11627,  
11628, 11629, 11685, 11708, 11709,  
11815 AND 12136 (REOPENED)**

**ORDER NO. R-13375**

**APPLICATION OF CONOCOPHILLIPS COMPANY AND BURLINGTON  
RESOURCES OIL & GAS COMPANY, LP TO REOPEN CASES 11601, 11626,  
11627, 11628, 11629, 11685, 11708, 11709, 11815 AND 12136 TO AMEND THE  
DIVISION ORDERS ENTERED THEREIN TO PERMIT THE ALLOCATION  
OF PRODUCTION IN COMMINGLED WELLS BY ALTERNATIVE METHODS  
APPROVED BY THE DIVISION PRIOR TO COMMINGLING, RIO ARRIBA  
AND SAN JUAN COUNTIES, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

These cases came on for hearing at 8:15 a.m. on October 14, 2010 at Santa Fe, New Mexico, before Examiner Terry Warnell.

NOW, on this 23<sup>rd</sup> day of March, 2011, 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 these cases and of the subject matter.

(2) The applicants, ConocoPhillips Company and Burlington Resources Oil & Gas Company, LP ("ConocoPhillips/Burlington"), seek the amendment of Oil Conservation Division orders that establish a downhole commingling "reference case" for certain voluntary units which ConocoPhillips/Burlington operate in Rio Arriba and San Juan Counties, New Mexico, to permit the allocation of downhole commingled production in wellbores by alternative methods approved by the Division (August 4, 2010) prior to commingling.

(3) Devon Energy Production Company L.P. made an appearance in this case through legal counsel but they did not oppose this application and presented no testimony.

(4) Mr. Robert Westfall appeared at the hearing and, although he did not oppose the application, he testified about his concern that an alternative method of allocation in commingled wells would not allocate production fairly to his interests in certain unitized properties.

(5) ConocoPhillips/Burlington operates the following voluntary units in Rio Arriba and San Juan Counties for which "reference cases" were established by the following Division orders:

- a) San Juan Unit 32-9 Unit, Order No. R-10692 (Case No. 11601);
- b) San Juan Unit 27-5 Unit, Order No. R-10694 (Case No. 11626);
- c) San Juan Unit 28-5 Unit, Order No. R-10695 (Case No. 11627);
- d) San Juan Unit 28-6 Unit, Order No. R-10696 (Case No. 11628);
- e) San Juan Unit 29-7 Unit, Order No. R-10697 (Case No. 11629);
- f) San Juan Unit 29-5 Unit, Order No. R-10707 (Case No. 11708);
- g) San Juan Unit 30-5 Unit, Order No. R-10771 (Case No. 11709);
- h) Canyon Largo Unit, Order No. R-10786 (Case No. 11685);
- i) San Juan Unit 28-7, Order No. R-10476-B (Case No. 11815); and
- j) San Juan Unit 29-6, Order No. R-11187 (Case No. 12136).

These orders are hereinafter collectively referred to as the "Unit Reference Case Orders."

(6) Each of these Unit Reference Case Orders authorizes the allocation of commingled production in these units by either the subtraction or fixed allocation method.

(7) The allocation of commingled production in certain new wells by the use of a gas composition analysis has been approved by the Division but the Unit Reference Case Orders that limit allocation to the subtraction and fixed allocation methods may prevent its use.

(8) ConocoPhillips/Burlington seeks to amend the findings and order paragraphs in each of these orders to permit it to allocate production in commingled wells in these units by other methods approved by the Division prior to use.

**San Juan Unit 32-9 Unit, Order No. R-10692 (Case No. 11601)**

(9) ConocoPhillips/Burlington seeks amendment of the findings and order paragraphs of Order No. R-10692, as indicated by the italicized language, and renumbering of succeeding paragraphs to provide as follows:

FINDINGS:

