

Technical Program and Registration Announcement

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MAKING THE NEXT GIANT LEAP IN GEOSCIENCES



AAPG 2011 Annual Convention & Exhibition

American Association of Petroleum Geologists with SEPM (Society for Sedimentary Geology)

10–13 April 2011 /// George R. Brown Convention Center
Houston, Texas, USA

www.AAPG.org/Houston2011



Technical Program & Registration Announcement
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GARY BARCHFIELD

Letter from the General Chair



On behalf of the American Association of Petroleum Geologists (AAPG) and its divisions, along with the Society for Sedimentary Geology (SEPM), and the Houston Geological Society, I am pleased to welcome you to the world energy center of Houston and to the AAPG 2011 Annual Convention & Exhibition.

The can-do spirit thrives in the city of Houston, a global leader for energy, space and medicine. The theme of the 2011 Convention is "Making the Next Giant Leap in Geosciences," recognizing both the historic achievements of scientists and the essential need for forward-looking, creative approaches to solving our energy needs.

The year 2011 marks the 50th anniversary of the famous 1961 speech by John F. Kennedy to announce the challenge to place a man on the moon by the end of the decade. What better way to celebrate this milestone event than in an atmosphere of discovery while at AAPG's ACE in Houston!

Immerse yourself in the exhibition hall where the latest technology and services will be showcased by hundreds of companies. Listen to presentations from a choice of 400+ selected talks and numerous technical forums, field trips and short courses. Visit the 400+ ALL-DAY posters and electronic TV-based "E-Posters" (new for 2011). Attend the division luncheons with speakers John Hofmeister (former Shell Oil President), Karen Harbart of Washington D.C. and SEPM speaker and Mars expert Dr. John Grotzinger.

Be sure to buy your tickets early for the All-Convention Luncheon, which will showcase four geoscience-trained space travelers that represent six decades of NASA history — Dr. Harrison "Jack" Schmitt, Apollo 17 astronaut; Dr. Kathryn Sullivan, three-time space shuttle astronaut and the first woman to walk in space; Dr. Jim Reilly, three-time shuttle astronaut and former oil and gas exploration manager; and Dr. Andrew Feustel, two-time shuttle astronaut, former oil and gas geophysicist and current mission specialist for the 2011 final flight of the Endeavour shuttle.

Be prepared to launch into an exciting atmosphere for education, reuniting with valuable colleagues and great fun in the vibrant city of Houston. Make the AAPG 2011 Convention your next giant leap in geosciences!

Stephen D. Levine

Stephen Levine
2011 ACE General Chair

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-- these will be finalized
and proofed after
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10-13 April 2011, Houston, Texas

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2011 ACE Theme Chairs

- Theme 1** Jeff Lund (Corridor Resources)
- Theme 2** Art Donovan (BP America)
- Theme 3** Robin Hamilton (Shell)
- Theme 4** Keith Shanley (Discovery Group)
Kevin Bohacs (ExxonMobil Upstream Research Co.)
- Theme 5** Wally Dow (EOG Resources)
- Theme 6** Janok Bhattacharya (University of Houston)
- Theme 7** Steve Bachtel (Chevron)
- Theme 8** Martin Perlmutter (Chevron)
- Theme 9** R. Randy Ray (R³ Exploration)
- Theme 10** Michael Campbell (I2M Associates, LLC)
Anthony Gordy (Universal Geoscience Consulting, Inc.)
- Theme 11** Denise Butler (Shell)

This page to be updated

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Join AAPG and Save at Registration

Sign up as a member and save up to \$300 on conference registration! Members receive many benefits including monthly access to *EXPLORER*, the *Bulletin* and *Bulletin* archives (dating back to 1917); special member discounts on books, videos and educational materials; access to personal member programs (such as insurance, car rental discounts, etc.), access to the AAPG Career Center, Member Registry and more.

To begin enjoying all the benefits of AAPG visit www.AAPG.org/Houston2011, "Register Now", "Non-Member" and select "Join and Save".

Or, mail in a completed Associate Membership Form along with your Registration Form (found on page xx).

For information on AAPG Membership, please contact:

AAPG Membership Services Department
P.O. Box 979 • Tulsa, OK 74101-0979 • USA
Tel: +1 918 560 2643 • 1 800 364 2274 (US and Canada only)
Fax: +1 918 560 2694 • E-mail: jdorman@aapg.org



GARY BARCHFIELD

GET A GIANT LEAP ON YOUR CAREER POTENTIAL AT ACE



GARY BARCHFIELD

Who Attends

A total of 7,452 people from 85 countries attended ACE in 2009, including more than 5,500 delegates and students. Geoprosessionals at every stage of their careers come to benefit from the ideas and opportunities presented, including:

- CEOs/Presidents
- Vice Presidents/Directors
- Managers
- Staff Geologists/Engineers/Scientists
- Technicians/Support Staff
- Independent Consultants
- Marketing/Sales
- Educators/Trainers/Students

An Unmatched Technical Program

Your conference registration pass gives you access to the brightest minds in the upstream E&P industry. Abstracts are judged by a team of industry experts and ranked. You'll find more than 400 oral and nearly 600 poster presentations over three days. In addition, special forums and sessions are available for an in-depth look at some of the most important issues impacting geosciences professionals today. See Technical Program details beginning on Page 28.

More than 200 exhibitors under one roof

From imaging equipment to mounted minerals, if it's related to the petroleum E&P industry you'll find it in our exhibition hall. You'll gain an understanding of the latest products and technologies from companies of all sizes. Explore the floor to visit with industry leaders such as Baker Hughes, Paradigm, Saudi Aramco, Fugro, TGS-NOPEC, PGS, Schlumberger and Geokinetics as well as independent operators, local/regional companies and more. You'll also find education providers, associations and more with services and offerings to enhance your career. See complete exhibitor list on Page 13.

