

GeoGulf Transactions

Gulf Coast Association of Geological Societies

(A Section of the American Association of Petroleum Geologists)

and the

Gulf Coast Section of the Society of Economic Paleontologists and Mineralogists

(A Section of SEPM, The Society for Sedimentary Geology)



Volume LXXI 2021

Editor

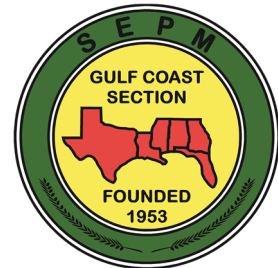
James J. Willis

Co-Editor

Norman C. Rosen

Associate Editors

Jill C. Willis and Kate Kipper



Prepared for the

71st Annual Convention of the
Gulf Coast Association of Geological Societies
American Association of Petroleum Geologists Sectional Meeting

and the

68th Annual Meeting of the
Gulf Coast Section of the
Society of Economic Paleontologists and Mineralogists

in

Austin, Texas
October 27-29, 2021

Hosted by the Austin Geological Society

COPYRIGHT

Copyright © 2021 by the Gulf Coast Association of Geological Societies.

Special Fair Use Permission

If you want to use a single figure, a brief paragraph, or a single table from the *GEOGULF* (GCAGS) *Transactions* in a paper in another publication, GCAGS considers this to be fair usage, and you need no formal permission. In that case, you should print a copy of this document and present it to your publisher. You are, however, required to provide proper citation (see Condition of Grant of Permission below). Permission for more extensive reproduction of GCAGS material can be requested from the Executive Director at gcags.mail@gmail.com.

Condition of Grant of Permission

As a condition of the grant of permission contained under the **single use only or multiple item usage**, GCAGS requires: (1) a full citation in your bibliography for each GCAGS publication from which a table or figure or text is taken; and (2) a statement or citation in figure and title captions, including (a) the author name(s) and year of original publication, followed by (b) a phrase “reprinted by permission of GCAGS” or “courtesy of GCAGS.”

TECHNICAL REVIEW

The Editorial team is responsible for maintaining the high standards of the *Transactions*. All papers in this volume have been reviewed for grammar, style, and technical content (including quality of illustrations) by the Editor, Co-Editor, and with limited exception at least two reviewers. After review and edit, any papers judged unsuitable for publication were rejected for full publication in the *Transactions*—any corresponding abstract, however, having being already accepted by the Program Committee, was published with appropriate edit. It should be noted, however, that publication as “abstract only” does not signify that a paper was rejected—for various reasons, many abstracts accepted for presentation were not submitted later as an Extended Abstract or Technical Paper.

CREDITS

Transactions layout and digital production by:

James and Jill Willis



Front Cover Credits:

Draft open-file geologic map of the Grit Quadrangle, Texas, from the paper herein entitled “Integrating Digital and Traditional Field Methods into Geologic Mapping: An Example from Central Texas,” by Brian B. Hunt, Jeffrey G. Paine, C. M. Woodruff, Jr., and Mark A. Helper.

DEDICATION

ROBERT G. LOUCKS



The annual dedication of the *Gulf Coast Association of Geological Societies Transactions* gives us the opportunity to acknowledge an outstanding Gulf Coast geologist who has dedicated their career to the betterment of the field. Thus, we, the members and officers of the Austin Geological Society and the Gulf Coast Association of Geological Societies, are very pleased to dedicate the 2021 *GCAGS Transactions* volume to Robert G. Loucks, in recognition of his exceptional contributions to carbonate geology and the Gulf Coast geological community.

A northeasterner by origin, Bob hails from Syracuse, New York. He received his B.A. degree from the State University of New York at Binghamton in 1967, then moved to Midland, Texas, in 1968 to begin his career as a petroleum geologist with Texaco.

After four years, he moved to Austin, Texas, to begin his Ph.D. at the University of Texas at Austin. There, he was advised by Don G. Bebout, a titan in Gulf Coast carbonate geology. Bob finished his dissertation, titled “Pearsall Formation, Lower Cretaceous, South Texas—Depositional facies and carbonate diagenesis and their relationship to porosity,” in 1976. Thereafter, he served as a Research Scientist at UT Austin’s Bureau of Economic Geology, working closely with his former advisor and other researchers on topics such as carbonate deposition and diagenesis, as well as assisting with a geothermal project drilling the world’s first geopressured geothermal test well.

In 1980, he left the Bureau of Economic Geology for greener pastures, starting at Mobil Research Lab as a research geologist, then migrating to Cities Service Research Lab where he was a senior research geologist and stratigraphy research group manager. Finally, he landed at ARCO in 1983, where he spent the remainder of his industry career. While at ARCO, Bob worked as a research advisor in multiple research groups and served terms as both the director of the Basin Evaluation Group (1987–1988) and the director of the Carbonate Depositional Systems and Diagenesis Analysis Group (1988–1990). During his tenure at ARCO, Bob continued to lead the way with research in carbonate stratigraphy, sedimentology, and diagenesis; he also excelled with work in sandstone stratigraphy and diagenesis.

Eventually, Bob realized that the grass really is greener on the other side, and returned in 2000 to the Bureau of Economic Geology, where he has been ever since. He splits his time between the Reservoir Characterization Research Laboratory and the State of Texas Advanced Resource Recovery Group, both of which are greatly improved by his work; he has also served as the Principle Investigator of both groups. Despite being kept constantly busy, Bob has become a publishing machine, authoring and contributing to over 200 papers over the course of his career. He is acclaimed for his research across not just one, but several geologic subdisciplines, including mudrock geology, pore characterization, karst processes and paleocaves, carbonate diagenesis, and of course carbonate sedimentology and stratigraphy. To date, his work has been cited over 12,500 times, with that recognition increasing each year due to his excellent work and ever-increasing number of publications.

Bob has been a significant contributor to GCAGS publications, authoring twelve and contributing to another nine *GCAGS Journal* articles since the *Journal*’s inception in 2012. He has also authored fifteen and contributed to another fourteen *GCAGS Transactions* papers, and has authored or contributed to nearly 50 additional abstracts published in *GCAGS Transactions*. That work has not gone unnoticed, and he has received the *GCAGS Journal* Best Paper Award three times. He has also received the A. I. Levorsen award for best paper of the Gulf Coast Section. Outside of GCAGS, Bob has received another A. I. Levorsen Award for best paper of the South-

west Section and the Wallace E. Pratt Award for best *AAPG Bulletin* paper once, in addition to been awarded the AAPG Bob Berg Outstanding Research Award and the Karst Water Institute Research Award.

Bob's thirst for the betterment of the field of sedimentary geology extends into his service record, where he has a long history of leadership and advisory contributions. In 2005, he served as the President of the Gulf Coast Section of the Society of Economic Paleontologists and Mineralogists; he also has an extensive track record of additional service with SEPM on their research and steering committees. He served as an AAPG Associate Editor in 1998, 2002, and from 2007–2011, a thankless job that most don't try more than once! He has also organized and chaired dozens of sessions at geologic conferences, including GCAGS (now GeoGulf), AAPG, and GCSSEPM (Bob F. Perkins Research Conference). This history extends back over 40 years, with one of his first contributions being his work as Editor of the 1981 *GCAGS Transactions*.

Beyond his impressive publication and service record, Bob has served as a mentor and advisor to dozens of students throughout his career, many of whom are still practicing geologists in industry today. He has always had a reputation for "an intense interest in anything sedimentary" and has always readily imparted his knowledge to others. He is particularly well-known for always being ready for a "vigorous discussion" about hot topics in carbonate and mudrock geology. Even as he continues his exhaustive investigations—these days, they're centered around characterization of the Austin Chalk across the Gulf Coast—he always takes the time to help other researchers with their work. There is no doubt that Bob has been surpassingly instrumental in "raising" the next generation of geologists, as well as in bettering those already in the field.

There is one thing more important to Bob than rocks: his family. Bob met his wife, Deborah, through a friend at the Bureau of Economic Geology; they recently celebrated 42 wonderful years of marriage. He is father to three beautiful daughters, Laura, Sarah, and Hayley. He is also a grandfather to four young grandchildren, Rowen (age 4), Sutton (2), Knox (5), and June (3), who keep him young but perpetually tired! When not at work, Bob can always be found with his family—either relaxing at home, or adventuring with them up in the mountains of New Mexico and Colorado.

Although Bob would argue that he still has thousands of things to investigate and that he hasn't even come close to reaching the peak of his career yet, we feel that he has done more than enough to merit recognition of his work. Thus, it is with great enthusiasm and pleasure that we dedicate this volume of the *GCAGS Transactions* to Robert G. Loucks, in hopes that the true extent of his contributions to the field of sedimentary geology are recognized—and now immortalized.

Kelly E. Hattori
Bureau of Economic Geology

IN MEMORIAM

This year, GCAGS would like to honor the many victims worldwide, and in the U.S. Gulf Coast region, of the Covid-19 pandemic. As of this writing, there have been over 232 million cases reported worldwide, with almost 4.8 million deaths. The death toll in the U.S. has exceeded 688,000 and continues to grow. The Gulf Coast region has not been immune. For example, Texas trails only California with the most deaths of any U.S. state with over 64,000. A significant number of Gulf region geoscientists and engineers have been impacted by the pandemic, many of the Covid-related deaths are senior knowledge holders and mentors who will be sorely missed. In addition, a significant number of other Coast professionals and academics survived after having Covid-19 symptoms, in many cases severe and life threatening. Their lives and those around them were significantly disrupted and, in some cases, still are. Those we have lost over the past couple years will not be forgotten and we mourn their loss.

Emery Goodman
on behalf of the GeoGulf 2021 Committee

2021 GCSSEPM DORIS MALKIN CURTIS MEDAL

JOHN SNEDDEN



The Gulf Coast section of SEPM's Doris Malkin Curtis Medal recognizes geologists for their career contributions to the development of new concepts for understanding the geology of the Gulf of Mexico Basin and other basins globally. The award is named in honor of Doris Malkin Curtis, one of the pioneers of Gulf Coast paleontology and stratigraphy. This year's Doris Malkin Curtis medalist is John Snedden. GCSSEPM is recognizing John for his contributions to the understanding of the depositional systems and extensive petroleum systems in the Gulf of Mexico Basin. John is the Director of the Gulf Basin Depositional Synthesis Project (GBDS) in the Institute for Geophysics at The University of Texas at Austin. In 2019, John and GBDS-founder Bill Galloway published "The Gulf of Mexico Sedimentary Basin"—a landmark volume that encapsulated decades of work by John, Bill, their students, and their colleagues at UT Austin.

John's close ties to Gulf of Mexico geology go back to his undergraduate work at Trinity University in San Antonio and his Master's degree at Texas A&M University working on lignite deposits of South Texas. John took a break from the academic life to work for Mobil Oil for 4 years in Houston where he worked on production in Texas and New Mexico and did a stint of fieldwork in Arizona.

In 1983, John took a leave of absence from Mobil to return to academia. He did his Ph.D. research at LSU working with Dag Nummedal on modern shelf sediments of the Texas coast. This work led to influential papers on the storm and fair weather transport of sand across the shelf. In the 1980s, the formation of shelf sandbodies as reservoirs was a topic of much interest and controversy in sedimentary geology. John's work on the modern Texas coast landed him right in the middle of this question. He continued to contribute to the understanding of shelf sandbodies with work on the New Jersey shelf and the publication of several more papers after re-joining Mobil.

Mobil got John out of the Gulf Coast with a job in Stavanger, Norway, where he worked on deltaic and shallow marine reservoirs in the North Sea and Nigeria. In 2000, he returned to Houston just in time for the Exxon-Mobil merger. Many of Mobil's stratigraphers had retired or left ExxonMobil at the time of the merger. John stayed and prospered. He was the skill area coordinator for stratigraphy, a job not for the faint hearted given the outsized personalities of many Exxon stratigraphers at the time. I got to know John when we were working on a new, multi-disciplinary reservoir connectivity project at ExxonMobil Research. John's leadership and technical expertise were critical to the success of this project that not only led to several papers and patents, but more importantly to valuable new reserves found in and around existing fields. The success of reservoir connectivity analysis led to it moving out of the research lab and into the business units. John moved to Germany to open a new chapter in his career by working on unconventional resources.

Ten years ago, John made a major career change by retiring from ExxonMobil after returning from Germany and taking over the Directorship of GBDS. Bill Galloway founded this program in the 1980s, working primarily with well logs and biostratigraphy to reconstruct the depositional history of the Gulf of Mexico Basin. John very successfully built on this foundation by adding seismic data and expanding the project into Mexico just as Mexico was opening up their oil industry to outside investment. His research interests since joining UT have not been restricted to petroleum geology. He has, for example, published on the Chicxulub impact and associated deposits of the KT boundary. The longevity of this consortium is a testimony to John and

Bill's contribution to Gulf Coast geology and their impact on both the petroleum and academic geology communities.

Having completed "Gulf of Mexico Sedimentary Basins" and a synthesis of the Gulf of Mexico Superbasin in the recent *AAPG Bulletin* Superbasins Special Issue, John is taking more time to enjoy hiking in the mountains of Colorado and escaping the hot Austin summers. Nonetheless, I am sure that he will continue to make important contributions to understanding the Gulf of Mexico.

Mike Sweet
GCSSEPM Vice-President

SPONSORS

THANK YOU to our sponsors for supporting the 2021 GeoGulf Annual Convention and Exhibition! Your support is essential for the success of this meeting and very much appreciated.

DIAMOND

Jackson School of Geosciences, University of Texas at Austin

GOLD

Chevron
Shell

Society of Applied Geoscientists and Engineers (SAGE)

SILVER

Occidental
Advanced Hydrocarbon Stratigraphy
Basin Dynamics
Daytum

BRONZE

Bureau of Economic Geology
Austin Geological Society

COPPER

American Association of Petroleum Geologists

Friend

Tito's Homemade Vodka
Bonnie Weise

CONTENTS

Copyright.....	ii
Special Fair Use Permission.....	ii
Condition of Grant of Permission.....	ii
Technical Review	ii
Credits.....	ii
Dedication.....	iii
Robert G. Loucks	iii
In Memoriam.....	v
GCSSEPM Doris Malkin Curtis Medal.....	vi
John Snedden	vi
Sponsors.....	viii
List of Technical Papers.....	xii
List of Articles Published in the <i>GCAGS Journal</i> , Volume 10 (2021)	xiv
List of Extended Abstracts	xvi
List of Abstracts.....	xvii
2021 Convention Technical Program.....	xxvi
Reports	xxxvii
GCAGS President, Mark W. Shuster	xxxvii
GCSSEPM President, Nathan D. Wilkens	xxxix
GCAGS General Chairman, Brent A. Elliott.....	xl
Technical Program Chairs, Toti Larson, Michael Sweet, Kelly Hattori, and Carlos Fonseca Rivera.....	xli
<i>Transactions</i> Editor, James J. Willis	xliii
GCAGS Honorary Membership Award.....	xliv
Linda Sternbach.....	xliv
GCSSEPM Honorary Membership Awards	xliv
James J. Willis (2020 Honoree).....	xliv
James L. Pindell (2021 Honoree)	xlvi
Dorene B. West (2021 Honoree).....	xlvi
GCSSEPM Distinguished Service Awards	xliv
Joseph Carl Fiduk (2020 Awardee).....	xlix
John R. Suter (2020 Awardee)	xlix
Justin Gosses (2021 Awardee).....	l
Muhammad Shahid Mehmood (2021 Awardee).....	li
President's Award for Outstanding Paper, <i>GCAGS Journal</i> , Vol. 9 (2020).....	lii
Alexander Owen, Ernest A. Mancini, D. Joe Benson, Berry H. Tew, Jr., and Ibrahim Çemen	lii
President's Award for Outstanding Paper, <i>GCAGS Journal</i> , Vol. 10 (2021)	liv
Peter R. Rose.....	liv
Grover E. Murray Best Published Paper Awards (2020)	lv
1st Place—Indrajit Basu, Anish Kumar, and Elizabeth Ruiz	lv

2nd Place—Christopher M. Smith and Michael P. Smith.....	Ivi
3rd Place—Adewale Amosu, Mohamed Imsalem, and Yuefeng Sun.....	Ivi
Honorable Mention (tie)—David T. King, Jr. and Lucille W. Petruny.....	Ivii
Honorable Mention (tie)—Alex P. Blizzard and Julie M. Bloxson.....	Iviii
Honorable Mention (tie)—Ana Batista, Ken McCarley, and Ezat Heydari	lix
Best Student Paper Award (tie)—Alex P. Blizzard and Julie M. Bloxson	lx
Best Student Paper Award (tie)—Ana Batista, Ken McCarley, and Ezat Heydari.....	lxi
Best Presentation Awards (2020)	Ixiii
A. I. Levorsen Memorial Award—Michael Shoemaker	Ixiii
Thomas A. Philpott Excellence of Presentation Awards	Ixiii
1st Place—David Hodgetts.....	Ixiii
2nd Place—Steve Walkinshaw	Ixiv
3rd Place—Michael Shoemaker	Ixiv
Honorable Mention—John Dribus.....	Ixv
Best Student Oral Presentation Award—Stuart Skopec, Ann Cook, Alexey Portnov, Matthew Frye, and Stephen Palmes.....	Ixv
Gordon I. Atwater Best Poster Awards (2020).....	Ixvii
1st Place—Lenora D. Perkins, Wesley Brown, and Kevin Stafford.....	Ixvii
2nd Place—Brian Lesh, Melinda Faulkner, and Julie Bloxson.....	Ixviii
3rd Place (tie)—Barbara M. Kemeh.....	Ixix
3rd Place (tie)—Md Nahidul Hasan and Paul Mann.....	Ixix
Honorable Mention—Steven F. Austin State University Department of Geology Students and Faculty: Joseph Amell, Alex P. Blizzard, Julie M. Bloxson, Wesley A. Brown, Hannah Chambers, Patrick D. Coplan, Melinda Faulkner, Merritt Ford, Andrew Henry, Ryan M. Jaska, Barbara M. Kemeh, Kaleb Kirk, Brian Lesh, Kaleb C. McClain, Lenora D. Perkins, Kevin Stafford, and Adrian Valdez	Ixix
Best Student Poster Presentation Award—Lenora D. Perkins, Wesley Brown, and Kevin Stafford	Ixxiii
Gulf Coast Section of AAPG Imperial Barrel Award (2021).....	Ixxiv
1st Place—University of Louisiana at Lafayette	Ixxiv
2nd Place—University of Houston	Ixxv
3rd Place—Steven F. Austin State University.....	Ixxv
GCAGS Faculta Research Grants (2021).....	Ixxvi
GCAGS Student Research Grants (2021)	Ixxvii
GCAGS Board of Directors and Committees	Ixxvii
Officers (2020–2021).....	Ixxviii
Executive Committee (2020–2021).....	Ixxviii
Representatives from Member Societies (2021–2022).....	Ixxviii
AAPG Advisory Council Gulf Coast Representatives (2021)	Ixxix
GCAGS Standing Committees (as of July 2021).....	Ixxix
Convention Committees and Chairmen (2021)	Ixxix
Member Society Presidents (2020–2022)	Ixxx
GCAGS Past Officers and Convention Chairmen	Ixxxi
Officers of GCAGS Member Societies (2020–2022).....	Ixxxiv
Alabama Geological Society	Ixxxiv

Contents

<i>Asociación Mexicana de Geólogos Petroleros (AMGP)</i>	lxxxiv
Austin Geological Society	lxxxv
Baton Rouge Geological Society	lxxxv
Corpus Christi Geological Society	lxxxv
East Texas Geological Society	lxxxvi
Houston Geological Society	lxxxvi
Lafayette Geological Society	lxxxvii
Mississippi Geological Society	lxxxvii
New Orleans Geological Society	lxxxviii
Shreveport Geological Society	lxxxviii
South Texas Geological Society	lxxxviii
Southeastern Geological Society	lxxxix
GCSSEPM Executive Council (2021)	xc
GCSSEPM Past Officers	xc i
GCSSEPM Foundation Trustees (2021)	xciv
Technical Papers	1
Extended Abstracts	325
Abstracts	331
Advertisers and Sponsors	A-1
List of Advertisers and Sponsors	A-2

LIST OF TECHNICAL PAPERS

Hydrogen Geological Storage Valuation Framework	3
Aura Araque-Martinez and Ning Lin	
Episodic Growth History of the West Columbia Salt Dome, Brazoria County, Texas, and its Potential Impact on Hydrocarbon Accumulation	11
L. F. Baie, T. L. Uphoff, and R. N. Blackhall	
Regional Basin Modeling and Source Rock Maturation of the Port Isabel Passive Margin Foldbelt, Northwestern Gulf of Mexico.....	23
Muhammad Nawaz Bugti and Paul Mann	
Prestack Investigation of Shallow Surface-Sourced Imaging of Seismic Data in Central-Northern Louisiana	29
D. Cimadomo, G. Kinsland, and R. Zhang	
Overpressure Sources in the Western and Central Deepwater Gulf of Mexico.....	37
S. Cornelius and P. Emmet	
Simulations of Hydrogen Storage in Sedimentary Geologic Formations	45
M. Delshad, M. Mehrabi, R. Ganjdanesh, P. Eichhubl, Y. Umurzakov, and K. Sepehrnoori	
Temporal Scales of Mass-Wasting Sediment Transport on the Mississippi River Delta Front Delineated by ²¹⁰Pb/¹³⁷Cs Geochronology	55
Jeffrey Duxbury, and Samuel Bentley	
Enhanced Resolution Seismic and New Subsurface Insights: Miocene Section, St. Mary Parish, Louisiana	63
V. Egorov, C. I. Puryear, R. Tharimela, and J. Jurasin	
Integrated Surface-Subsurface Mapping of the Balcones Fault Zone in the San Antonio Area, Texas; Upper Cretaceous Stratigraphy, Faulting, and Quaternary Terracing	69
Thomas E. Ewing	
Repurposing Legacy Seismic Reflection Data in Support of Aquifer Characterization in Texas ...	83
Thomas E. Ewing, Cody H. Draper, and Daniel M. Lupton	
High Order Stratigraphic Framework of Intraslope Growth Faulted Subbasins Offshore Matagorda Bay, Texas	101
J. Franey and T. Meckel	
Impacts of Groundwater Withdrawal Regulation on Subsidence in Harris and Galveston Counties, Texas, 1978–2020.....	109
A. Greuter, M. J. Turco, C. M. Petersen, and G. Wang	
Mechanical Stratigraphy of Bed-Bound Mode I Extension Fractures in the Eagle Ford Formation, Del Rio Area, West Texas	119
B. S. Hart	

Development of Storage of Captured CO₂ as a New Geoscience Business— Focus on the Gulf Coast	127
Susan D. Hovorka and Ramón H. Treviño	
Integrating Digital and Traditional Field Methods into Geologic Mapping: An Example from Central Texas	133
Brian B. Hunt, Jeffrey G. Paine, C. M. Woodruff, Jr., and Mark A. Helper	
Same Aquifer, but Different Source of Water: Contrasting the Middle Trinity Aquifer in Central Texas	141
Brian B. Hunt and Brian A. Smith	
Reservoir Pressure Mapping from Well-Test Data: An Eagle Ford Example	149
J. Kalinec and B. S. Hart	
The Link between Aquifer Water, Low-Rank Coal, and Kidney Disease in the Gulf Coast States	157
Jaden I. Kamen and Robert B. Finkelman	
Surface-Sourced Seismic Data to Find Shallow Bypassed Oil	165
G. L. Kinsland, D. N. Cimadoma, and R. Zhang	
Regional Productivity in the Austin Chalk with Emphasis on Fault Zone Production in the Karnes Trough Area, Texas	173
Frank Male and C. K. Zahm	
3D Interpretation, Structural Characterization, and Seismogenic Association of Faults in the Eagle Ford Region, South-Central Texas	185
C. McKeighan, P. Hennings, E. Horne, and K. Smye	
Basin Temperature Modelling Using Large Well Log and Bottom-Hole Temperature Datasets in the Haynesville Play: Texas and Louisiana	193
C. O'Reilly and I. Deighton	
A Case Study of Using Aqueous Formate Solution for Carbon Sequestration and Geological Storage	203
Oluwafemi Precious Oyenowo, Kai Sheng, Gayan A. Abeykoon, Francisco J. Argüelles-Vivas, and Ryosuke Okuno	
New View of North Texas Earthquakes	217
B. Rader	
Upper Paleocene to Lower Eocene Clay Deposits of the Red Bank Group, Northern Belize, Central America	225
Sandor Ricketts, David T. King, Jr., Nicholas R. Myers, Sr., and Daniel Larsen	
Brackish Groundwater in the Hill Country Trinity Aquifer, Texas.....	241
M. C. Robinson, A. K. Suydam, E. D. Strickland, and A. AlKurdi	
Seismic Stratigraphy Via Attribute Analysis, Brooks County, Texas	251
Robert V. Schneider	
Statistical Correlation of Rare Earth Minerals of a Salina Group	259
J. Singer, J. M. Bloxson, and R. Friedfeld	

A Volatiles Analysis Case Study Evaluating the Petroleum System, Pay Zones, Seals, Chemical Compartments, and Potential Pays Zones from a Gulf of Mexico Well in the Main Pass Field Using Legacy, Oil Based Mud, and PDC Bit Cuttings, with Tie Ins to Wireline and Seismic Data.....	265
Christopher M. Smith, Dave Mercer, Timothy M. Smith, Vincent Liaw, Patrick S. Gordon, and Michael P. Smith	
Hypogene Evaporite Karst Geohazards: Implications for Energy Sector Infrastructure in the Delaware Basin, USA.....	281
K. W. Stafford, W. A. Brown, and L. D. Perkins	
Tiber Deep (Keathley Canyon 102): New Insights into Upper Cretaceous Deepwater Plays in the Northern Gulf of Mexico, Part 1: Lithofacies and Reservoir Quality Trends.....	289
Michael L. Sweet, John W. Snedden, Marcie Purkey, and Ryan Weber	
Revised Stratigraphic Correlations, Upper Cretaceous (Lower Campanian to Middle Maastrichtian) Taylor Group, Southwestern Texas.....	299
Mark E. Thompson	
Gain/Loss Studies in the Texas Hill Country—Observations and Lessons Learned	311
J. Walker and D. Wierman	
Differential Total Gas Detection for Reservoir Characterization and Reserves Estimation	317
K. Zamfres, V. Egorov, and E. Hasanov	

ARTICLES PUBLISHED IN THE *GCAGS JOURNAL*, VOLUME 10 (2021)

This year marks the 10th volume of the *GCAGS Journal*, a formal peer-reviewed publication of select articles, several of which like *Transactions* papers, will be presented at the annual Convention. The following articles were published in the *GCAGS Journal*, v. 10 (2021). The page numbers represent those in the *Journal*. Abstracts for all are presented in this *Transactions* volume. All volumes of the *GCAGS Journal*, including this year's 10th volume, are currently available online in open-access format at www.gcags.org.