- (6) According to the evidence and testimony, Burlington seeks to: ...
- c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing *the allocation of production by the subtraction or fixed allocation method* on Form C-107-A's subsequently filed for wells within the San Juan 32-9 Unit; and
- ....
- (11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the San Juan 32-9 Unit depending on the circumstances. Some of the methods and circumstances are described as follows:
- a) the subtraction method will likely be utilized in those instances where a zone with a well established decline rate is commingled with a newly completed zone;
- b) a fixed allocation formula will be utilized in those instances where production history for both zones is available, or in those instances where newly completed zones are tested and stabilized flow rates obtained.
- (12) *These* allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore, the proposal to accept allocation formulas should be approved.
- (13) *Nothing in this order shall prevent the use of alternative methods for allocation of commingled production where the method has been or subsequently is approved by the Division prior to commingling.*

[Renumber succeeding paragraphs]

ORDER PARAGRAPH:

- (3) Upon filing of Division Form C-107-A's for wells subsequently downhole commingled within the San Juan 32-9 Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal" and support or justification for utilizing *the subtraction or fixed allocation method or formula* for allocation of production. Provided, however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.

**San Juan Unit 27-5 Unit, Order No. R-10694 (Case No. 11626)**  
**San Juan Unit 28-5 Unit, Order No. R-10695 (Case No. 11627)**

**San Juan Unit 28-6 Unit, Order No. R-10696 (Case No. 11628)**  
**San Juan Unit 29-7 Unit, Order No. R-10697 (Case No. 11629)**

(10) ConocoPhillips/Burlington seeks amendment of the findings and order paragraphs of Order Nos. R-10694, R-10695, R-10696 and R-10697, as indicated by the italicized language, and renumbering of succeeding paragraphs to provide as follows:

FINDINGS:

- (6) According to the evidence and testimony, Burlington seeks to: . . .
- c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing *the allocation of production by the subtraction or fixed allocation method on Form C-107-A's* subsequently filed for wells within the San Juan 32-9 Unit [*San Juan 28-5 Unit, San Juan 28-6 Unit, San Juan 28-7 Unit*]; and
- ....
- (11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the San Juan 32-9 Unit [*San Juan 28-5 Unit, San Juan 28-6 Unit, San Juan 28-7 Unit*] depending on the circumstances. Some of the methods and circumstances are described as follows:
- a) the subtraction method will likely be utilized in those instances involving the Basin-Fruitland Coal Gas Pool and in those instances where a well established decline rate is commingled with a newly completed zone;
- b) a fixed allocation formula will be utilized in those instances where production history for both zones is available, or in those instances where newly completed zones are tested and stabilized flow rates obtained.
- (12) *These* allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore, the proposal to accept allocation formulas should be approved.
- (13) *Nothing in this order shall prevent the use of alternative methods for allocation of commingled production where the method has been or subsequently is approved by the Division prior to commingling.*

[Renumber succeeding paragraphs]

ORDER PARAGRAPH:

- (2) Upon filing of Division Form C-107-A's for wells subsequently downhole commingled within the San Juan 32-9 Unit [*San Juan 28-5 Unit, San Juan 28-6 Unit, San Juan 28-7 Unit*] Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal," supporting data to verify the Pictured Cliffs and Dakota pressure information provided, and, support or justification for utilizing *the subtraction or fixed allocation* method or formula for allocation of production. Provided, however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.

**San Juan Unit 29-5 Unit, Order No. R-10770 (Case No. 11708)**  
**San Juan Unit 30-5 Unit, Order No. R-10771 (Case No. 11709)**

(11) ConocoPhillips/Burlington seeks amendment of the findings and order paragraphs of Order Nos. R-10770 and R-10771, as indicated by the italicized language, and renumbering of succeeding paragraphs to provide as follows:

FINDINGS:

- (6) According to the evidence and testimony, Phillips seeks to: . . .

- c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing *the allocation of production by the subtraction or fixed allocation method* on Form C-107-A's subsequently filed for wells within the San Juan 29-5 Unit [*San Juan 30-5 Unit*]; and

....