Networking

Geologists at any stage of their career will find the networking opportunities at ACE simply unmatched. Students can gather at the Student Lounge and take advantage of special student courses and rates to further their connections and understanding of this exciting profession. A Career Center is available on-site for anyone looking for a new career opportunity. From Sunday night's Icebreaker reception to the private alumni functions, you're sure to find plenty of places to relax with friends or associates and expand your professional network. See networking opportunities on page 7.

*"AAPG is always
one of the best
organized and
attended conferences.
The poster sessions
and the exhibitors
are always varied and
professional."*

*— Martha S.,
AzuWrite LLC,
Lone Tree, CO*



Pic to come...

ACE HIGHLIGHTS

All events will be held at the George R. Brown Convention Center unless otherwise noted.

Forums and Special Sessions

Panel: Key Factors Shaping the Future – Opportunities and Challenges (AAPG)

Date: Monday, 11 April
Time: 8:00 a.m.–11:50 a.m.
Location: General Assembly C
Co-chairs: P. Yilmaz and S. Anjos

Hydrocarbon is the world's most efficient source of energy; however, the operational challenges in oil and gas discovery and recovery are increasing. Operations have extended to remote areas tapping new reservoirs and striving to increase recovery factors beyond accepted limits while working to preserve the environment for future generations. The industry is facing the challenge with adaptively intelligent technologies, out-of-the-box business models and exceptional human skills. Innovation in E&P is a definite must, and one company's success is rather defined in its preparedness to question the status quo to break set records for improvement. The executive plenary session explores innovation in E&P. It examines the standards for fostering new and innovative ideas across the industry and challenges these standards for innovating beyond limits.

The following major industry players will participate in this panel to discuss their views:

- **Maria das Gracas Foster**, Executive Director and Member of the Board, Petrobras
- **Johnny Hall**, Executive Vice President, ExxonMobil Exploration Company
- **Abdulla Al-Naim**, Vice President Exploration, Saudi Aramco
- **Ladislav Paszkiewica**, Senior Vice President Americas, Total
- **Sami Al Rushaid**, CEO, Kuwait Oil Company

Forum: Discovery Thinking (AAPG/DPA)

Date: Monday, 11 April
Time: 1:15 p.m.–5:05 p.m.
Location: General Assembly C
Co-chairs: C. Sternbach and E. Dolly

The "Discovery Thinking" forum will be the fourth presentation of the AAPG 100th Anniversary Committee's program recognizing "100 Who Made a Difference."

Each is a veteran of the petroleum industry renowned for their success exploring for and finding hydrocarbon reserves. Each speaker overcame great challenges and thrived in both business and geological aspects of our profession. Topics to be discussed will include philosophy of exploration, lessons learned from remarkable careers, professional insights and colorful anecdotes. As technology advances and a new wave of young geoscientists enter our profession, we see continued interest in forums such as this to discuss the personal side of success and what has been called the "art of exploration." This year's program focuses on insights derived from hard-won experience in 1) play opening Gulf

Coast discoveries and 2) discovery thinking behind the hottest international plays. These talks are of particular interest to the Houston venue, which is a gateway to offshore and global exploration technology.

Speakers include:

- **James Cearley**, General Manager Exploration – DWEP, Chevron
- **Susan Cunningham**, Sr. Vice President, Exploration, Noble Energy, Inc.
- **Stuart Burley**, Head of Geosciences, Cairn
- **Paul Dailly**, Senior Vice President, Exploration, Kosmos Energy
- **Carol Law**, Exploration Manager, Anadarko

Forum: Transforming Global E&P: Unconventional Resource Plays as Strategic Drivers. The Next Giant Leap in Geoscience?

Date: Tuesday, 12 April
Time: 8:00 a.m.–11:50 a.m.
Location: General Assembly A
Co-chairs: J. Lund and J. Adamick

This forum will offer company-specific presentations from top executives who, to varying degrees, are embracing unconventional resource plays and implementing significant strategic change. All have been industry leaders in successful worldwide conventional exploration.

What are the drivers of this strategic change? We will hear a diversity of stories. Technology application, scientific creativity, portfolio balancing, risk tolerance, the world economic context and other factors shape the decisions being made. Equally fascinating is the approach taken to implement strategic change including corporate acquisition, asset divestiture, deal-taking, re-alignment of staff, application of technology and G&G research.

Are we witnessing a paradigm shift, portfolio adjustment or an industry fad driven by risk adverse capital providers?

The implications are profound for industry and geoscientists in particular. Technical training, manpower requirements and decision-making processes are all affected. For many, this represents a mind-boggling shift from the traditional "prospecting" that we and our predecessors have practiced for nearly a century.

Speakers include:

- **Art Smith**, President, Triple Double Advisors
- **Dave Hager**, Executive Vice President, Devon Energy
- **John Schopp**, Vice President, Encana
- **Lee Boothsby**, President, Newfield Exploration
- **Chandler Wilhelm**, Exploration Manager, Shell



- **Andy Winkle**, Vice President, Statoil
- **Jack Williams**, President, XTO Energy

SEPM Research Symposium: Source to Sink: Evaluating the Significance of Interdependence of Depositional Systems

Date: Tuesday, 12 April
Time: 8:00 a.m.–12:00 p.m. and 1:15 p.m.–5:05 p.m.
Location: Room 342
Co-chairs: C. Paola, O. Martinsen, H. Posamentier and B. Romans

The interdependence of depositional systems has been the subject of much research in recent years. The notion of the interconnectedness of disparate depositional environments requires an integrated approach to the analysis of geologic processes. For example, what happens in upstream, continental settings can have significant impact on what happens within coeval deltaic and associated deep-water settings downstream. The role of plate tectonics with respect to the organization and distribution of land masses can play a significant role both with respect to the configuration of ocean basin margins. Tied to this, the effects of land mass location and relief can have a significant effect on climate and resulting geologic processes. Numerous analytical techniques, including those associated with biostratigraphy, chemostratigraphy, sedimentology, geophysics, numerical modeling and geomorphology, can be brought to bear on the understanding of basin-wide stratigraphic relationships. This symposium will bring together a wide range of disciplines to highlight the state of the art with respect to source-to-sink relationships and demonstrate the integrated nature of this field of study. From a petroleum exploration perspective, this approach has great potential to improve the understanding of uncertainty in frontier as well as mature basins and lead explorationists to better manage risk elements. Consequently, this session will emphasize the pragmatic aspects of source-to-sink analyses.