Investigation of the Corbula Bed of Central Texas as the Product of Catastrophic Tsunami Deposition.....	1
Roger Sigler, Heather Fell, Brenda L. Kirkland, and C. Van Wingerden	
Quantitative Modeling of Secondary Migration: Understanding the Origin of Natural Gas Charge of the Haynesville Formation in the Sabine Uplift Area of Louisiana and Texas.....	24
Lauri A. Burke	
Cyclicity of Carbonate Shoaling Sequences of the Lower Cretaceous Pettet Formation, Rusk County, East Texas	31
Kelly E. Hattori and Robert G. Loucks	

Stratal Architecture, Lithofacies, Environmental Setting, Depositional Processes, and Associated Geological Characteristics of the Upper Cretaceous Austin Chalk in Louisiana.....	47
Robert G. Loucks, Christopher K. Zahm, Toti E. Larson, Laura C. Zahm, and Peng Zeng	
Stratigraphic Architecture of the Shelf-to-Intrashelf Basin Transition along the Northern Margin of the Late Albian Maverick Intrashelf Basin, Lower Pecos River Canyon, Southwestern Texas	76
Jeffrey Sitgreaves and Charles Kerans	
The Wichita Paleoplain in Central Texas.....	97
Peter R. Rose	
Update on the Paleogene Water-Level Drawdown Hypothesis, Gulf of Mexico	123
Stephen P. J. Cossey, Joshua Rosenfeld, Mark Bitter, and James Pindell	

LIST OF EXTENDED ABSTRACTS

Round up the Usual Suspects: Building the Case to Define Overpressure-Generation Mechanisms in Upper Cretaceous to Tertiary Shales Overlying the Eagle Ford Play	327
B. S. Hart, J. Schieber, and J. Kalinec	

LIST OF ABSTRACTS

Characterization of Unconventional Reservoirs Using Rock Physics and Drill Cuttings	333
R. Ahmadov and F. Allo	
Evolution of Southern Appalachian Drainage and its Effect on Sedimentation in the Gulf of Mexico	335
John L. Berry	
Predicting Shear Sonic Velocity Integrating the Concepts of Time Series Clustering and Ensemble Class-Based Machine Learning.....	337
S. Bhattacharya	
Multi-Seismic Attribute and Petrophysical Studies for a Low-Temperature Geothermal Field in the Netherlands.....	339
S. Bhattacharya and S. Verma	
Integrating 3D Seismic and Petrophysics to Characterize Hydrogen Storage Capacity in the Michigan Basin Pinnacle Reef Reservoirs.....	341
S. Bhattacharya, S. A. Hosseini, and M. J. Rine	
Machine Learning Assisted 3D Seismic Interpretation of Shelf-to-Basin Geomorphology	343
S. Bhattacharya, S. Verma, and J. Rotzien	
Hiatus Mapping in Texas.....	345
N. Bjelica, L. Colli, M. E. Curry, and A. S. Madof	
Potential for REEs in Large Evaporitic Bodies: Examples from North American Phanerozoic Salt Bodies.....	347
J. M. Bloxson, B. Lesh, M. G. Faulkner, and C. Piela Cox	
Impact of the Atlantic Multidecadal Oscillation and Mississippi River Discharge Anomalies on Gulf of Mexico Sea-Level Anomalies and Land Loss Rates in the Mississippi Delta.....	349
M. Blum, B. Frederick, and D. Rahn	
Wellbore Architecture and Semi-Automatic Quality Control of Injection and Hydraulic Fracturing Information.....	351
C. Breton, M. Shensky, and A. Savvaids	
A Basin-Scale View of Carbon Storage Plays in the Northern Gulf of Mexico	353
A. P. Bump and A. Hartwig	
Integrated Crustal Characterization with Full-Lithosphere Basin Modelling as the Key to Improved Thermal Modelling in a Complex Salt Basin: Salinas Basin and Vicinity, Mexico	355
C. Burke, J. Bain, S. Mulcahy, C. O'Reilly, and D. Bate	

Quantitative Modeling of Secondary Migration: Understanding the Origin of Natural Gas Charge of the Haynesville Formation in the Sabine Uplift Area of Louisiana and Texas.....	357
Lauri A. Burke	
Advanced Acoustic Technology Expands Groundwater Science: Example from Central Texas.....	359
J. Camp, B. B. Hunt, M. O. Gary, and J. C. Yelderman	
Deposition and Diagenesis of the Blossom Sand, Panola County, Texas	361
H. C. Chambers and J. M. Bloxson	
The Impacts of Hydrogen Storage Market Growth on Houston Hub	363
Yayun Chen and Ning Lin	
Monitoring and Managing Natural Hazards Via an Earth Observation and Machine Learning Pipeline.....	365
T. Y. Chen	
Recent Rock Discoveries at Pilot Knob Volcano, Austin, Texas.....	367
A. J. Cherepon	
Palynology of the Wilcox Group and its Application in Exploration, Field Development, and Well Operations.....	369
P. Cornick, N. Campion, G. Harrington, and K. Ruckwied	
World-Class Oil Seeps in Roadcuts above the Faja de Oro Trend in Eastern Mexico.....	371
S. P. J. Cossey, F. Espinosa, C. Arrieta, and R. Sanchez	
Update on the Paleogene Water-Level Drawdown Hypothesis, Gulf of Mexico.....	373
Stephen P. J. Cossey, Joshua Rosenfeld, Mark Bitter, and James Pindell	
Advanced Structural and Stratigraphic Modeling Techniques in Shale and Tight Oil Basin Reservoir Studies	375
Robin Dommis	
Developing a Workflow to Quantify Critical Mineral Content in Fine-Grained Sediments: Case Study of the Dunkirk Shale Exposed along the Lake Erie Shoreline	377
A. S. B. Douds, D. R. Blood, and S. D. McCallum	
Assessing the Hydrogen Storage Potential of Onshore Texas Salt Structures	379
O. B. Duffy, L. Moscardelli, M. R. Hudec, and M. W. Shuster	
Diapiric Influence on Channel Evolution in Deepwater Minibasins, Gulf of Mexico	381
D. B. Dunlap, O. Duffy, N. Fernandez, M. Hudec, and J. A. Covault	
Designing AI Software with the User in Mind: Moving from Proof of Concept to Product	383
M. Dykstra and B. Lasscock	
Thoughts for the Co-Production of the Rare Earth Elements from Kaolin and Bauxite, Georgia Coastal Plain	385
W. C. Elliott, D. J. Gardner, P. Malla, and E. Riley	

Event Stratigraphy and Geochronology of a Mudflow Lobe and Gully Complex on the Mississippi River Delta Front: Offshore South Pass, Louisiana, USA	387
R. E. Escobedo, J. E. Duxbury, S. J. Bentley, and K. Xu	
The West Texas (Permian) Super Basin: Prototype and Analog	389
B. Fairhurst, T. Ewing, and B. Lindsay	
Dolomitization of the Edwards Formation in the Fort Hood Military Installation, Texas.....	391
M. S. Faulkner and H. M. Kunwer	
The birthday of the Mississippi River: Evidence from the Cretaceous McNairy Sand	393
J. N. Gifford, D. Eli, and T. Varner	
Same as it Never was: Navigating Accelerating Change with a Little Help from AAPG	395
Gretchen Gillis	
Maturing Tight Reservoir Plays in the Permian: Why Geoscience Still Matters.....	397
E. Goodman, Q. Yang, B. Casey, F. Male, and K. Smye	
Use of Class II Injection Wells to Dispose of Desalination Residual Fluids in Texas	399
R. Goswami, V. Bedekar, T. Chen, J. Fagan, C. Neville, J. M. Sharp, Jr., and J. P. Acevedo	
Hydrodynamics—Implications for Future Exploration in the Wilcox Play?.....	401
S. Green and J. Heller	
Probabilistic Identification of Seismicity Triggered by Hydraulic Fracturing in the Eagle Ford	403
I. Grigoratos and A. Savvaidis	
Using Sediment-Transport Insight for Subsurface Prediction	405
Liz Hajek	
Symbiotic Systems for Passive Seawater Mineral Extraction	407
M. N. Haji	
Highly-Resolved X-Ray Fluorescence Based Model of Unconventional Reservoirs, Midland Basin, West Texas, USA	409
H. R. Hammon and P. D. Clift	
Regional Thermal Maturity Modeling along the Campeche Salt Basin, Southern Gulf of Mexico	411
M. N. Hasan and P. Mann	
Cyclicity of Carbonate Shoaling Sequences of the Lower Cretaceous Pettet Formation, Rusk County, East Texas.....	413
Kelly E. Hattori and Robert G. Loucks	
Lithium Enrichment in Oilfield Brines.....	415
K. M. Henderson, A. E. Williams-Jones, S. Li, S. K. Sahoo, and J. E. Vindstad	
The Geology of Active Earthquake Sequences in Texas.....	417
P. H. Hennings	

Dynamic Time Warping for Well-to-Well Geological Connectivity Characterization	419
J. L. Hernandez Mejia, J. Pisel, and M. Pyrcz	
Red Sea Salt Habitat as an Analogue for Rift-Drift Transition in the Gulf of Mexico	421
T. Heyn, J. Pindell, M. J. Hoggard, A. Goswami, K. R. Reuber, and C. K. Steffensen	
Machine Learning Assisted Production History Matching while Retaining Geological Heterogeneity	423
H. Jo and M. J. Pyrcz	
Application of Machine Learning for Fast Prediction of CO₂ Plume and Pressure Buildup in Geological CO₂ Storage.....	425
S. A. Hosseini and J. S. G. Nobrega	
Gradient Self-Potential Logging in the Rio Grande to Identify Gaining and Losing Reaches across the Mesilla Valley.....	427
S. Ikard, A. Teeple, and D. Humberson	
Managed Pressure Drilling Enables Dynamic Formation Evaluation for Calibration of the Estimated Pore Pressure: A Review	429
N. Kulkarni	
Assess the Impact of Shallow Water Flows Geohazard on Drilling Operations in the Riserless Sections of Deepwater Well Construction	431
N. Kulkarni and L. R. Heinze	
Know your Sands, but Know your Mass Transport Deposits Even More: High Resolution Borehole Images Illuminate the Reality of Sands in the Deepwater Gulf of Mexico	433
A. Kumar, E. Ruiz, and J. Herrera	
Graph Neural Network for Modelling Aeromagnetic Survey Data	435
Ashutosh Kumar and Amit Priyadarshan	
High-Resolution Seismic Data Segmentation using Deep Pyramid Scene Parsing Models with Cascade.....	437
Ashutosh Kumar and Amit Priyadarshan	
Invariant Information Clustering Models for Interpreting Seismic Images without Manually Annotated Supervised Labels.....	439
Ashutosh Kumar and Amit Priyadarshan	
Waste Not, Want Not: Potential Contributions to U.S. Critical Minerals Supply from Expatriated Bauxite Residue	441
J. Richard Kyle, Tristan M. Childress, and Jeffrey G. Paine	
Upscaling Machine Learning Classification of Austin Chalk and Eagle Ford Group Chemofacies from High-Resolution X-Ray Fluorescence Core Characterization.....	443
T. E. Larson, N. Aryal, R. G. Loucks, J. E. Sivil, and L. Ko	
Monitoring Land Subsidence and Fault Deformation Using the GPS-Enhanced InSAR Technique in the Long Point Fault Area, Houston, Texas (2015–2020)	445
Y. Liu and G. Agudelo	

Analysis of the Subsurface of the Tuscaloosa Group, Southwestern Alabama, for Carbon Sequestration Purposes.....	447
N. Lopez-Rivera, A. Uddin, and D. King	
Gravity-Flow Deposits in the Upper Cretaceous Austin Chalk B Unit in South and Central Texas and their Relationship to Contemporaneous Volcanism	449
R. G. Loucks and R. M. Reed	
Stratal Architecture, Lithofacies, Environmental Setting, Depositional Processes, and Associated Geological Characteristics of the Upper Cretaceous Austin Chalk in Louisiana.....	451
Robert G. Loucks, Christopher K. Zahm, Toti E. Larson, Laura C. Zahm, and Peng Zeng	
Machine Learning to Support Geological Analog Studies.....	453
A. O. Mabadeje and M. J. Pyrcz	
Observed and Potential Land Subsidence in the Gulf Coast Aquifer of Montgomery County, Texas	455
R. E. Mace, S. Glenn, J. Ellis, G. R. Miller, W. Oliver, W. J. Seifert, J. M. Sharp, Jr., J. Tracy, and G. Wang	
Tuning Machine Learning Models for Geological Uncertainty Accuracy and Precision	457
E. Maldonado-Cruz, J. T. Foster, and M. J. Pyrcz	
Progress and Problems in our Current Understanding of the Mesozoic Opening History of the Gulf of Mexico Basin	459
P. Mann	
The Predictive Value of Basin Modeling in the Caribbean and Gulf of Mexico Area: One Confirmed Giant Cluster and Two Remaining Possibilities.....	461
P. Mann	
Opportunities and Challenges for Potential Reuse of Oil and Gas Produced Water.....	463
D. Mueller	
Testing Sediment Buffering Model Using Detrital Zircon U-Pb Dating in the Lower Mississippi River	465
N. Neubeck, P. Clift, A. Herrmann, and A. Carter	
Tectonic Preconditioning of Recurrent Large Scale Canyon Incisions: Example from the Cretaceous and Paleogene Gulf of Mexico.....	467
C. Olariu and C. A. Clayton	
Texas Gulf Shoreline Movement, Land Loss, and Beach and Dune Volumes and Peak Elevations through 2019	469
Jeffrey G. Paine, Tiffany L. Caudle, and John R. Andrews	
Feature Engineering in Well Log Interpretation	471
Wen Pan, Carlos Torres-Verdin, Michael J. Pyrcz, and Ian J. Duncan	
An Integrated Approach to Thin-Bedded Reservoir Evaluation and Modeling, Block 7, Mexico	473
J. Pasley, M. Carr, and R. Umrani	

Precambrian Basement is an Important Control on Subsidence, Heat Flow, and Maturation in the Delaware Basin	475
C. H. Petkovsek and P. Mann	
Carbon Capture and Storage Potential in the Chandeleur Sound, Offshore Louisiana	477
M. P. Phillips and R. Weber	
Post-Rift Sag/Salt Sections Result from Dynamo-Thermal Subsidence as Dynamically Elevated Magma-Rich Rifts Migrate off Plumes	479
J. Pindell, T. Heyn, K. Reuber, A. Goswami, and C. Steffensen	
Preliminary Results of Micropetrographic Investigations of Enigmatic Volcanic Ash Material in the Upper Cretaceous Austin Chalk of Central and South Texas.....	481
R. M. Reed, R. G. Loucks, and P. Periwal	
Southern Arkansas CO₂-EOR and Saline Storage Assessment	483
D. Riestenberg, W. Wallace, G. Koperna, and K. Gray	
The Wichita Paleoplain in Central Texas	485
Peter R. Rose	
Gulf Coast Geopressed Geothermal Zone—A Multi-Faceted Opportunity for Decarbonization of Industries	487
M. I. Ross	
Sequence Stratigraphic Framework in Offshore Mexico: Integration of Detailed Well and Seismic Interpretation to Support Exploration in Deep Water.....	489
E. Royce-Rogers, A. Fick, and D. Little	
Multi-Stage Jurassic Rifting in Eastern Mexico and Implications for Gulf of Mexico Opening	491
D. Ruiz-Arriaga, D. Stockli, E. Fitz-Diaz, and T. Lawton	
Quantitative Seismic Characterization of the Spraberry-Wolfcamp in the Midland Basin: Reservoir and Geomechanical Properties	493
R. Sabbagh and S. Bhattacharya	
Fault Characterization Using Convolution Neural Networks in Alaska's North Slope	495
R. Sabbagh, W. Xinming, M. W. Shuster, O. Duffy, M. Wartes, and S. Sawyer	
Machine Learning Analytics Application to an Exploration well in Northwestern Colombia, South America	497
Deborah K. Sacrey	
Near-Surface Geophysical Mapping of Williamson Creek Volcanic and Austin Chalk Outcrops in South Austin, Texas.....	499
Mustafa Saribudak	
Subsurface Structure of the Pilot Knob Submarine Volcano (Austin, Texas) Imaged Using Resistivity and Magnetic Methods	501
Mustafa Saribudak	

Subsurface Structure of the St. Elmo Submarine Volcanic Mound and its Volcanic Conduits Imaged Using Geophysical Methods, Austin, Texas	503
Mustafa Saribudak	
Electrical Resistivity Imaging near Abandoned Steel Oil Wells: Five Case Studies, USA	505
Mustafa Saribudak, D. Rucker, and A. Haas	
Integrated Near-Surface Geophysical Studies over Two Growth Faults (Willow Creek and Hockley Faults) in the NW Houston Area, Texas.....	507
Mustafa Saribudak, M. Ruder, and B. van Nieuwenhuise	
Smart Monitoring of Offshore Industrial Sites.....	509
A. Savvaidis and P. R. Streenstrup	
Hydrogen at Scale—Why Geology Matters.....	511
M. W. Shuster	
Investigation of the <i>Corbula</i> Bed of Central Texas as the Product of Catastrophic Tsunami Deposition	513
Roger Sigler, Heather Fell, Brenda L. Kirkland, and C. Van Wingerden	
Experimental Observations of SC-CO₂ Injection and Reservoir Monitoring under Representative Reservoir Conditions.....	515
A. Simone, M. Aldin, R. Patterson, W. Mickelson, S. Govindarajan, A. Thombare, D. Gokaraju, A. Mitra, and M. Al Salman	
Stratigraphic Architecture of the Shelf-to-Intrashelf Basin Transition along the Northern Margin of the Late Albian Maverick Intrashelf Basin, Lower Pecos River Canyon, Southwestern Texas	517
Jeffrey Sitgreaves and Charles Kerans	
Reconstructing the Zama (Mexico) Discovery Source to Sink Story, Part 2: Implications for and Predictions within the Depositional Sink.....	519
J. W. Snedden, D. F. Stockli, and J. Pasley	
Tiber Deep (Keathley Canyon 102): New Insights into Upper Cretaceous Deepwater Plays in the Northern Gulf of Mexico, Part 1: Paleogeographic, Chronostratigraphic, and Source to Sink System Implications.....	521
J. W. Snedden, M. L. Sweet, M. Purkey, and R. Weber	
Reconstructing the Zama (Mexico) Discovery Source to Sink Story, Part 1: Detrital Zircon U-Pb Provenance Analysis and Implications for Sediment Source Dynamics.....	523
D. F. Stockli, J. Snedden, and J. Pasley	
Estimating Groundwater Salinity Using the Alger-Harrison Method in the Hill Country Trinity Aquifer, Texas.....	525
A. K. Suydam, E. D. Strickland, and M. C. Robinson	
Application of Sage Geosystems™ Proprietary Geothermal Technologies in Geopressed Formations that Exist along the Gulf of Mexico	527
Cindy D. Taff	

Study of Subsidence in North and West Harris County, Texas.....	529
A. A. Tello-Alvarado and S. D. Khan	
Exploring Groundwater Recoverability in Texas.....	531
J. C. Thompson, C. W. Kreidler, and M. H. Young	
Stratigraphic Analysis of the Capps Limestone in the Norton Oil Field in Runnels County, Texas	533
W. Thompson	
A Truly Clean Global Energy Transition.....	535
Scott W. Tinker	
Surface Logging while Drilling (SLWD) Improves Reservoir Characterization and Capital Efficiency	537
D. Tonner, S. Hughes, M. McCulley, and A. Liborius	
The Impacts on Pressure Stabilization and Leasing Acreage for CO₂ Storage from Utilizing Oil Migration Concepts.....	539
M. Ulfah, S. D. Hovorka, A. P. Bump, and S. A. Hosseini	
Mapping Allochthonous Salt Bodies of the Jurassic Louann Salt, Offshore Gulf of Mexico.....	541
Rodrigo Velasquez and Julie Bloxson	
Thermo-Tectonic Evolution of Southern Mexico: Implications for Sediment Delivery to the Foreland Basins and the Southern Gulf of Mexico.....	543
D. Villagomez, J. Pindell, R. Molina, C. Steffensen, and P. O'Sullivan	
A Comparison of Mesophotic Coral Ecosystems to Cold Seep Chemosynthetic Communities in the Northern Gulf of Mexico Using Acoustic Methods.....	545
J. M. Waldsmith	
Rates of Present Natural Subsidence and Sea Level Rise along the Texas Coast Derived from GPS and Tide Gauge Data.....	547
G. Wang and X. Zhou	
Land Subsidence and Groundwater Pumping in Montgomery County, Texas, U.S.: 2000–2020	549
K. Wang, G. Wang, and B. Cornelison	
Reservoir Characterization of the Utica Shale Play within Columbiana County, Ohio, Using Well Logs, Rock Mechanics, and Geochemical Data.....	551
T. L. West and J. M. Bloxson	
Onshore Texas and Louisiana Geopressured-Geothermal for Baseload Electrical Generation....	553
Robert A. Wiener	
Preferential Lower Crustal Extension Precedes Continental Break-Up within the Vietnamese Sunda Shelf, SW South China Sea.....	555
L. Wilson, A. Carmona, P. D. Clift, and L. V. Hoang	
Causal Inference in Geoscience: An Application to Induced Seismicity	557
Yuchen Xiao, Corwin Zigler, Peter Hennings, Alexandros Savvaidis, and Michael Pyrcz	

Hybrid Conventional-Unconventional Austin Chalk Plays in the Gulf Coast Basin: A Study to Show How Developing Drilling Technologies have Resulted in Peaks in Production.....	559
T. Xu, M. Turner, and M. McKechnie	

2021 CONVENTION TECHNICAL PROGRAM

Luncheon Keynote Presentations

All-Convention Luncheon—Friday, Oct. 29

12:00–1:00 Scott W. Tinker: A Truly Clean Global Energy Transition 535

All-Divisions Luncheon—Thursday, Oct. 28

12:00–1:00 Gretchen Gillis: Same as It Never Was: Navigating Accelerating
Change with a Little Help from AAPG 395

GCSSEPM Luncheon—Thursday, Oct. 28

12:00–1:00 Liz Hajek: Using Sediment-Transport Insight for Subsurface
Prediction 405

Theme 1: Future of Exploration & Production

Session 1: The Future of Deepwater Development in the Gulf of Mexico

Oral Presentations—Friday, Oct. 29—Grand Ballroom A, Renaissance Hotel

Session Chairs: Charlotte Martin (Shell) and John Snedden (University of Texas at Austin)

8:00–8:05 OPENING REMARKS
8:05–8:25 P. Mann: Progress and Problems in our Current Understanding of the
Mesozoic Opening History of the Gulf of Mexico Basin 459
8:25–8:45 Michael L. Sweet, John W. Snedden, Marcie Purkey, and Ryan Weber:
Tiber Deep (Keathley Canyon 102): New Insights into Upper Cretaceous
Deepwater Plays in the Northern Gulf of Mexico, Part 1: Lithofacies and
Reservoir Quality Trends 289
8:45–9:05 J. W. Snedden, M. L. Sweet, M. Purkey, and R. Weber: Tiber Deep
(Keathley Canyon 102): New Insights into Upper Cretaceous
Deepwater Plays in the Northern Gulf of Mexico, Part 1: Paleogeographic,
Chronostratigraphic, and Source to Sink System Implications 521
9:05–9:25 S. Cornelius and P. Emmet: Overpressure Sources in the Western and
Central Deepwater Gulf of Mexico 37
9:25–9:45 E. Royce-Rogers, A. Fick, and D. Little: Sequence Stratigraphic
Framework in Offshore Mexico: Integration of Detailed Well and
Seismic Interpretation to Support Exploration in Deep Water 489
9:45–10:10 MORNING BREAK
10:10–10:30 D. F. Stockli, J. Snedden, and J. Pasley: Reconstructing the Zama
(Mexico) Discovery Source to Sink Story, Part 1: Detrital Zircon U-Pb
Provenance Analysis and Implications for Sediment Source Dynamics 523

10:30–10:50	J. W. Snedden, D. F. Stockli, and J. Pasley: Reconstructing the Zama (Mexico) Discovery Source to Sink Story, Part 2: Implications for and Predictions within the Depositional Sink.....	519
-------------	--	-----

Poster Session B—Grand Ballroom A, Renaissance Hotel

Muhammad Nawaz Bugti and Paul Mann: Regional Basin Modeling and Source Rock Maturation of the Port Isabel Passive Margin Foldbelt, Northwestern Gulf of Mexico	23
M. N. Hasan and P. Mann: Regional Thermal Maturity Modeling along the Campeche Salt Basin, Southern Gulf of Mexico	411
N. Kulkarni and L. R. Heinze: Assess the Impact of Shallow Water Flows Geohazard on Drilling Operations in the Riserless Sections of Deepwater Well Construction	431
A. Kumar, E. Ruiz, and J. Herrera: Know your Sands, but Know your Mass Transport Deposits Even More: High Resolution Borehole Images Illuminate the Reality of Sands in the Deepwater Gulf of Mexico.....	433
P. Mann: The Predictive Value of Basin Modeling in the Caribbean and Gulf of Mexico Area: One Confirmed Giant Cluster and Two Remaining Possibilities	461
D. Villagomez, J. Pindell, R. Molina, C. Steffensen, and P. O'Sullivan: Thermo-Tectonic Evolution of Southern Mexico: Implications for Sediment Delivery to the Foreland Basins and the Southern Gulf of Mexico	543

