

**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. 12520  
ORDER NO. R-11567**

**APPLICATION OF BP AMOCO FOR ESTABLISHMENT OF A DOWNHOLE  
COMMINGLING REFERENCE CASE AND PRE-APPROVAL OF DOWNHOLE  
COMMINGLING FOR FORMATIONS AND POOLS IN THE GALLEGOS  
CANYON UNIT PURSUANT TO DIVISION RULE 303.C (4) AND THE ADOPTION  
OF SPECIAL ADMINISTRATIVE RULES THEREFOR, SAN JUAN COUNTY,  
NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on October 19, 2000, December 21, 2000, and January 25, 2001, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 26<sup>th</sup> day of April, 2001, 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, BP Amoco, pursuant to the provisions of Division Rule 303.C (4) (b), seeks pre-approval of downhole commingling for all formations within the Gallegos Canyon Unit, which include the Farmington, Fruitland Sand (West Kutz-Fruitland Sand Pool, Pinon-Fruitland Sand Pool, and North Pinon-Fruitland Sand Pool), Basin-Fruitland Coal (Gas) Pool, Pictured Cliffs (Fulcher Kutz-Pictured Cliffs Pool and West Kutz-Pictured Cliffs Pool), Gallup (Totah-Gallup Oil Pool, Armenta-Gallup Oil Pool, Pinon-Gallup Oil Pool, Simpson-Gallup Oil Pool, and Cha Cha-Gallup Oil Pool), and Basin-Dakota Pool.
- (3) BP Amoco, pursuant to the provisions of Division Rule 303.C (4) (a), also seeks to establish a downhole commingling reference case to provide for modification of notification rules on a unit-wide basis for downhole commingling of gas production within existing or future wells within the Gallegos Canyon Unit in San Juan County, New Mexico.

(4) BP Amoco requested that the portion of its application which relates to the adoption of special administrative rules for the subsequent applications for approval to downhole commingle wells within the Gallegos Canyon Unit be dismissed since the rules which BP Amoco seeks are now included in Division Rule 303.C (4) (b) (iii), revised by Division Order No. R-11363, issued by the New Mexico Oil Conservation Commission in Case No. 12346 on April 26, 2000.

(5) BP Amoco is the operator of the Gallegos Canyon Unit, which currently encompasses 43,146.62 acres, more or less, of Federal, Indian allotted, State, and Fee lands in San Juan County, New Mexico, as described on Exhibit "A" attached hereto.

(6) The U. S. Bureau of Land Management, representing the largest royalty owners in the Gallegos Canyon Unit (Federal and Indian allotted), appeared on each of the hearing dates in support of this application.

(7) At the December 21, 2000 hearing, Mr. Carroll E. Crawford, a royalty owner within the confines of the Gallegos Canyon Unit area, appeared in opposition to BP Amoco's proposal. Mr. Crawford expressed concerns about the commingling procedures to be utilized by BP Amoco in the Gallegos Canyon Unit area and presented testimony to support his position. Mr. Crawford also expressed an opinion concerning certain royalty payments within this area for which BP Amoco is the responsible operator.

(8) At the January 25, 2001 hearing, BP Amoco testified about its recent conversations with Mr. Crawford, in which it explained the commingling procedures it intended to utilize in the Gallegos Canyon Unit and its efforts to clarify Mr. Crawford's problems concerning royalty payments.

(9) On January 25, 2001 BP Amoco presented to the Division a letter from Mr. Crawford dated January 24, 2001 withdrawing his exception to the applicant's commingling procedures.

(10) Within the Gallegos Canyon Unit area, BP Amoco operates one well that produces from the Farmington formation, 21 wells that produce from the Fruitland Sand interval, 65 wells that produce from the Basin-Fruitland Coal (Gas) Pool, 121 Pictures Cliffs gas producing wells, 5 Gallup oil producing wells, and 195 wells that produce from the Basin-Dakota Pool.

(11) In support of its application for pre-approval of downhole commingling of production from all producing formations within the Gallegos Canyon Unit area, BP Amoco

presented evidence and testimony which show:

- (a) the tops and bottoms of the pay sections in each of the pools/formations to be commingled;
- (b) rates of production of gas, oil, condensate, and water from the wells in each interval that is to be commingled;
- (c) that these wells produce only small volumes of fluids (oil, condensate, and water) and that these produced fluids are compatible and that the combining of these fluids will not result in damage to any of the formations to be commingled;
- (d) that commingling of these zones should not result in shut-in or flowing wellbore pressures in excess of the fracture parting pressure of any commingled zone;
- (e) that the proposed commingling should not result in the permanent loss of revenues due to cross-flow in the wellbore;
- (f) that the production allocated to any well in the Basin-Dakota Pool is classified as marginal; and
- (g) that commingling will not serve to reduce the value of the total remaining production from the Gallegos Canyon Unit.

(12) Downhole commingling of production has been pre-approved for the Basin-Dakota Pool and the West Kutz Pictured Cliffs Pool and for the Basin Fruitland Coal (Gas) Pool and the West Kutz-Pictured Cliffs Pool by Division Order No. R-11363. Downhole commingling of production has been approved in individual wells from the North Pinion-Fruitland Sand Pool and the West Kutz Pictured Cliffs Pool (Administrative Orders No. DHC-1367 and 1407) and from the Basin-Fruitland Coal Gas Pool and the Basin-Dakota Gas Pool (Administrative Order No. DHC-2790).