Forum: Taking Natural Gas Seriously: Opportunities and Challenges (AAPG)

Date: Tuesday, 12 April
Time: 1:15 p.m.–5:05 p.m.
Location: General Assembly A
Co-chairs: S. Tinker, W. Fisher and S. Ikonnikova

Natural gas is an available, affordable, reasonably reliable, versatile and relatively clean energy source. As such, it has great potential to become a prominent part of the U.S. and global energy mix.

The forum includes academic and industry leaders and is designed as a holistic overview of developments in the natural gas industry. The presentations will concentrate on North America, but include global insights regarding key natural gas demand and supply drivers and issues.

Varying perspectives on “below ground” reserves and production of conventional and unconventional natural gas will be followed by a global outlook of the LNG market and complemented by a discussion of energy security issues.

On the demand side, presentations will cover “above ground” economic issues on an individual sector level as well as problems relevant for the broader economy, including energy and environmental policy and regulations.

Speakers include:

- **William Fisher**, Professor, Jackson School of Geosciences, BEG, University of Texas at Austin
- **John B. Curtis**, Professor, Colorado School of Mines
- **Arthur Berman**, Director & Geological Consultant, Labyrinth Consulting Services Inc.
- **Porter Bennett**, President and Chief Executive Officer, Bentek Energy LLC
- **Ruud Weijermars**, Director of Education, Department of Geotechnology, Delft University of Technology
- **Kenneth B. Medlock III**, Adjunct Professor of Economics, Rice University
- **Gurcan Gulen**, Research Associate, BEG, University of Texas at Austin
- **John Browning**, Consultant, BEG, University of Texas at Austin
- **Svetlana Ikonnikova**, Postdoctoral Fellow, BEG, University of Texas at Austin

Panel: You’ve Come a Long Way Baby – Evolution of the Work Environment in the Oil & Gas Industry (PROWESS)

Date: Tuesday, 12 April
Time: 1:15 p.m.–3:00 p.m.
Location: xxx
Moderators: E. Medvin and S. Shepherd

Gillian Apps will kick off this panel discussion with a talk entitled “Reservoirs and Sand Castles: One Woman’s Perspective on Managing Complexity.”

Apps will be joined by a panel of women of varying years of experience, from more than 30 to less than 10, who will share experiences from their early days and observations on industry careers. What challenges did these women face? What benefits exist today that did not exist 30 years ago? How has technology benefited working women, working mothers and dual-career couples? How have company cultures changed? Has anything gotten harder for women over time? We will explore these and other topics in the panel discussion. The PROWESS seminar will celebrate pioneering women in our industry, address opportunities for further evolution, and guide new generations of earth scientists in the challenging and rewarding (technical/leadership/managerial) career paths available to them today.

Panelists:

- **Susan Longacre**, Chevron Fellow Emeritus, retired
- **Gill Apps**, Sedimentologist-stratigrapher in Global Technology R&D team, Unconventional Gas Resources, BP America Inc.
- **Joyce Thomas**, Vice President Operations U.S. Land, Baker Atlas
- **Thuy Rocque**, Chief Petrophysicist, Anadarko Petroleum Corporation
- **Andrea Reynolds**, Staff Geologist, Shell
- **Michelle Warner**, Senior Geologist, ENI U.S. Operating Co., Inc.

Forum: Shale Plays: Technical Examination of Today’s Reality and Tomorrow’s Future (EMD)

Date: Wednesday, 13 April
Time: 1:15 p.m.–5:05 p.m.
Location: General Assembly B
Co-chairs: P. Basinski and K. Shanley

Shale plays now dominate the North American exploration and production arena and, according to many, may alter the global energy balance. As a result, there is growing interest in similar types of plays throughout the world, especially in Europe. While many see oil and gas plays associated with shales as having the capacity to truly “change the way the game is played,” there are others who suggest that, while there may be a large resource, realizing economic success may be far more challenging and elusive.

Join us at this interactive forum where we have assembled a highly renowned panel of experts who span the full spectrum of views. In addition to a status update, the panelists will share their insights into what the future might hold in shale resource plays.

Each panel member will give a short presentation summarizing his perspective. These presentations will be followed by a Q&A session between the members. The forum will conclude with questions to the panel from participants like you.

Panelists include:

- **Art Berman**, Director & Geological Consultant, Labyrinth Consulting
- **Robert Clarke**, Manager, Unconventional Gas Service, Wood Mackenzie
- **Steven Dixon**, Executive Vice President & Chief Operating Officer, Chesapeake Energy Group
- **Dr. Melvyn Giles**, Global Theme Leader Unconventional Gas, Shell Exploration & Development
- **William Von Gonten Jr.**, Founder & President, W. D. Von Gonten & Company

Forum: The Deepwater Horizon/Macondo Well Oil Spill – Understanding the Impact (DEG)

Date: Wednesday, 13 April
Time: 1:15 p.m.–5:05 p.m.
Location: Room 342
Co-chairs: D. Van Nieuwenhuise and M. Foss

The AAPG Division of Environmental Geosciences (DEG) will hold a special afternoon session concerning the Macondo well oil spill. The session brings together scientists from various fields to present topics that have arisen since the April 2010 Deepwater Horizon accident in the Gulf of Mexico. Join us in hearing from front-line researchers involved with spill monitoring; oil transport and degradation in various marine and coastal environments; and the associated government, industry, and economic issues. A panel discussion will follow the presentations.

The Macondo oil spill will have major impacts on oil and gas industry operations in the Gulf of Mexico for years. Yet, in the aftermath there are also successes. The best science

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will be required to comprehend this event and to establish a better understanding of both the fate and the effects of the pollution. The oil spill is a cross-disciplinary problem in which the Earth sciences play a key role in finding solutions related to impacts on the coastal and marine environment, the shoreline communities, and the economy.