- (11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the San Juan 29-5 Unit [*San Juan 30-5 Unit*] depending on the circumstances. Some of the methods and circumstances are described as follows:

- a) in those instances where a newly completed zone is commingled with an existing producing interval with an established decline, the subtraction method *may* be utilized for a period of +/- 12 months. Subsequent to this time, and assuming that the production rate has stabilized, a fixed allocation *may* be determined and utilized; and,
- b) in those instances where a well is newly drilled, the lower zone *may* be production tested for a period of two to four weeks or until a stabilized rate is obtained. Subsequent to that time, a stabilized rate from both comingled zones within the well *may* be obtained. A fixed allocation of production *may* then be determined utilizing the data obtained from the flow tests. The

subtraction method will likely be utilized in those instances involving the Basin-Fruitland Coal Gas Pool and in those instances where a well established decline rate is commingled with a newly completed zone;

- (12) *These allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore, the proposal to accept allocation formulas should be approved.*
- (13) *Nothing in this order shall prevent the use of alternative methods for allocation of commingled production where the method has been or subsequently is approved by the Division prior to commingling.*

[Renumber succeeding paragraphs]

ORDER PARAGRAPH:

- (2) Upon filing of Division Form C-107-A's for wells subsequently downhole commingled within the San Juan 32-9 Unit [San Juan 28-5 Unit, San Juan 28-6 Unit, San Juan 28-7 Unit] Area, the applicant shall not be required to submit supporting data to justify the classification of the Pictured Cliffs and Dakota formations as "marginal," supporting data to verify the Pictured Cliffs and Dakota pressure information provided, and, support or justification for utilizing *the subtraction or fixed allocation* method or formula for allocation of production. Provided, however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.

**Canyon Largo Unit, Order No. R-10786 (Case No. 11685);**

(12) ConocoPhillips/Burlington seeks amendment of the findings and order paragraphs of Order No. R-10786, as indicated by the italicized language, and renumbering of succeeding paragraphs to provide as follows:

FINDINGS:

- (6) According to the evidence and testimony, Burlington seeks to:
  - c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing *the allocation of production by the subtraction or fixed allocation method* on Form C-107-A's subsequently filed for wells within the Canyon Largo Unit;
- (11) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the Canyon Largo Unit depending

on the circumstances. Some of the methods and circumstances are described as follows:

- a) the subtraction method will likely be utilized in those instances involving the Basin-Fruitland Coal Gas Pool and in those instances where a well established decline rate is commingled with a newly completed zone;
  - b) a fixed allocation formula will be utilized in those instances where production history for both zones is available, or in those instances where newly completed zones are tested and stabilized flow rates obtained.
- (12) *These allocation methods proposed by the applicant are routinely utilized by industry and approved by the Division and therefore, the proposal to accept allocation formulas should be approved.*
- (13) *Nothing in this order shall prevent the use of alternative methods for allocation of commingled production where the method has been or subsequently is approved by the Division prior to commingling.*

#### ORDER PARAGRAPH

- (3) Upon filing of Division Form C-107-A's for wells subsequently downhole commingled within the Canyon Largo Unit Area, the applicant shall not be required to submit supporting data to justify the classification of the Dakota, Measverde, Pictured Cliffs, Chacra, Gallup and Fruitland Coal formations as "marginal," supporting data to verify the Dakota, Pictured Cliffs, Chacra and Gallup pressure information provided, and support or justification for utilizing *the subtraction or fixed allocation* method or formula for allocation of production, provided however, in the event any of the data described above appearing on Form C-107-A appears to be beyond the data range provided in this case, the Division may require the submittal of additional supporting data.
- (13) ConocoPhillips/Burlington further requests that the following findings (13) and (14) of Order No. R-10786 be deleted and succeeding paragraphs be renumbered:
- (13) In addition to the above, the applicant proposed utilizing a formula by which the production allocation may be determined by utilizing the BTU content and/or API gravity of the commingled stream.
- (14) The proposed formula described in Finding No. 13 above should be used only to verify the results of production allocation derived by the methods described in Finding No. 11 above.

**San Juan Unit 28-7, Order No. R-10476-B (Case No. 11815)**

(14) ConocoPhillips/Burlington seeks amendment of the findings and order paragraphs of Order No. R-10476-B, as indicated by the italicized language, and renumbering of succeeding paragraphs to provide as follows:

