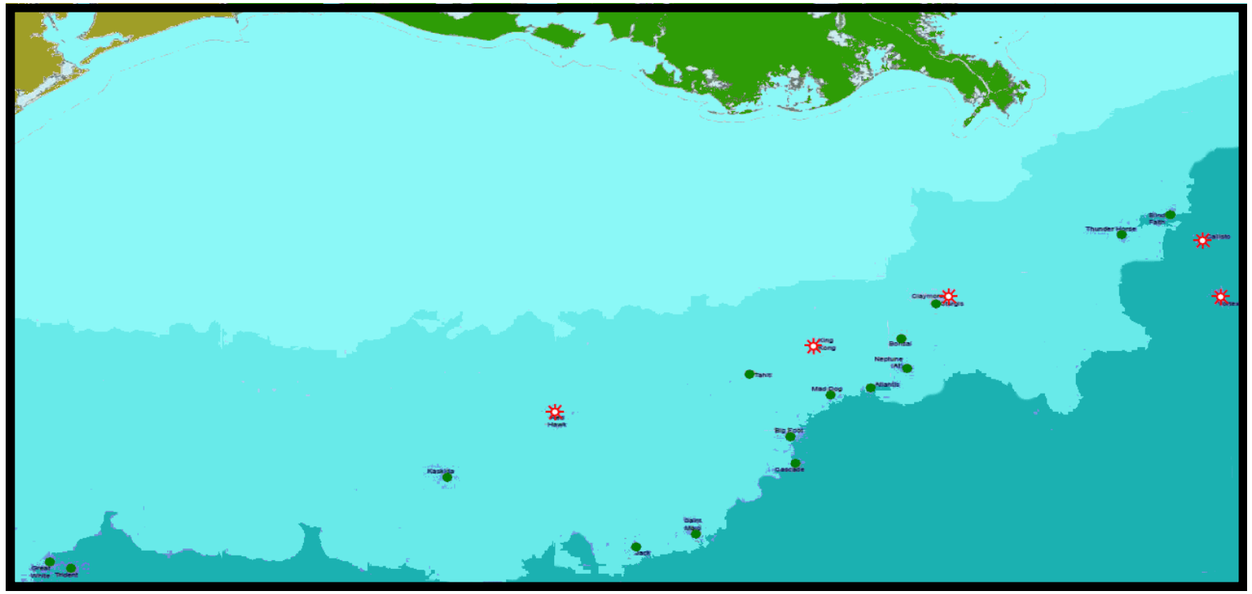
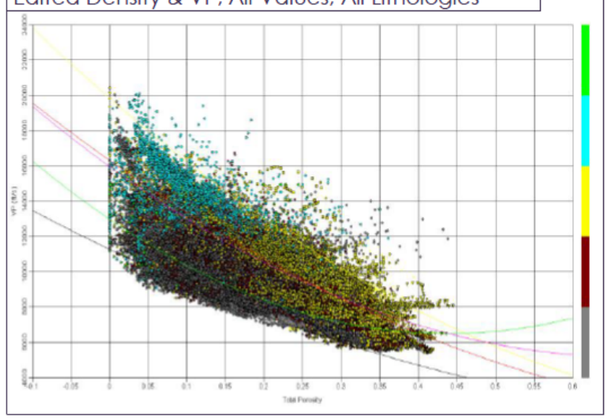
GoM Ultra Deep 20©

Seismic Petrophysical Analysis, Rock Physics Characterization, Rock Physics Modeling and AVO Analysis—20 Significant Discoveries in the Deepwater of the Gulf of Mexico