Panelists include:

- **Donald Van Nieuwenhuise, Ph.D.**, Director, Petroleum Geoscience Programs, Dept. of Earth and Atmospheric Sciences, University of Houston
- **Peter Brickley, Ph.D.**, Chief Scientist, Horizon Marine, Inc.
- **Nan D. Walker, Ph.D.**, Director, Earth Scan Laboratory and Associate Professor, Coastal Studies Institute, Louisiana State University
- **Kevin M. Yeager, Ph.D.**, Assistant Professor, Department of Marine Science, University of Southern Mississippi
- **Jeffrey R. Wozniak, Ph.D.**, Research Fellow, Texas Research Institute for Environmental Studies, Sam Houston State University
- **Robert S. Young, Ph.D.**, Director, Program for the Study of Developed Shorelines and Professor, Department of Geology and Natural Resources, Western Carolina University
- **Michelle Michot Foss, Ph.D.**, Chief Energy Economist and Head, Center for Energy Economics, BEG, University of Texas at Austin

Special Events

Opening Session and Awards Ceremony

Date: Sunday, 10 April
Time: 4:00 p.m.–5:00 p.m.
Location: George Bush Grand Ballroom
Fee: Included with convention registration

Your first step toward making the “Next Giant Leap” in Houston starts with this year’s opening session and awards ceremony.

This is the place to be for an entertaining, fast-moving and informative session that features a number of can’t miss ACE experiences, including the Presidential Address by AAPG President David Rensink — his comments at AAPG’s International Conference & Exhibition in Calgary proved to be both provocative and inspiring — plus the chance to honor the best of AAPG.

Arrive a few minutes early and you’ll begin the session by enjoying a dazzling multimedia presentation that celebrates the best of geology, the best of the industry and the best of AAPG. General Chair Stephen Levine will be the master of ceremonies for the one-hour program.

Following Rensink’s presidential address will be the AAPG awards ceremony, when the Association’s best and brightest are recognized for their contributions to AAPG, the profession, the industry and the world.

Leading the list of this year’s honorees is professor, researcher and visionary geologist John W. Shelton, who will receive the Sidney Powers Memorial Medal — AAPG’s highest honor — and share some of his thoughts and experiences with the audience. He is the namesake of AAPG’s John W. Shelton Search and Discovery Award.

Joining Shelton at the top of this year’s awardees list is Daniel L. Smith, a past AAPG president and continuing presence in Association activities, who will receive this year’s Michel T. Halbouty Outstanding Leadership Award.

Other awards include:

Honorary Member Award

- Robert L. Countryman
- Barry J. Katz
- R. Randy Ray
- Charles A. Sternbach
- Steven L. Veal

Outstanding Explorer Award

- Douglas K. Strickland

Robert R. Berg Outstanding Research Award

- Ole Jacob Martinsen

Distinguished Service Award

- Deborah E. Ajakaiye
- Herman Darman
- Rick L. Ericksen
- Gretchen M. Gillis
- Gina B. Godfrey
- Sigrunn Johnsen
- Walter C. “Rusty” Riese
- John E. Ritter

Grover E. Murray Distinguished Educator Award

- Lawrence D. Meckel
- Ronald J. Steel

Special Award

- Anthony G. Doré
- Myron K. “Mike” Horn

Public Service Award

- Mark J. Doelger

Pioneer Award

- John M. Bowen
- John Wold

Wallace E. Pratt Memorial Award

(Presented to honor and reward the author(s) of the best AAPG BULLETIN article published each calendar year.)

- William A. Ambrose, Tucker F. Hentz, Florence Bonnaffe, Robert G. Loucks, L. Frank Brown Jr., Fred P. Wang and Eric C. Potter

Robert H. Dott Sr. Memorial Award

(Presented to honor and reward the author/editor of the best special publication dealing with geology published by the Association.)

- Claudio Bartolini and J.R. Román Ramos

J. C. “Cam” Sproule Memorial Award

(Presented to recognize and reward younger authors of papers applicable to petroleum geology.)

- David M. Dutton and Bruce D. Trudgill

John W. Shelton Search and Discovery Award

(Presented to honor and reward the author(s) of the best contribution to the Search and Discovery website in the past year.)

- Dwight M. “Clint” Moore and Robert O. Brooks

George C. Matson Award

(Presented to honor and reward the best oral presentation at the AAPG 2010 Annual Convention & Exhibition in New Orleans.)

- Satinder Chopra (Co-author: Kurt J. Marfurt)

Jules Braunstein Memorial Award

(Presented to honor and reward the best poster presentation at the AAPG 2010 Annual Convention & Exhibition in New Orleans.)

- Eddy Lee, Craig R. Shipp, Willem Hack, J. Larry Gibson and Fa Dwan

Gabriel Dengo Memorial Award

(Presented to honor and reward the best oral presentation at the AAPG 2010 International Conference & Exhibition in Calgary, Canada.)

- Jennifer Scott (Co-authors: John Guthrie, Steve Crews, Graeme Gordon, Benn Hansen, Niall McCormack, Dean Griffin, Laura Lawton, Rod Graham, Tim Grow, Andy Pepper and Caroline Burke)

Ziad Beydoun Memorial Award

(Presented to honor and reward the best poster presentation at the AAPG 2010 International Conference & Exhibition in Calgary, Canada.)

- Kathryn Hoffmeister

Geosciences in the Media Award

- Ronald C. Blakey
- Tom Zoellner



Teacher Program

Date: Monday, 11 April
Time: 8:00 a.m.–5:00 p.m.
Location: xxx
Fee: \$30 (includes All-Convention Luncheon, Exhibition Access)

The American Association of Petroleum Geologists invites K-12 science teachers to join us in exploring Earth and Space Science.