Session 2: Salt Tectonics: Salt Dynamics for improved E&P

Oral Presentations—Thursday, Oct. 28—Grand Ballroom A, Renaissance Hotel

Session Chairs: Muhammad Nawaz Bugti and Teunis Heyn

1:30–1:35	OPENING REMARKS
1:35–1:55	C. Burke, J. Bain, S. Mulcahy, C. O'Reilly, and D. Bate: Integrated Crustal Characterization with Full-Lithosphere Basin Modelling as the Key to Improved Thermal Modelling in a Complex Salt Basin: Salinas Basin and Vicinity, Mexico
1:55–2:15	J. Pindell, T. Heyn, K. Reuber, A. Goswami, and C. Steffensen: Post-Rift Sag/Salt Sections Result from Dynamo-Thermal Subsidence as Dynamically Elevated Magma-Rich Rifts Migrate off Plumes.....
2:15–2:35	T. Heyn, J. Pindell, M. J. Hoggard, A. Goswami, K. R. Reuber, and C. K. Steffensen: Red Sea Salt Habitat as an Analogue for Rift-Drift Transition in the Gulf of Mexico
2:35–2:55	L. F. Baie, T. L. Uphoff, and R. N. Blackhall: Episodic Growth History of the West Columbia Salt Dome, Brazoria County, Texas, and its Potential Impact on Hydrocarbon Accumulation.....
3:15–3:45	AFTERNOON BREAK
3:45–4:05	N. Bugti: Triassic-Jurassic late reconstructions of the Gulf of Mexico opening and possible non-continental origins of Walker Ridge crustal salient
	No abstract available

Poster Session A—Grand Ballroom A, Renaissance Hotel

D. B. Dunlap, O. Duffy, N. Fernandez, M. Hudec, and J. A. Covault: Diapiric Influence on Channel Evolution in Deepwater Minibasins, Gulf of Mexico	381
Rodrigo Velasquez and Julie Bloxson: Mapping Allochthonous Salt Bodies of the Jurassic Louann Salt, Offshore Gulf of Mexico	541

Session 3: Unconventional Plays in an Evolving Energy Landscape

Oral Presentations—Thursday, Oct. 28—Grand Ballroom A, Renaissance Hotel

Session Chairs: Patricio Desjardins (Shell) and Lucy 'Tingwei' Ko (University of Texas at Austin)

8:00–8:05	OPENING REMARKS	
8:05–8:25	B. S. Hart: Mechanical Stratigraphy of Bed-Bound Mode I Extension Fractures in the Eagle Ford Formation, Del Rio Area, West Texas	119
8:25–8:45	T. E. Larson, N. Aryal, R. G. Loucks, J. E. Sivil, and L. Ko: Upscaling Machine Learning Classification of Austin Chalk and Eagle Ford Group Chemofacies from High-Resolution X-Ray Fluorescence Core Characterization	443
8:45–9:05	J. Kalinec and B. S. Hart: Reservoir Pressure Mapping from Well-Test Data: An Eagle Ford Example.....	149
9:05–9:25	E. Goodman, Q. Yang, B. Casey, F. Male, and K. Smye: Maturing Tight Reservoir Plays in the Permian: Why Geoscience Still Matters.....	397
9:25–9:45	C. H. Petkovsek and P. Mann: Precambrian Basement is an Important Control on Subsidence, Heat Flow, and Maturation in the Delaware Basin....	475
9:45–10:10	MORNING BREAK	
10:10–10:30	B. Fairhurst, T. Ewing, and B. Lindsay: The West Texas (Permian) Super Basin: Prototype and Analog.....	389
10:30–10:50	R. Sabbagh and S. Bhattacharya: Quantitative Seismic Characterization of the Spraberry-Wolfcamp in the Midland Basin: Reservoir and Geomechanical Properties.....	493

Poster Session B—Grand Ballroom A, Renaissance Hotel

R. Ahmadov and F. Allo: Characterization of Unconventional Reservoirs Using Rock Physics and Drill Cuttings	333
H. R. Hammon and P. D. Clift: Highly-Resolved X-Ray Fluorescence Based Model of Unconventional Reservoirs, Midland Basin, West Texas, USA	409
T. Xu, M. Turner, and M. McKechnie: Hybrid Conventional-Unconventional Austin Chalk Plays in the Gulf Coast Basin: A Study to Show How Developing Drilling Technologies have Resulted in Peaks in Production	559

Session 4: Revitalizing Gulf Coast Conventional Plays—New Infrastructure-Led Exploration Strategies and Production Techniques

Oral Presentations—Friday, Oct. 29—Trinity, Renaissance Hotel

Session Chair: Nathan Tinker (Hilcorp Energy)

8:00–8:05	OPENING REMARKS	
8:05–8:25	H. C. Chambers and J. M. Bloxson: Deposition and Diagenesis of the Blossom Sand, Panola County, Texas.....	361
8:25–8:45	S. Green and J. Heller: Hydrodynamics—Implications for Future Exploration in the Wilcox Play?	401
8:45–9:05	G. L. Kinsland, D. N. Cimadoma, and R. Zhang: Surface-Sourced Seismic Data to Find Shallow Bypassed Oil.....	165
9:05–9:25	W. Thompson: Stratigraphic Analysis of the Capps Limestone in the Norton Oil Field in Runnels County, Texas.....	533

9:25–9:45	Robert V. Schneider: Seismic Stratigraphy Via Attribute Analysis, Brooks County, Texas.....	251
9:45–10:10	MORNING BREAK	
10:10–10:30	Kelly E. Hattori and Robert G. Loucks: Cyclicity of Carbonate Shoaling Sequences of the Lower Cretaceous Pettet Formation, Rusk County, East Texas.....	413

Theme 2: Geohazards and Resource Management

Session 5: Rising Sea Level around the GOM: Projections and Adaptations

Oral Presentations—Thursday, Oct. 28—Rio Hall B, Renaissance Hotel

Session Chair: Mike Blum (University of Kansas)

10:10–10:30	M. Blum, B. Frederick, and D. Rahn: Impact of the Atlantic Multidecadal Oscillation and Mississippi River Discharge Anomalies on Gulf of Mexico Sea-Level Anomalies and Land Loss Rates in the Mississippi Delta.....	349
10:30–10:50	Jeffrey G. Paine, Tiffany L. Caudle, and John R. Andrews: Texas Gulf Shoreline Movement, Land Loss, and Beach and Dune Volumes and Peak Elevations through 2019.....	469
10:50–11:20	G. Wang and X. Zhou: Rates of Present Natural Subsidence and Sea Level Rise along the Texas Coast Derived from GPS and Tide Gauge Data..	547

Poster Session B—Grand Ballroom A, Renaissance Hotel

Jeffrey Duxbury and Samuel Bentley: Temporal Scales of Mass-Wasting Sediment Transport on the Mississippi River Delta Front Delineated by $^{210}\text{Pb}/^{137}\text{Cs}$ Geochronology	55
R. E. Escobedo, J. E. Duxbury, S. J. Bentley, and K. Xu: Event Stratigraphy and Geochronology of a Mudflow Lobe and Gully Complex on the Mississippi River Delta Front: Offshore South Pass, Louisiana, USA	387

Session 6: Induced Seismic Events: Geohazard Analysis and Monitoring Strategies

Oral Presentations—Thursday, Oct. 28—Grand Ballroom B, Renaissance Hotel

Session Chairs: Lily Horne and Alexandros Savvaidis (University of Texas at Austin)

8:00–8:05	OPENING REMARKS	
8:05–8:25	B. Rader: New View of North Texas Earthquakes.....	217
8:25–8:45	Yuchen Xiao, Corwin Zigler, Peter Hennings, Alexandros Savvaidis, and Michael Pyrcz: Causal Inference in Geoscience: An Application to Induced Seismicity.....	557
8:45–9:05	I. Grigoratos and A. Savvaidis: Probabilistic Identification of Seismicity Triggered by Hydraulic Fracturing in the Eagle Ford	403
9:05–9:25	P. H. Hennings: The Geology of Active Earthquake Sequences in Texas.....	417
9:25–9:45	C. McKeighan, P. Hennings, E. Horne, and K. Smye: 3D Interpretation, Structural Characterization, and Seismogenic Association of Faults in the Eagle Ford Region, South-Central Texas	185
9:45–10:10	MORNING BREAK	

10:10–10:30	A. Savvaidis and P. R. Streenstrup: Smart Monitoring of Offshore Industrial Sites.....	509
10:30–10:50	C. Breton, M. Shensky, and A. Savvaidis: Wellbore Architecture and Semi-Automatic Quality Control of Injection and Hydraulic Fracturing Information.....	351

Poster Session B—Grand Ballroom A, Renaissance Hotel

N. Kulkarni: Managed Pressure Drilling Enables Dynamic Formation Evaluation for Calibration of the Estimated Pore Pressure: A Review	429
--	-----

Session 7: Neotectonics and the Role of Subsidence and Faulting in Destabilization of the Gulf Coast

Oral Presentations—Thursday, Oct. 28—Rio Hall B, Renaissance Hotel

Session Chair: Shuhab D. Khan (University of Houston)

8:00–8:05	OPENING REMARKS	
8:05–8:25	Mustafa Saribudak, M. Ruder, and B. van Nieuwenhuise: Integrated Near-Surface Geophysical Studies over Two Growth Faults (Willow Creek and Hockley Faults) in the NW Houston Area, Texas.....	507
8:25–8:45	Y. Liu and G. Agudelo: Monitoring Land Subsidence and Fault Deformation Using the GPS-Enhanced InSAR Technique in the Long Point Fault Area, Houston, Texas (2015–2020).....	445
8:45–9:05	A. Greuter, M. J. Turco, C. M. Petersen, and G. Wang: Impacts of Groundwater Withdrawal Regulation on Subsidence in Harris and Galveston Counties, Texas, 1978–2020.....	109
9:05–9:25	A. A. Tello-Alvarado and S. D. Khan: Study of Subsidence in North and West Harris County, Texas.....	529

Session 8: Water and Energy: Balancing Demand and Disposal

Oral Presentations—Friday, Oct. 29—Trinity, Renaissance Hotel

Session Chair: Robert Mace (The Meadows Center for Water and the Environment)

1:30–1:35	OPENING REMARKS	
1:35–1:55	D. Mueller: Opportunities and Challenges for Potential Reuse of Oil and Gas Produced Water	463
1:55–2:15	M. C. Robinson, A. K. Suydam, E. D. Strickland, and A. AlKurdi: Brackish Groundwater in the Hill Country Trinity Aquifer, Texas.....	241
2:15–2:35	Thomas E. Ewing, Cody H. Draper, and Daniel M. Lupton: Repurposing Legacy Seismic Reflection Data in Support of Aquifer Characterization in Texas	83
2:35–2:55	Mustafa Saribudak, D. Rucker, and A. Haas: Electrical Resistivity Imaging near Abandoned Steel Oil Wells: Five Case Studies, USA.....	505

Session 9: Groundwater: Regulatory and Policy Framework of Managing Supply and Demand from Source to Disposal

Oral Presentations—Thursday, Oct. 28—Rio Hall B, Renaissance Hotel

Session Chair: Leah Martinsson (Texas Alliance of Groundwater Districts)

1:30–1:35	OPENING REMARKS	
1:35–1:55	R. E. Mace, S. Glenn, J. Ellis, G. R. Miller, W. Oliver, W. J. Seifert, J. M. Sharp, Jr., J. Tracy, and G. Wang: Observed and Potential Land Subsidence in the Gulf Coast Aquifer of Montgomery County, Texas.....	455
1:55–2:15	R. Goswami, V. Bedekar, T. Chen, J. Fagan, C. Neville, J. M. Sharp, Jr., and J. P. Acevedo: Use of Class II Injection Wells to Dispose of Desalination Residual Fluids in Texas.....	399
2:15–2:35	K. Wang, G. Wang, and B. Cornelison: Land Subsidence and Groundwater Pumping in Montgomery County, Texas, U.S.: 2000–2020.....	549
2:35–2:55	Brian B. Hunt and Brian A. Smith: Same Aquifer, but Different Source of Water: Contrasting the Middle Trinity Aquifer in Central Texas	141
2:55–3:15	J. Walker and D. Wierman: Gain/Loss Studies in the Texas Hill Country—Observations and Lessons Learned	311
3:15–3:45	AFTERNOON BREAK	
3:45–4:05	J. C. Thompson, C. W. Kreidler, and M. H. Young: Exploring Groundwater Recoverability in Texas.....	531

Theme 3: Sustainable Energy

Session 10: Carbon Capture, Utilization, and Storage (CCUS)

Oral Presentations—Friday, Oct. 29—Grand Ballroom A, Renaissance Hotel

Session Chairs: Chai Fu (Occidental Petroleum Corporation) and Ramon Trevino (University of Texas at Austin)

1:30–1:35	OPENING REMARKS	
1:35–1:55	M. Ulfah, S. D. Hovorka, A. P. Bump, and S. A. Hosseini: The Impacts on Pressure Stabilization and Leasing Acreage for CO ₂ Storage from Utilizing Oil Migration Concepts.....	539
1:55–2:15	M. P. Phillips and R. Weber: Carbon Capture and Storage Potential in the Chandeleur Sound, Offshore Louisiana.....	477
2:15–2:35	A. P. Bump and A. Hartwig: A Basin-Scale View of Carbon Storage Plays in the Northern Gulf of Mexico.....	353
2:35–2:55	Oluwafemi Precious Oyenowo, Kai Sheng, Gayan A. Abeykoon, Francisco J. Argüelles-Vivas, and Ryosuke Okuno: A Case Study of Using Aqueous Formate Solution for Carbon Sequestration and Geological Storage.....	203
2:55–3:15	Susan D. Hovorka and Ramón H. Treviño: Development of Storage of Captured CO ₂ as a New Geoscience Business—Focus on the Gulf Coast.....	127
3:15–3:45	AFTERNOON BREAK	
3:45–4:05	A. Simone, M. Aldin, R. Patterson, W. Mickelson, S. Govindarajan, A. Thombare, D. Gokaraju, A. Mitra, and M. Al Salman: Experimental Observations of SC–CO ₂ Injection and Reservoir Monitoring under Representative Reservoir Conditions.....	515

4:05–4:25	D. Riesterberg, W. Wallace, G. Koperna, and K. Gray: Southern Arkansas CO ₂ -EOR and Saline Storage Assessment.....	483
-----------	--	-----

Poster Session B—Grand Ballroom A, Renaissance Hotel

J. Franey and T. Meckel: High Order Stratigraphic Framework of Intraslope Growth Faulted Subbasins Offshore Matagorda Bay, Texas	101
N. Lopez-Rivera, A. Uddin, and D. King: Analysis of the Subsurface of the Tuscaloosa Group, Southwestern Alabama, for Carbon Sequestration Purposes.....	447

Session 11: Hydrogen Subsurface Storage

Oral Presentations—Thursday, Oct. 28—Wedgewood Room, Renaissance Hotel

Session Chairs: J. P. Nicot and Peter Eichhubl (University of Texas at Austin)

8:00–8:05	OPENING REMARKS	
8:05–8:25	M. W. Shuster: Hydrogen at Scale—Why Geology Matters	511
8:25–8:45	O. B. Duffy, L. Moscardelli, M. R. Hudec, and M. W. Shuster: Assessing the Hydrogen Storage Potential of Onshore Texas Salt Structures.....	379
8:45–9:05	S. Bhattacharya, S. A. Hosseini, and M. J. Rine: Integrating 3D Seismic and Petrophysics to Characterize Hydrogen Storage Capacity in the Michigan Basin Pinnacle Reef Reservoirs.....	341
9:05–9:25	Yayun Chen and Ning Lin: The Impacts of Hydrogen Storage Market Growth on Houston Hub.....	365
9:25–9:45	M. Delshad, M. Mehrabi, R. Ganjdanesh, P. Eichhubl, Y. Umurzakov, and K. Sepehrnoori: Simulations of Hydrogen Storage in Sedimentary Geologic Formations.....	45
9:45–10:10	MORNING BREAK	
10:10–10:30	Aura Araque-Martinez and Ning Lin: Hydrogen Geological Storage Valuation Framework	3
10:30–10:50	F. Javadpour: Hydrogen Diffusion in Caprock of Depleted Reservoirs and Saline Aquifers.....	No abstract available

Session 12: Geothermal resources of the Gulf Coast

Oral Presentations—Friday, Oct. 29—Grand Ballroom B, Renaissance Hotel

Session Chair: Ken Wisian (University of Texas at Austin)

1:30–1:35	OPENING REMARKS	
1:35–1:55	S. Bhattacharya and S. Verma: Multi-Seismic Attribute and Petrophysical Studies for a Low-Temperature Geothermal Field in the Netherlands	339
1:55–2:15	C. O'Reilly and I. Deighton: Basin Temperature Modelling Using Large Well Log and Bottom-Hole Temperature Datasets in the Haynesville Play: Texas and Louisiana	193
2:15–2:35	Robert A. Wiener: Onshore Texas and Louisiana Geopressured-Geothermal for Baseload Electrical Generation	553
2:35–2:55	M. I. Ross: Gulf Coast Geopressured Geothermal Zone—A Multi-Faceted Opportunity for Decarbonization of Industries	487

2:55–3:15	Cindy D. Taff: Application of Sage Geosystems™ Proprietary Geothermal Technologies in Geopressed Formations that Exist along the Gulf of Mexico	527
-----------	---	-----

Session 13: Critical Elements for Renewable Energy and Storage

Oral Presentations—Friday, Oct. 29—Grand Ballroom B, Renaissance Hotel

Session Chairs: Swapan Sahoo (Equinor/Kobold Minerals) and Tristan Childress (University of Texas at Austin)

8:00–8:05	OPENING REMARKS	
8:05–8:25	J. M. Bloxson, B. Lesh, M. G. Faulkner, and C. Piela Cox: Potential for REEs in Large Evaporitic Bodies: Examples from North American Phanerozoic Salt Bodies.....	347
8:25–8:45	J. Richard Kyle, Tristan M. Childress, and Jeffrey G. Paine: Waste Not, Want Not: Potential Contributions to U.S. Critical Minerals Supply from Expatriated Bauxite Residue	441
8:45–9:05	K. M. Henderson, A. E. Williams-Jones, S. Li, S. K. Sahoo, and J. E. Vindstad: Lithium Enrichment in Oilfield Brines	415
9:05–9:25	A. S. B. Douds, D. R. Blood, and S. D. McCallum: Developing a Workflow to Quantify Critical Mineral Content in Fine-Grained Sediments: Case Study of the Dunkirk Shale Exposed along the Lake Erie Shoreline	377
9:25–9:45	W. C. Elliott, D. J. Gardner, P. Malla, and E. Riley: Thoughts for the Co-Production of the Rare Earth Elements from Kaolin and Bauxite, Georgia Coastal Plain	385
9:45–10:10	MORNING BREAK	
10:10–10:30	M. N. Haji: Symbiotic Systems for Passive Seawater Mineral Extraction.....	407

Poster Session A—Grand Ballroom B, Renaissance Hotel

J. Singer, J. M. Bloxson, and R. Friedfeld: Statistical Correlation of Rare Earth Minerals of a Salina Group	259
--	-----

Theme 4: Future of Technology in the Geosciences

Session 14: Reservoir Models from Forecasts to Exploration and Beyond

Oral Presentations—Friday, Oct. 29—Sabine Room, Renaissance Hotel

Session Chairs: Kiran Sathaye and Ted Cross (NOVI Labs)

1:30–1:35	OPENING REMARKS	
1:35–1:55	Frank Male and C. K. Zahm: Regional Productivity in the Austin Chalk with Emphasis on Fault Zone Production in the Karnes Trough Area, Texas.....	173
1:55–2:15	Christopher M. Smith, Dave Mercer, Timothy M. Smith, Vincent Liaw, Patrick S. Gordon, and Michael P. Smith: A Volatiles Analysis Case Study Evaluating the Petroleum System, Pay Zones, Seals, Chemical Compartments, and Potential Pays Zones from a Gulf of Mexico Well in the Main Pass Field Using Legacy, Oil Based Mud, and PDC Bit Cuttings, with Tie Ins to Wirelin	265
2:15–2:35	J. Pasley, M. Carr, and R. Umrani: An Integrated Approach to Thin-Bedded Reservoir Evaluation and Modeling, Block 7, Mexico.....	473

2:35–2:55	D. Tonner, S. Hughes, M. McCulley, and A. Liborius: Surface Logging while Drilling (SLWD) Improves Reservoir Characterization and Capital Efficiency	537
2:55–3:15	Robin Dommissie: Advanced Structural and Stratigraphic Modeling Techniques in Shale and Tight Oil Basin Reservoir Studies	375

Poster Session B—Sabine Room, Renaissance Hotel

T. L. West and J. M. Bloxson: Reservoir Characterization of the Utica Shale Play within Columbiana County, Ohio, Using Well Logs, Rock Mechanics, and Geochemical Data	551
K. Zamfes, V. Egorov, and E. Hasanov: Differential Total Gas Detection for Reservoir Characterization and Reserves Estimation.....	317

Session 15: Deep Learning, AI, and Geostatistical Applications across the Geosciences

Oral Presentations—Thursday, Oct. 28—Grand Ballroom B, Renaissance Hotel

Session Chairs: Dido Ooi (Occidental Petroleum Corporation) and Michael Pyrcz (University of Texas at Austin)

1:30–1:35	OPENING REMARKS	
1:35–1:55	S. A. Hosseini and J. S. G. Nobrega: Application of Machine Learning for Fast Prediction of CO ₂ Plume and Pressure Buildup in Geological CO ₂ Storage.....	425
1:55–2:15	Deborah K. Sacrey: Machine Learning Analytics Application to an Exploration well in Northwestern Colombia, South America.....	497
2:15–2:35	S. Bhattacharya: Predicting Shear Sonic Velocity Integrating the Concepts of Time Series Clustering and Ensemble Class-Based Machine Learning	337
2:35–2:55	H. Jo and M. J. Pyrcz: Machine Learning Assisted Production History Matching while Retaining Geological Heterogeneity	423
2:55–3:15	E. Maldonado-Cruz, J. T. Foster, and M. J. Pyrcz: Tuning Machine Learning Models for Geological Uncertainty Accuracy and Precision.....	457
3:15–3:45	AFTERNOON BREAK	
3:45–4:05	J. L. Hernandez Mejia, J. Pisel, and M. Pyrcz: Dynamic Time Warping for Well-to-Well Geological Connectivity Characterization	419
4:05–4:25	A. O. Mabadeje and M. J. Pyrcz: Machine Learning to Support Geological Analog Studies.....	453
4:25–4:45	Wen Pan, Carlos Torres-Verdin, Michael J. Pyrcz, and Ian J. Duncan: Feature Engineering in Well Log Interpretation.....	471

Poster Session B—Grand Ballroom A, Renaissance Hotel

S. Bhattacharya, S. Verma, and J. Rotzien: Machine Learning Assisted 3D Seismic Interpretation of Shelf-to-Basin Geomorphology.....	343
M. Dykstra and B. Lassoock: Designing AI Software with the User in Mind: Moving from Proof of Concept to Product	383
R. Sabbagh, W. Xinming, M. W. Shuster, O. Duffy, M. Wartes, and S. Sawyer: Fault Characterization Using Convolution Neural Networks in Alaska's North Slope	495

Session 16: New Technologies in Hydrology and Resource Management

Oral Presentations—Friday, Oct. 29—Sabine Room, Renaissance Hotel

Session Chairs: Larry French (Texas Water Development Board) and Brian Hunt (University of Texas at Austin)

8:00–8:05	OPENING REMARKS	
8:05–8:25	K. W. Stafford, W. A. Brown, and L. D. Perkins: Hypogene Evaporite Karst Geohazards: Implications for Energy Sector Infrastructure in the Delaware Basin, USA	281
8:25–8:45	Thomas E. Ewing: Integrated Surface-Subsurface Mapping of the Balcones Fault Zone in the San Antonio Area, Texas; Upper Cretaceous Stratigraphy, Faulting, and Quaternary Terracing	69
8:45–9:05	A. K. Suydam, E. D. Strickland, and M. C. Robinson: Estimating Groundwater Salinity Using the Alger-Harrison Method in the Hill Country Trinity Aquifer, Texas.....	525
9:05–9:25	S. Ikard, A. Teeple, and D. Humberson: Gradient Self-Potential Logging in the Rio Grande to Identify Gaining and Losing Reaches across the Mesilla Valley	427
9:25–9:45	Brian B. Hunt, Jeffrey G. Paine, C. M. Woodruff, Jr., and Mark A. Helper: Integrating Digital and Traditional Field Methods into Geologic Mapping: An Example from Central Texas.....	133

Poster Session A—Sabine Room, Renaissance Hotel

J. Camp, B. B. Hunt, M. O. Gary, and J. C. Yelderman: Advanced Acoustic Technology Expands Groundwater Science: Example from Central Texas	359
--	-----

Session 17: Geology of the Gulf Coast Region

Oral Presentations—Thursday, Oct. 28—Wedgewood Room, Renaissance Hotel

Session Chairs: Peter Pope and the Austin Geological Society

1:30–1:35	OPENING REMARKS	
1:35–1:55	R. G. Loucks and R. M. Reed: Gravity-Flow Deposits in the Upper Cretaceous Austin Chalk B Unit in South and Central Texas and their Relationship to Contemporaneous Volcanism.....	449
1:55–2:15	D. Ruiz-Arriaga, D. Stockli, E. Fitz-Diaz, and T. Lawton: Multi-Stage Jurassic Rifting in Eastern Mexico and Implications for Gulf of Mexico Opening	491
2:15–2:35	C. Olariu and C. A. Clayton: Tectonic Preconditioning of Recurrent Large Scale Canyon Incisions: Example from the Cretaceous and Paleogene Gulf of Mexico	467
2:35–2:55	B. S. Hart, J. Schieber, and J. Kalinec: Round up the Usual Suspects: Building the Case to Define Overpressure-Generation Mechanisms in Upper Cretaceous to Tertiary Shales Overlying the Eagle Ford Play	327
2:55–3:15	Roger Sigler, Heather Fell, Brenda L. Kirkland, and C. Van Wingerden: Investigation of the Corbula Bed of Central Texas as the Product of Catastrophic Tsunami Deposition.....	513
3:15–3:45	AFTERNOON BREAK	