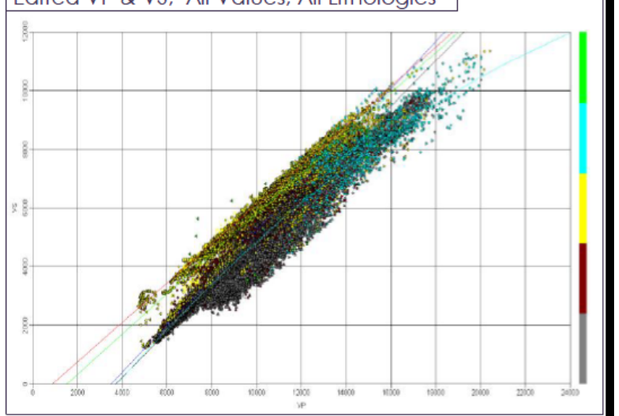


Rock Physics Characterization—Velocity, Porosity and Lithology Systematics

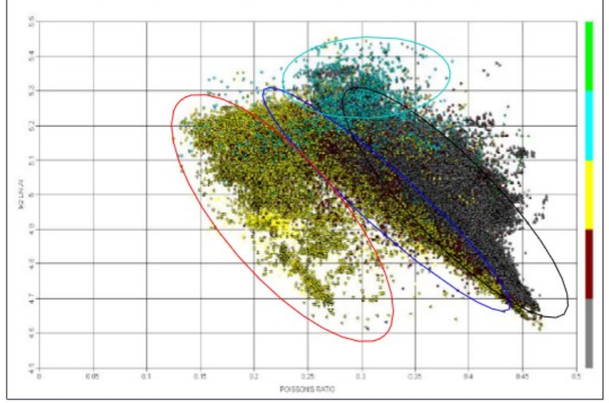
Edited Density & VP, All Values, All Lithologies



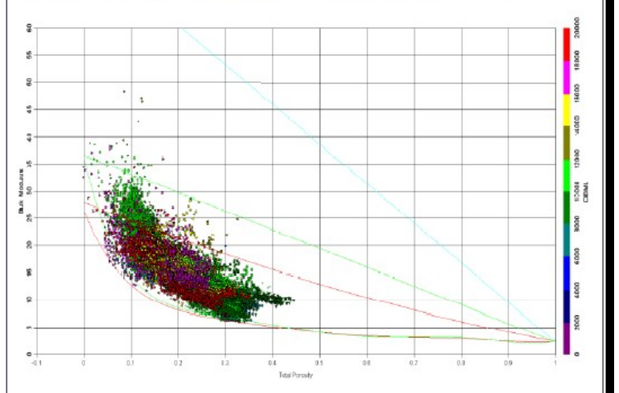
Edited VP & VS, All Values, All Lithologies



