Case No. 14133 **STEVE HAYDEN'S TESTIMONY** (bold emphasis COPC)
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(3) At the hearing, the Division appeared through counsel and presented the **testimony of Steven N. Hayden, District Geologist for the Division in District Three.** Mr. Hayden testified as follows:

(a) The Mancos formation is a distinctive geologic formation that can be generally correlated throughout the San Juan Basin of Rio Arriba and San Juan Counties, New Mexico. Vertically, it lies above the Dakota formation, and beneath the Mesaverde formation.

(b) The **Mancos formation has often been incorrectly called the Gallup.** Accordingly, although the Gallup formation is not present in most of the San Juan Basin, there are several existing pools that are called "Gallup" within the area of the proposed new pool.

(c) The existing Gallup pools are governed by different spacing rules that require a variety of different unit sizes and setbacks.

(d) Spacing in the Mancos in areas not included in existing Gallup Pools is on 160-acre units, with setbacks of 660 feet from quarter-section lines. This is different from the spacing provided by special pool rules for the Mesaverde and Dakota Gas Pools, which require 320-acre units, with setbacks of 660 feet from unit boundaries and 10 feet from quarter section lines.

(e) The Mancos formation is marginally productive, such that, in most places, stand-alone Mancos wells would not be economic. However, the gas in the Mancos can be economically produced from wells that can also be completed in the Mesaverde and/or Dakota formations.

(f) **To facilitate the drilling of wells with multiple completions in these three formations,** there is a need for a new Mancos pool with pool rules establishing the **same spacing pattern** for the Mancos as is provided in existing special pool rules for the Mesaverde and Dakota.

(g) There is no reason not to provide the same spacing in the Mancos as in these other formations because a well will drain a lesser area in the Mancos than in the Mesaverde or Dakota, and the Mancos is so marginal that gas that cannot be produced from wells also completed in one or more other formations will generally not be economic to produce.

(h) **Down-hole commingling of gas production from the Mesaverde and Dakota formations is already pre-approved. Pre-approval of downhole commingling of Mancos production with these other formations will further facilitate production of Mancos gas through wells also completed in other formations.**

(i) **To protect the correlative rights of owners of producing wells, the existing Gallup pools should be expanded to include the units held by those wells, but should be contracted to exclude units not so held, without, however, impairing the contiguity of these pools.**

(j) **The Mancos formation in all other areas not included in the existing Gallup pools should be included in the new Basin-Mancos Pool.**