

## **The Geochemistry of Condensates from Gas Shales**

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Gases and co-produced liquids have been sampled from six gas shale wells in an effort to understand what condensate geochemistry reveals about gas shale systems. Variability in the distribution of hydrocarbons is observed that appears to be controlled by thermal maturity. Diamondoid analysis of co-produced condensates shows the extent of oil cracking varies within gas shales and can be correlated with changes in gas chemistry. Diamondoid analyses also reveal that evaporative or migration fractionation has not significantly impacted condensate composition. Gas molecular and isotopic compositions were determined and are being integrated with condensate analytical results. Gas wetness and apparent gas maturity appear to correlate with changes in condensate composition. Applications will be discussed.