

GCSSEPM

22nd Annual GCSSEPM
Foundation Bob F. Perkins
Research Conference
2002

“Sequence Stratigraphic Models for Exploration and
Production: Evolving Methodology, Emerging Models
and Application Histories”

December 8-11, 2002
Houston, Texas, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571
www.proceedings.com

ISBN: 978-1-60560-331-5

Some format issues inherent in the e-media version may also appear in this print version.

Copyright © 2002
by the
Gulf Coast Section
Society of Economic Paleontologists and Mineralogists Foundation
www.gcssepm.org

Permission requests for reprinting articles or graphics should be directed to the Executive Director of the GCSSEPM Foundation, Dr. Norman C. Rosen, at 2719 S. Southern Oaks Drive, Houston, Texas 77068-2610, 281-586-0833, or gcssepm@houston.rr.com.

This CD ROM is a single-user-only product and is not intended for multiple users on networks.

Published December 2002

GCSSEPM

22nd Annual GCSSEPM Foundation Bob F. Perkins Research Conference
2002

TABLE OF CONTENTS

Keeping Pace: Continental (Nonmarine) Sequence Stratigraphy in a High Accommodation-Sediment Supply Regime, Hornelen Basin (Devonian), Norway 1
D. Anderson

Using Sequence Hierarchy to Subdivide Miocene Reservoir Systems of the Western Atwater Foldbelt, Ultra Deep Water Gulf of Mexico..... 17
A. Apps, M. Moore, W. Woodall, D. Deplh

A Simple Methodology for Carbonate Sequence Stratigraphic and Seismic Stratigraphic Interpretation: Examples from the Lower Cretaceous Section in Offshore Alabama and Mississippi 19
M. Badali'

Allostratigraphy Versus Sequence Stratigraphy 46
J. Battacharya

Controls on Sequence Architecture in Lacustrine Basins--Insights for Sequence Stratigraphy in General 47
K. Bohacs, J. Neal, G. Grabowski Jr., R. Reynolds, C. Carroll

Sequence Stratigraphy in Fine-Grained Rocks: Beyond the Correlative Conformity 68
K. Bohacs, J. Neal, G. Grabowski Jr.

Sequences, Depositional Systems, and Synsedimentary Tectonics, Oligocene Rocks, Corpus Christi Region, South Texas: Revisiting Mature Fields with New Prospecting Tactics 95
F. Brown Jr., R. Loucks, R. Treviño

Paleoclimate and the Origin of Middle Pennsylvanian Cyclothem (Fourth-Order Sequences) of North America..... 98
C. Cecil, F. Dulong, R. West, N. Edgar

Facies and Sequence Stratigraphy of the Abo Formation in the Kingdom Field Area, Terry and Hockley Counties, West Texas 125
A. D'Agostino, J. Party

Multiple Fields within the Sequence Stratigraphic Framework of the Greater Auger Basin, Gulf of Mexico 161
M. Dean, J. Booth, B. Mitchell

Transgressive-Regressive (T-R) Sequence Stratigraphy 181
A. Embry

The Many Faces of Erosion: Theory Meets Data in Sequence Stratigraphic Analysis 203
W. Galloway, D. Sylvia

Regional Facies Relationships and Sequence Stratigraphy of a Super-Giant Reservoir (Arab-D Member), Saudi Arabia 217
C. Handford, D. Cantrell, T. Keith

Bounding-Surface Hierarchies and Related Sources of Heterogeneity in Seemingly Uniform Fluvial Sandstone Sheets..... 242
J. Holbrook, F. Oboh-Ikuenobe