3:45–4:05	R. M. Reed, R. G. Loucks, and P. Periwal: Preliminary Results of Micropetrographic Investigations of Enigmatic Volcanic Ash Material in the Upper Cretaceous Austin Chalk of Central and South Texas481
4:05–4:25	Peter R. Rose: The Wichita Paleoplain in Central Texas.....485

Poster Session A—Wedgewood Room, Renaissance Hotel

John L. Berry:	Evolution of Southern Appalachian Drainage and its Effect on Sedimentation in the Gulf of Mexico.....335
N. Bjelica, L. Colli, M. E. Curry, and A. S. Madof:	Hiatus Mapping in Texas.....345
T. Y. Chen:	Monitoring and Managing Natural Hazards Via an Earth Observation and Machine Learning Pipeline363
D. Cimadomo, G. Kinsland, and R. Zhang:	Prestack Investigation of Shallow Surface-Sourced Imaging of Seismic Data in Central-Northern Louisiana 29
P. Cornick, N. Campion, G. Harrington, and K. Ruckwied:	Palynology of the Wilcox Group and its Application in Exploration, Field Development, and Well Operations369
S. P. J. Cossey, F. Espinosa, C. Arrieta, and R. Sanchez:	World-Class Oil Seeps in Roadcuts above the Faja de Oro Trend in Eastern Mexico.....371
Stephen P. J. Cossey, Joshua Rosenfeld, Mark Bitter, and James Pindell:	Update on the Paleogene Water-Level Drawdown Hypothesis, Gulf of Mexico373
V. Egorov, C. I. Puryear, R. Tharimela, and J. Jurasin:	Enhanced Resolution Seismic and New Subsurface Insights: Miocene Section, St. Mary Parish, Louisiana ... 63
M. S. Faulkner and H. M. Kunwer:	Dolomitization of the Edwards Formation in the Fort Hood Military Installation, Texas391
J. N. Gifford, D. Eli, and T. Varner:	The birthday of the Mississippi River: Evidence from the Cretaceous McNairy Sand393
Jaden I. Kamen and Robert B. Finkelman:	The Link between Aquifer Water, Low-Rank Coal, and Kidney Disease in the Gulf Coast States 157
N. Neubeck, P. Clift, A. Herrmann, and A. Carter:	Testing Sediment Buffering Model Using Detrital Zircon U–Pb Dating in the Lower Mississippi River465
Sandor Ricketts, David T. King, Jr., Nicholas R. Myers, Sr., and Daniel Larsen:	Upper Paleocene to Lower Eocene Clay Deposits of the Red Bank Group, Northern Belize, Central America 225
D. Ruiz-Arriaga, D. Stockli, E. Fitz-Diaz, and T. Lawton:	Multi-Stage Jurassic Rifting in Eastern Mexico and Implications for Gulf of Mexico Opening491
Mustafa Saribudak:	Subsurface Structure of the Pilot Knob Submarine Volcano (Austin, Texas) Imaged Using Resistivity and Magnetic Methods.....501
Mark E. Thompson:	Revised Stratigraphic Correlations, Upper Cretaceous (Lower Campanian to Middle Maastrichtian) Taylor Group, Southwestern Texas299
J. M. Waldsmith:	A Comparison of Mesophotic Coral Ecosystems to Cold Seep Chemosynthetic Communities in the Northern Gulf of Mexico Using Acoustic Methods545
L. Wilson, A. Carmona, P. D. Clift, and L. V. Hoang:	Preferential Lower Crustal Extension Precedes Continental Break-Up within the Vietnamese Sunda Shelf, SW South China Sea 555

REPORT OF THE PRESIDENT

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

MARK W. SHUSTER



2021 has been a dynamic year. We have continued to deal with the impacts of COVID, but for the most part with a resolve to get on with business, school, and life in general. With that resolve in mind, as the 2021 Gulf Coast Association of Geological Societies (GCAGS) President, I and the Executive Committee members felt that it was important and timely to hold the GeoGulf 2021 Conference to provide a forum for Gulf Coast geoscientists to meet and interact. It is important because the geosciences community plays a critical role in the region to provide energy, water, and mineral resources, to identify and address potential geohazards, to shape approaches to responsibly manage resources and mitigate risks for the future, and to share knowledge that advances the geosciences. It is timely because we are seeing transitions in energy, the environment, and the work place that impact the geosciences community, and conversely, that the geosciences community can impact.

We have seen changes in the oil and gas industry reflecting increasing societal pressures and mandates for Environment, Society, and Governance (ESG) approaches to be applied across the industry. We have seen continued changes in the workforce from company reorganizations and strategic shifts. We have seen companies, large and small, developing new businesses to position for new opportunities such as carbon storage, water management, hydrogen, and geothermal. We have also seen the resiliency of industry to continue to deliver oil, gas, water, and materials critical to society.

Unfortunately, with these changes, we have also continued to see less availability of funds from industry for funding professional societies and associations, including the Gulf Coast Association of Geological Societies (GCAGS), and decreasing membership. It is unfortunate because a regional geological society like GCAGS and its member local societies play a key role in sustaining the regional and local geoscientific community, providing opportunities for regional and local knowledge sharing and professional development. I would argue that the need for GCAGS in this role has increased given the ongoing transitions in the energy scene and in the workforce. In other words, we need GCAGS more than ever and need to support GCAGS more than ever.

The rocks that comprise the reservoirs and aquifers, and the seals or aquicludes overlying them, and the minerals, water, and hydrocarbon resources that are produced from these rocks, and the rocks as materials for construction or manufacturing, are foundational for our economy and way of life. Understanding the origin, evolution, and characterization of these rocks in order to develop and manage them as resources requires state-of-the-art science and engineering. In my perspective, the science and engineering are often not fully appreciated or perhaps taken for granted. Having spent most of my professional career in oil and gas exploration, drilling both discoveries and dry holes onshore and in the deepwater, and having for the last several years been actively involved in geoscientific research, I have a deep appreciation of the technical challenges and the needs for and value of geosciences and engineering to overcome these challenges. There is newfound appreciation for accurate geologic characterization amongst those who may have discounted its importance for developing shale gas and tight oil resources. Geosciences deal with significant uncertainties and data limitations. As we witnessed in 2020, we have the science and technology to land and fly a drone on Mars remotely, which is fantastic. However, given myriad uncertainties about the subsurface, we are challenged to make accurate and repeatable predictions whether exploring for hydrocarbons, or forecasting aquifer performance or predicting changes in stress-state from rock-fluid interactions, just to name a few. We are

improving, but none of these challenges are easy, and collectively, we need to keep pushing technical know-how and scientific understanding.

We, as GCAGS, need to rise to this challenge and lead the way. We need to change and adapt in such a way that we can energize and broaden our community. We need to build on our exceptional legacy of Gulf Coast geosciences and geoscientists to forge a relevant and forward-looking GCAGS that is perceived as vibrant and relevant for the needs of today and the future. GeoGulf 2021 was intentionally designed to provide a spectrum of relevant content including existing and emerging themes, new approaches, and opportunities to see and touch the rocks through field trips and short courses. Perhaps more importantly, GeoGulf 2021 was designed to bring geoscientists back together again to share knowledge, interact, and strengthen the community.

I want to thank each of you for your participation in GeoGulf 2021. In particular, I want to give a big THANK YOU to the GeoGulf 2021 Executive Committee, sponsors, exhibitors, presenters, field trip and short course leaders, and volunteers who contributed significantly to this conference and the GCAGS community.

Mark W. Shuster
GCAGS President

REPORT OF THE PRESIDENT

GULF COAST SECTION SEPM

NATHAN D. WILKENS



2021 once again finds us all in a challenging year with personal decisions on vaccinations, Delta variants, booster shots, and “breakthrough” Covid cases. Some companies have recalled people to their offices, while others are only doing it in a limited capacity. We are starting to see face to face meetings come back. IMAGE 2021 in Denver Sept. 26-Oct. 1 will include a combined AAPG and SEG meeting with a limited SEPM presence. GSA Connects 2021 will be in Portland, Oregon, Oct. 10-13. Closer to home, the GeoGulf 2021 meeting will be held in Austin on Oct. 27-29. The decision to attend a face to face conference is a personal risk-based decision for all of us, but I would encourage folks to at least consider attending a conference, even if that’s limited to digital attendance.

In these challenging times, many organizations have taken a step back to rethink what they can best bring to their members. GCSSEPM has started having some of these discussions as well. What is the niche that we can best fill to help our members, whether they are students at University, mid-career energy industry members, academia, and even as some folks transition to other industries or retire? A ship cannot turn on a dime, nor should an organization ignore its long and cherished history in favor of what works for today. The GCSSEPM Executive Committee will take things slowly and deliberately, and have discussions in a transparent and respectful manner.

The 2021 Doris Malkin Curtis Medal has been awarded to John Snedden in recognition of his contributions towards the understanding of the depositional systems that have created extensive petroleum systems in the Gulf of Mexico Superbasin. Honorary Memberships were awarded to Jim Pindell and Dorene West for their long term support of GCSSEPM. Distinguished Service Awards were awarded to Justin Gosses and Mehmood Shahid. At GeoGulf 2021, we will also be recognizing 2020 awards that were approved after the 2020 conference, including James J. Willis for Honorary Membership and J. Carl Fiduk and John R. Suter for Distinguished Service Awards.

On a personal note, I’ve been helping my wife with her hay business, which is something I grew up doing in northern Minnesota. I spend my evenings and weekends cutting, tedding, raking, baling, and stacking hay, along with the inevitable repairs that seem nearly non-stop when working with 50+ year old equipment. Weather and mechanical breakdowns are out of your control, and when it’s 97 degrees out and hay on the ground and rain coming and something catastrophically breaks on a baler, a person can quickly lose hope. But, I remember that I cannot control these things, take a deep breath, and get back to work. It is a reminder that in life, we often cannot control the things that go wrong, but instead are measured by our reaction to those events. May the rest of 2021 find you all doing better and prospering.

Nathan D. Wilkens
GCSSEPM President

REPORT OF THE GENERAL CHAIRMAN

71ST ANNUAL CONVENTION, 2021

BRENT A. ELLIOTT



On behalf of the Austin Geological Society and GEOGULF 2021 conference organizing committee, I am honored to invite you to this year's Gulf Coast Association of Geological Societies / Gulf Coast Section SEPM Annual Convention and Exhibition. Austin is more than just centrally located in the State of Texas, it is center to so many geoscience related industries, innovation and technology—and one of the fastest growing areas in the United States over the past two years.

The past two years have been challenging for everyone. The planning process for this GEOGULF started before COVID and was postponed and delayed due to the global pandemic, but the committee has worked tirelessly to develop an outstanding conference program with fieldtrips and short courses—with all the considerations for attendee health and safety in a post-pandemic conference paradigm. Moreover, the theme of adaptability and innovation in a transforming energy landscape is especially appropriate as our industries continue to adapt to social, environmental and technological challenges. Our ability to adapt and overcome these challenges has been remarkable and a real testament to our resiliency.

Critical to the future success of the geosciences is the development of young professionals, the integration of a new generation, diversity and inclusion. The GEOGULF 2021 committee has made a real effort to develop a comprehensive program that is inclusive and diverse. Attendees will have the opportunity to participate in a program that includes:

- Outstanding presentations in 17 Technical Sessions across themes of the Future of Exploration and Production, Geohazards and Resource Management, Sustainable Energy and the Future of Technology in the Geosciences;
- 9 field trips—Both Virtual, taking advantage of advances in technology to facilitate access, and In-Person to fantastic localities across Texas;
- 2 poster sessions in the Grand Exhibit Hall;
- 4 panel discussions: Economics of unconventional plays, geoscience careers in a new era, diversity and inclusion in the geosciences and updates on new legislation and regulatory topics that could impact the energy industry;
- 7 short courses on a wide variety of technical and geoscience subjects provided by experts in their respective fields;
- 3 core workshops—the Wilcox Group, Eagle Ford Shale and Cow Creek / Trinity Aquifer;
- Numerous Networking opportunities at Breakfast, Lunch, Dinner, and Entertainment Events, including workshops for young professionals, mid- and late-careers;
- All Convention Luncheon—Dr. Scott Tinker, Director, Bureau of Economic Geology;
- All Divisions Luncheon—Gretchen Gillis, AAPG President;
- GCSSEPM Luncheon—Dr. Liz Hajek, Professor, PSU, and SEPM President;
- Dinner, Dancing, and Austin Vista at County Line Restaurant, Bee Cave; and
- Great Venue and Location at the Renaissance Hotel in the Arboretum of north Austin.

GEOGULF 2021 is a great opportunity to connect and reconnect after a long hiatus. I encourage all professionals across all geoscience disciplines, especially those with a connection to the Gulf Coast and the energy sector, to attend and be part of an innovative and transformative experience at GEOGULF 2021 in Austin, Texas.

Brent A. Elliott

REPORT OF THE TECHNICAL PROGRAM CHAIRS

71ST ANNUAL CONVENTION, 2021

TOTI LARSON, MICHAEL SWEET, KELLY HATTORI, AND CARLOS FONSECA RIVERA



The geoscience landscape is evolving at a pace that many of us have not experienced during our long or short careers. The GEOGULF2021 Technical Committee decided to face these changes head-on; hence, this year's technical program is centered around the theme of "sustaining geoscience through the energy transition." We are proud to deliver a diverse program that highlights traditional and emerging concepts across the geosciences. Four forward-looking themes, divided into seventeen technical sessions, outline the major focuses of the technical program: (1) The Future of Exploration and Production; (2) The Future of Geohazards and Resource Management; (3) The Future of Sustainable Energy; and (4) The Future of Technology in the Geosciences. The GEOGULF2021 Technical Committee accepted 137 abstracts that will be presented in 99 oral and 38 poster presentations across two full days of the conference.

The GEOGULF2021 technical program was greatly improved by the 27 Technical Session Chairs who helped design the individual technical sessions and attracted high-quality conference abstracts. When designing the technical program, we specifically brought in geoscientists with a wide range of specialties across geoscience subdisciplines including onshore and offshore oil and gas, geothermal, carbon capture, critical minerals, induced seismic events, and hazards associated with rising sea level. We also brought in water rights advocates and professionals within the regulatory framework of drilling and permitting to discuss the balance of water and energy demands. To foster conversation across these subdisciplines, we also designed four panel discussions targeting important and timely topics. These panels, which will commence at the end of the morning and afternoon technical sessions, include conversations on the regulatory frameworks in an evolving energy landscape, Economics & Environmental, Social, and (Corporate) Governance (ESG) of unconventional plays, the creation of a stronger workforce through Diversity, Equity, and Inclusion (DE&I), and geoscience careers for 2021 and beyond.

The initial planning for GEOGULF2021 began before we knew and understood the effects of Covid-19. While the uncertainty presented by Covid-19 affected every aspect of GEOGULF2021 planning, we did our best to push through and present a top-notch conference despite the logistical challenges. We feel that the changes we made to the program, which includes hybrid technical presentations, will greatly improve the accessibility of the GEOGULF2021 program. Of particular note is the addition of a virtual field trip. "Water resources and innovative water strategies—A virtual field trip in the Texas Hill Country," presented by Linda McCall, Chock Woodruff, and Brian Hunt, will use Zoom and Google Earth to 'visit' field sites around Austin and Central Texas.

In addition to the virtual field trip, Field Trip Chair Kelly Hattori (Bureau of Economic Geology) lined up an incredibly diverse suite of nine traditional (in-person) field trips, sure to cover topics of interest for any geologist! Members of the Austin Geological Society and researchers at the Bureau of Economic Geology have prepared exceptional opportunities for geoscientists to visit world class outcrops of all types and learn from experienced field leaders.

In-person field trips (a phrase never said before 2020) will take participants to local gems. They can explore Longhorn Caverns, swim in Barton Springs, hike outcrops of the Wilcox Formation and the Cow Creek Formation / Trinity aquifer system, investigate the Hill Country remnants of the Wichita Paleoplain, visit the TV-famous volcanoes of south Austin, and even kayak along the spectacular Upper Cambrian microbial reefs of Mason County. For those who are more inclined to see the subsurface expression of these rocks, we are offering three core workshops, two of which pair with their accompanying field trip for an even better understanding of their respective formations: a clastics-oriented workshop focusing on the subsurface Wilcox Formation; a carbonate-oriented workshop focusing on the subsurface Cow Creek Formation; and a mudrocks-oriented workshop focusing on the subsurface Eagle Ford Shale. Participants of the mudrocks core workshop will also have the chance to “visit” the Eagle Ford Shale outcrops of Junction, Texas, without the long drive—by instead viewing them in full-immersion virtual reality during the workshop!

A comprehensive geoscience conference would not be complete with short courses, and as with other parts of the technical program, GEOGULF2021 has arranged an exceptional collection of geoscientists to teach novel geoscience tools. Seven short courses cover machine learning and geostatistics, salt tectonics, water in Texas, advanced multi-well formation evaluation, deep-water sedimentation, shallow marine reservoirs, and Python geoscience tools. All of these topics fall within the forward-looking theme of sustaining geoscience through the energy transition.

We look forward to joining you at GEOGULF2021!

REPORT OF THE EDITOR

71ST ANNUAL CONVENTION, 2021

JAMES J. WILLIS



This year marks my 6th time as serving as the GCAGS/GCSSEPM (now GeoGulf) *Transactions* Editor, with 16 years as the GCAGS Publisher and in various editorial capacities, and a decade plus as the GCAGS Managing Editor. Many persons might ask why would you subject yourself to that. My answer is that it has provided a huge giveback to an important association with a long history of quality contribution to Gulf Coast geoscience. I have to read many papers that in all honesty if not operating in this volunteer capacity would likely not read, yet I'm a better geoscientist for doing so. My favorite snippet per se thus far—did you know that a single hurricane event (Ivan, if I'm not mistaken) cleared out as much sediment from Mobile Bay as had been deposited the entire Century before?!!! But there has been so much more over these years that I've learned and am thus grateful to the many contributors over the years. This year we have an ever-increasing diversity of contributions that I hope you enjoy—still way too many abstracts in my opinion but publishing dues cost money.

To Norm Rosen, you have been so helpful these past few years and I will be forever grateful for your efforts. To Jill Willis, well, you already know how appreciative I am and I love you for that. None of my efforts over these last 16 years of serving GCAGS would have happened without you, and that doesn't include your own actual efforts for GCAGS over those same 16 years.

James J. Willis
Permanent GCAGS *Transactions* Editor

2021 GCAGS HONORARY MEMBERSHIP AWARD

71ST ANNUAL CONVENTION, 2021

LINDA STERNBACH



Linda has provided extraordinary service to GCAGS for over 30 years that has included her role of technical chair for the GCAGS annual meetings in 2015 and 2019—these have been the last two in-person GCAGS conferences held in Houston. Linda is a great “hands on” organizer and manager of the many moving parts for the organization of these meetings that included spearheading the call for content that involved reaching out to many professionals and students, creating a high-quality website that helped advertise the event by sharing the information on what was being offered, and planning impactful technical talk and poster sessions on topic of interest for the meeting participants.

She has been an active member of AAPG since 1984. She is the current AAPG Vice President Sections representative (2020–2022) on the AAPG Executive Committee. AAPG has recognized Linda’s contribution by presenting her with the AAPG Distinguished Service Award in 2015 and AAPG Honorary Membership in 2020. She has served in AAPG committees as a leader in Geophysical Integration and as the 2011 AAPG Annual Meeting Technical Chair.

Linda’s other service efforts included her serving the Houston Geological Society since the 1990s, serving as Board Member, HGS Bulletin Editor, Vice President, and President in 2007–2008. The Houston Geological Society has recognized Linda with Honorary Membership and the Jerry Cooley Award in 2014.

Linda was born in Philadelphia, PA, and earned a B.S. in Geology from Syracuse University in 1981, and an M.S. in Geology from Rensselaer Polytechnic Institute in 1984. She studied carbonate geology with Dr. Gerald Friedman at RPI, and married fellow student Charles Sternbach in 1983 just before leaving school to go to Texas to start jobs in the oil industry. Linda worked for ARCO Oil and Gas from 1984–1993, in the Gulf Coast onshore and offshore areas. She then consulted as a geophysical specialist using workstation interpretation for 10 years, working domestic and international plays. Linda worked for Pennzoil, Kerr McGee, Globex International, and Oxy before joining Star Creek Energy as Vice President in 2008.

With this Honorary Membership Award, GCAGS thanks Linda Sternbach for her dedication and service to GCAGS and for her efforts in making two of its annual meetings such a great success.

Paul Mann
University of Houston

GCSSEPM HONORARY MEMBERSHIP AWARDS

GCSSEPM 68TH ANNUAL MEETING, 2021

JAMES J. WILLIS (2020 HONOREE)



Honorary Membership in GCSSEPM is granted to James J. Willis for his significant contributions to GCSSEPM through his many efforts over the years contributing to the *GCAGS/GCSSEPM Transactions* and Conventions as presenter and writer of outstanding contributions, organization leadership, GCAGS Managing Editor, and *Transactions* Permanent Editor. Recently, he has helped transform with other colleagues the GCAGS/GCSSEPM Convention into the GCAGS/GCSSEPM GeoGulf Convention and served as General Chair of GeoGulf 2020 in which he led the way to a first in hybrid geoscience conferences. This Honorary Membership recognizes his tenacity through many contributions to the Convention and now GeoGulf, an important conference for GCSSEPM's membership and a venue for GCSSEPM's regionally focused geoscience discourse. Further, his determination to ensure GeoGulf 2020 happened despite the many obvious obstacles we all faced, and the not so obvious obstacles, required to allow the conference to proceed.

James J. Willis received his B.S. and M.S. degrees in Geology from the now University of Louisiana-Lafayette in 1989 and 1990, respectively, and his Ph.D. as a National Science Foundation research fellow at Baylor University, Waco, Texas, in 1993. From 1994–1996, he studied planetary tectonics as a NASA-funded postdoctoral fellow at Southern Methodist University. In 1996, he returned to UL-Lafayette, where he was awarded in 1997 the Hensarling-Chapman Endowed Professorship in Geology. He began independent consulting activities in 1991, and in 2001 left academia for full-time consulting for clients ranging from one-man shops to supermajors. He rejoined UL-Lafayette as an adjunct professor from 2011–2018. James is an active researcher, receiving several million dollars in grants from federal, state, and industry sources, presenting numerous talks, including a 2019 AAPG Levorsen award, and publishing on a diversity of geoscience topics, including a Grover E. Murray Best Published Paper award in 2017 and co-author of the inaugural *GCAGS/GCSSEPM Transactions* Best Student Paper award in 2018. He served as the GCAGS Publisher since 2006 and in various *GCAGS/GCSSEPM Transactions* editing capacities since 2006, including the 2014 and 2017–2020 Editor (named Permanent *Transactions* Editor in 2017), and Managing Editor since 2011, receiving a GCAGS Distinguished Service Award in 2018. He served as the General Chair for GeoGulf 2020 (70th GCAGS/GCSSEPM Convention), the 1st hybrid geoscience conference in the world. He is a Past President of the Lafayette Geological Society and served as its Editor and Publisher from 2002–2018. In 2018, he founded the Willis School of Applied Geoscience, reformulating decades of industry-training experience to include providing graduate students zero-cost training. He also joined the LSU faculty as an adjunct professor in 2020.

Don Van Nieuwenhuise
GCSSEPM Past-President

JAMES L. PINDELL (2021 HONOREE)

The Executive Council of GCSSEPM conveys honorary membership to James L. Pindell for his outstanding contributions in tectonism and sedimentation. He was previously awarded GCSSEPM's highest honor, the Doris Malkin Curtis Medal, in 2020.

James Lawrence ("Jim") Pindell was born on October 9, 1957, in Syracuse, NY, and was gifted from birth with an eidetic memory and a natural curiosity about the world. This curiosity initially led him to Colgate University, where he earned a B.A. in geology in 1979. Jim earned his M.S. in geology in 1981 at SUNY Albany under the guidance of John Dewey and Kevin Burke, and this partnership with Dewey led to the publication of Jim's landmark M.S. synthesis, Permo-Triassic reconstruction of Western Pangea and the evolution of the Gulf of Mexico/Caribbean region in 1982. With this promising start, Jim entered the oil industry with Pennzoil in Houston but left after a year to pursue his Ph.D. in geology under Dewey and (external advisor) Walter Pittman at the University of Durham (England). It was from this work that Jim published what is now considered to be his groundbreaking paper on the origin of the Gulf of Mexico, Alleghanian reconstruction, and the subsequent evolution of the Gulf of Mexico, Bahamas, and Proto-Caribbean Sea in 1985. After brief stints at Lamont-Doherty and the University of Puerto Rico (Mayagüez), Jim settled in at Dartmouth College for the longest stay of his academic career (1987-1997). During his time at Dartmouth, Jim built on his initial work with 28 major publications on the geology and tectonic evolution of the Gulf of Mexico and Caribbean regions. His 1990 Decade of North American Geology paper with Steve Barrett, "Geologic Evolution of the Caribbean Region: A Plate-Tectonic Perspective," is still considered to be the starting point for all those working on tectonic problems in the region.