FINDINGS

- (8) In accordance with its evidence and testimony presented at the time of the hearing, Conoco seeks to establish a "reference" case for:
  - (b) **Allocation formulas:** whereby the Division utilizes data presented in the immediate case to endorse or approve that each interest owner shall receive its fair and equitable share of production by use of the subtraction method or the fixed percentage method of allocation and whereby the applicant need not submit additional data or justification when proposing these methods of allocation production on Form C-107-A's subsequently filed for wells in the San Juan "28-7" Unit.
- (20) In support of its request for approval of various allocation methods for this unit, applicant submitted at hearing proposed formulas for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formulas which included:
  - (a) utilizing a fixed allocation formula in those instances where a newly drilled well involves any zones other than the Fruitland Coal Gas Pool; and,
  - (b) justifying the fixed allocation formula as fair, accurate and reasonable because normalized production data from all wells in each pool in the San Juan "28-7" Unit demonstrates that production from all formations and pools declines at virtually the same rate and therefore a fixed percentage can be established which will continue to be accurate and reliable for the producing life of the well.
- (12) The proposed allocation method is routinely utilized by the industry and approved by the Division and therefore, the proposal to establish these allocation methods for the San Juan "28-7" should be approved.
- (13) *Nothing in this order shall prevent the use of alternative methods for allocation of commingled production where the method has been or subsequently is approved by the Division prior to commingling.*

**San Juan Unit 29-6, Order No. R-11187 (Case No. 12136).**

(15) ConocoPhillips/Burlington seeks amendment of the findings and order paragraphs of Order No. R-11187, as indicated by the italicized language, and renumbering of succeeding paragraphs to provide as follows:



FINDINGS

- (6) According to the evidence and testimony, Burlington seeks to:
  - c) establish a "reference case" whereby the Division utilizes the data presented in the immediate case to endorse or approve certain methods of allocating production whereby the applicant need not submit additional data or justification when proposing a certain method of allocating production on Form C-107-A's subsequently filed for wells within the San Juan 29-6 Unit;
- (13) The applicant testified that various allocation methods will be utilized for downhole commingled wells within the San Juan 29-6 Unit depending on the circumstances. Some of the methods and circumstances are described as follows:
  - a) in those instances where a newly completed zone is commingled with an existing producing interval with an established decline, the subtraction method *may* be utilized for a period of +/- 12 months. Subsequent to this time, and assuming that the production rate has stabilized, a fixed allocation *may* be determined and utilized; and,
  - b) in those instances where a well is newly drilled, the lower zone *may* be production tested for a period of several weeks to several months, whatever time period is necessary to establish a stabilized production rate. A production forecast may then be obtained from the lower zone based upon the stabilized production rate. The upper zone may be completed and the subtraction method may be utilized for a period of +/- 12 months. Once the production rate has stabilized, a fixed allocation may be determined and utilized.
- (14) The allocation methods proposed by applicant are routinely utilized by industry and approved by the Division and therefore, the proposal to except the allocation formulas should be approved.
- (15) *Nothing in this order shall prevent the use of alternative methods for allocation of commingled production where the method has been or subsequently is approved by the Division prior to commingling.*
- (16) The proposed amendments to each of the Unit reference Case Orders are in the interest of conservation, the prevention of waste and protection of correlative rights and should be approved.

**IT IS THEREFORE ORDERED THAT:**

- (1) The application of ConocoPhillips Company (OGRID 217817) and Burlington Resources Oil & Gas Company, LP (OGRID 14538), the applicants, for an order amending certain Oil Conservation Division orders that establish a downhole

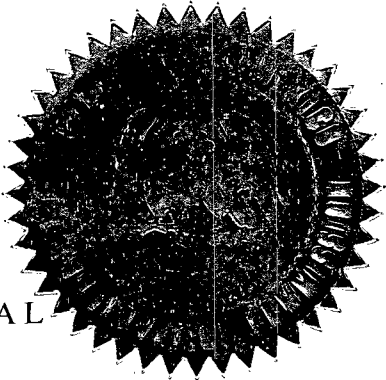
commingling "reference case" for certain voluntary units which ConocoPhillips/Burlington operate in Rio Arriba and San Juan Counties, New Mexico, limited to the Dakota and Mesaverde Formations, to permit the allocation of downhole commingled production in new wellbores by alternative methods approved by the Division prior to commingling is hereby approved.

(2) The finding and order paragraphs in each of the Unit Reference Case Orders are hereby amended as set out in Findings 9 through 15 of this order.

(3) Jurisdiction of this cause is 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.

SEAL



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
DANIEL SANCHEZ  
Acting Director.