Squinting Through Leaded Glass: A Public Domain View of the Alpine Play in the National Petroleum Reserve in Alaska (NPRA)	256
<i>D. Houseknecht</i>	
Sequence Stratigraphic Framework for Oil- and Gas-Prospective Brookian Turbidites, National Petroleum Reserve in Alaska (NPRA)	260
<i>D. Houseknecht, C. Schenk</i>	
Application of Sequence Stratigraphy in Production Geology and 3-D Reservoir Modeling	263
<i>J. Howell, S. Flint</i>	
Depositional Topography: Key Element of Stratigraphic Interpretation and Panacea for Log Correlation: Part 2: Concepts and Transitional Icehouse-Greenhouse Systems	275
<i>C. Kerans, S. Tinker</i>	
Sequence and Seismic Stratigraphy of the Bossier Formation (Tithonian; Uppermost Jurassic), Western East Texas Basin	277
<i>G. Klein, K. Chaivre</i>	
Sea-Level Estimates for the Latest 100 Million Years: One-Dimensional Backstripping of Onshore New Jersey Boreholes	292
<i>M. Kominz, W. Van Sickle, J. Miller, K. Browning</i>	
Sequence Stratigraphy and Eustatic Sea Level	305
<i>M. Kominz, S. Pekar</i>	
Sequence Stratigraphic Framework in a Humid Alluvial Fan Complex, Quiriquire Oil Field, Venezuela	322
<i>F. Kong, G. Jalfin, P. Lukito, I. Sarkawi</i>	
Extracting Stratigraphic Information from 3D: Exploiting the Seismic Data	353
<i>L. Liro, K. Cline</i>	
Influence of Paleotopography, Eustasy and Tectonic Subsidence: Upper Jurassic Smackover Formation, Vocation Field, Manila Sub-basin (Eastern Gulf Coastal Plain)	362
<i>J. Llinás</i>	
Transgressive-Regressive Cycles: Application to Petroleum Exploration for Hydrocarbons Associated with Cretaceous Shelf Carbonates and Coastal and Fluvial-Deltaic Siliciclastics, Northeastern Gulf of Mexico	381
<i>E. Mancini, T. Puckett</i>	
Amplitude Anomalies in a Sequence Stratigraphic Framework: Exploration Successes and Pitfalls in a Subgorge Play, Sacramento Basin, California	408
<i>J. May, M. Przywara, T. Mazza, R. Clark, J. Dlouhy, R. Hettenhausen</i>	
Genetic Stratigraphy, Stratigraphic Architecture, and Reservoir Stacking Patterns of the Upper Miocene—Lower Pliocene Greater Mars-Ursa Intraslope Basin, Mississippi Canyon, Gulf of Mexico	428
<i>L. Meckel III, G. Ugueto, H. Lynch, E. Cumming, B. Hewett, E. Bocage, C. Winker, B. O'Neill</i>	
ODP, Sequences, and Global Sea-Level Change: Comparison of Icehouse vs. Greenhouse Eustatic Changes	463
<i>K. Miller, J. Browning, J. Wright, G. Mountain, J. Hernández, R. Olsson, M. Feigenson, M. Kominz, W. Van Sickle, P. Sugarman</i>	
Sequence Stratigraphy: Evolution and Effects	467
<i>R. Mitchum, P. Vail, J. Sangree</i>	
Niger Delta Pleistocene Leveed-Channel Fans: Models for Offshore Reservoirs	485
<i>R. Mitchum, G. Wach</i>	

Oligocene/Miocene Depositional System, Volta Fan Fold Belt, Ghana	501
<i>K. Nibbelink, J. Huggard</i>	
Continental Shelf Sand Ridges: Genesis, Stratigraphy and Petroleum Significance	502
<i>D. Nummedal, J. Suter</i>	
Predictable Variations in the Marine Stratigraphic Record of the Northern and Southern Hemispheres and Reservoir Potential	518
<i>M. Perlmutter, R. Plotnick</i>	
Examples of Fluvial Stratigraphy in the Wilcox Group, Louisiana as Revealed by High Resolution 3D Seismic Data	544
<i>J. Phelps, J. Jee, M. Fogarty, R. Phelps</i>	
Sequence Stratigraphy Past, Present and Future; and the Role of 3-D Seismic Data	557
<i>H. Posamentier</i>	
Cyclic Attributes on Seismic Data and Sequence Stratigraphy--New Criteria for Exploration, New Interpretation Styles	575
<i>B. Radovich</i>	
Stratigraphic Architecture and Fundamental Sedimentology of Two Late Pleistocene Deltas: Gulf of Mexico and Indonesia	605
<i>H. Roberts, J. Sydow, R. Fillon, B. Kohl</i>	
Exploration Play Analysis from a Sequence Stratigraphic Perspective	618
<i>J. Snedden, J. Sarg, Y. Ying</i>	
Clinoforms, Clinoform Trajectories and Deepwater Sands	637
<i>R. Steel, T. Olsen</i>	
Depositional Topography: Key Element of Stratigraphic Interpretation and Panacea for Log Correlation: Part 1: Concepts and Transitional Icehouse-Greenhouse Systems	651
<i>S. Tinker, C. Kerans</i>	
Concepts of Depositional Sequences	653
<i>P. Vail, R. Mitchum, J. Sangree</i>	
Allocyclic and Autocyclic Processes as Primary Controls on the Stratal Architecture and Sedimentological Expression of Depositional Systems from the Bolivian Sub-Andean Foreland Basin	667
<i>J. Wagner, J. Bhattacharya, K. Soegaard, R. Moiola, J. Coleman</i>	
The Sequence Stratigraphy of the East China Sea: Where are the Incised Valleys?	668
<i>J. Warren, L. Bartek III</i>	
Oil Exploration Under the Catastrophist Paradigm	678
<i>J. Wilson, M. Holbrook, J. Jones</i>	
Sequence Stratigraphic Framework for Prediction of Shallow Water Flow in the Greater Mars-Ursa Area, Mississippi Canyon Area, Gulf of Mexico Continental Slope	688
<i>C. Winker, R. Shipp</i>	
Ages of Maximum Flooding Surfaces and Revisions of Sequence Boundaries and Their Ages, Cenozoic to Triassic	690
<i>W. Wornardt Jr.</i>	
High-Frequency Sequence Stratigraphy from Seismic Sedimentology: A Miocene Gulf Coast Example	711
<i>H. Zeng, T. Hentz</i>	

Author Index