Meeting Highlights

- Permian Basin – Delaware and Midland Basin pore systems, organic matter characterization, biomarker studies, and facies architecture
- Eagle Ford and Austin Chalk basin modeling and facies architecture
- Gas, water, and oil permeabilities, liquid slip flow and wettability
- Haynesville shale gas studies

Meeting Agenda

Breakfast and Introductions 7:30 – 8:00am

Day 1: Thursday, April 13th, 8:00 AM – 2:30 PM Technical Session

VR room – Bureau of Economic Geology

Technical presentations I - Reservoir Architecture and Attributes in the Permian Basin

8:00 – 8:30 Upscaling high-resolution core-based facies to subsurface basin-scale stratigraphic models for Wolfcamp A and B, and Third Bone Spring Sand, Delaware Basin - Toti Larson

8:45 – 9:15 Comparison of Wolfcamp A and B and Third Bone Spring Sand facies from northern Reeves to Pecos Counties, Delaware Basin - Lucy Ko, Toti Larson

9:30 – 10:00 Implication of pore size distributions measured from N\textsubscript{2} adsorption on fluid saturation in Wolfcamp A and B from Eddy, Reeves, and Pecos Counties, Delaware Basin – Tongwei Zhang

10:15 – 10:45 Pore system characterization including SEM imaging and MICP measurements from laminated siltstones in the Third Bone Spring Sand, Delaware Basin – Rob Reed, Toti Larson, and James Greene

11:00 – 11:45 Applying biomarkers in organic source and depositional condition of Wolfcamp A and B, Delaware Basin – Xun Sun

11:45 – 12:00 Recap and discussion of the Delaware basin project

12:00 – 1:00pm Lunch

1:00 – 1:30 Facies characterization of Wolfcamp D along a transect from the Eastern Shelf to the Midland Basin – Toti Larson and Rob Reed

1:30 – 2:00 Thermal maturity and organic-rich net and gross thickness of the Wolfcamp D (Cline Shale) across the Midland Basin – Lucy Ko and Toti Larson

2:00 – 2:30 Organic matter source type and thermal maturity in the Spraberry Formation, Midland Basin – Tongwei Zhang
Core workshop - Permian Basin cores that include Woodford, Barnett, and Wolfcamp D intervals. Eagle Ford Group core from Dewitt County highlighting East Texas Eagle Ford Facies.

2:45 – 4:30 Core workshop - Bevo Viewing Room, BE3 PRC206
Core 1: Reliance Triple Crown (RTC), API: 42371377900000, Pecos County
Woodford and Barnett Shale (Depths 12,345’ – 12,622’ and 12,730’ – 13,100’)
Core 2: Pan Am Paul Walker #1, API: 420792002200, Cochran County
Woodford (Depths: 11,650’ -11,685’)
Core 3: Adoue 1H, API: 42335357390000, Mitchel County
Wolfcamp D (Depths 7135’ – 7423’)
Core 4: Powell EL 1, API: 42173102040000, Glasscock County
Wolfcamp D (Depths 9600’ – 9725’)
Core 5: Medina, API: 42123338730000, Dewitt County
Eagle Ford Group (Depths 12,453 – 12,694’)

Happy Hour and Posters
4:30 – 6:30pm - Stoneburner Family Rock Garden
Poster 1: Pore systems and SEM lithology of the Wolfcamp D (Cline) from the Midland Basin – Rob Reed
Poster 2: Shale wettability and implications on EOR – Sheng Peng
Poster 3: Revisiting the Haynesville Formation. Geologic controls on shale gas production
Poster 4: Pore imaging with Atomic Force Microscopy – Priyanka Periwal
Poster 5: Midland basin produced oil geochemistry – Tongwei Zhang, Xun Sun
Poster 6: New high pressure and high temperature gas adsorption system – Tongwei Zhang, Xiaoqiang Li

Day 2: Friday, April 14th, 8:00 AM – 2:30 PM Technical Session
VR room – Bureau of Economic Geology

Technical presentations II - Fluid flow and permeability in mudrock systems
8:00 – 8:30 Liquid slip flow and nanoconfinement effect on viscosity in shale – Sheng Peng
8:45 – 9:15 Liquid permeability in shale and comparison with gas permeability – Sheng Peng
9:30 – 10:15 Water and oil flow and CO2 EOR in shale – Sheng Peng
10:15 – 10:45 Revisiting the Barnett Shale in the Fort Worth Basin, Wise and Denton Co., Texas: lithofacies, porosity, and permeability variation from condensate to dry gas window – Lucy Ko and Sheng Peng

Technical presentations III – Eagle Ford and Austin Chalk Reservoir Architecture and Attributes
11:00 – 11:30  Austin Chalk – Rock facies distributions modeled from core to wireline integrations across the Maverick Basin to Webb County – Toti Larson

11:30 – 12:00  Eagle Ford Group – Dewitt County. East Texas influence on Lower Eagle Ford Group facies – Evan Sivil

12:00 – 1:00pm Lunch and Discussion

1:00 – 1:30  Organic geochemistry parameter-refined basin modeling of Eagle Ford Group, South Texas – Xun Sun

1:30 – 2:00pm  Revisiting the Haynesville Formation. Geologic controls on shale gas production – MSRL research team

2:00 – 2:30pm  Gas geochemistry and thermal maturity of the Haynesville Formation – Tongwei Zhang

2:30 – Meeting adjourns

Field Trip - Saturday, April 15th, 8am – 1pm Eagle Ford Group field trip. Outcrops in Austin, TX