The program will include:

- Hands-on demonstrations of classroom activities led by AAPG 2010 Teacher of the Year, Stef Paramoure
- Classroom materials to assist you in bringing Earth and Space Science alive in your classroom
- All-Convention Luncheon featuring scientist-astronauts Harrison H. “Jack” Schmitt, Kathryn D. Sullivan, James F. Reilly II and Andrew J. Feustel
- Private Meet-and-Greet with luncheon speakers
- Guided tour of the convention with an industry professional

Registration information:

- If paying by credit card, register online at www.AAPG.org/Houston2011
- If paying by check, download a registration form from www.AAPG.org/Houston2011. Follow the links to the Teacher Program and mail the form along with your check to:

AAPG Convention Department
Teacher Program
P.O. Box 979
Tulsa, OK 74101-0979

For more details, contact:

Alison Henning
Teacher Program Chair
E-mail: Alison@Henning.com

Professionals — share your AAPG ACE experience and love of geosciences by volunteering as a convention guide for the K-12 Science Teachers program. Join the teachers at the All-Convention Luncheon and Meet-and-Greet with the astronauts. Then escort the teachers around the convention to show them the technologies and products shaping the world of petroleum geology.

To participate contact Alison Henning, Teacher Program Chair, at Alison@Henning.com.

Networking Opportunities

Icebreaker Reception

Date: Sunday, 10 April
Time: 5:00 p.m.–7:30 p.m.
Location: Exhibition Hall
Fee: Included with convention registration

Refreshment Breaks

Dates: Monday, 11 April–Wednesday, 13 April
Times: 9:45 a.m.–10:25 a.m.
3:00 p.m.–5:00 p.m. (Monday and Tuesday)
Location: Exhibition Hall

All-Alumni Reception

Date: Tuesday, 12 April
Time: 5:30 p.m.–7:30 p.m.
Location: Hilton Americas – Houston

Mingle with former classmates at the All-Alumni Reception. Signs will identify tables for participating colleges and universities. Enjoy cash bars stationed throughout the room. Any alumni group wishing to participate in the All-Alumni Reception should contact AAPG by 14 January 2011.

Contact: Jean Reynolds
E-mail: jreynolds@aapg.org
Phone: +1 918 560 2668
Toll Free: +1 888 945 2274 ext 668
Fax: +1 918 560 2684

Michel T. Halbouty Lecture

Date: Monday, 11 April
Time: 5:10 p.m.–6:00 p.m.
Location: General Assembly C
Chair: R. Merrill



David Lawrence

The Michel T. Halbouty lecture series is an ongoing special event at the AAPG Annual Convention & Exhibition. Lecture topics are designed to focus either on wildcat exploration in any part of the world where major discoveries might contribute significantly to petroleum reserves, or space exploration where astrogeological knowledge would further mankind's ability to develop resources on Earth and in the Solar System.

The Michel T. Halbouty Lecture speaker will be David Lawrence, Executive Vice President, Shell Upstream Americas Exploration and Commercial, discussing “The Next Era of Exploration.”

The demand for oil and gas is expected to double, in absolute terms, by 2050 even as alternative energy sources increase their market share. To meet this demand our industry is undergoing a seismic shift which is potentially as great as the initial moves into deepwater, the advent of bright spot technology, or the discovery of major resources in the Mid-East. This

shift will create new opportunities for a new generation of explorers to continue to meet the demands of an energy-hungry world.

Three major elements are: 1) A new wave of gas and unconventional oil resources, 2) a move north to the Arctic, where approximately 20–25% of the world's remaining oil and gas resources go untapped and 3) the emergence of shallow plays in deepwater. Complementing those elements is the challenge of deploying and scaling new energy and information technologies against the background of rising demand and cost.

However, going forward the critical risks are no longer purely technical but increasingly nontechnical; e.g., regulatory, legislative, legal and commercial at the local, regional, national and global levels. The future calls for the same vigor, passion and innovative thinking that has enabled our industry's past success in what is an ever-changing and highly competitive environment.



GARY BARCHFELD



Luncheons

All-Convention Luncheon

Taking Geoscience to Greater Heights – American Geoscientists in Space

Date: Monday, 11 April
Time: 11:30 a.m.–1:15 p.m.
Fee: \$50
Speakers: Dr. Harrison H. “Jack” Schmitt, Dr. Kathryn D. Sullivan, Dr. James F. Reilly II and Dr. Andrew J. Feustel, NASA Astronauts

The All-Convention Luncheon promises to be an out-of-this-world event and a highlight of this year’s annual convention. What better way is there to celebrate the 50th anniversary of John F. Kennedy’s famous “Man on the Moon” speech than to feature a visit by four American geoscientist-astronauts? The theme of this year’s Annual Convention & Exhibition – Making the Next Giant Leap in Geosciences – is a tribute to the pioneering efforts of the geoscientist-astronauts of the National Aeronautic and Space Association (NASA) program.

Our special guests include Apollo astronaut Harrison H. “Jack” Schmitt, and space shuttle astronauts Kathryn D. Sullivan, James F. Reilly II and Andrew J. Feustel. These scientists together represent a near-uninterrupted timeline of the entire NASA manned space program, initiating in 1965 with Apollo training, to the latest space shuttle mission scheduled for February 2011.



Harrison H. “Jack” Schmitt



Kathryn D. Sullivan



James F. Reilly II



Andrew J. Feustel

Each geoscientist will describe his or her own compelling story of an early interest in geoscience, astronaut selection and training, mission accomplishments, post-mission experiences and ventures, and perhaps a few thoughts on the future of the space program.

Dr. Harrison H. “Jack” Schmitt earned his doctorate from Harvard University in 1964 and began employment at the USGS Astrogeology Center in Flagstaff, Arizona, as a project chief instructing NASA astronauts on geological field trips. He was selected as a NASA scientist-astronaut in 1965 and organized the lunar science training for the Apollo astronauts, mission scientist on Apollo 11 and backup lunar module pilot for Apollo 15. He was assigned as the lunar module pilot for Apollo 17, the last manned Apollo mission to the moon in December 1972. He and fellow astronaut Eugene Cernan collected 244 pounds of lunar rock samples during their 75 hours on the lunar surface. After serving as Chief of Scientist-Astronauts, he left NASA in 1975 to campaign for U.S. senate in New Mexico. He was elected in 1976 for a six-year term. Schmitt is an author, speaker, corporate director and advocate for manned space flight.

