## SNYDER OIL CORPORATION CONHALE #2E DETERMINATION OF ALLOCATION PERCENTAGES

The "Production Method of allocation assigns monthly volumes of oil and gas to each formation which is commingled within a single wellbore. The volumes are determined by estimating the reserves for each formation using actual production histories. The oil and gas reserves for each formation are then used to establish the contribution of each formation to the total recovery from the well. The ratio between each formation will remain the same for the life of the well. The procedure is as follows:

- 1. Determine the reserves from the Dakota and Gallup formations from decline curve analysis.
- 2. Determine the ratio of gas reserves and oil reserves for each year of the life of the well.
- 3. Allocate monthly production based on the projected oil and gas ratios calculated.
- 4. Example of allocation:

Let A1 = Formation A Oil Reserves (Gallup) Let A2 = Formation A Gas Reserves (Gallup) Let B1 = Formation B Oil Reserves (Dakota) Let B2 = Formation B Gas Reserves (Dakota) Total Oil Reserves = A1 + B1 Total Gas Reserves = A2 + B2 Formation A Oil Allocation Factor = (A1/[A1+B1]) Formation A Gas Allocation Factor = (A2/[A2+B2]) Formation B Oil Allocation Factor = (B1/[A1+B1]) Formation B Gas Allocation Factor = (B2/[A2+B2])

5. Reserve Determination;

Gallup	Oil:	7461 BO	Dakota Oil:	2857 BO
Gallup	Gas:	391,696 MCF	Dakota Gas:	285,709 MCF

## 6. Allocation Percentages:

Gallup (	0il:	72%	Dakota	Oil:	28%
Gallup (	Gas:	58%	Dakota	Gas:	42%

NMOCD Examiner Hearing February 17, 1994 Application of Snyder Oil Corporation Case NO. 10908 Exhibit NO. 9