(13) BP Amoco representatives stated at the hearing that it had not requested in very many instances individual downhole-commingling in the past because it felt the notification requirements were too burdensome.

(14) BP Amoco recommended the following allocation methods be adopted for commingled wells within the Gallegos Canyon Unit area:

- (a) Subtraction Method -- When a new zone is opened for flow prior to rate stabilization, production from the zones with stable production rates should be forecast using the established decline rates from these zones and this production subtracted from the total well production.
- (b) Fixed Percentage Method -- When all zones have established stable production rates a fixed percentage allocation method should be used where production from each zone is calculated based its percentage of total well production.
- (c) The subtraction method of allocation should be replaced with the fixed percentage method once the production from the new zone has stabilized.

(15) The allocation of commingled production between zones in Gallegos Canyon Unit wells will be reviewed and approved by the Oil Conservation Division and Bureau of Land Management to assure accurate allocation to the interest owners in the Unit.

(16) Commingling of production from all formations in the Gallegos Canyon Unit should enable the operator to open additional zones in existing wellbores within the unit area and make current low-rate producing wells in the unit area more economically attractive thereby increasing the ultimate recovery of production from the Gallegos Canyon Unit and preventing waste.

(17) Pre-approval of downhole commingling of production from wells located in the Gallegos Canyon Unit will be in the best interest of conservation, will increase the volume of gas recovered from the unit thereby preventing waste, and will protect the correlative rights of all interest owners in the Gallegos Canyon Unit and should therefore be approved.

(18) According to its evidence, BP Amoco seeks to establish a reference case for an administrative procedure for authorizing the downhole commingling of existing and future wells in the Gallegos Canyon Unit without additional notice to each affected interest owner as is currently required by Division Rule No. 303.D.

(19) In support of its request to establish a reference case for providing notice within the Gallegos Canyon Unit the applicant presented evidence and testimony which indicates that:

- (a) the interest ownership between zones within a given wellbore in the Gallegos Canyon Unit is generally not common;
- (b) pursuant to Division Rule 303.D, the applicant is currently required to notify all interest owners within the Gallegos Canyon Unit every time an Application for Downhole Commingling (Form C-107) is submitted to the Division. There are numerous interest owners in this unit and, in this case, over 750 interest owners had to be notified by certified mail of this application;
- (c) providing notice to each interest owner within the Gallegos Canyon Unit of subsequent downhole commingling applications is unnecessary and imposes an excessive burden on the applicant; and
- (d) the downhole commingling of production in wellbores within the Gallegos Canyon Unit will benefit working, royalty, and overriding royalty interest owners and should not violate the correlative rights of any interest owner in the unit.

(20) A reference case for obtaining approval for subsequent applications for the downhole commingling of production in wellbores within the Gallegos Canyon Unit without notice to the unit interest owners should be approved.

**IT IS THEREFORE ORDERED THAT:**

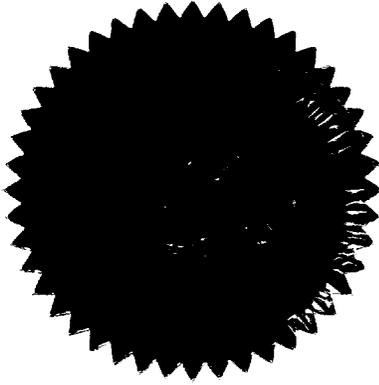
(1) The application of BP Amoco for pre-approval of downhole commingling of production for all formations in the Gallegos Canyon Unit, which include but are not necessarily limited to the Farmington, Fruitland Sand (West Kutz-Fruitland Sand Pool, Pinon-Fruitland Sand Pool, and North Pinon-Fruitland Sand Pool), Basin-Fruitland Coal (Gas) Pool, Pictured Cliffs (Fulcher Kutz-Pictured Cliffs Pool and West Kutz-Pictured Cliffs Pool), Gallup (Totah-Gallup Oil Pool, Armenta-Gallup Oil Pool, Pinon-Gallup Oil Pool, Simpson-Gallup Oil Pool, and Cha Cha-Gallup Oil Pool), and Basin-Dakota Pool, within existing and future wellbores in the Gallegos Canyon Unit, San Juan County, New Mexico is hereby approved.

(2) The application of BP Amoco to establish a reference case for modification of notice rules on a unit-wide basis for downhole commingling of gas production within existing and future wells within the Gallegos Canyon Unit, San Juan County, New Mexico, is hereby approved.

(3) In order to obtain Division authorization to downhole commingle production in wellbores within the Gallegos Canyon Unit, the applicant shall file Division Form C-103 with the Aztec Office of the Division. Such application shall contain all the information required pursuant to Division Rule 303.C (3) (b), provided however the applicant shall not be required to provide further notice to the other interest owners within the unit of such commingling.

(4) Jurisdiction of this case 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

*Lori Wrotenbery*  
LORI WROTENBERY  
Director