

GRAND JUNCTION GEOLOGICAL SOCIETY

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MARCH MEETING

WEDNESDAY, MARCH 13, 2019

Joint meeting with the CMU Geology Students

7:30 PM

Sacomanno Lecture Hall

(In the Wubben-Science Building)

**Bob Raynolds, Research Associate,
Denver Museum of Nature and Science, Denver, Colorado**

Will Speak On

“Colorado’s energy resources in a stratigraphic context”

Guests Are Always Welcome

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Colorado's energy resources in a stratigraphic context

The geology of Colorado can be considered in 8 chapters characterized by common themes of erosion, deposition, and lithofacies distribution. An analysis of these chapters from the standpoint of source rock distribution and organic material concentration allows us to characterize stratigraphic factors controlling the distribution and occurrence of oil, gas, and coal in Colorado.

As we break Colorado's stratigraphic record into a series of depositional episodes (deposodes per Galloway), it becomes evident that broad patterns of subsidence and sediment supply have controlled the distribution of source, reservoir and seal rocks through time.

The principal hydrocarbon engine is in the Cretaceous Interior Seaway with the majority of hydrocarbons that have been produced from our State being tied to this interval.

Older hydrocarbon systems are in the Ancestral Rockies basins (such as the Eagle and Paradox basins) and in the Paleozoic shelf margin strata. Some hydrocarbon systems have been breached and exist today only as stained vestiges of former reservoirs, there are examples in the Paleozoic Eagle Basin and Mesozoic Front Range strata.

This presentation will use new digital stratigraphic charts and resource compilations to illustrate regional patterns that apply to Colorado as well as to adjacent states. Recognizing genetic patterns and processes controlling facies distribution patterns encourage the use of exploration models that start with evaluation of rock volume and organic concentration leading to play prioritization.