Dr. Kathryn D. Sullivan was selected for the astronaut program in 1978, immediately after the completion of her doctorate in geology from Dalhousie University. Sullivan was the first American woman to walk in space and completed three shuttle flights as a mission specialist between 1984 and 1992, logging 532 hours in space. Her 1984 mission aboard the Challenger required Sullivan to spacewalk to confirm the feasibility of satellite refueling. The Hubble Space Telescope was deployed in her 1990 mission. Sullivan left NASA in 1993 to accept a Presidential appointment to the post of Chief Scientist at the National Oceanic and Atmospheric Administration (NOAA). She is currently Director of the Battelle Center for Math & Science Education Policy for the John Glenn School of Public Affairs at Ohio State University.

Dr. James F. Reilly II received a doctorate in geology from University of Texas–Dallas and was employed for 17 years as an oil and gas exploration geologist in Dallas before his selection by NASA in 1994. Reilly flew on three missions, STS-89 “Endeavor” in 1998, STS-104 “Atlantis” in 2001 and STS-117 “Atlantis” in 2007. He has logged over 853 hours in space, including five spacewalks totaling 31 hours. The missions included a docking and astronaut exchange with the Russian Mir and an airlock delivery and installation for the International Space Station. In addition to space flight, Reilly has spent an equivalent of 22 days in deep undersea submersibles for the U.S. Navy. Reilly retired from NASA in 2008 and is currently the Dean of the School of Science and Technology for the American Public University System.

Dr. Andrew J. Feustel earned his Ph.D. in Geological Science (seismology) in 1995 and was employed as a geophysicist for ExxonMobil Exploration Co. He was selected as a mission specialist by NASA in 2000. Feustel and the crew of STS-125 Atlantis performed

the final refurbishment of the Hubble Space Telescope in May 2009. He is a crew member for the upcoming STS-134 Endeavour scheduled for a 27 February 2011 launch, only weeks before the AAPG Convention.

Energy Minerals Division (EMD) Luncheon

Hydrocarbon Opportunities Must Trump Their Challenges

Date: Tuesday, 12 April
Time: 11:30 a.m.–1:00 p.m.
Fee: \$45
Speaker: John Hofmeister, Citizens for Affordable Energy, Washington, D.C.



John Hofmeister

The politics of energy frustrate the solutions for energy. Short-term election-cycle dynamics and dysfunctional partisanship should not determine the nation’s future energy security. The nation has more energy than it will ever need. What is required is a short-, medium- and long-term plan for the future supplies of energy, more efficient use of energy through technology, clean solutions for land, water and air pollution that is caused by production or consumption of energy, and sufficient infrastructure to move energy from where it is produced to where it is consumed. Unfortunately the federal government, led by short-term-thinking elected or appointed officials, has failed to adequately govern energy through its three branches, Hofmeister believes. The Executive, Legislative and Judicial Branches each attempt to govern energy and the environment and they have grown their structures and processes beyond what can effectively or efficiently decide what is in the nation’s best interests. Hofmeister will share his vision for a different governance model to ensure that energy and the environment are managed in the best interests of the nation’s security, economic competitiveness, environmental sustainability and life style freedoms of choice.

Upon retirement from Shell Oil Company in 2008, he founded and heads the not-for-profit 501(c) (3), nationwide membership association, Citizens for Affordable Energy. This Washington, D.C.-registered, public policy education firm promotes sound U.S. energy security solutions for the nation, including a range of affordable energy supplies, efficiency improvements, essential infrastructure, sustainable environmental policies and public education on energy issues.

Hofmeister serves as the Chairman of the National Urban League and is a member of the U.S. Department of Energy’s Hydrogen and Fuel Cell Technical Advisory Committee. He serves as non-executive Director of the Hunting PLC, London, UK, Lufkin Industries Inc., CAMAC Energy, Inc., and the Sodexo North America Business Advisory Board. He is Senior Advisor to two energy start-ups: Liberty Power of Fort Lauderdale, Florida, and NewEarth Technologies of Seattle, Washington. Hofmeister also serves on the boards of the Foreign Policy Association, Strategic Partners, LLC, the Gas Technology Institute and the Center for Houston’s Future. Hofmeister is a Fellow of the National Academy of Human Resources. John Hofmeister is the author of *Why We Hate the Oil Companies: Straight Talk from an Energy Insider* (Palgrave Macmillan, 2010).

Division of Professional Affairs (DPA) and AAPG Professional Women in Earth Sciences (PROWESS) Luncheon

America’s Energy Realities and Opportunities

Date: Tuesday, 12 April
Time: 11:30 a.m.–1:00 p.m.
Fee: \$45
Speaker: Karen Alderman Harbert, President and Chief Executive Officer of the U.S. Chamber of Commerce’s Institute for 21st Century Energy (Institute), Washington, D.C.



Karen Alderman Harbert

With energy constantly in the headlines, Karen Alderman Harbert will discuss the realities of America’s energy challenges and the solutions that will make our nation more secure and prosperous.

Harbert leads the Energy Institute’s efforts to build support for meaningful energy action nationally and internationally through policy development, education and advocacy. Under Harbert’s leadership, the Energy Institute has evolved into a premier national and increasingly international organization truly dedicated to advancing a constructive energy agenda and transforming the energy and environmental debate into a widely supported plan of action. At the Institute, she was instrumental in formulating 88 specific policy recommendations that were presented to President Obama and the members of the 111th Congress. Harbert frequently testifies in front of Congress and provides analysis to the media, policymakers and industry leaders.



Division of Environmental Geosciences (DEG) Luncheon

The Deepwater Horizon/Macondo Well Oil Spill: Understanding the Impact

Date: Wednesday, 13 April

Time: 11:30 a.m.–1:00 p.m.

