

MSRL Fall-2018 Short Course

Characterization of Mudrock Reservoirs

(Open to all current MSRL members)

Location: Houston Research Center (HRC), Bureau of Economic Geology

Address: 11611 West Little York Rd, Houston, Texas 77041

Date: 8am – 5pm, Tuesday, November 27th, 2018

Outline: This short course will describe the advances the MSRL team has made in analyzing, interpreting, and modeling unconventional mudrock reservoir systems. This is an advanced course that expands on the research findings that we have presented at annual Spring MSRL meetings and short courses. In this course the emphasis will be on integration of our research on chemostratigraphy, hydrocarbon geochemistry, and pore system characterization with facies and flow modeling as related to oil and gas production.

Who should attend: Geologists, petrophysicists, engineers, and managers will all find this course valuable.

Schedule

7:30am	Coffee and bagels provided
8:00 – 8:30am	Defining depositional facies (Stephen Ruppel) <ul style="list-style-type: none">▪ Key tools for facies analysis and challenges.
8:30 – 10:00am	Core chemostratigraphy (Toti Larson) <ul style="list-style-type: none">▪ Defining lithofacies variations at multiple scales using XRF analysis▪ Statistical correlation of XRF data to TOC, brittleness, and mineralogy
10:00 – 12:00pm	Hydrocarbon geochemistry – (Tongwei Zhang, Xun Sun) <ul style="list-style-type: none">▪ Using biomarkers and hydrocarbon fingerprinting for organic carbon characterization▪ Defining distribution of gas and oil phases
12:00 – 1:00pm	Lunch (Sandwiches and beverages provided)
1:00 – 2:30pm	Pore system characterization (Lucy Ko, Rob Reed) <ul style="list-style-type: none">▪ Correlating facies and kerogen types to pore networks
2:30 – 4:00pm	Relating rock and fluid attribute to fluid flow and production (Javadpour) <ul style="list-style-type: none">▪ Integration of Langmuir sorption, porosity, XRD, and pore and grain object models from SEM to permeability modeling▪ Implications for reservoir characterization and modeling
4:00 – 5:00pm	Discussion
5:00 pm	Adjourn