Jim's pursuit of geological problems pulled him into the field in many countries, including Venezuela, Colombia, Trinidad and Tobago, Barbados, and Mexico, and this work obviously made him think more deeply about the interplay of tectonics and sedimentation on hydrocarbon accumulations in Mexico and the Caribbean borderlands. In 1986, Jim started Tectonic Analysis, Inc., one of the first and most successful industrial associates programs in E&P research. Along with coworkers and former students Sam Algar and Johan Erikson and synergistic relationships with Roger Higgs and Tomás Villamil, Jim produced numerous voluminous industry reports and publications and made many key advances in our understanding of the geology of northern South America. Upon leaving Dartmouth, Jim worked full-time through Tectonic Analysis, Ltd. (TAL) with Lorcan Kennan to combine and synthesize TAL products with industry data in a universal digital format, especially improving our understanding of the geology of Trinidad and Tobago. In 2009, Jim and Lorcan published "Tectonic Evolution of the Gulf of Mexico, Caribbean and Northern South America in the Mantle Reference Frame: An update," a major leap forward in our understanding of circum-Caribbean geology and evolution. While Jim maintained his academic ties as an adjunct professor with the University of Cardiff and Rice University, the industry-related portion of TAL continued to grow. In 2011, Jim began a fruitful working relationship with ION-GXT that helped return his focus to the Gulf of Mexico, but also allowed him to branch out into new project areas like Brazil, Suriname, and Mexico, from which Jim co-taught numerous ION workshops for industry around the world with colleagues Rod Graham and Brian Horn. Since 2017, Jim and Rod along with Gary Gray have conducted field studies together in Mexico, the three of them teaming to author four papers in the recently published Geological Society of London Special Publication 504, "The Basins, Orogens and Evolution of the Southern Gulf of Mexico and Northern Caribbean." Jim's expanded focus on Mexico has also allowed him to collaborate with key coworkers Diego Villagómez, Bodo Weber, and Roberto Molina-Garza.

Since the beginning of his career, Jim's work has shaped how we think and what we know about the post-Pangea world of the Gulf of Mexico, the Caribbean, and South America. A list of his major contributions and publications (over 100 papers, plus countless abstracts and presentations) would be too long to include here. Some of his most important contributions include:

- Recognition of the importance of the Tuxpan-Chiapas Transform margin, now known as the East Mexico or Western Gulf Transform which facilitated the counterclockwise rotation of the Yucatán Block out of the Gulf of Mexico.
- Understanding the amount and extent of stretching/extension of the West Florida crust into the Great Bahamas Bank.
- Strontium dating of salt in the principal Gulf of Mexico salt basin (not just the interior salt basins) as Bajocian, and not Callovian.
- Proponent and champion of the Pacific origin of the Caribbean Plate.
- Clearly documenting the Maastrichtian to Present eastward migration of the Caribbean foredeep along northern South America.
- Balancing 1100 km of Cayman Trough offset across the multiple fault strands of Hispaniola (and not just the Oriente Fault Zone).
- The realization of the transition from transpression to transtension in eastern Venezuela and Trinidad at 10 Ma.
- Recognized the Chiapanecan Orogeny in southern Mexico was not caused by the passage of the Chortis Block, but rather by the onset of subduction beneath Chiapas in the wake of Chortis.

For my part, I've had the pleasure to know Jim personally and professionally for the past 36 years, during which Jim and I have worked together on Florida, Trinidad, Colombia, Venezuela, and the opening of the Atlantic. Besides his many achievements and prodigious intellect, I know Jim as a family man and a good friend. Never having been accused of being timid, Jim will fiercely defend his ideas and his friends, and cares deeply about the science of geology. I am therefore honored to have been asked to write the citation for this award, which is so richly deserved.

Bob Erlich
Executive Director, Cayo Energy LP.

DORENE B. WEST (2021 HONOREE)



This year, 2021, the Gulf Coast Section SEPM Honorary Membership has been awarded to Dorene B. West, a consulting geologist in Houston, Texas. Dorene was born in Indianapolis, Indiana. She attended the School of Business at Indiana University, where she was first exposed to geology when she took an earth science course to fulfill a curriculum requirement. Earth science was a revelation to her and radically changed her academic aspirations. She completed the coursework for an Associate Degree in Business Management and Administration and then changed her major to geology and her future career was set. She graduated and then obtained her master's degree, also at Indiana, in structural geology. Her thesis is titled "Analysis of Structural Fabric Data on the Unit Sphere."

Upon leaving Indiana, Dorene relocated to Midland to take up a post with Gulf Oil. She initially worked in Gulf's Geoscience Exploration Data Processing Group and latterly in their Exploration/Operations teams in Midland and New Orleans, and Frontier Exploration team in Houston. In 1984, her activities were responsible for 25% of Gulf's New Orleans District booked reserves. Over the following years she held permanent positions at Sohio, GECO, Pacific Enterprises, Pennzoil, Kerr-McGee, Phillips/ConocoPhillips, and Nexen. In addition, she provided consulting for Total Minatome, Arco, Phillips, Maxus, Newfield, Hess, Camac, Tectonic Analysis, and Lloyd's Register. Building on her structural geology expertise, she became particularly interested in salt-associated plays, and was one of the first geologists to recognize that there was untapped exploration potential in such systems. Her papers presented orally at the Gulf Coast SEG in 1987, the AAPG Annual Convention in 1988, and the 28th International Geological Congress in 1989. Her paper in the *AAPG Bulletin* in 1989 titled "Salt Deformation on Deep Margin of Central Gulf of Mexico Basin" was seminal in this respect. With this extensive experience under her belt, she also taught salt tectonics seminars.

Dorene's interest in salt tectonics also led to her long association with GCSSEPM and particularly the Annual Research Conferences. This relationship began when she co-chaired the very successful 10th Annual Research Conference titled "Gulf of Mexico Salt Tectonics, Associated Processes and Exploration Potential"; this was the Section's first salt conference, as well as the first time in the history of the section that attendance was sold out. After this auspicious start, she continued to serve the society, including editing papers for the 15th Annual Research conference titled "Rates of Geologic Processes, Tectonics, Sedimentation, Eustasy and Climate—Implications for Hydrocarbon Exploration," and serving in various editorial capacities for the *GCAGS/GCSSEPM Transactions* since 2015. She also served as Vice-Chairman for the 2015 Annual GCAGS Convention. In addition to volunteering to fill these roles for the annual meetings, she also served our society administratively: President-Elect in 2015, President in 2016, Past-President in 2017, and she is beginning a 4 year term as a Foundation Trustee in 2017.

In 2017, Dorene became a worthy recipient of the Gulf Coast Section SEPM Distinguished Service Award.

Since semi-retiring in 2016, Dorene has volunteered for professional societies by editing papers for GCAGS/GeoGulf and AAPG. She has served as a Special Agency judge yearly for Houston Geological Society (HGS) at the Science and Engineering Fair Houston (SEFH) and is chairing the committee for HGS SEFH in 2021. Dorene continues to serve as a Trustee for GCSSEPM Foundation and knowledge resource for the GCSSEPM Executive Committee.

GCSSEPM DISTINGUISHED SERVICE AWARDS

GCSSEPM 68TH ANNUAL MEETING, 2021

JOSEPH CARL FIDUK (2020 AWARDEE)



The Distinguished Service Award is given to those members who have given significantly of their time to support the activities of the Section or Foundation. Carl recently received the same award in 2018 for his lengthy contributions of service to GCSSEPM and the geoscience community as previously described by Bruce Hart in the member section of the GCSSEPM webpage. Nevertheless, it was overwhelmingly appropriate and timely to honor Carl again with a 2020 Distinguished Service Award for his service through outstanding leadership for the 2019 in the Perkins-Rosen Conference. The Perkins-Rosen Conference is the premier event of the GCSSEPM Foundation, which provides a venue for the GCSSEPM membership and world leaders to share their experiences and knowledge through publications and presentations on various aspects of Gulf Coast geology and its application to hydrocarbon exploration and production. These topics include Salt Tectonics, which was the theme of the conference in December 2019. Carl significantly contributed to the efforts required for this conference to happen, even though many conferences had been cancelled due to the downturn in industry prior to the onset of the COVID 19 pandemic in early 2020.

Carl Fiduk is presently an independent consultant and owner of Fiduk Consulting, LLC. He has far too many years of combined exploration, production, research, service-company, and private consulting experience in the petroleum industry and academia. He earned his B.A. and M.S. in geology from the University of Florida, an M.B.A. from the University of Texas-Permian Basin, and a Ph.D. in geology and geophysics from the University of Texas at Austin. Carl has previously been an explorationist at Gulf Oil, BP, and Freeport McMoran, a researcher at the Bureau of Economic Geology and the University of Colorado, and the Chief Geologist at CGG, CGGVeritas, and WesternGeco. At various times he has been employed as either a geophysicist or a geologist. He has been asked to do everything from prospect generation to regional seismic mapping, from modelling petroleum systems to detailed sequence stratigraphic analysis, from 2D structural restorations to seismic project management, from mentoring young professional to teaching industry training classes, and much in between. To his consulting clients he provides expertise on petroleum exploration, salt tectonics, marine depositional processes, basin analysis, seismic interpretation, seismic processing, and structural geology. He has explored in almost all the major salt basins of the world. He has published just over 100 peer reviewed abstracts/papers and is a past AAPG Distinguished Lecturer.

Don Van Nieuwenhuise
GCSSEPM Past-President

JOHN R. SUTER (2020 AWARDEE)



The Distinguished Service Award is given to those members who have given significantly of their time to support the activities of the Section or Foundation. It is appropriate and timely to honor John with a Distinguished Service Award for his contributions to GCSSEPM and GCAGS, including the last five years serving on Executive Council and as Executive Director of the GCSSEPM Foundation, a position he continues to hold. In that position, he assisted Carl Fiduk with several aspects of the 2019 Perkins-Rosen Research conference including securing the meeting venue

from a strong supporting company, Noble Energy. The Perkins-Rosen Research Conference is the premier event of the GCSSEPM Foundation, which provides a venue for the GCSSEPM membership and world leaders to share their experiences and knowledge through publications and presentations on various aspects of Gulf Coast geology and its application to hydrocarbon exploration and production. These topics include Salt Tectonics, which was the theme of the conference in December 2019. Additionally, through his leadership skills, John correctly cancelled the 2020 research conference due to a lack of available industry support and lingering COVID 19 issues in Houston. In all, his many efforts have contributed significantly to the continuation of both the GCSSEPM Section and the Foundation through good times and more difficult times.

John R. Suter, Ph.D. is a consulting geologist in Houston, Texas, with primary expertise in clastic facies and sequence stratigraphy. Suter obtained bachelor's degrees in chemistry and geology, and a master's degree in geology from the University of Texas at Austin, followed by a Ph.D. in geology from Louisiana State University. John began his geological career as a marine geologist with the USGS, Louisiana Geological Survey, and Louisiana State University in the early 1980s, working on sea level rise, coastal evolution, and Quaternary sequence stratigraphy. During this time, he held leadership roles in international organizations devoted to Quaternary shoreline studies, including the International Union for Quaternary Research (INQUA) and the International Geological Correlation Program (IGCP). Suter shifted to industry in 1988, working with Exxon Production Research, Conoco, Inc., and ConocoPhillips until retiring in 2015. He spent most of his industry career in technology groups, doing research, technology development, and training, as well as working projects involving reservoir, source, and/or seal for conventional and non-conventional deposits at exploration, appraisal, development, and production scales in various basins across multiple continents. Suter has published numerous papers, organized and convened multiple research conferences, and has taught a variety of short courses, field schools, and core workshops for petroleum companies, scientific societies, and universities. He has received awards for papers, presentations, and posters from various professional societies, including AAPG, AASP, CSPG, GCAGS, SEG, and SEPM. He is a Texas Professional Geologist (#3915). Suter was an AAPG Distinguished Lecturer, served as SEPM Councilor for Research, and chaired the AAPG Technical Advisory and Research Committees. John was the President of the Gulf Coast Section of SEPM in 2017 and assumed the duties of Executive Director of the GCSSEPM Foundation in late 2018.

Don Van Nieuwenhuise
GCSSEPM Past-President

JUSTIN GOSSES (2021 AWARDEE)



Justin Gosses grew up on fossiliferous Silurian dolomite and limestone in northern Ohio on the shores of Lake Erie before moving to less interesting Devonian shale. He studied geology at Franklin and Marshall College in Pennsylvania on top of Cambrian & Ordovician limestone & phyllite. His undergraduate thesis was on the sedimentology and stratigraphy of the Tsagantsav Formation, southeastern Mongolia, a series of volcanoclastic, lacustrine shales and sandstones deposited in a failed rift basin. Graduate studies followed at University of Wisconsin-Madison on Cambrian sandstone where interests in volcanoclastic stratigraphy continued with field work in the Chubut province of Argentina unraveling the stratigraphic history and ages of Eocene age caldera lake sediments holding the paleontological important Laguna del Hunco flora.

Upon finishing his studies, Justin started with BP Exploration and Production Inc. in Houston. Based out of an office on Quaternary Beaumont Formation shales, he worked on exploration, development, production, and research teams across the Gulf of Mexico and Rockies. After an expatriate position in Calgary, Canada, Justin came back to Houston and worked offshore Brazil exploration. In 2015 & 2016, Justin started to more seriously pick up coding leading to a NASA contractor position within enterprise IT focused on web development and data visualization that

over time shifted to machine learning and open data. Justin's geoscience activities are now limited to side projects. In addition to volunteering with Gulf Coast Section of SEPM as social media chair, he's created wellio & wellioviz, two javascript libraries that allow for easy programmatic analysis and visualization of LAS formatted well logs on the web without converting and storing the data in other formats. Predictatops is a Python project demonstrating a novel supervised machine learning approach to stratigraphic well correlation. Awesome Open Geoscience is a listing of useful open source subsurface geoscience software that is maintained by Justin and 54+ other volunteers from SWUNG (Software Underground), a free global group of subsurface geoscientists who code. It is the most popular code project on github.com under the geoscience topic.

MUHAMMAD SHAHID MEHMOOD (2021 AWARDEE)



What is quickly apparent upon meeting Muhammad Shahid Mehmood (Shahid) is that he is passionate about geology and science communication/outreach. Born in Islamabad, Pakistan, Shahid earned a diploma in Mechanical Engineering from CTTI Islamabad in 1998. A lifelong learner, he returned to school and received a B.Sc. of Earth Science from Birkbeck University, London, in 2016. With over 13 years of experience in oilfield services, Shahid is a skilled Formation Evaluation specialist and has worked in Saudi Arabia, Oman, and Bahrain. Eager to share what he knows with others, Shahid has volunteered his time to coach University of Houston students on writing CVs and to teach earth science concepts to lower and high school levels. Shahid has served on GCSSEPM's Social Media team from 2019 to present and manages the GCSSEPM LinkedIn and Twitter accounts. This service has proven particularly valuable to create community, share information, and raise the profile of GCSSEPM during the COVID-19 pandemic. Even calling in from an oilfield in Saudi Arabia, Shahid is brimming with energy and ideas for how to better leverage Social Media to improve our society. The Executive Committee would like to recognize his efforts with a 2021 Distinguished Service Award.

PRESIDENT'S AWARD FOR OUTSTANDING PAPER
***GCAGS JOURNAL*, Vol. 9 (2020)**
Gulf Coast Association of Geological Societies

"Integrated Carbonate Reservoir Analysis and Modeling, Upper Jurassic Smackover Formation, Fishpond Field, Southwestern Alabama, Northeastern Gulf Coastal Plain"

**Alexander Owen, Ernest A. Mancini, D. Joe Benson,
Berry H. Tew, Jr., and Ibrahim Çemen**



Alexander Owen

Alex has worked for six years in the oil and gas industry and serves as the Executive Vice President of Exploration for Fletcher Petroleum, located in Fairhope, Alabama. He has a bachelor's degree in Geology from the University of South Alabama, a Master's Degree in Geological Sciences from the University of Alabama, and is currently pursuing a Ph.D. in Earth and Environmental Science from the University of New Orleans. Alex's primary research focus has been on the Jurassic Smackover Formation in the U.S. Gulf Coastal region, while also exploring for oil and gas in various plays located along the Gulf Coast. Alex has a professional geologist's license in the state of Alabama and is an active member in the American Association of Petroleum Geologists, University of Alabama Geological Sciences Advisory Board, and the Florida Independent Petroleum Producers Association.

Ernest A. Mancini

Biography and photograph not available as of press time.



D. Joe Benson

D. Joe Benson is Professor Emeritus in the Department of Geological Sciences at the University of Alabama. He received his B.A. degree from the College of Wooster and his M.S. and Ph.D. degrees from the University of Cincinnati. During his 37 year career at the University of Alabama, he served as Chair of the Department of Geology, Assistant and Associate Dean of the College of Arts and Sciences, Vice-President for Research, and Interim Provost. He and his students have been involved in research on the stratigraphy, environments of deposition, and diagenesis of Paleozoic and Mesozoic sedimentary rocks in the southern Appalachians and the Eastern Gulf Coastal Plain.



Berry H. Tew, Jr.

Dr. Berry H. "Nick" Tew, Jr. is the State Geologist of Alabama. As State Geologist, Dr. Tew also serves as State Oil & Gas Supervisor and Secretary of the Oil and Gas Board. He is also an Adjunct Professor of Geology at the University of Alabama. He specializes in Alabama's surface and subsurface geology with almost 40 years of professional geological experience in this regard. Nick serves as Alabama's Official Representative to the Interstate Oil and Gas Compact Commission (IOGCC) and is currently Vice-President of the Groundwater Protection Council. He is a professional geologist licensed by the Alabama State Board of Licensure for Professional Geologists, a Fellow of the Geological Society of America, and has been a member of American Association for Petroleum Geologists for over 40 years. Nick was awarded the E. W. Marland Award, IOGCC's highest honor, in 2013, and the Medal in Memory of Ian Campbell for Superlative Service to the Geosciences, the highest award of the American Geosciences Institute, in 2016.



Ibrahim Çemen

Dr. Çemen has been conducting research in petroleum structural geology, petroleum system analysis, and effects of tectonics and climate in sedimentation since the mid-1990s, when he started to work on the Devonian, Mississippian, and Pennsylvanian Petroleum Systems in the Arkoma Basin in Oklahoma. This work was first supported by a 3 year grant from Oklahoma Center for Advancement in Science and Technology (OCAST) to study "Overthrust natural-gas reservoirs in the Arkoma Basin" by his research group. The OCAST grant was matched by the Gas Research Institute (GRI). The group supported several graduate students' theses and wrote a comprehensive final report to OCAST. Since 2000, Dr. Çemen has been continuing his petroleum system analysis research in the Arkoma Basin with grants and contracts from the energy industry.

Dr. Çemen advised fifteen graduate students M.S. thesis projects in different aspects of petroleum system analysis in Arkoma Basin. He has published many scientific journal articles with his students based on their work in the Arkoma Basin and given numerous scientific presentations in National and International Meetings. Their work inspired a triangle model of strain partitioning from the leading edge-thrust to the basinal sediments. The triangle model has now been proposed for strain partitioning in sedimentary basins in other parts of the world similar to their tectonic settings to the Arkoma Basin.

Since joining the University of Alabama, Department of Geological Sciences in August, 2009, Dr. Çemen has been conducting research in Jurassic to Cretaceous petroleum systems in Gulf Coastal Plain sediments in Alabama and Mississippi with his students and colleagues.

Ed. Note: The 2020 *GeoGulf Transactions* volume incorrectly listed Peter Rose as the 2020 President's Award for the Best Published Paper in the *GCAGS Journal*, v. 9. Peter Rose was the 2019 awardee for the *GCAGS Journal*, v. 8. Note that Peter Rose is also the 2021 awardee for the *GCAGS Journal*, v. 10.

PRESIDENT'S AWARD FOR OUTSTANDING PAPER
***GCAGS JOURNAL*, Vol. 10 (2021)**
Gulf Coast Association of Geological Societies

"The Wichita Paleoplain in Central Texas"

Peter R. Rose



Peter R. Rose

Dr. Pete Rose (Ph.D., Geology, University of Texas, Austin) has been a professional geologist for 63 years, specializing in Carbonate Stratigraphy, Petroleum Geology, E&P Risk Analysis, and Mineral Economics. Before going on his own in 1980 as an independent prospector and consultant, he worked for Shell Oil Company, the United States Geological Survey, and Energy Reserves Group, Inc., a small-cap Independent.

After 10 years as an internationally-recognized authority on economic risk of exploration drilling ventures, he founded Rose & Associates, LLP, in 1998. Pete retired in 2005; the firm continues as the global standard among consulting companies in that field, providing instruction, software, and consulting services on an international scale.

Pete wrote the definitive geological monograph on the Edwards Limestone of Texas (Rose, 1972), and has continued to publish related investigations to the present time. His 2001 book, *Risk Analysis and Management of Petroleum Exploration Ventures*, now in its 7th printing, is considered by many as the "Bible" on that topic, and has been translated into Chinese, Japanese, and Russian. He has authored or co-authored more than 80 published articles on an extremely wide variety of geological topics (Micropaleontology to Petroleum Economics). He is a Fellow of the Geological Society of America, the American Association for the Advancement of Science, and Geological Society of London.

In 2005, he was the 89th President of the American Association of Petroleum Geologists.

In 2006-07, he was a member of the National Petroleum Council, involved with their summary of the global energy situation, *Facing the Hard Truths about Energy*, and was also deeply involved in successful efforts to encourage the U.S. Securities and Exchange Commission to modernize its rules governing estimation and disclosure of oil and gas reserves, thus facilitating the investment component of the "shale revolution" in the U.S.

In 2013, the Geological Society of London awarded Peter R. Rose its prestigious Petroleum Group Medal for lifetime contributions to Petroleum Geology, the first American to be so recognized, and in 2014 the American Association of Petroleum Geologists honored him with its Halbouty Outstanding Leadership Award.

Pete is a 5th-generation Texan. He and his wife Alice have 5 children and 8 grandchildren. They divide their time between Austin and their El Segundo Ranch near Telegraph, Texas. In retirement, he took up a new career as a historian: in September 2012, Texas Tech University Press published his book, *The Reckoning: The Triumph of Order on the Texas Outlaw Frontier*, about the coming of Order and Law to the western Hill Country and Edwards Plateau regions of Texas (1873-1883). He is also well known for field trips he leads with Dr. Charles Woodruff into the Texas Hill Country that combine the topics of Geology, Wineries, and Frontier History.

GROVER E. MURRAY BEST PUBLISHED PAPER AWARDS

GCAGS / GCSSEPM

FIRST PLACE – 2020

“Advanced Facies Characterization in Clastic Reservoirs from the Gulf of Mexico: Integration of Quantitative Borehole Image Texture and Laminated Deposition Analysis”

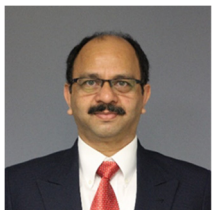
Indrajit Basu, Anish Kumar, and Elizabeth Ruiz



Indrajit Basu

Indrajit Basu is an independent senior geoscientist with over 20 years of experience in well log and subsurface data interpretation. He has worked in various clastic, carbonate, and unconventional reservoirs from Asia, Middle-East, Africa, Europe, and American basins including offshore Gulf of Mexico, Trinidad, and Guyana with specialization in image log data analysis and applications, mostly with Schlumberger. Indrajit holds a Master of Technology degree in GeoExploration from Indian Institute of Technology, Mumbai, India.

Indrajit joined Schlumberger in 2001 and worked as a geologist, reservoir geologist, and team lead before taking over the domain head role for wellbore software development in France and worked as a senior geologist based in Houston. He is an industry recognized trainer in borehole geology for over a decade. Indrajit is a member of AAPG.



Anish Kumar

Anish Kumar received his Ph.D. in Geology at Texas Tech University in 1997. He worked with Special Core Analysis Labs, Inc., Midland, Texas, as a Geologist and Lab Manager until 2001, when he began his career with Schlumberger in New Orleans as an Interpretation Development Geologist with a focus on Borehole Geology and deepwater deposits. He moved to Houston in 2005.

Continuing a focus on deepwater, Anish is currently the Geology Domain Champion for Schlumberger's Offshore Atlantic RPE (Wireline) operations.



Elizabeth Ruiz

Elizabeth Ruiz graduated from Brigham Young University with a Bachelor's in Geology in 2004, and a Master's in Geological Sciences in 2007. She has 15 years of experience as a borehole geologist for Schlumberger. Over her career, she has worked in conventional and unconventional reservoirs providing image interpretations from Wireline and LWD imaging tools. She is currently the lead Schlumberger borehole geologist for the Gulf of Mexico and the Guyana, Trinidad, and Caribbean areas. Using borehole images and other petrophysical data, she provides dip, structural, lithofacies, and paleocurrent analyses for deepwater reservoirs.

SECOND PLACE – 2020

“Evaluating Failure: Extracting Relevant Volatile Geochemical Information from Legacy Geological Materials from Dry Holes and Underperforming Wells”

Christopher M. Smith and Michael P. Smith



Christopher M. Smith

Christopher Smith has been a Senior Chemist with Advanced Hydrocarbon Stratigraphy (AHS) since January 2019 and works in Houston on data analysis, instrumentation, client engagements, and business development. Most of his analysis work focuses on the North Slope in Alaska, the Delaware Basin, the Anadarko Basin in Oklahoma, and the Marcellus, though an increasing portion is focused on the Gulf of Mexico and the Columbus Basin. Prior to working for AHS, he received his Ph.D. in analytical chemistry from the University of Arizona in the Winter 2018 term with focuses on instrumentation, data analysis programming, spectroscopy, electrophysiology, surfactants, and surface modification chemistries. He also completed an M.A. in history at the University of Tulsa as a Henneke Research Fellow in 2012. He completed his undergraduate work *cum laude* in 2011 with degrees in chemistry, history, and biochemistry also from the University of Tulsa.



