



PBS-SEPM MARCH LUNCHEON

Tuesday, April 16th, 2024 – 11:30AM

Bush Convention Center - 105 N Main St, Midland, TX 79701

\$25 Early Bird Rate | \$35 Walk-In/Late RSVP | \$10 Student | \$5 Virtual

Register by **3PM** on **04/12**: www.pbs-sepm.org/events | info@pbs-sepm.org | (432) 279-1360



Clash of the Titans or David vs Goliath: Comparing the Woodford and Barnett Petroleum Systems of the Permian Basin

Catherine Donohue

*Vice President of Applied Geoscience
GeoMark*

ABSTRACT

For a world-class basin with extensive production history such as the Permian, it can be a surprise to find out we still have risky targets. While economic hydrocarbons have been found in both the Woodford and Barnett intervals, the full extent of their respective petroleum systems is not fully known and therefore, are still considered to be in the exploration phase. Leveraging the legacy data from the basin, we can establish a basic assessment of each interval, and modern-day explorers are continuing to add to the available data by testing deeper and narrower intervals.

This talk will review historic data as well as more recent learnings to compare and contrast the petroleum system elements of the Barnett and Woodford plays in the Permian Basin, including the Delaware, Central Basin Platform, and Midland Basins. This talk will emphasize source rock and known hydrocarbon occurrences and will also compare the Woodford and Barnett to their regional counterparts across Texas and the Mid-Continent area. Attendees will leave with a better understanding of what we already know about these two plays and what are the current questions to address in ongoing exploration and assessment programs.

BIOGRAPHY:

Catherine Donohue is currently serving as the Vice President of Applied Geoscience at GeoMark Research. In this role she develops database applications and industry research programs. Her current research is focused on maximizing hydrocarbon extraction techniques, applications of QQQ data and fluid mobility models. Catherine has worked as a geologist and geochemist for over 20 years. Prior to joining GeoMark, she worked for several operators with roles ranging from exploration to development programs. This experience includes prospect assessment and risking, exploration sampling and analytical programs, and development projects such as production allocation in both conventional and unconventional settings. Originally from Albuquerque, New Mexico, USA, she completed her B.Sc. at the University of Michigan and her M.Sc. at Rice University. Currently, Catherine is also an instructor at Rice University as part of the Professional Geoscience Master's Program.

