Abstract: Many factors affect the volumetric and flow capacity of mudrocks including (i) organic content - type, maturity, distribution (ii) mineralogic composition - ductile vs. brittle thus affecting the geomechanical properties and (iii) current day stress fields - imperative for decisions including orientation of horizontal wells and completion design. Sedimentology and Sequence Stratigraphy can provide an understanding and explain the systematic variation of the abovementioned factors.

This two-day course will use lectures, core, thin-section and well-log data to highlight critical details impacting understanding resource distribution as well as planning landing zones and completions. We will examine four public and three proprietary cores across seven formations (Wolfcamp, Eagle Ford, Mancos, Mowry, Bakken, Niobrara, and Haynesville). High-quality photographs of key features in proprietary cores will be provided as part of course material (photography will be permitted on public cores).

This is RMAG’s only core workshop this year! Don’t miss it!
Price: $450 (early bird through 8/30); $500 (after 8/30)
About the instructors:

**Prerna Singh, Ph.D.** is a Subject-matter expert in Unconventional Shale and Tight sand plays with deep understanding of key elements including organics, matrix, pore volume, fractures and stress states. She has a doctoral degree in geology focusing on facies and sequence stratigraphic studies of the Barnett Shale. She interconnects geology, rock physics and geophysical data, wherever available, to solve the subsurface puzzle and constructs a coherent picture of the critical components necessary for highest hydrocarbon recovery. Over the years she has worked with majors including Chevron, BP, Schlumberger, in projects involving Business Development, Research, Exploration and Appraisal.

She is currently teaching Geology and Geomechanics of Unconventional plays to enable the usage of these subjects as tools for application in well execution decisions including selecting optimal well placement depth, perforation depth and stage spacing. In her course, she emphasizes clarity on fundamentals e.g. organic content, mineralogy and in situ stress state and provides deeper understanding of how these parameters control for example hydraulic fracture geometry and thus well performance.

**Sven Egenhoff, Ph.D.** is a recognized expert in shale sedimentology applied to understanding unconventional reservoir deposition and diagenesis. Sven has nineteen years of experience post-doctorate working worldwide on hydrocarbon-related problems, mostly onshore Sweden, Norway, continental US (Bakken and Woodford), and Bolivia, as well as offshore UK (Kimmeridge Clay) and is a top influencer on industry’s current thinking of shale plays. He is currently a professor at Colorado State University and has trained over 400 undergraduate and graduate students in oil-related sedimentology and well-logs and has consulted or held research contracts with Hess, Marathon, and Noble Energy, among others.

**Ali Jaffri, Ph.D.** is the founder of Applied Stratigraphix LLC, and has nineteen years of experience in sedimentology and stratigraphy projects. He has worked several onshore US Basins, North Sea, Indus Basins, Barents Sea, Offshore East and West Africa, Taranaki Basin, Offshore Mid-Norway, and Former Soviet Union. He has a doctorate from Colorado State, Masters from Oklahoma State and Bachelors from University of Colorado. Equally proficient in carbonates and clastics, he has trained over 500 oil and gas professionals from thirty-four companies in ten countries.