Michael P. Smith

Mike Smith earned a B.A. in Geology from Rutgers College in 1977, and Ph.D. in Geology and Geophysics from U Hawaii in 1981. At U. Tulsa (1981–1984), Mike developed the first Mass Spectrometer system to analyze Individual Fluid Inclusion Volatiles with Colin Barker. At Amoco’s Tulsa Research Center (1984–1994), Mike invented Fluid Inclusion Stratigraphy (FIS), now owned and marketed by Schlumberger. Mike resigned Amoco in 1994 to start Advanced Hydrocarbon Stratigraphy (AHS) inventing Fluid Inclusion Volatiles (FIV). Mike sold FIV to ExxonMobil Upstream Research in 1999 and consulted with ExxonMobil until 2009. In 2010 Mike restarted AHS developing new patented technology to gently analyze present-day oil, gas, and formation water in cuttings and core. AHS and Baker Hughes are strategic partners since 2018 and market this technology worldwide as Volatiles Analyses Services (VAS). VAS also evaluates CCS reservoir viability and aids helium exploration using old and new cuttings and core.

THIRD PLACE – 2020

“Machine Learning Identification of TOC-Rich Zones in the Eagle Ford Shale”

Adewale Amosu, Mohamed Imsalem, and Yuefeng Sun



Adewale Amosu

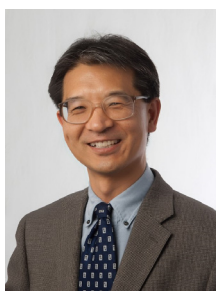
Adewale Amosu obtained a Ph.D. in Geophysics from the University of Memphis in 2014. His research addresses challenges encountered in the exploration of Earth’s resources using various computational, data analysis, and artificial intelligence tools, in areas of interest such as petroleum geology, petrophysics, reservoir

rock physics, and statistical and mathematical methods in geology. He is an active member of the Society of Exploration Geophysicists (SEG), the American Association of Petroleum Geologists (AAPG), and the International Association for Mathematical Geosciences (IAMG).



Mohamed Imsalem

Mohamed N. Imsalem obtained a master's degree in vertebrate paleontology from the University of Poitiers, France, in 2011. He obtained a second master's degree in Miocene to Quaternary palynology from University of Montpellier, France, in 2012, as well as a Ph.D. in Geoscience from Texas A&M University in 2021. His research interests include palynology, paleopalynology, petroleum geology, petrophysics, geochemistry, and statistical methods. He is a member of the American Association of Stratigraphic Palynologists (AASP), and the American Association of Petroleum Geologists (AAPG).



Yuefeng Sun

Dr. Yuefeng Sun is a Professor of Geology and Geophysics at Texas A&M University, College Station, USA. He received his Ph.D. from Columbia University in 1994. His research interests include petroleum geology, reservoir geophysics, biogeophysics, mechanics, and electrodynamics of multiphase fractured porous media, and advanced energy research. He is the Director of the TAMU Reservoir Geophysics Program with research focus on integrating geology, rock physics, geophysics, and reservoir simulation for energy exploration and production. He has served on the editorial boards of *Geophysics* and the *Journal of Computational Acoustics*. He is a member of the Society of Exploration Geophysicists (SEG), the American Association of Petroleum Geologists (AAPG), and the American Geophysical Union (AGU).

HONORABLE MENTION - 2020

“Chicxulub Target Stratigraphy and Ejecta: Insights from Northern Belize”

David T. King, Jr. and Lucille W. Petruny



David T. King, Jr.

Dr. King's academic research interests are related to the effect of asteroid and comet impact upon Earth history and the stratigraphic record; and his applied research interests connect to sedimentary geology—particularly petroleum exploration, carbon sequestration, and subsurface waste disposal. He is an author of many scientific papers, including “Shallow marine-impact origin for the Wetumpka structure (Alabama, USA),” which was published in *Earth and Planetary Science Letters* (2002). With Hal Levin, he is co-author of historical geology textbook, *The Earth through Time*, 11th ed. (2016). Dr. King served on the North American Commission on Stratigraphic Nomenclature from 1997–2000. Since 2005, he has served the Alabama Board of Licensure for Professional Geologists as the representative of the state's academic community. He is a licensed PG in the states of Alabama, Louisiana, and Texas.



Lucille W. Petruny

Dr. Petruny's academic research interests are related to terrestrial impact structures and their ejecta, particularly Wetumpka impact crater in Alabama and the Chicxulub impact's ejecta blanket in Belize, Central America. She has completed field geology studies of impacts and their ejecta in various parts of the U.S., as well as in Belize and adjacent Mexico, Italy, Norway, Brazil, Cuba, Namibia, and South Africa. Dr. Petruny was a research scientist for two NASA-funded core-drilling projects with respect to impact structures—Chesapeake Bay (2005) and Wetumpka (2009). She is an author of many scientific papers and abstracts, including "Stratigraphy of Belize, north of the 17th parallel," which was published in the *GCAGS Transactions* in 2004.

**"Chemostratigraphy of Carbonate Gravity Flows of the
Wolfcamp Formation in Crockett County, Midland Basin, Texas"**

Alex P. Blizzard and Julie M. Bloxson



Alex P. Blizzard

Alex Blizzard attended Texas Tech University for his Bachelor's in Geoscience and Stephen F. Austin State University for his Master's in Geology. He gained industry experience through multiple internships throughout his academic career developing experience in the Cherokee Basin, East Texas Basin, and Permian Basin. His latest internship was with Chevron on their Permian Exploration Team on regional exploration opportunities of the Barnett and Woodford across the Permian Basin. The project incorporated predictive analytics and reservoir statistical analysis for future portfolio strategy recommendations.

Alex graduated in 2020 and went to go work for IHS Markit in Technical Business Development. He helped grow new business across all products including geoscience & engineering software, analytics platforms, surface & subsurface data, and industry insights. He now is a Geoscience Technical Advisor specializing in Petra & Kingdom Geology helping subsurface teams become more efficient in their everyday workflows.



Julie M. Bloxson

Julie received her B.S. in geology from the University of Akron in 2008, where she focused her undergraduate research on core analysis of tidal rhythmite deposits associated with Pennsylvanian coal seams within the Appalachian Basin. She received her M.S. in geology from Kent State University in 2012, studying the Grimsby Sandstone/"Clinton Sands" in eastern Ohio. This project focused on using a combination of core and well log analysis to extrapolate porosity and permeability across a county and determined the controlling factors of porosity/permeability in these tight gas sands. She received her Ph.D. from Case Western Reserve University in 2017, focusing on the Utica Shale and controls on deposition. Julie continued this work at the Ohio Geological Survey, working within the Energy Group on various subsurface mapping projects that focused on salt deposits, carbon sequestration, and unconventional resources for two years. She is currently an assistant professor at Stephen F. Austin State University since 2018 and heads the East Texas Core Repository at the Science Research Center, where she is creating the Black Shale Research Facility. This facility will help to expand non-destructive core analysis and continue to correlate core data to well log data for better subsurface analysis for natural resources and energy-related issues. Her

goal for the facility is to allow students to gain the necessary skills for industry and research and to facilitate a connection between local industry and academia for future research.

“Preliminary Lithologic Characteristics of Gravel Deposits in Mississippi”

Ana Batista, Ken McCarley, and Ezat Heydari



Ana Batista

Ana L. Batista completed her B.S. degree in Earth System Science at Jackson State University (JSU) in Jackson, Mississippi, in May of 2021. She is currently pursuing a second B.S. degree in Chemistry at JSU. Born in Brazil, Ana arrived in the United States on an athletic scholarship to play for JSU's women soccer team. Growing up in Minas Gerais, a state known throughout Brazil for its mineral exploration, Ana has always had a passion for geology. Although she lives in the state capital, Belo Horizonte, her family originates from Diamantina: a small city in Brazil and a UNESCO World Heritage Site known for being a center of diamond mining in the 18th and 19th centuries.

Ana's research and professional experience extends from Brazil to the United States. She has worked on several research projects during her undergraduate career at JSU, including the one on sedimentology of gravel deposits in the Hammett gravel mine in Holmes County, Mississippi. Ana has also worked with the University of Texas at Austin on analysis of volcanic ash layers, using Python to identify layers by isolating fluorescent features through a classification of rock core images. She has also completed an internship with Pedras Congonhas Extração, a Brazil-based mining company, where she conducted quality control reviews of rock products and assisted in preparation of a geological map of the area for future exploration. In addition, Ana started as a research assistance at JSU chemistry laboratory, working in a variety of projects. Her latest research work was with the University of Texas at Austin on how geomorphic patterns and erosion reflect on the landscape of the Colombia's Central Cordillera using Matlab. Upon graduating, Ana would like to pursue a M.S. degree in high temperature geochemistry or petrology. After completing her M.S., Ana wants to work in oil/energy industry or as an environmental scientist.



Ken McCarley

After graduating from Simpson Academy in 1977, Ken McCarley attended the University of Mississippi, where he graduated with a B.B.A. in General Business in 1981. He then enrolled at the University of Southern Mississippi (USM) in 1981 and graduated in 1984 with a B.S. in Geology. After graduating from USM in 1984, Ken worked briefly as a mud logger on an offshore oil rig and in 1984, he then went to work with the Mississippi Oil and Gas Board as a Petroleum Geologist. He left the Oil and Gas Board in 1993 and went to work at the Mississippi Department of Environmental Quality (DEQ), Office of Geology, as Director of the Mining and Reclamation Division. While at DEQ, Ken graduated from the University of Mississippi with an M.S. in Geological Engineering Science. In 2010, he retired from the state and went to work for Neel-Schaffer Engineering in their Environment Science Group as a Project Geologist. In 2015, he left to go work for Hammett Gravel Company, Inc., where he is the Director of Compliance and Safety. In that capacity, Ken is responsible for the following: obtaining environmental permits including mining permits, storm water pollution prevention plans, environmental permit reporting, compliance with Federal Mine Health and Safety Laws and inspections of the plant, conducting safety classes for employees, sampling material produced, conducting sieve analysis to ensure parameters of compliance, and producing maps of all drilling projects, including GPS

locations and drill logs. Ken lives in Madison, Mississippi, with his wife Dawn. They have two grown children, Evan and Austin McCarley.



Ezat Heydari

Dr. Ezat Heydari is a Professor of Geoscience at Jackson State University (JSU) in Jackson, Mississippi. He received his Ph.D. degree from Louisiana State University (LSU) in 1990, his Master of Science degree from Penn State University in 1982, and Bachelor of Science degree from the University of Tehran, Iran, in 1976. He specializes in sedimentology, stratigraphy, petrography, and low temperature geochemistry. Prior to joining JSU, he worked as a Research Associate and Research Professor at LSU (1990-1999), and as an Administrator with the Mississippi Office of Geology (1999-2001). He entered JSU in 2001 at the rank of an Assistant Professor, promoted to an Associate Professor in 2006, and to a Full Professor in 2012. Heydari's research includes the study of the U.S. Gulf Coast strata, characteristics of Upper Permian and Lower Triassic layers, and hydrocarbon reservoir quality. His most recent endeavor is the geology of the planet Mars. He is the author of over 50 published research papers and over 100 conference presentations. He has the honor of being a member of science team with NASA's Curiosity Rover currently exploring Gale Crater, Mars.

2020 BEST STUDENT PUBLISHED PAPER AWARD

“Chemostratigraphy of Carbonate Gravity Flows of the Wolfcamp Formation in Crockett County, Midland Basin, Texas”

Alex P. Blizzard and Julie M. Bloxson



Alex P. Blizzard

Alex Blizzard attended Texas Tech University for his Bachelor's in Geoscience and Stephen F. Austin State University for his Master's in Geology. He gained industry experience through multiple internships throughout his academic career developing experience in the Cherokee Basin, East Texas Basin, and Permian Basin. His latest internship was with Chevron on their Permian Exploration Team on regional exploration opportunities of the Barnett and Woodford across the Permian Basin. The project incorporated predictive analytics and reservoir statistical analysis for future portfolio strategy recommendations.

Alex graduated in 2020 and went to go work for IHS Markit in Technical Business Development. He helped grow new business across all products including geoscience & engineering software, analytics platforms, surface & subsurface data, and industry insights. He now is a Geoscience Technical Advisor specializing in Petra & Kingdom Geology helping subsurface teams become more efficient in their everyday workflows.



Julie M. Bloxson

Julie received her B.S. in geology from the University of Akron in 2008, where she focused her undergraduate research on core analysis of tidal rhythmite deposits associated with Pennsylvanian coal seams within the Appalachian Basin. She received her M.S. in geology from Kent State University in 2012, studying the Grimsby Sandstone/“Clinton Sands” in eastern Ohio. This

project focused on using a combination of core and well log analysis to extrapolate porosity and permeability across a county and determined the controlling factors of porosity/permeability in these tight gas sands. She received her Ph.D. from Case Western Reserve University in 2017, focusing on the Utica Shale and controls on deposition. Julie continued this work at the Ohio Geological Survey, working within the Energy Group on various subsurface mapping projects that focused on salt deposits, carbon sequestration, and unconventional resources for two years. She is currently an assistant professor at Stephen F. Austin State University since 2018 and heads the East Texas Core Repository at the Science Research Center, where she is creating the Black Shale Research Facility. This facility will help to expand non-destructive core analysis and continue to correlate core data to well log data for better subsurface analysis for natural resources and energy-related issues. Her goal for the facility is to allow students to gain the necessary skills for industry and research and to facilitate a connection between local industry and academia for future research.

“Preliminary Lithologic Characteristics of Gravel Deposits in Mississippi”

Ana Batista, Ken McCarley, and Ezat Heydari



Ana Batista

Ana L. Batista completed her B.S. degree in Earth System Science at Jackson State University (JSU) in Jackson, Mississippi, in May of 2021. She is currently pursuing a second B.S. degree in Chemistry at JSU. Born in Brazil, Ana arrived in the United States on an athletic scholarship to play for JSU's women soccer team. Growing up in Minas Gerais, a state known throughout Brazil for its mineral exploration, Ana has always had a passion for geology. Although she lives in the state capital, Belo Horizonte, her family originates from Diamantina: a small city in Brazil and a UNESCO World Heritage Site known for being a center of diamond mining in the 18th and 19th centuries.

Ana's research and professional experience extends from Brazil to the United States. She has worked on several research projects during her undergraduate career at JSU, including the one on sedimentology of gravel deposits in the Hammett gravel mine in Holmes County, Mississippi. Ana has also worked with the University of Texas at Austin on analysis of volcanic ash layers, using Python to identify layers by isolating fluorescent features through a classification of rock core images. She has also completed an internship with Pedras Congonhas Extracao, a Brazil-based mining company, where she conducted quality control reviews of rock products and assisted in preparation of a geological map of the area for future exploration. In addition, Ana started as a research assistance at JSU chemistry laboratory, working in a variety of projects. Her latest research work was with the University of Texas at Austin on how geomorphic patterns and erosion reflect on the landscape of the Colombia's Central Cordillera using Matlab. Upon graduating, Ana would like to pursue a M.S. degree in high temperature geochemistry or petrology. After completing her M.S., Ana wants to work in oil/energy industry or as an environmental scientist.



Ken McCarley

After graduating from Simpson Academy in 1977, Ken McCarley attended the University of Mississippi, where he graduated with a B.B.A. in General Business in 1981. He then enrolled at the University of Southern Mississippi (USM) in 1981 and graduated in 1984 with a B.S. in Geology. After graduating from USM in 1984, Ken worked briefly as a mud logger on an offshore oil rig and in 1984, he then went to work with the Mississippi Oil and Gas Board as a Petroleum Geologist. He left the Oil and Gas Board in 1993 and went to work at the Mississippi

Department of Environmental Quality (DEQ), Office of Geology, as Director of the Mining and Reclamation Division. While at DEQ, Ken graduated from the University of Mississippi with an M.S. in Geological Engineering Science. In 2010, he retired from the state and went to work for Neel-Schaffer Engineering in their Environment Science Group as a Project Geologist. In 2015, he left to go work for Hammett Gravel Company, Inc., where he is the Director of Compliance and Safety. In that capacity, Ken is responsible for the following: obtaining environmental permits including mining permits, storm water pollution prevention plans, environmental permit reporting, compliance with Federal Mine Health and Safety Laws and inspections of the plant, conducting safety classes for employees, sampling material produced, conducting sieve analysis to ensure parameters of compliance, and producing maps of all drilling projects, including GPS locations and drill logs. Ken lives in Madison, Mississippi, with his wife Dawn. They have two grown children, Evan and Austin McCarley.



Ezat Heydari

Dr. Ezat Heydari is a Professor of Geoscience at Jackson State University (JSU) in Jackson, Mississippi. He received his Ph.D. degree from Louisiana State University (LSU) in 1990, his Master of Science degree from Penn State University in 1982, and Bachelor of Science degree from the University of Tehran, Iran, in 1976. He specializes in sedimentology, stratigraphy, petrography, and low temperature geochemistry. Prior to joining JSU, he worked as a Research Associate and Research Professor at LSU (1990-1999), and as an Administrator with the Mississippi Office of Geology (1999-2001). He entered JSU in 2001 at the rank of an Assistant Professor, promoted to an Associate Professor in 2006, and to a Full Professor in 2012. Heydari's research includes the study of the U.S. Gulf Coast strata, characteristics of Upper Permian and Lower Triassic layers, and hydrocarbon reservoir quality. His most recent endeavor is the geology of the planet Mars. He is the author of over 50 published research papers and over 100 conference presentations. He has the honor of being is a member of science team with NASA's Curiosity Rover currently exploring Gale Crater, Mars.

BEST PRESENTATION AWARDS

2020 A. I. LEVORSEN MEMORIAL AWARD (Gulf Coast Section, AAPG)

“Maximizing Hydraulic Fracture Stimulation Using 3D Seismic Geomechanics”

Michael Shoemaker



Michael Shoemaker

Dr. Michael Shoemaker is the CEO and Founder of SciCat Oil LLC and is a proven oil and gas finder with 20 years of E&P operations experience in both unconventional and conventional plays worldwide. Prior to starting SciCat, Shoemaker was the Chief Geoscientist at Callon Petroleum, focused on the operations, development, and exploration of unconventional plays in the Permian Basin with multidisciplinary expertise in conventional and tight rocks.

Before that, Michael was a lead prospecting geophysicist at BP America in conventional on-shore plays where significant hydrocarbons were discovered using petroleum geology integrated with 3D seismic data. After graduating, he was an expatriate geophysicist working for foreign international companies located in the United Kingdom, United Arab Emirates, and Malaysia, where he prospected for Petronas.

Shoemaker holds a Ph.D. in Geophysics from the Missouri University of Science and Technology (formally the University of Missouri-Rolla) and has authored over 60 publications. He is a member of SEG, AAPG, SPE, and ARMA.

2020 THOMAS A. PHILPOTT EXCELLENCE OF PRESENTATION AWARDS (Gulf Coast Association of Geological Societies and Gulf Coast Section SEPM)

FIRST PLACE – 2020

**“Using Digital Outcrop Analogues to Enhance Training, Reduce Risk,
and Improve Recovery”**

David Hodgetts



David Hodgetts

David completed a degree in Geology from Durham University, followed by an M.Sc. in Computing in Earth Science and a PhD in Numerical Modelling, both from Keele University, U.K. After a short post doc. developing 3D structural restoration algorithms, he moved to Liverpool to join the Strat Group working on a diverse range of projects both subsurface and fieldwork related. In 2003, he took up a lectureship in Petroleum Geology and Reservoir Modelling at the University of Manchester. In 2020, David moved to work full time for VRGeoscience Limited, a company he spun out from the University of Manchester to commercialise software

developed during his research and create new and innovative digital outcrop geology applications.

David has extensive experience of working on petroleum industry projects ranging in scope from forward modelling, geological software development, seismic interpretation, field mapping, and reservoir modelling. Though quite varied in nature, these projects have relied heavily on his combined expertise of geology and computer programming. His research has focused on the application of digital data acquisition techniques, in particular terrestrial laser scanning (lidar) and photogrammetry, for interpretation and analysis of geological outcrops and their application to subsurface geological characterization.

SECOND PLACE – 2020

“The Lower Smackover Brown Dense Limestone: Its Potential as a Hybrid Unconventional Resource Play”

Steve Walkinshaw



Steve Walkinshaw

Steve Walkinshaw is an independent petroleum geologist based in the greater Jackson, Mississippi area, and is the owner and manager of Vision Exploration, LLC. Steve graduated from Millsaps College in 1981 and has 40 years of experience in oil & gas exploration and development. As an adjunct professor, Steve has also taught Petroleum Geology at Millsaps College. He is a Registered Professional Geologist in the State of Mississippi, a Licensed Professional Geoscientist in the State of Louisiana, and an AAPG/DPA Certified Petroleum Geologist. His geological research and illustrations focusing on the Paleozoic of the western Black Warrior Basin were featured prominently in the recently-published reference book, *The Geology of Mississippi* (Thompson/Dockery, 2016, University Press).

Steve Walkinshaw received the NOGS Best Paper Award in 2001 for his presentation “Magma, Salt, and the Chicxulub Impact: Intriguing Questions about the End of the Cretaceous in the Mississippi Embayment.” In 2018, his presentation, “The Jackson Gas Rock, a Unique Upper Cretaceous (Selma Chalk) Lithofacies” was selected as the winner of the First Place Thomas A. Philpott Excellence of Presentation Award.

THIRD PLACE – 2020

“Maximizing Hydraulic Fracture Stimulation Using 3D Seismic Geomechanics”

Michael Shoemaker



Michael Shoemaker

Dr. Michael Shoemaker is the CEO and Founder of SciCat Oil LLC and is a proven oil and gas finder with 20 years of E&P operations experience in both unconventional and conventional plays worldwide. Prior to starting SciCat, Shoemaker was the Chief Geoscientist at Callon Petroleum, focused on the operations, development, and exploration of unconventional plays in the Permian Basin with multidisciplinary expertise in conventional and tight rocks.

Before that, Michael was a lead prospecting geophysicist at BP America in conventional on-shore plays where significant hydrocarbons were discovered using petroleum geology integrated with 3D seismic data. After graduating, he was an expatriate geophysicist working for foreign international companies located in the United Kingdom, United Arab Emirates, and Malaysia, where he prospected for Petronas.

Shoemaker holds a Ph.D. in Geophysics from the Missouri University of Science and Technology (formally the University of Missouri-Rolla) and has authored over 60 publications. He is a member of SEG, AAPG, SPE, and ARMA.

HONORABLE MENTION - 2020

“Brulpadda and Sea Lion: Comparison of Conjugate Discoveries Offshore Southernmost South Africa and South America ”

John Dribus



John Dribus

John Dribus is a Global Geologist and Advisor who retired from Schlumberger Oil Field Services in 2018, and established Dribus Geologic Consulting LLC. He is a Reservoir Geologist with over 40 years' experience, and specializes in deep water depositional systems, below salt plays, petroleum systems analysis, deep water geologic hazards, and geologic training and development. His current areas of focus include the Gulf of Mexico, Guyana and Suriname, and South Africa offshore.

He began his career working five years as a uranium field geologist in the American West and Texas. He then worked in the Gulf of Mexico for 18 years for Mobil Oil Corporation, and the next 18 years as a global geologist for Schlumberger. He has worked deepwater basins along the Atlantic margin from Western Greenland to the Falkland Islands and across the basin from South Africa to Morocco, and has also worked the Black, Mediterranean, and Red seas. He is the former Chairman of the Advisory Board of the American Petroleum Institute (API) Delta Chapter, and served as Chief Judge for the AAPG Imperial Barrel Award (IBA) Competition. In 2013, he received the Reservoir Description and Dynamics Award from SPE, and in 2014, he was an invited speaker at both the AAPG Discovery Thinking and Playmaker forums. In 2017, he was recognized by the AAPG as a Heritage Geologist at the 100th Annual Convention, and received the 2017 Best Technical Paper of the Year Award for the New Orleans Geological Society. In 2019, he received the A. I. Levorsen Award at the Gulf Coast Association of Geological Societies GeoGulf Convention. In 2020–2021, he served as the elected President of the New Orleans Geological Society.

2020 BEST STUDENT ORAL PRESENTATION AWARD

(Gulf Coast Association of Geological Societies and Gulf Coast Section SEPM)

“Gas Hydrate Systems in Garden Banks, Gulf of Mexico”

Stuart Skopec, Ann Cook, Alexey Portnov, Matthew Frye, and Stephen Palmes

Stuart Skopec

Stuart R. Skopec graduated from Ohio State University School of Earth Sciences, *magna cum laude*, in 2019, with a B.S. in geophysics and minor in petroleum engineering. He is current-



ly a graduate research assistant at Ohio State completing his M.S. in geophysics (July, 2021). His research focuses on exploration of gas hydrate systems in the Gulf of Mexico using geophysical and petrophysical techniques. Stuart has work experience in civil engineering and as a hydraulic fracturing technician, primarily in the Marcellus Formation. He is a member of Sigma Gamma Epsilon and student member of SPE, SEG, and SPWLA.



Ann Cook

Dr. Ann Cook is an associate professor in the School of Earth Sciences at Ohio State University. She received her Ph.D. in 2010 from Columbia University. She is interested how gas hydrate systems form below the seafloor and how these systems can be detected and quantified with geophysics and petrophysics. She has been honored with several awards including the National Academy of Science Gulf Research Fellowship and the NSF CAREER Award.



Alexey Portnov

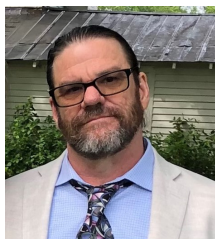
Alexey Portnov is a research associate at the University of Texas Institute for Geophysics (UTIG). Before joining UTIG, he was a postdoctoral researcher for Ohio State University and the Center for Arctic Gas Hydrate, Environment and Climate in Norway, where he earlier received his Ph.D. in marine geophysics. He received his master's degree in marine geology from St. Petersburg State University.

Alexey explores and models dynamic geological systems that have important implications for the past and present carbon cycling and unconventional resource exploration. His research primarily focuses on gas and gas hydrate systems in two regions – the Arctic, where hydrate is sensitive to modern and past climate change, and the northern Gulf of Mexico, where he studies gas hydrate as a future energy resource. Portnov has participated in 16 scientific cruises in the Gulf of Mexico, European and Russian Arctic shelf, and offshore Vietnam.



