

**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. 14839  
ORDER NO. R-13574**

**APPLICATION OF CONOCOPHILLIPS  
COMPANY FOR DOWNHOLE  
COMMINGLING, RIO ARRIBA COUNTY,  
NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on May 24, 2012, at Santa Fe, New Mexico, before Examiner David K. Brooks.

NOW, on this 22<sup>nd</sup> day of June, 2012, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

**FINDS THAT:**

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

(2) ConocoPhillips Company ("Applicant") filed an administrative application for permission to downhole commingle production from three different formations (Mesaverde, Mancos and Dakota) in its proposed San Juan 29-5 Unit Well No. 77M (API No. 30-039-31044) ("the subject well") to be located 1905 feet from the North line and 1150 feet from the West Line (Unit E) of Section 26, Township 29 North, Range 5 West, NMPM, in Rio Arriba County, New Mexico.

(3) Madeline Joy Johnson, an owner of a royalty interest in the San Juan 29-5 Unit, ("Protestant") filed an objection to the administrative application, and the matter was accordingly set for hearing.

(4) At the hearing, Applicant presented the testimony of a landman and a petroleum engineer.

(5) Applicant's land witness testified as follows:

(a) The subject well is a new well that has not yet been drilled. It will be located within the "San Juan 29-5 Unit," a federal exploratory unit consisting of all of Township 29 North, Range 5 West, and comprising approximately 23,040 acres of land mostly owned by the United States government.

(b) Applicant proposes to complete the subject well in the Mesaverde, Mancos and Dakota formations; and is requesting permission to commingle production from the three formations.

(c) Because the San Juan 29-5 Unit is a federal exploratory unit, proceeds of production from any well located anywhere in the San Juan 29-5 Unit derived from a formation for which the United States Bureau of Land Management ("BLM") has established a "participating area" are required to be allocated among all owners of interests in any lands included in the participating area. Each owner's share of production from a formation for which a participating area has been established is based on the ratio of the number of acres in which that owner owns an interest to the total number of acres within the federal exploratory unit that are included in the BLM-approved participating area for the particular formation. Participating areas have been established for the Mesaverde and Dakota formations within the San Juan 29-5 Unit.

(d) If, however, a participating area has not been established for a formation, production from that formation is allocated among only the owners of the spacing unit or "drill block" on which the well is located. There is no existing well within the San Juan 29-5 Unit that produces from the Mancos, and no participating area has been established for the Mancos formation.

(e) Protestant owns a portion of royalties reserved in two oil and gas leases covering a total of 320 acres of privately owned land in Sections 30 and 31 of Township 29 North, Range 5 West. Since the acreage in which Protestant owns a royalty interest is within the Mesaverde Participating Area and also within the Dakota Participating Area, and the W/2 of Section 26 is also in both of those participating areas, Protestant is entitled to receive a royalty on production from the subject well attributable to the Mesaverde and Dakota formations. Although the amount Protestant will receive from production from the Mesaverde and Dakota formations is estimated to be small due to the small amount of her interest, it will be in addition to whatever royalties Protestant is now receiving on production from other wells in the respective participating areas. The estimate that Applicant furnished to Protestant of the additional income she can reasonably expect from her interest in production from the subject well was based on a projected natural gas sale price of \$2.00 per mcf, an amount within the range of natural gas prices prevailing at the time the estimate was prepared.

(f) Protestant owns no interest in the W/2 of Section 26, which will be the designated drill block for the subject well. Accordingly, Protestant is not entitled to any interest in production from the subject well attributable to the Mancos formation, for which no participating area exists.

(6) Applicant's engineering witness testified that:

(a) Applicant operates six existing wells that commingle production downhole from the Mesaverde, Mancos and Dakota formations, located in townships adjoining or close to the San Juan 29-5 Unit. Applicant has not encountered any fluid incompatibility problems in these wells.

(b) The pressure differentials between these formations are low, so that downhole commingling is unlikely to cause formation damage or loss of production from one reservoir into another.

(c) Downhole commingling of production from these three formations is a frequent practice in the San Juan Basin. The witness has identified 144 wells in the Basin for which downhole commingling of Mesaverde, Mancos and Dakota production has been approved.

(d) Mancos production in the part of the Basin where the subject well will be drilled is extremely marginal, and accordingly, drilling of a stand-alone Mancos well in this vicinity would be uneconomic.

(e) Production from the well will be allocated among the three formations for reporting and payment of royalties by use of a "spinner" test, which will be conducted prior to the start of commercial production from the subject well.

(f) A spinner is a device that can be placed in a wellbore and measure the rate at which gas is passing through it.

(g) In order to determine the amount of gas flowing from each formation, the spinner will initially be placed at the top of the Mesaverde formation, which is the uppermost of the three formations, and measurements will be taken for a prescribed time to determine the total quantity of gas flowing through the wellbore from all three formations. The spinner will then be lowered to the top of the Mancos formation to measure the combined flow from the Mancos and Dakota formations. Finally, the spinner will be lowered to the top of the Dakota, the deepest of the three formations, to measure the amount of gas flowing from the Dakota only. The flow from each of the formations separately during the time the test is run can then be calculated by subtraction, and will be used as a basis for allocation of the combined production of the well among the three formations.

(7) Protestant did not appear at the hearing or furnish the Division any evidence.

The Division concludes that:

(8) Due to the marginal economics of Mancos production in the vicinity, approval of downhole commingling of Mancos production with production from the Mesaverde and Dakota formations will prevent waste by making possible production of additional gas that would otherwise be left in the ground.

(9) The spinner method is an accepted method of allocating gas production from different formations.

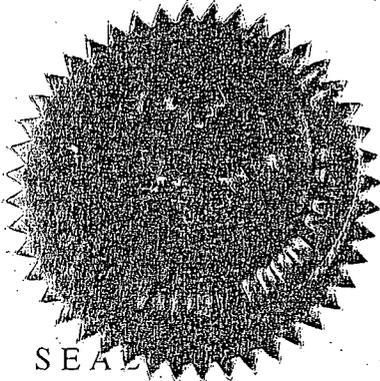
(10) There is no reason to believe that Protestant's correlative rights, or those of any other interest owner will be impaired by the proposed commingling.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of ConocoPhillips Company for permission to commingle production from the Blanco Meaverde Pool, Basin Mancos Pool and Basin Dakota Pool in its proposed San Juan 29-5 Unit Well No. 77M (API No. 30-039-31044) ("the subject well"), to be located 1905 feet from the North line and 1150 feet from the West Line (Unit E) of Section 26, Township 29 North, Range 5 West, NMPM, in Rio Arriba County, New Mexico, is hereby approved.

(2) 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.



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

JAMI BAILEY  
Director