Fee: \$40

Speaker: Dr. Edward B. Overton, Professor Emeritus, Department of Environmental Sciences, Louisiana State University, Baton Rouge, Louisiana



Dr. Edward B. Overton

The world's attention was focused on the Gulf of Mexico after the Deepwater Horizon accident on 20 April 2010. Pictures and television coverage of oil spewing from the Macondo wellhead, slicks on the Gulf surface, and befouled shorelines showed what many considered to be the worst environmental disaster of our time. One year later, do we have a better understanding of the oil spill impact on the Gulf of Mexico environment?

The DEG Awards Luncheon is pleased to have as its distinguished speaker internationally renowned chemist and toxicologist Dr. Ed Overton. Dr. Overton has assisted hundreds of journalists from around the world with his expertise on the scientific aspects of the spill and his ability to explain complex details and concepts to the public. He has been interviewed by nearly every major media outlet including ABC, NBC, CBS, Fox, MSNBC, the New York Times, NPR and CNN. He brought the aura of an assured, calm scientist with amiable wit to media coverage, including his appearances on *The Rachel Maddow Show* and the *Late Show with David Letterman*.

Come join DEG for an exciting luncheon talk where Dr. Overton will give the audience his scientific interpretation of the circumstances surrounding the Deepwater Horizon/Macondo oil spill, the impacts expected from oil spills in general, and the cleanup options. He will also discuss what happens when oil is weathered in the environment.

The Division of Environmental Geosciences awards will be presented before Dr. Overton's talk. A special technical session and forum concerning the oil spill follows the luncheon.

House Ad

AAPG 2011 Annual Convention & Exhibition

10-13 April 2011, Houston, Texas

Information and updates www.AAPG.org/Houston2011



EXHIBITION

Find solutions and specials in the Exhibition Hall

By visiting the ACE Exhibition Hall you can:

- See what's new
- Compare suppliers
- Research products
- Meet suppliers and sales representatives
- Attend demos
- Address specific issues
- Benefit from knowledge of industry experts

You'll also enjoy:

- Icebreaker Reception, the Exhibition's grand opening
- Refreshments on the floor all three days
- Cyber C@fé, your chance to surf the web and check your e-mail
- AAPG Center, where you can discover everything the AAPG has to offer. Here you'll find AAPG's publications, member services, divisions, General Store, Foundation, global events information, AAPG/Datapages and much more!
- Explore the Floor — your chance to win fabulous prizes (some restrictions apply).

The Exhibition will be held in sections C , D and E of the George R. Brown Convention Center during these hours:

- Sunday, 10 April.....5:00 p.m.–7:30 p.m. (Icebreaker Reception)
- Monday, 11 April.....8:30 a.m.–5:30 p.m.
- Tuesday, 12 April8:30 a.m.–5:30 p.m.
- Wednesday, 13 April.....8:30 a.m.–12:00 p.m.

Note: Children under the age of 16 will not be allowed in the exhibition hall during setup or teardown. Children 13 and older will be allowed to attend the exhibition during regular exhibition hours if they are properly registered and wearing their badges. During exhibition hours, children under the age of 13 will not be allowed into any activities within the exhibition hall, including the Icebreaker Reception, unless they are young enough or small enough to be confined in a stroller, backpack or frontpack.

Explore the International Pavilion for global opportunities

The International Pavilion makes it possible to “visit the world” and make personal contacts with energy ministers, state licensing authorities, national oil company executives and key players from international oil companies. The IP is a valuable information resource for current global activity such as licensing round announcements, data package releases, as well as new development and exploration activities and opportunities.

You're likely to see the following countries represented in the International Pavilion:

- | | | | |
|--------------------|--------------------|--------------|-----------------------|
| • Angola | • Eritrea | • Jamaica | • Poland |
| • Bahrain | • Falkland Islands | • Kenya | • Senegal |
| • Barbados | • France | • Liberia | • Somaliland |
| • Benin | • Gabon | • Mali | • South Africa |
| • British Columbia | • Ghana | • Madagascar | • Tanzania |
| • Cameroon | • Greenland | • Morocco | • Trinidad and Tobago |
| • Colombia ANH | • India | • Mozambique | • Tunisia |
| • Cote d'Ivoire | • Indonesia | • Namibia | • Uganda |
| • D.P. Congo | • Ireland | • Peru | • Vietnam |

For more information about exhibiting or sponsoring visit www.internationalpavilion.com