Matthew Frye

Matt Frye is the Chief of the Resource Evaluation Division in the U.S. Bureau of Ocean Energy Management (BOEM), where he is responsible for the corporate development of models that are used in the assessment and economic evaluation of oil and gas resources on the OCS, including methane hydrates. Mr. Frye also has over 20 years of experience with subsurface characterization and economic evaluation of oil, gas, and gas hydrate prospects. Mr. Frye holds a B.S. in Geological Science from Ohio University and a M.S. in Geological Science from New Mexico State University.



Stephen Palmes

Stephen Palmes is a geologist in the Resource Evaluation Methodologies Branch within the Office of Strategic Resources at the Bureau of Ocean Energy Management (BOEM), Department of Interior. His primary duties include evaluating conventional undiscovered oil and gas resources of the U.S. Outer Continental Shelf (OCS) and assessing methane hydrate resources on the OCS. Stephen has a B.S. in Geology from Old Dominion, an M.S. in Geology from Wright State, a Ph.D. in Geology from Florida State, and more than 23 years of experience working as a geologist with the Department of Interior.

GORDON I. ATWATER BEST POSTER AWARDS
(Gulf Coast Association of Geological Societies and Gulf Coast Section SEPM)

FIRST PLACE – 2020

“Using Capacitively-Coupled Electrical Resistivity Methods to Characterize Potential Karst Features along FM 2185, Culberson County, Texas”

Lenora D. Perkins, Wesley Brown, and Kevin Stafford



Lenora D. Perkins

Lenora Perkins, native to Corpus Christi, Texas, holds a B.Sc. in Geology with a concentration in Geophysics from Texas A&M University-Kingsville (2019). She graduated in May 2021 from Stephen F. Austin State University with an M.Sc. in Geology. Her thesis research focused on using resistivity methods to characterize and delineate potential evaporite geohazards along Farm to Market Road 2185 in Culberson County, Texas. Lenora currently works for Oceaneering International, Inc. as a Field Geoscientist.



Wesley Brown

Dr. Wesley A. Brown is a Professor of Geology and Geophysics at Stephen F. Austin State University, located in Nacogdoches, Texas. He currently serves as Chair of the Department of Geology. Dr. Brown holds a B.Sc. in geology from the University of the West Indies, Mona, Jamaica, an M.S. in geophysics from the University of Texas at El Paso, and a Ph.D. in Geology from the University of Texas at El Paso. His doctoral research involved the use of seismological, gravitational, and other integrated geophysical techniques to study the lithospheric structure beneath Libya. His research areas of interests include earthquake seismology, exploration seismology, seismotectonics, gravity studies, environmental geophysics, ground penetrating radar studies, and electrical resistivity studies.

Kevin Stafford

Dr. Kevin Stafford is a Professor of Geology at Stephen F. Austin State University. He holds a B.S. in geology from the University of Texas at Austin, M.S. in geoscience from Mississippi State University, and Ph.D. in geology from the New Mexico Institute of Mining and Technology. Dr. Stafford specializes in carbonate/evaporite diagenesis and the evolution of karst systems. Past



research has included characterization of karst in modern island settings, hydrogeology of continental karst systems, and petroleum resource characterization of karst reservoirs. Recent research has focused on karst resource management and geohazard characterization through the combined application of traditional field studies, geophysical techniques and remote sensing.

SECOND PLACE - 2020

“Geochemical Analysis and Well Log Correlation of the Louann Salt of the Gulf of Mexico Basin, Green Canyon Protraction Area, Puma Field, Block-821, Puma-5 Well”

Brian Lesh, Melinda Faulkner, and Julie Bloxson



Brian Lesh

Brian Lesh was born in Dallas, Texas, and raised in McKinney, Texas. He graduated from McKinney High School in 2010 and started college at Stephen F. Austin State University in the Fall of 2010. In 2013, he decided to take some time off from school and moved to San Antonio, Texas. In 2017, he decided to return to Stephen F. Austin State University to finish his Bachelor's degree. Brian graduated in August of 2019 with a Bachelor of Science, majoring in Geology and a minor in General Business, and started graduate school a week later. His thesis was on the “Geochemical Analysis of the Louann Salt, Puma Field, Gulf of Mexico,” where he used x-ray fluorescence and x-ray diffraction to obtain the chemical composition and mineralogy of a suture zone of allochthonous evaporite bodies within the Louann Salt. His career goal is to become a geologist in the oil and gas industry.

Melinda Faulkner

Biography and photograph not available as of press time.



Julie Bloxson

Julie received her B.S. in geology from the University of Akron in 2008, where she focused her undergraduate research on core analysis of tidal rhythmite deposits associated with Pennsylvanian coal seams within the Appalachian Basin. She received her M.S. in geology from Kent State University in 2012, studying the Grimsby Sandstone/“Clinton Sands” in eastern Ohio. This project focused on using a combination of core and well log analysis to extrapolate porosity and permeability across a county and determined the controlling factors of porosity/permeability in these tight gas sands. She received her Ph.D. from Case Western Reserve University in 2017, focusing on the Utica Shale and controls on deposition. Julie continued this work at the Ohio Geological Survey, working within

the Energy Group on various subsurface mapping projects that focused on salt deposits, carbon sequestration, and unconventional resources for two years. She is currently an assistant professor at Stephen F. Austin State University since 2018 and heads the East Texas Core Repository at the Science Research Center, where she is creating the Black Shale Research Facility. This facility will help to expand non-destructive core analysis and continue to correlate core data to well log data for better subsurface analysis for natural resources and energy-related issues. Her goal for the facility is to allow students to gain the necessary skills for industry and research and to facilitate a connection between local industry and academia for future research.

THIRD PLACE – 2020*

“Geochemical Characterization of Utica Shale Play Using XRF-Based Chemostratigraphy in Ohio”

Barbara M. Kemeh



Barbara M. Kemeh

Barbara Mawulolo Kemeh is a Field X-Ray Fluorescence (XRF) Logger at Diversified Well Logging LLC. She received her Master’s degree in Geology from Stephen F. Austin State University. Her research interests focus on chemostratigraphy of gas shale plays.

*Ed. Note: The 3rd Place Atwater award for the 2020 convention was a tie. Md Nahidul Hasan and Paul Mann were also awarded 3rd place for their presentation entitled “Deformation of the Campeche Salt Province, Southeastern Gulf of Mexico, Interpreted within the Structural Framework of a Passive Margin Foldbelt.” We regret that the absence of their listing and biographic details was not noted until after production of the *Transactions* volume. We have included their details in an erratum sheet in the digital copy available online.

HONORABLE MENTION – 2020

Special Recognition for Outstanding Contributions to the GeoGulf 2020 Poster Sessions

**Steven F. Austin State University Department of Geology Students and Faculty:
Joseph Amell, Alex P. Blizzard, Julie M. Bloxson, Wesley A. Brown, Hannah Chambers,
Patrick D. Coplan, Melinda Faulkner, Merritt Ford, Andrew Henry, Ryan M. Jaska,
Barbara M. Kemeh, Kaleb Kirk, Brian Lesh, Kaleb C. McClain, Lenora D. Perkins,
Kevin Stafford, and Adrian Valdez**

Joseph Amell

Biography and photograph not available as of press time.



Alex P. Blizzard

Alex Blizzard attended Texas Tech University for his Bachelor's in Geoscience and Stephen F. Austin State University for his Master's in Geology. He gained industry experience through multiple internships throughout his academic career developing experience in the Cherokee Basin, East Texas Basin, and Permian Basin. His latest internship was with Chevron on their Permian Exploration Team on regional exploration opportunities of the Barnett and Woodford across the Permian Basin. The project incorporated predictive analytics and reservoir statistical analysis for future portfolio strategy recommendations.

Alex graduated in 2020 and went to go work for IHS Markit in Technical Business Development. He helped grow new business across all products including geoscience & engineering software, analytics platforms, surface & subsurface data, and industry insights. He now is a Geoscience Technical Advisor specializing in Petra & Kingdom Geology helping subsurface teams become more efficient in their everyday workflows.



Julie Bloxson

Julie received her B.S. in geology from the University of Akron in 2008, where she focused her undergraduate research on core analysis of tidal rhythmite deposits associated with Pennsylvanian coal seams within the Appalachian Basin. She received her M.S. in geology from Kent State University in 2012, studying the Grimsby Sandstone/"Clinton Sands" in eastern Ohio. This project focused on using a combination of core and well log analysis to extrapolate porosity and permeability across a county and determined the controlling factors of porosity/permeability in these tight gas sands. She received her Ph.D. from Case Western Reserve University in 2017, focusing on the Utica Shale and controls on deposition. Julie continued this work at the Ohio Geological Survey, working within the Energy Group on various subsurface mapping projects that focused on salt deposits, carbon sequestration, and unconventional resources for two years. She is currently an assistant professor at Stephen F. Austin State University since 2018 and heads the East Texas Core Repository at the Science Research Center, where she is creating the Black Shale Research Facility. This facility will help to expand non-destructive core analysis and continue to correlate core data to well log data for better subsurface analysis for natural resources and energy-related issues. Her goal for the facility is to allow students to gain the necessary skills for industry and research and to facilitate a connection between local industry and academia for future research.



Wesley A. Brown

Dr. Wesley A. Brown is a Professor of Geology and Geophysics at Stephen F. Austin State University, located in Nacogdoches, Texas. He currently serves as Chair of the Department of Geology. Dr. Brown holds a B.Sc. in geology from the University of the West Indies, Mona, Jamaica, an M.S. in geophysics from the University of Texas at El Paso, and a Ph.D. in Geology from the University of Texas at El Paso. His doctoral research involved the use of seismological, gravitational, and other integrated geophysical techniques to study the lithospheric structure beneath Libya. His research areas of interests include earthquake seismology, exploration seismology, seismotectonics, gravity studies, environmental geophysics, ground penetrating radar studies, and electrical resistivity studies.

Hannah Chambers

Biography and photograph not available as of press time.

Patrick D. Coplan

Biography and photograph not available as of press time.

Melinda Faulkner

Biography and photograph not available as of press time.



Merritt Ford

Merritt Ford is currently a graduate student at Stephen F. Austin State University in Nacogdoches, Texas pursuing a Master's in Geology. He completed his undergraduate degree at Texas Christian University in Fort Worth, Texas, where he majored in a Bachelor of Science for Geology and minor in Energy Management. His industry interests have always leaned towards oil and gas, where he hopes to pursue a future career in the petroleum industry. His interests outside of education and industry include his love for the outdoors and passion in hunting and fishing.

For his graduate research, Merritt is doing a core analysis of the Smackover Formation in northeast Texas. The core he is observing for this study was collected in July of 1993 from a gas producing well, the Max J. Fletcher No. 3, in northwest Wood County. The goal of this study is to develop a core facies analysis, combined with collected XRF, XRD, and thin section data that will then be correlated to the well log data to generate a valuable type-log for Smackover in northeast Texas. Executing these methods for this study will help further understanding of reservoir quality and trends of the Smackover in this area. The collected data combined with a detailed facies analysis will also help determine or even solidify depositional and diagenetic models for the Smackover in northeast Texas.

Andrew Henry

Biography and photograph not available as of press time.

Ryan M. Jaska

Biography and photograph not available as of press time.



Barbara M. Kemeh

Barbara Mawulolo Kemeh is a Field X-Ray Fluorescence (XRF) Logger at Diversified Well Logging LLC. She received her Master's degree in Geology from Stephen F. Austin State University. Her research interests focus on chemostratigraphy of gas shale plays.

Kaleb Kirk

Biography and photograph not available as of press time.



Brian Lesh

Brian Lesh was born in Dallas, Texas, and raised in McKinney, Texas. He graduated from McKinney High School in 2010 and started college at Stephen F. Austin State University in the Fall of 2010. In 2013, he decided to take some time off from school and moved to San Antonio, Texas. In 2017, he decided to return to Stephen F. Austin State University to finish his Bachelor's degree. Brian graduated in August of 2019 with a Bachelor of Science, majoring in Geology and a minor in General Business, and started graduate school a week later. His thesis was on the "Geochemical Analysis of the Louann Salt, Puma Field, Gulf of Mexico," where he used x-ray fluorescence and x-ray diffraction to obtain the chemical composition and mineralogy of a suture zone of allochthonous evaporite bodies within the Louann Salt. His career goal is to become a geologist in the oil and gas industry.

Kaleb C. McClain

Biography and photograph not available as of press time.



Lenora D. Perkins

Lenora Perkins, native to Corpus Christi, Texas, holds a B.Sc. in Geology with a concentration in Geophysics from Texas A&M University-Kingsville (2019). She graduated in May 2021 from Stephen F. Austin State University with an M.Sc. in Geology. Her thesis research focused on using resistivity methods to characterize and delineate potential evaporite geohazards along Farm to Market Road 2185 in Culberson County, Texas. Lenora currently works for Oceaneering International, Inc. as a Field Geoscientist.



Kevin Stafford

Dr. Kevin Stafford is a Professor of Geology at Stephen F. Austin State University. He holds a B.S. in geology from the University of Texas at Austin, M.S. in geoscience from Mississippi State University, and Ph.D. in geology from the New Mexico Institute of Mining and Technology. Dr. Stafford specializes in carbonate/evaporite diagenesis and the evolution of karst systems. Past research has included characterization of karst in modern island settings, hydrogeology of continental karst systems, and petroleum resource characterization of karst reservoirs. Recent research has focused on karst resource management and geohazard characterization through the combined application of traditional field studies, geophysical techniques and remote sensing.

Adrian Valdez

Biography and photograph not available as of press time.

2020 BEST STUDENT POSTER PRESENTATION AWARD

“Using Capacitively-Coupled Electrical Resistivity Methods to Characterize Potential Karst Features along FM 2185, Culberson County, Texas”

Lenora D. Perkins, Wesley Brown, and Kevin Stafford



Lenora D. Perkins

Lenora Perkins, native to Corpus Christi, Texas, holds a B.Sc. in Geology with a concentration in Geophysics from Texas A&M University-Kingsville (2019). She graduated in May 2021 from Stephen F. Austin State University with an M.Sc. in Geology. Her thesis research focused on using resistivity methods to characterize and delineate potential evaporite geohazards along Farm to Market Road 2185 in Culberson County, Texas. Lenora currently works for Oceaneering International, Inc. as a Field Geoscientist.



Wesley Brown

Dr. Wesley A. Brown is a Professor of Geology and Geophysics at Stephen F. Austin State University, located in Nacogdoches, Texas. He currently serves as Chair of the Department of Geology. Dr. Brown holds a B.Sc. in geology from the University of the West Indies, Mona, Jamaica, an M.S. in geophysics from the University of Texas at El Paso, and a Ph.D. in Geology from the University of Texas at El Paso. His doctoral research involved the use of seismological, gravitational, and other integrated geophysical techniques to study the lithospheric structure beneath Libya. His research areas of interests include earthquake seismology, exploration seismology, seismotectonics, gravity studies, environmental geophysics, ground penetrating radar studies, and electrical resistivity studies.



Kevin Stafford

Dr. Kevin Stafford is a Professor of Geology at Stephen F. Austin State University. He holds a B.S. in geology from the University of Texas at Austin, M.S. in geoscience from Mississippi State University, and Ph.D. in geology from the New Mexico Institute of Mining and Technology. Dr. Stafford specializes in carbonate/evaporite diagenesis and the evolution of karst systems. Past research has included characterization of karst in modern island settings, hydrogeology of continental karst systems, and petroleum resource characterization of karst reservoirs. Recent research has focused on karst resource management and geohazard characterization through the combined application of traditional field studies, geophysical techniques and remote sensing.

IMPERIAL BARREL AWARD

GULF COAST SECTION OF AAPG

The Gulf Coast Section competition was held on April 16th and involved five teams from the AAPG Gulf Coast region: Stephen F. Austin State University, Texas A&M University, the University of Houston, the University of Louisiana at Lafayette, and the University of Alabama.

The Gulf Coast competition was held with the judging panel as a virtual conference because of the coronavirus pandemic.

Each university team analyzed a dataset in the eight weeks prior to the competition and delivered their results in a 25-minute presentation to a panel of industry experts from companies in the greater Houston area.

Gulf Coast Finals

1st Place	University of Louisiana at Lafayette
2 nd Place	University of Houston
3 rd Place	Stephen F. Austin State University

At the international competition, UL-Lafayette received the AAPG IBA Teamwork Excellence Award.

FIRST PLACE (2021)

(left to right) Silas Adeoluwa Samuel, Matthew S Harnish, Daniella Cimadomo, Kristen Morris, and Wiley Griffin

University of Louisiana Lafayette



SECOND PLACE (2021)

(left to right) Rachel Ronquille, Michael Martinez, Nikola Bjelica, Bryan Moore (Team Captain), and Daniella Gutierrez Easley

University of Houston



THIRD PLACE (2021)

(left to right) Brian Lesh, Lenora Perkins, Merritt Ford, Hannah Chambers, and Tyler West

Steven F. Austin State University



2021 FACULTY RESEARCH GRANTS

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

No faculty grants were awarded in 2021.

2021 STUDENT RESEARCH GRANTS

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

The 2021 Grants Committee received 15 student applications from 8 universities. The subjects of the proposals are: Hydrology (1), Geochemistry (4), Geochronology (2), Sedimentology/Stratigraphy (6), Environmental (1), and Petrophysics (1). The student applicants' degree programs are Master's (5) and Doctorate (10).

Five student proposals were ranked as "highest competitive" and received \$1000 each for a total allocation of \$5000.

\$1000 Research Grant Recipients

Stephen Anderson	University of Alabama	"Depositional Environment, and Sequence Stratigraphy of the Upper Albian Devils River-Salmon Peak Formations in the Maverick Basin, South Texas"
Jian Chen	University of Alabama	"Investigating the Contribution of Wildfires to Depleted ^{13}C Values of Bulk Organic Matter and Biomarkers in Late Devonian Oceans"
Alyssa Kadow	University of Alabama	"Distribution of Small Microplastic Particles in Estuarine Sediments: Insights Into Microplastic Sources and Accumulation in Mobile Bay, AL"
Sakinat Mojisola Ahmad	University of Alabama	"Quantifying the Sources of Sediment Organic matter (SOM) in the Mobile Bay Estuary, Alabama: A Multi-Tracer Approach Using Elemental, Stable Isotopic Proxies and Biomarkers Combination of Biomarker, Stable Isotope and C/N Analysis"
Samuel Whitehead	University of Kentucky	"Distribution of Particulate Organic Carbon—Fluxes and Inventories in Growth—in Faulted Coastal Wetlands"

BOARD OF DIRECTORS AND COMMITTEES

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

OFFICERS



President	Mark Shuster
Vice President	Vacant
Past President	Travis Helms
GCAGS Treasurer	Bryan Guzman
General Chair	Brent Elliott & Toti Larson (Co-Chair)
Convention Treasurer	Paul Lewis
Executive Director	Kate Kipper

EXECUTIVE COMMITTEE

2020-2021

President	Mark Shuster
Vice President	Vacant
Past President	Travis Helms
GCAGS Treasurer	Bryan Guzman
General Chair	Brent Elliott & Toti Larson (Co-Chair)

MEMBER SOCIETIES REPRESENTATIVES

2021-2022

Alabama Geological Society	Richard Esposito
Asociación Mexicana de Geólogos Petroleros (AMGP)	María de Lourdes Clara Valdés
Austin Geological Society	Linda McCall
Baton Rouge Geological Society	Shanna Mason
Corpus Christi Geological Society	Rick Paige
East Texas Geological Society	Ernest LeFlure
Houston Geological Society	Mike Erpenbeck
Lafayette Geological Society	Joseph Morris
Mississippi Geological Society	David H. Snodgrass
New Orleans Geological Society	Doug Bradford
Shreveport Geological Society	Ian Byram
South Texas Geological Society	John Casiano
Southeastern Geological Society	Jonathan Valentine

AAPG ADVISORY COUNCIL GULF COAST REPRESENTATIVES

Paul Hoffman (2020–2023)
Additional Position is Currently Vacant

STANDING COMMITTEES
As of July 2021

Awards and Nominations	Continuity	Faculty & Student Grants
Travis Helms, Chair Deborah Sacrey Ralph Richardson	Tom Ewing, Chair Mark Shuster Brent Elliott Travis Helms James Willis Kate Kipper Bryan Guzman	Brian Platt, Chair David King Aimee Villarreal Lindsey Yasarer
Finance	GCAGS IBA Committee	Historian
Bryan Guzman, Chair Steve H. Hill Larry Bartell Tim Shane	Jim Ferry Erin McLain Tom Bulling Janice Gregory-Sloan	Jeff Spencer
Journal Editor	Managing Editor	Publications
Robert K. Merrill	James Willis	Linda McCall Amanda Masterson

2021 CONVENTION COMMITTEES AND CHAIRMEN

General Chair.....	Brent Elliott
Co/Vice-Chair & Tech. Program Chair	Toti Larson
Technical Program Co-Chairs	Michael Sweet, Kelly Hattori, and Carlos Fonseca Rivera
Secretary/Finance Chair	Dallas B. Dunlap
Treasurer	Paul Lewis
Social Media/Marketing Chair	Shazia Hart
Sponsorship Chair	Emery Goodman
D&I Chair	Tracey Janus
Entertainment Chair	Hilary Olson
Venue & Conference Planners	Michelle Gentzen and Ellen Husch
Exhibition Chair	Eric Radjef
Graphic Design	Jamie Coggin
Website.....	Jason Suarez
GCAGS Managing Editor and Publisher	James J. Willis
GCAGS <i>Journal</i> Editor.....	Robert K. Merrill
GeoGulf <i>Transactions</i> Editor.....	James J. Willis
GeoGulf <i>Transactions</i> Co-Editor (GCSSEPM)	Norman C. Rosen

MEMBER SOCIETY PRESIDENTS

2020-2021

Alabama Geological Society.....	Richard Esposito
Asociación Mexicana de Geólogos Petroleros (AMGP).....	Faustino Monroy Santiago
Austin Geological Society.....	Toti Larson
Baton Rouge Geological Society.....	Shanna Mason
Corpus Christi Geological Society.....	Rick Paige
East Texas Geological Society.....	Ernest LeFlure
Houston Geological Society.....	Jim Tucker
Lafayette Geological Society.....	Joseph Morris
Mississippi Geological Society.....	Jimmie Sparks
New Orleans Geological Society.....	John Dribus
Shreveport Geological Society.....	Matthew Chumley
South Texas Geological Society.....	Grant Snyder
Southeastern Geological Society.....	Jennifer Coor

2021-2022

Alabama Geological Society.....	Richard Esposito
Asociación Mexicana de Geólogos Petroleros (AMGP).....	María de Lourdes Clara Valdés
Austin Geological Society.....	Linda McCall
Baton Rouge Geological Society.....	TBS
Corpus Christi Geological Society.....	Rick Paige
East Texas Geological Society.....	Ernest LeFlure
Houston Geological Society.....	Mike Erpenbeck
Lafayette Geological Society.....	Joseph Morris
Mississippi Geological Society.....	David H. Snodgrass
New Orleans Geological Society.....	Doug Bradford
Shreveport Geological Society.....	Ian Byram
South Texas Geological Society.....	John Casiano
Southeastern Geological Society.....	Jonathan Valentine

PAST OFFICERS AND CONVENTION CHAIRMEN
Gulf Coast Association of Geological Societies

Year	Host City	President	Vice President	Secretary	Treasurer	Convention Chairperson
1951	New Orleans	L. Bowling	T. H. Philpott		E. M. Baysinger	
1952	Corpus Christi	W. M. Chaddick, Jr.	W. A. Gorman		T. D. Barber	
1953	Shreveport	R. T. Wade	D. D. Utterback	J. S. Spencer	K. Carter	W. J. Nugent
1954	Houston	W. R. Canada	W. H. Knight	W. A. Peterson	E. W. Kimball	
1955	Biloxi	A. E. Blanton	L. D. Traupe	F. H. Webster	C. C. Barber	R. D. Sprague
1956	San Antonio	R. L. Layden	M. W. Beckman	C. W. Holcomb	A. F. Scott	G. J. Joyce
1957	New Orleans	H. N. Hickey	P. Montgomery	R. A. Davis	K. C. Anderson	T. H. Philpott
1958	Corpus Christi	E. A. Lohse	R. W. Grayson	E. T. Musselman	W. H. Wallace, Jr.	R. C. Wilshusen
1959	Houston	G. C. Hardin, Jr.	L. Harvey	J. F. Moss	J. A. Wheeler	O. G. Bell
1960	Biloxi	M. F. Kirby	D. N. Osburn	W. W. Woolfolk	E. G. Jeffreys	A. E. Blanton
1961	San Antonio	D. Dassow	E. P. Roth	A. W. Wood	E. L. Ames	L. L. Palmer
1962	New Orleans	T. H. Philpott	J. C. Byrd	H. O. Woodbury	K. Soule	L. H. Meltzer
1963	Shreveport	J. C. Byrd	E. Knott	W. E. Bancroft	R. E. Rogers	H. J. Tyler
1964	Corpus Christi	K. Knott	R. E. Fairchild	R. W. Luker	D. A. Pedrotti	B. F. Dyer
1965	Houston	R. E. Fairchild	A. M. Borland	K. C. Harkins, Jr.	J. L. George, Jr.	E. A. Lohse
1966	Lafayette	A. M. Borland	J. H. Hensley	W. A. Robbins, Jr.	J. S. Schoelen	R. R. Copeland
1967	San Antonio	W. L. Stapp	M. D. Horton	M. L. Frazier, Sr.	L. C. Bryant	M. O. Turner
1968	Jackson	M. D. Horton	R. O. Vernon	L. G. Hughes	E. D. Minihan	L. E. Warren
1969	Miami	R. O. Vernon	H. J. Tyler	J. W. Yon, Jr.	C. W. Hendry, Jr.	H. S. Puri
1970	Shreveport	H. J. Tyler	L. H. Meltzer	C. E. Brown	B. C. Tucker	J. O. Goffe
1971	New Orleans	L. H. Meltzer	D. R. Boyd	M. L. Dwight	P. G. Gray	R. G. Williamson
1972	Corpus Christi	D. R. Boyd	F. M. Schall, Jr.	M. H. Oakes	J. E. Melton	J. M. Sides
1973	Houston	F. M. Schall, Jr.	S. J. Lysinger	M. E. Hole, Jr.	P. W. Cauthon, Jr.	C. E. Harrison
1974	Lafayette	S. J. Lysinger	W. H. Moore	T. J. Eby, Jr.	J. L. Bellamy	F. W. Harrison, Jr.
1975	Jackson	W. H. Moore	C. L. Sartor	W. E. Taylor	H. L. Ladner	C. H. Williams, Jr.

