ONE DAY SHORT COURSE

Jeffrey J. Dravis Ph D

Overview of the Austin Chalk in South Texas and Louisiana: Depositional Setting, Diagenesis, Porosity Evolution, and Play Development

July 11, 2019
8:00am – 5:00pm
Check-in begins at 7:30am
COST: OCGS MEMBER: $500.00
NON-MEMBER: $600.00

Oklahoma City Geological Society
10 NW 6th St
Oklahoma City, OK 73102

The OCGS doors do NOT open until 7:30am.

RESERVATIONS MUST BE SUBMITTED BY 12:00 NOON July 3, 2019

Content
The Upper Cretaceous Austin Chalk trend in south Texas and Louisiana continues its resurgence in interest. Areas like Karnes Trough in south Texas, and central Louisiana, are the hot areas of interest right now, but many companies also are exploiting established field areas like Pearsall and Giddings, and expanding into East Texas.

Geoscientists who explore in the Austin Chalk, or exploit existing Chalk field trends should possess a firm understanding of the Austin Chalk's regional depositional and diagenetic framework. This includes appreciating the influence of regional and local paleogeography, preexisting topography, and underlying structural framework.
Developing an appreciation of the various diagenetic pathways that affected Austin Chalk porosity and permeability evolution is critical as well, since fractures are only a part of the story.

I have a unique regional perspective on Austin Chalk deposition, diagenesis and porosity evolution, and play development. I conducted a regional outcrop and subsurface study as part of my dissertation at Rice University. This work included examining outcrops and quarries in central Texas (Austin and San Antonio), the road-cuts near Langtry, Texas, and road-cuts/outcrops in northern Mexico (Vallecillo area south to Monterrey). My subsurface data included cores ranging in depth from 1000 feet to over 8000 feet, and deeper well cuttings (>16,000') from Louisiana.

After finishing at Rice, first at Exxon and later as a consultant, I continued my involvement in various Austin Chalk projects and core workshops. I also examined the classical deeper-water Valhall Field chalk reservoir in the North Sea, as well as Cretaceous chalks elsewhere. I have extensive knowledge of the depositional framework and diagenetic history of older Cretaceous Sligo, Glen Rose and Edwards carbonates in south Texas. Controls on their reservoir quality explain some aspects of Austin Chalk production.

My one-day seminar on the Austin Chalk in South Texas and Louisiana is designed to share a regional perspective on this trend, focusing on its depositional and diagenetic framework, and its play attributes. The Austin Chalk in south Texas is unique because of its depositional setting and starting mixed aragonite and calcite mineralogy.

These influences produced porosity trends decidedly different from the classical, pure calcitic North Sea chalks. Further, based on observations from the underlying Glen Rose and Edwards carbonates in south Texas, fault-controlled diagenetic processes appear to explain some of the anomalously high production rates associated with Austin Chalk wells in and around the Karnes Trough, and by implication, into Louisiana.

This seminar is a power point presentation, but is accompanied by a notebook (in color) of nearly 340 of these images. The book includes an updated, detailed bibliography listed in order of date of publication. The presentation normally takes 5-6 hours to present, excluding several breaks. Each seminar is updated over the previous one.

This seminar has been presented in-house to twenty (21) companies: Cavalier Energy, Marathon Oil, Murphy Oil, Nexen Energy, Chesapeake Energy, Ensign Natural Resources, Black Mountain Oil & Gas, EnerVest Operating Company, ConocoPhillips, Apache, Torrent Oil, Blackbrush Energy, Noble Energy, Sunrise Exploration, Wildhorse Development, PetroQuest Energy, Verdun Oil, Devon Energy, EP Energy, Oakspring Energy and BPX (Denver)

Every company I have presented to say that they wished they had taken this seminar before they got involved in the Austin Chalk play. Do not miss out on this overview and new ideas that could impact your areas of interest. For more information, please contact Jeff Dravis at jdravi@rice.edu or at 713-667-9844.

SYLLABUS

INTRODUCTION
Depositional Chalks Defined
Controls on Porosity Evolution in Depositional Chalks
Classical North Sea Chalks – The Standard for Comparison
Diagenetic Chalks – What are They and How do They Relate to the Austin Chalk?

AUSTIN CHALK TREND IN TEXAS
Introduction and Paleogeography
Structural Framework
Depositional Facies
Porosity Evolution
Role of Fractures
Austin Chalk Source Rock Potential
Play Types And Case Studies
- Pearsall Field
- Giddings Field
- Karnes Trough Area: Possible Fault-Controlled Analogs From S. Texas
- Plays Related to Volcanic Activity
- Brookeland Field Area

AUSTIN CHALK TREND IN LOUISIANA
Introduction and Paleogeography
Structural Framework
Play Types and Case Studies
Contrasts With the Austin Chalk In Texas
What to Expect in Louisiana

QUESTIONS AND DISCUSSION

Bio:
Jeff Dravis is a carbonate geologist whose consulting activities primarily focus on aiding in the discovery of oil and gas deposits, or enhancing their development once they are found. He also conducts applied carbonate training seminars for industry every year.

Jeff received his Bachelor of Science degree in Geology from St. Mary's University in San Antonio, Texas. He received a Master of Science degree in Marine Geology from the University of Miami's Rosenstiel School of Marine and Atmospheric Sciences. His thesis was entitled "Holocene Sedimentary Environments on Eleuthera Bank, Bahamas." Jeff then entered Rice University, Houston, Texas, to begin work on deep-water carbonates under the direction of Dr. James Lee Wilson.
His Ph D dissertation was entitled "Sedimentology and Diagenesis of the Upper Cretaceous Austin Chalk Formation, South Texas and Northern Mexico."

Dr. Dravis began his professional career in Houston with Exxon Production Research Company. There, he conducted applied research on carbonate facies, diagenesis and porosity evolution, but also headed up Exxon's worldwide training efforts in carbonates.

In 1986, Jeff started his own consulting practice in Houston. First, he founded Dravis Interests, Inc. to provide technical expertise and training in applied carbonate petroleum geology to the oil and gas industry. Then Dravis Geological Services was created to handle all technical consulting projects. Jeff has been involved in 188 technical projects worldwide, working sequences ranging in age from Cambrian to upper Tertiary. He has presented over
285 in-house and field seminars to industry, both on a public and private basis, including over
70 seminars to Caicos Platform in the southeastern Bahamas. His clients are domestic and foreign oil companies, both majors and independents.

Jeff is an adjunct Professor of Geology at Rice University, where he teaches parts of courses, takes students into the field, and periodically serves on theses committees. Since 2016, he has taught the carbonate geology segment of the University of Houston's Professional Master's
Program in Petroleum Geology.

In November of 2018, Jeff presented a two-day seminar on carbonate plays for the Oklahoma
City Geological Society, in Oklahoma City.

PARKING ON-SITE, LIGHT BREAKFAST, SNACKS & LUNCH ARE INCLUDED.

THERE WILL BE NO ONSITE REGISTRATION.

Refunds for cancellations will be issued if reservation is cancelled by noon July 3, 2019.