Edited Poisson's Ratio & ½ In Acoustic Impedance, All Values

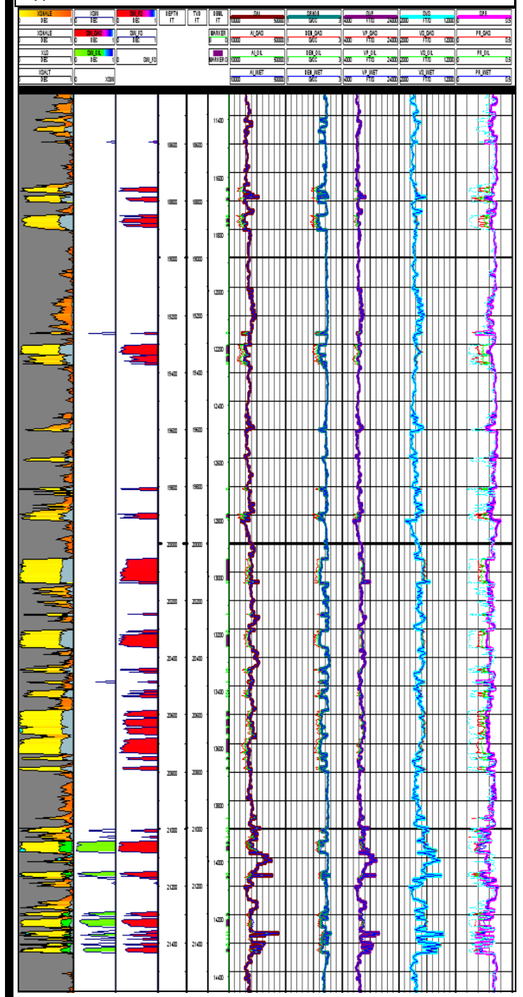


Edited Density & Bulk Modulus, All Values

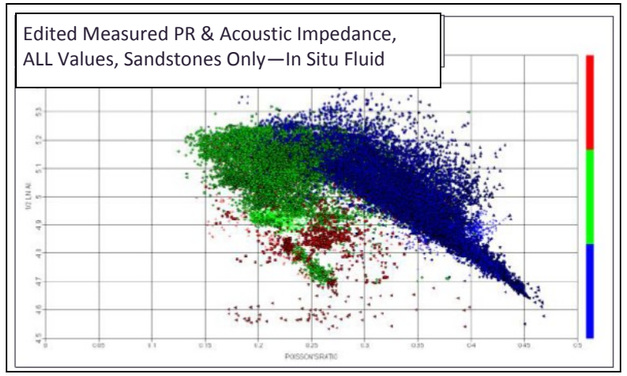


Rock Physics Modeling & AVO Response

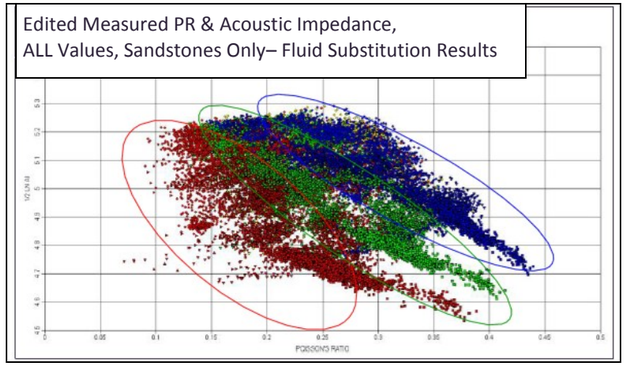
Typical Fluid Substitution Result MC 696 #1—Blind Faith



Edited Measured PR & Acoustic Impedance, ALL Values, Sandstones Only—In Situ Fluid

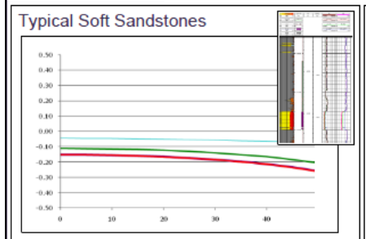


Edited Measured PR & Acoustic Impedance, ALL Values, Sandstones Only– Fluid Substitution Results

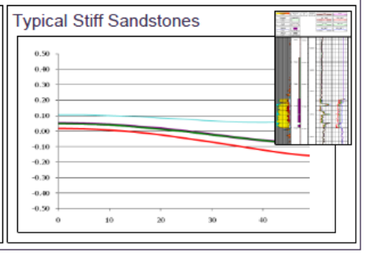


AVO Response

Typical Soft Sandstones



Typical Stiff Sandstones



Highlights

Complete Robust and Consistent Seismic Petrophysical Evaluation for Each Well

- *Lithology and Fluid Volumetrics*
- *Edited Compressional Velocity and Density Based on Rock Physics Characterization*
- *Edited and Estimated Shear Velocity for Each Well*

Fluid Substitution Completed on Each Well (Gas, Oil, and Brine)

- *LAS Files for Each Well Available for Full Offset Synthetics of In Situ as well as Fluid Substitution Cases*

Fluid Substitution Shows Sensitivity to Pore Filling Fluids, However, AVO Response Alone can be Ambiguous, as a Continuum of Responses were Observed from Class I to Class III

Pore Filling Fluids are Best Segregated in the Poisson's Ratio Acoustic Impedance Domain
Interactive Poisson's Ratio and Acoustic Impedance GUI Developed Based on Well Data Can be Used to Evaluate and Define AVO Response at Any Given Shale Sand Interface

For more information please visit out website at www.qipetrophysics.com or reach us directly at US +1.832.426.2439 or info@qipetrophysics.com

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