GCAGS Board of Directors and Committees

1976	Shreveport	C. L. Sartor	R. E. Boyer	J. T. Palmer	C. E. Brown	L. E. Jordan
1977	Austin	R. E. Boyer	P. G. Gray	A. E. Bell	F. L. Osborne, Jr.	E. G. Wermund, Jr.
1978	New Orleans	R. W. Stephens	E. C. Roy, Jr.	R. M. Swords	C. J. Corona	J. Braunstein
1979	San Antonio	E. C. Roy, Jr.	F. W. Harrison, Jr.	S. L. Perkins	L. C. Bryant	G. His
1980	Lafayette	F. W. Harrison, Jr.	P. M. Strunk	J. W. Shirley	R. A. Anderson	M. A. Munchrath
1982	Houston	J. J. Amoruso	S. C. Childress	C. G. Beckwith	C. A. Baird	J. O. Lewis
1983	Jackson	S. C. Childress	J. P. Palmer	S. A. Horton	P. D. Cate	J. C. Marble
1984	Shreveport	J. T. Palmer	E. G. Wermund	C. S. Cook	E. W. Saye	J. M. Forgiven, Jr.
1985	Austin	E. G. Wermund	D. E. Pope	R. Everett	D. C. Ratcliff	L. E. Garner
1986	Baton Rouge	D. E. Pope	R. H. Sams	B. D. David	F. E. Lindfors-Kearns	H. L. Roland
1987	San Antonio	R. H. Sams	J. A. Hartman	M. T. Tobin	T. Cooper	D. F. Tobin
1988	New Orleans	J. A. Hartman	W. R. Payne	R. W. Sabaté	J. E. Bailey	C. C. Baker
1989	Corpus Christi	W. R. Payne	P. G. Gray	B. E. Gaither	T. B. Henderson	G. M. Heinzelmann
1990	Lafayette	P. G. Gray	C. E. Harrison	H. Fielding	B. Smart	B. E. Lock
1991	Houston	C. E. Harrison	J. C. Marble	H. W. Kiatta	L. D. Bartell	D. L. Smith
1992	Jackson	J. C. Marble	R. L. Williamson	W. Lester Aultman	Stanley King	S. C. Knox
1993	Shreveport	R. L. Williamson	W. L. Fisher	Mark Schroeder	B. R. White	O. R. Berg
1994	Austin	W. L. Fisher	W. E. Marsalis	S. P. Dutton	C. Condon	P. R. Rose
1995	Baton Rouge	W. E. Marsalis	E. Gerald Rolf	S. N. Breakfield	R. W. Jackson	D. E. Pope
1996	San Antonio	E. Gerald Rolf	Mark J. Gallagher	William P. Wilbert	Bill Layton	Thomas E. Ewing
1997	New Orleans	Mark J. Gallagher	Robert F. Travis	Eric C. Broadbridge	Gary W. Jacobs	John C. Langford
1998	Corpus Christi	Robert F. Travis	Brian E. Lock	Lawrence Hoover	Daniel Neuberger	Gloria Sprague
1999	Lafayette	Brian E. Lock	Jeff Lund	Jana DaSilva	Tim Doré	Tim Rynott
2000	Houston	Jeff Lund	O. Roger Berg	Denise Stone	Deborah Sacrey	Larry Bartell
2001	Shreveport	O. Roger Berg	Peter R. Rose	Mark Dunham	David Hart	Will Downs
2002	Austin	Peter R. Rose	Chacko J. John	Scott W. Tinker	Ramon Trevino	Doug Ratcliff
2003	Baton Rouge	Chacko J. John	Stewart Chuber	Drukell Trahan	Gary Duncan	David E. Pope
2004	San Antonio	Stewart Chuber	Thomas Bergeon	Robert J. Scott	Eugene L. Ames III	Lee T. Billingsley
2005	New Orleans	Thomas Bergeon	Barry Wawak	Eric Broadbridge	George Rhoads	Jim Zolkowitz

GCAGS Board of Directors and Committees

2005	New Orleans	Thomas Bergeon	Barry Wawak	Eric Broadbridge	George Rhoads	Jim Zatkowitz
2006	Lafayette	Barry Wawak	Gloria Sprague	Andy Vodicka	David Fugitt	Mary J. Broussard
2007	Corpus Christi	Gloria Sprague	Ken Nemeth	Dan Neuberger	Robert M. Rice	Brent Hopkins and Dan Pedrotti
2008	Houston	Ken Nemeth	Will Downs	Janice Gregory-Sloan	Cheryl Desforjes	Dave Rensink
2009	Shreveport	Will Downs	Bonnie Weise	David Bencoter	John Grunau	Ralph Richardson
2010	San Antonio	Bonnie Weise	Jaime Patiño Ruiz	Bruce Gates	Mark Thompson	Lyle F. Baie
2011	Veracruz, Mexico	Jaime Patiño Ruiz	Scott Tinker	Ulises Hernández Romano	Ivan Alor Ortiz	Javier Mene-ses-Rocha
2012	Austin	Scott Tinker	Tom Klekamp	Angela Ludolph	Allan Standen	Dallas Dunlap
2013	New Orleans	Tom Klekamp	Mary Broussard	Jack Gross	Mike Fein	Art Johnson
2014	Lafayette	Mary Broussard	Charles Sternbach		Steve Hill	Mike Quinn
2015	Houston	Charles Sternbach	Brent Hopkins	Dianna Phu	Mike Erpenbeck	Larry Bartell
2016	Corpus Christi	Brent Hopkins	Thomas Ewing		Sean Kimiagar	Dawn Bissell
2017	San Antonio	Thomas Ewing	Ralph Richardson		Daniel Sutton	Gene Ames III
2018	Shreveport	Ralph Richardson	Deborah Sacrey		Daniel Sutton	Alan Brittain
2019	Houston	Deborah Sacrey	Travis Helms		Daniel Sutton	Mike Erpenbeck
2020	Lafayette	Travis Helms	Mark Shuster		Bryan Guzman	James J. Willis

2020-2022 OFFICERS OF MEMBER SOCIETIES

GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

Alabama Geological Society

P.O. Box 869999, Tuscaloosa, Alabama 35486

2020-2021

PresidentRichard A. Esposito
Vice President.....Richard Katz
SecretaryDane VanDervoort
TreasurerDenise Hills
Newsletter EditorMarcella R. McIntyre-Redden
Web EditorChris Hooks

2021-2022

PresidentRichard A. Esposito
Vice President.....Richard Katz
SecretaryDane VanDervoort
TreasurerDenise Hills
Newsletter EditorMarcella R. McIntyre-Redden
Web EditorChris Hooks

Asociación Mexicana de Geólogos Petroleros (AMGP)

Calle Poniente 134, No. 411. Colonia San Bartolo Atepehuacan, Gustavo A. Madero, C.P 07730. Ciudad de México

2020-2021

PresidentFaustino Monroy Santiago
Vice President.....María Lourdes Clara Valdés
SecretaryDaniela Romero Rico
TreasurerJosías Samuel Estrada Macías
Pro Treasurer.....Sandra Lucach Ortega
Mutuality CoordinatorSergio Arturo Ruíz Chico
Mutuality Sub CoordinatorJuan Medina de la Paz
Editors.....Chamaly Revelez Ramírez, and Jorge Antonio Velasco Segura
Technical Studies Coordinator.....
.....Leonardo Enrique Aguilera Gómez, Dionisio Rodríguez Figueroa, and Ernesto Caballero
Membership CoordinatorJudith Rosales Lomelí
ExcursionsRomán Sánchez Martínez and Mitzi Berenice Benítez Canchola
Legislative CommissionJaime Patiño Ruíz
International Affairs.....Efraín Méndez Hernández
Honor and JusticeLuis Francisco Fuentes Pacheco
Honor and JusticeUlises Hernández Romano, José Antonio Escalera Alcocer, and Javier Meneses Rocha

2021-2022

PresidentMaría de Lourdes Clara Valdés
Vice President.....Leonardo Enrique Aguilera Gómez
SecretaryMitzi Berenice Benítez Canchola
Pro SecretaryMaribel Ramírez Bárcenas
TreasurerMaribel De la Luz Martínez
Pro Treasurer.....Silvia Santos Grapain
Mutuality CoordinatorSergio Arturo Ruiz Chico
Editors.....Chamaly Revelez Ramírez and Daniel Gómez Ochoa
Technical Studies.....Carlos T. Williams and Ernesto Caballero
MembershipJudith Rosales Lomelí

Excursions	
.....Román Sánchez Martínez, Jorge Antonio Velasco Segura, and Maricruz Rocío Mendoza Hernández	
Legislative commission.....	Jaime Patiño Ruiz
International Affairs.....	Luis Francisco Fuentes Pacheco
Honor and Justice.....	Javier Meneses Rocha, Faustino Monroy Santiago, and José Antonio Escalera Alcocer
Web	Elías Estrada González

Austin Geological Society

P.O. Box 1302, Austin, Texas 78767

2020-2021

President	Toti Larson
President-Elect	Linda McCall
Vice President.....	Ashley Johnston Correll
Secretary	Temple McKinnon
Treasurer	Paul Lewis
Past President.....	Brent Elliot

2021-2022

President	Linda McCall
President-Elect	Peter Pope
Vice-President	Harold Rogers
Secretary	Temple McKinnon
Treasurer	Paul Lewis
Past President.....	Toti Larson

Baton Rouge Geological Society

P.O. Box 80263, Baton Rouge, LA 70898

2020-2021

President	Shanna Mason
Vice President.....	George Losonsky
Secretary	Lisa Pultz
Treasurer	Michael Simms
Directors.....	Douglas Carlson, Riley Milner, and Ann Wiley

2021-2022

President	TBD
Vice President.....	TBD
Secretary	TBD
Treasurer	TBD
Directors.....	TBD

Corpus Christi Geological Society

P.O. Box 1068, Corpus Christi, Texas 78403

2020-2021

President	Rick Paige
Vice President.....	Randy Bissell
Secretary	Emily Olson
Treasurer	Sebastian Wiedmann
Councilor Place I	William Thompson
Councilor Place II.....	Frank Cornish
Past President.....	Austin Nye
AAGP Delegate	Brent Hopkins
Scholarship.....	Dawn Bissell
History Committee	Ray Govett

2021-2022

President	Rick Paige
Vice President.....	Juan Cabasos
Treasurer	Sebastian Wiedmann
Secretary	Emily Olson
Place 1 Councilor.....	William Thompson
Place 2 Councilor.....	Frank Cornish
Past President.....	Rick Paige
AAPG Delegate	Brent Hopkins
Scholarship.....	Dawn Bissell
Membership	Randy Bissell and Dorothy Jordan
Bulletin Editor	Marian Wiedmann
Arrangements	Wes Gisler and Will Graham
History Committee.....	Ray Govett

East Texas Geological Society

102 North College #612, Tyler, Texas 75702

2020-2021

President	Ernest LaFlure
Vice President.....	Russell Jackson
Secretary	Johnnie Wanger
Treasurer	Robert Reese
Board of Directors.....	Rich Adams, Hal Bertram, Carl Gray, Al Jasper, Nick Pollard, Richard Swindell, Matt Bailey, Hunter Carr, Paul Hene, Anita Paulssen, Dale Short, and Julie Bloxson
Education Coordinator Committee Chairman	Al Jasper
Golf Tournament Committee Chairman	Nick Pollard
Scholarship Committee Chairman	Hunter Carr
Skeet Shoot Committee Chairman	Rich Adams
Tech Expo Committee Chairman	Matt Bailey

2021-2022

President	Ernest LaFlure
Vice President.....	Hunter Carr
Secretary	Johnnie Wanger
Treasurer	Robert Reese
Board of Directors.....	Russell Jackson, Rich Adams, Hal Bertram, Carl Gray, Al Jasper, Dick Swindell, Nick Pollard, Matt Bailey, Paul Hene, Anita Paulssen, Dale Short, and Julie Bloxson
Education Coordinator Committee Chairman	Al Jasper
Golf Tournament Committee Chairman	Nick Pollard
Scholarship Committee Chairman	Hunter Carr
Social Committee Chairman	Hunter Carr
Skeet Shoot Committee Chairman	Rich Adams
Tech Expo Committee Chairman	Matt Bailey

Houston Geological Society

14811 St. Mary Lane, Suite 250, Houston, Texas 77079

2020-2021

President	Jim Tucker
President Elect.....	Mike Erpenbeck
Vice President.....	Bryan Guzman
Past President.....	Jon Blickwede
Secretary	Dianna Phu
Treasurer	Brent Boyd
Treasurer Elect	William Gough
Editor	Ceri Davies

Editor Elect Scott Sechrist
Directors..... Wayne Camp, Barbara Hill, Casey Langdon, and Bob Fryklund

2021-2022

President Mike Erpenbeck
President-Elect Walter Light, Jr.
Vice-President Patricia Walker
Secretary Lucia Torrado
Treasurer William Gough
Treasurer-Elect Bruce Drake
Editor Scott Sechrist
Editor-Elect Ken Thies
Directors Lanette Marcha, Barbara Hill, Casey Langdon, and Dianna Phu

Lafayette Geological Society

P.O. Box 51896, Lafayette, Louisiana 70505

2020-2021

President Joseph Morris
Past President Trevor Casper
Treasurer Bill Terrell
Advisor Tim Duex
Advisor James Willis
Liaison Bill Finley and Raphael Gottardi

2021-2022

President Joseph Morris
President-Elect Raphaël Gottardi
Past President Trevor Casper
Vice President Wayne Cook
Secretary David Dupre
Treasurer Bill Terrell
Advisor James Willis
Advisor Emile Stretcher
Liaison William Finley

Mississippi Geological Society

P.O. Box 422, Jackson, Mississippi 39205

2020-2021

President Jimmie Sparks
1st VP TBD
2nd VP Joe Johnson
Treasurer Paul Parrish
Webmaster Steve Walkinshaw
Editor/Advertising Matt Caton

2021-2022

President David H. Snodgrass
1st Vice President TBD
2nd Vice President TBD
Treasurer Paul Parrish
Webmaster Steve Walkinshaw
Advertising Matt Caton
Editor Matt Caton

New Orleans Geological Society

5500 Prytania Street #604, New Orleans, Louisiana 70115

2020-2021

President John Dribus
President Elect..... Douglas Bradford
Vice President..... Hillary Sletten
Secretary Rachel Carter
Treasurer Michael C. Hopkins
Editor Charles Miller, III
Directors..... Charles W. Holman, Allan Melillo, and David B. Culpepper

2021-2022

President Doug Bradford
President Elect..... Hillary Sletten
Vice President..... Nancye H. Dawers
Treasurer Ryan Weber
Secretary Wayne Allen Cook
Editor Emmitt Lockard
Editor-Elect..... Dave Reiter
Directors..... Charles Miller, David B. Culpepper, and Al Melillo

Shreveport Geological Society

P.O. Box 750, Shreveport, Louisiana 71162

2020-2021

President Matthew Chumley
Past President..... Cody Lenert
First Vice President Sarah Wilkes
Second Vice President..... Ian Byram
Secretary Gary Abrams
Treasurer Kevin McMaster
Board Members..... Bezany Branton, Mike Danos, Stuart Oden, and Jamey Walker

2021-2022

President Ian Byram
First Vice President Kurt Ley
Second Vice President..... Mike Danos
Past President..... Matthew Chumley
Secretary Gary Abrams
Treasurer Kevin McMaster
Board Members..... Bezany Branton, Stuart Oden, Kelly Byram, and Will Downs

South Texas Geological Society

P.O. Box 17805, San Antonio, Texas 78217

2020-2021

President Grant Snyder
President Elect..... John Casiano
Past President..... David Clay
Vice President..... Travis Garcia
Secretary Mary Hughes
Treasurer Bradley Arnett
Treasurer Elect Dawne Butler
Editor Shelby Skittone
Executive Committee Alf Hawkins and Tim McGovern

2021-2022

President.....	John Casiano
President Elect	Travis Garcia
Past. President.....	Grant Snyder
Vice President.....	Mary Hughes
Secretary.....	Luke Finger
Treasurer.....	Dawne Butler
Treasurer-Elect.....	TBD
Editor	Shelby Skittone
Executive Committee.....	Alf Hawkins and Tim McGovern

Southeastern Geological Society

P.O. Box 1636, Tallahassee, Florida 32302

2020-2021

President.....	Jennifer Coor
Vice President.....	Jonathan Valentine
Secretary.....	Alex Lamarche
Treasurer.....	Cortney Cameron
Past President.....	Jon Bryan

2021-2022

President.....	Jonathan Valentine
Vice President.....	Sammy Smith
Secretary and Treasurer.....	Cortney Cameron
Past President.....	Jennifer Coor

EXECUTIVE COUNCIL

Gulf Coast Section SEPM



President
Nathan D. Wilkens



President Elect
Mike L. Sweet



Vice President
Noelle Purcell



Secretary
Milly Wright



Treasurer
Julitta Kirkova-Pourciau



Past President
Don S. Van Nieu-
wenhuise

PAST OFFICERS
Gulf Coast Section SEPM

Year(s)	President	Vice President	Secretary	Treasurer
1953-1954	Stuart A. Levinson	Grover E. Murray	William H. Akers	Frank V. Stevenson
1954-1955	Charles W. Stuckey, Jr.	E. H. Rainwater	William H. Akers	Fred L. Smith, Jr.
1955-1956	E. H. Rainwater	Frank S. Westmoreland	Hugh A. Bernard	Eleanor T. Caldwell
1956-1957	Lloyd M. Pyeatt	J. O. Colle	H. Dillingman, Jr.	Eleanor T. Caldwell
1957-1958	J. O. Colle	Fred L. Smith, Jr.	Harold V. Anderson	William G. Parker
1958-1959	Marcus A. Hanna	Claude M. Quigley	Fred E. Smith	Bernard L. Hill, Jr.
1959-1960	David E. Pope	A. D. Ellis, Jr.	Gordon C. Munsey	H. A. Chun
1960-1961	Claude M. Quigley	Harold V. Anderson	E. Ann Butler	Edward Marks
1961-1962	Harold V. Anderson	Theodore D. Cook	Benjamin J. Petrusek	Albert D. Warren
1962-1963	Albert D. Warren	Ernest H. Horton	Blair S. Parrott	Henry H. Phillips
1963-1964	Lyman D. Toulmin	E. Ann Butler	Charles C. Albers	John E. Kilgore
1964-1965	Howard L. Tipsword	Benjamin J. Petrusek	D. Jeter Smith	Emmett R. Adams
1965-1966	John B. Dunlap, Jr.	John J. W. Rogers	M. Ray Bane	Charles B. Morris
1966-1967	Hubert C. Skinner	Richard P. Zingula	Gene Ross Kellough	Gene B. Martin
1967-1968	Benjamin J. Petrusek	Dan McGregor	Garrett Briggs	Herbert A. Elliot, Jr.
1968-1969	William A. Atlee	Edgar B. O'Quinn	James W. Fowler	William E. Steinkraus
1969-1970	Fred L. Smith, Jr.	Kenneth L. Loep	Robert K. Sylvester	C. Wylie Poag, Jr.
1970-1971	Jules Braunstein	Douglas E. Jones	Walter H. Trenchard	Robert N. Davids
1971-1972	William W. Hay	William E. Steinkraus	Karl J. Koenig	Gerald R. Stude
1972-1973	C. Wylie Poag, Jr.	Emmett R. Adams	Gerald R. Stude	Joan B. Strough
1973-1974	Edward B. Picou, Jr.	Walter H. Trenchard	Lawrence C. Menconi	J. Lloyd Tuttle, Jr.
1974-1975	Emmett R. Adams	Clifton A. Couture	Herbert A. Elliott, Jr.	Doris M. Curtis
1975-1976	James L. Lamb	Lawrence C. Menconi	William S. Grubb	John L. Carney
1976-1977	Clifton A. Couture	Eleanor T. Caldwell	Sherwood W. Wise, Jr.	Joseph E. Boudreaux
1977-1978	Gerald R. Stude	William P. S. Ventress	Gary R. Roberson	George C. Esker, III
1978-1979	Willard P. Leutze	Bob F. Perkins	Walter P. Kessinger	Kenneth A. Hodgkinson
1979-1980	Gene B. Martin	John L. Carney	Mary Ann Rafle	Arthur S. Waterman
1980-1981	Bob F. Perkins	Don G. Bebout	Sheila C. Barnette	Ted Karmen
1981-1982	William P. S. Ventress	Kenneth A. Hodgkinson	Brian J. O'Neill	Kurt Geitzenauer
1982-1983	John L. Carney	Ernest A. Mancini	Susan J. Conger Morris	Kevin C. Kilmartin
1983-1984	Don G. Bebout	Michael J. Nault	Susan J. Conger Morris	Nelson B. Yoder
1984-1985	Ernest A. Mancini	J. M. Crosbie	John G. McPherson	John B. Anderson

GCSSEPM Executive Council

1985–1986	Susan J. Conger Morris	Arthur S. Waterman	John G. McPherson	Richard E. Constans
1986–1987	Charles L. McNulty	Denise M. Butler	Kurt G. Geitzenauer	Sylvester Q. Breard, Jr.
1987–1988	Arthur S. Waterman	Brian J. O'Neill	Ramil C. Wright	Charles G. Rosato
1988–1989	Samuel P. Miano	Charles C. Smith	Richard H. Fillon	Bethanne Breisacher
1989–1990	Sheila C. Barnette	Michael J. Nault	Nancy Engelhardt-Moore	Michael W. Center
1990–1991	Denise M. Butler	Charles C. Smith	Nancy Engelhardt-Moore	Kurt Geitzenauer
1992	Michael J. Nault	Brian E. Lock	Mary (Missy) Jackson	Elaine H. Collision
1993	John M. Armentrout	David W. Ford	Mary (Missy) Jackson	Elaine H. Collision
1994	Nancy Engelhardt-Moore	Mary (Missy) Jackson	Michael J. Styzen	Elaine H. Collision
1995	Charles C. Smith	William C. Ward	Michael J. Styzen	Richard J. White
1996	Rashel N. Rosen	James O. Jones	R. P. "Rick" Major	Richard J. White
1997	Paul Weimer	Sylvester Q. Breard	R. P. "Rick" Major	Michael J. Styzen
1998	James O. Jones	Michael W. Center	Ron F. Waszczak	Michael J. Styzen
1999	R. P. (Rick) Major	Harry H. Roberts	Ron F. Waszczak	Norman C. Rosen
2000	Michael J. Styzen	Anthony D'Agostino	Ilene Rex Corbo	Rashel N. Rosen
2001	Ron F. Waszczak	Patricia A. Santogrossi	Ilene Rex Corbo	Terri Dunn
2002	Anthony D'Agostino	Jory A. Pacht	Lana Ann Czerniakowski	Terri Dunn
2003	Richard H. Fillon	Rome G. Lytton III	Lana Ann Czerniakowski	Patricia Santogrossi
2004	Jory Pacht	Bonnie Weise	Lana Ann Czerniakowski	Patricia Santogrossi
2005	Robert Loucks	Kevin Schofield	Lana Ann Czerniakowski	Ramón H. Treviño
2006	Lesli J. Wood	Beverly DeJarnett	Lana Ann Czerniakowski	Ramón H. Treviño
2007	Kevin Schofield	Christopher Lerch	Lana Ann Czerniakowski	Ramón Treviño
2008	Janok P. Bhattacharya	John Wagner	Lana Ann Czerniakowski	Ramón Treviño
2009	John Wagner	John Holbrook	Lana Ann Czerniakowski	Johanna Moutoux
2010	John Holbrook	Bruce S. Hart	Charlotte Jolley	Johanna Moutoux
2011	Bruce S. Hart	Ursula Hammes	Charlotte Jolley	Brandi Pool Sellepack
2012	Ursula Hammes	Mike Blum	Charlotte Jolley	Brandi Pool Sellepack
2013	Mike Blum	J. Carl Fiduk	Charlotte Jolley	Brandi Pool Sellepack
2014	J. Carl Fiduk	TBA	Charlotte Jolley	Brandi Pool Sellepack
2015	Thomas Hearon	Sophie Warny	Charlotte Jolley	Brandi Pool Sellepack

GCSSEPM Executive Council

2016	Dorene West	Sophie Warny	Jennifer Wadsworth	Brandi Pool Sellepack
2017	John Suter	Joe Macquaker	Jennifer Wadsworth	Julitta Kirkova-Pourciau
2018	Thomas Demchuk	Joe Macquaker	Milly Wright	Julitta Kirkova-Pourciau
2019	Thomas Demchuk	Mike Sweet	Milly Wright	Julitta Kirkova-Pourciau
2019	Don S. Van Nieuwenhuise	Noelle Purcell	Milly Wright	Julitta Kirkova-Pourciau

FOUNDATION TRUSTEES

Gulf Coast Section SEPM



Executive Director
John Suter



Dorene West



Ron F. Waszczak



Jennifer Wadsworth

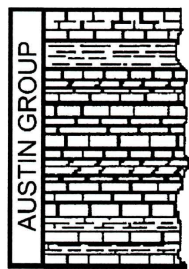
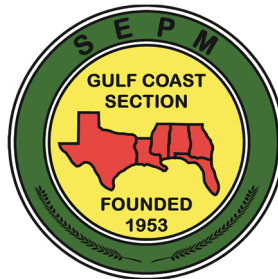


John Snedden



Director Emeritus
Norman C. Rosen

GEOGULF2021 A U S T I N October 27–29, 2021



austin
geological
society

