

## COMMINGLE PRODUCTION ALLOCATION METHODOLOGY FORMULAS FOR NEWLY DRILLED WELLS

I. Fixed Allocation Formula from Isolated Zone Testing - Total production is allocated to each zone based on the initial stabilized rate from each zone.

\* Measure initial stabilized rate from lower zone at sales conditions.

\* Measure initial stabilized rate from upper zone at sales conditions.

\* Upper zone allocation = Upper zone rate/(Combined rates).

\* Lower zone allocation = Lower zone rate/(Combined rates).

\* **Example:** Lower zone rate = 325 MCFGD  
Upper zone rate = 450 MCFGD

Lower zone allocation =  $[325/(325 + 450)] * 100 = 42\%$

Upper zone allocation =  $[450/(325 + 450)] * 100 = 58\%$

II. Alternate Allocation Formula from Isolated Zone Testing - Total production is allocated to each zone based on the difference of the initial stabilized rate from upper zone vs. the initial stabilized commingle gas rate.

\* Measure initial stabilized rate from the upper zone at sales conditions.

\* Measure initial stabilized rate from both zones commingled at sales conditions.

\* Upper zone allocation = Upper zone rate/Commingled rate

\* Lower zone allocation = (Commingle rate - Upper zone rate)/Commingle rate

\* Can do in reverse (i.e. Lower zone first, then commingle with upper zone)

\* **Example:** Upper zone rate = 450 MCFGD  
Commingled rate = 775 MCFGD

Upper zone allocation =  $[450/775] * 100 = 58\%$

Lower zone allocation =  $[(775 - 450)/775] * 100 = 42\%$

BEFORE AN EXAMINER OF THE  
OIL CONSERVATION DIVISION

EXHIBIT NO. 29

CASE NO. 11815

Submitted by: Conoco Inc.

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