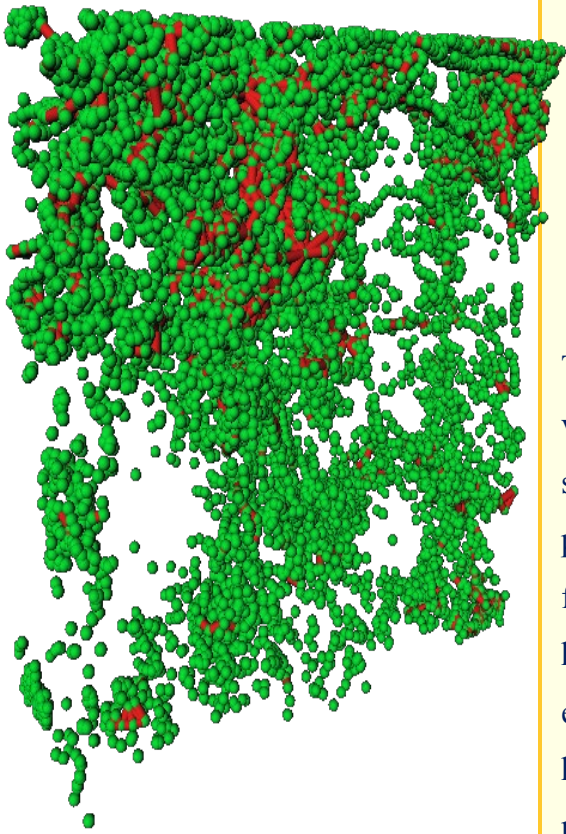




Sherifa Cudjoe

Final Doctoral Dissertation Defense Petroleum Engineering



Exam Title:

*“An Integrated Shale Oil
Characterization Workflow for
Hydrocarbon Gas Huff-n-Puff
Candidates”*

Abstract

The complexity of unconventional shales is inherent in the variation of mineral micro-structure and heterogeneous pore space, which contributes to the fast decline of primary oil production in shale oil reservoirs resulting in small recovery factors ($< 10\%$). Furthermore, the implementation of hydrocarbon gas huff-n-puff has proven to be effective for enhancing the production of liquid hydrocarbons from the horizontal wells with multistage hydraulic fracturing in shale oil reservoirs. However, accurate simulation of the huff-n-puff process for optimum recovery proves challenging. Therefore, this work employs a multi-scale characterization approach to understand the complexity of the shale medium and investigate the underlying mechanisms of the hydrocarbon gas huff-n-puff process in shale oil samples.

Committee Chair:

Reza Barati

Location

298 Slawson Hall

Date/Time

**Wednesday, May 15th
Starts at 9:00am**