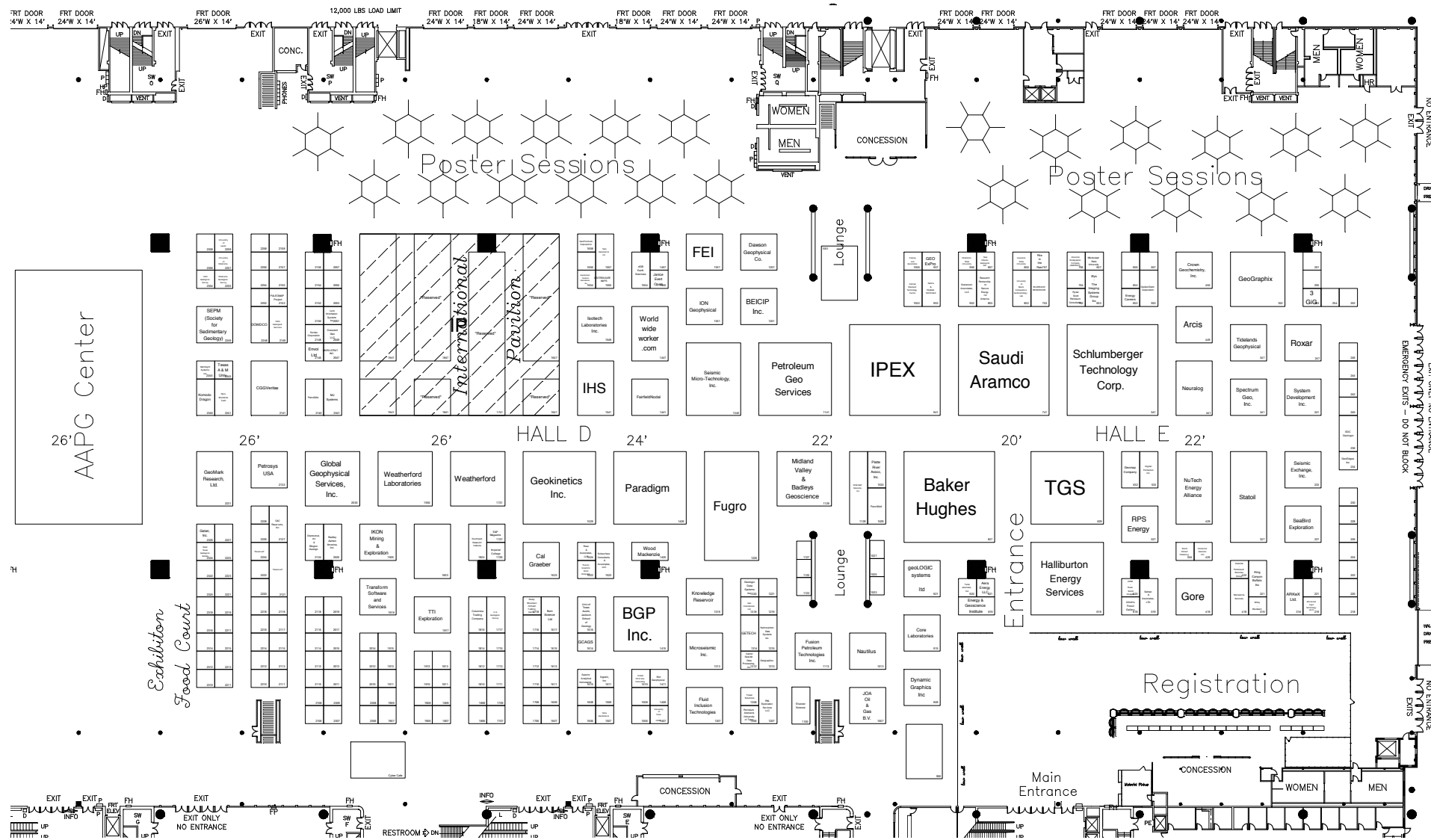


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To exhibit contact Mike Taylor, mtaylor@aapg.org.

AAPG 2011 Annual Convention & Exhibition

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GARY BARCHFELD

SHORT COURSES

IMPORTANT NOTES REGARDING SHORT COURSES

- Short course enrollment is limited.
- Short courses are reserved on a first-come, first-served basis and registration must be accompanied by full payment.
- If you do not plan on attending the Convention, a \$30 enrollment fee will be added to the short course fee. This fee may be applied toward registration if you decide to attend the Convention at a later date.
- A wait list is automatically created if a short course sells out. The AAPG Convention Department will notify you if space becomes available.
- Before purchasing non-refundable airline tickets, confirm that the course will take place, as courses may be canceled if undersubscribed.
- If any of these short courses meet your needs or the needs of your professional staff, you are strongly encouraged to register early. To help us better anticipate the number of attendees and avoid premature cancellation of short courses, please register well before 14 March 2011.
- Courses will be held in the George R. Brown Convention Center, unless otherwise indicated. Participants will be advised via email of the specific location approximately one month prior to the course.

There are a limited number of discounted registrations available for students on a first-come, first-served basis. If you wish to register for one of the discounted spots, please register online at www.AAPG.org/Houston2011. If a discounted space is still available it will show up during the registration process. If discounted spots are no longer available, you may register at the full fee; if we are able to add additional discounted spots we will refund the difference at that time.

PRE-CONVENTION			
1	Fundamentals of Seismic Interpretation for Young Professionals (HGS)	Saturday, 9 April	8:00 a.m.–5:00 p.m. Young Professionals \$250; Students \$125 (limited)
2	Upstream Petroleum Economics for Young Professionals (HGS)	Saturday, 9 April	8:00 a.m.–5:00 p.m. Young Professionals \$175; Students \$88 (limited)
3	CCS: The Reservoir – Characterization, Modeling and Monitoring (PTTC)	Saturday, 9 April	8:00 a.m.–5:00 p.m. Professionals \$250; Students \$125 (limited)
4	The Application of Shale Petrophysics Using Ancient to Modern Logs for Shale Gas and Oil Exploration (EMD)	Saturday, 9 April	8:00 a.m.–4:00 p.m. Professionals \$150; Students \$75 (limited)
5	Sequence-Stratigraphic Analysis of Shales: Key to Paleoclimate Archives, Subsurface Fluid Flow and Hydrocarbon Source, Reservoir and Seal (SEPM/EMD)	Saturday, 9 April	8:00 a.m.–5:00 p.m. Professionals \$225; Students \$50 (limited)
6	Uncertainty Analysis for Unconventional Plays (EMD)	Saturday-Sunday, 9-10 April	8:00 a.m.–4:30 p.m. Professionals \$300; Students \$150 (limited)
7	Seafloor and Top Hole Hazards to Offshore Drilling: Detection, Identification and Interpretation (DEG)	Saturday-Sunday, 9-10 April	8:00 a.m.–5:00 p.m. Professionals \$400; Students \$200 (limited)
8	The Application of Geomechanics in Unconventional Resources (AAPG/EMD)	Saturday-Sunday, 9-10 April	8:00 a.m.–5:00 p.m. Professional AAPG Members \$995; increases to \$1,095 after 11 March Professional Nonmembers \$1,095 increases to \$1,195 after 11 March AAPG Student Members \$90 (limited)
9	Sequence Stratigraphy for Graduate Students (SEPM)	Saturday-Sunday, 9-10 April	8:00 a.m.–5:00 p.m. \$25 (Graduate Students only)
10	Seismic Geomorphology and Seismic Stratigraphy: Extracting Geologic Insights from 3-D Seismic Data (SEPM)	Saturday-Sunday, 9-10 April	8:00 a.m.–5:00 p.m. Professionals \$300; Students \$50 (limited)
11	GIS Analysis of Facies Patterns of Modern Carbonate Sands and Their Potential as Analogs for Hydrocarbon Reservoirs (SEPM)	Saturday, 9 April Sunday, 10 April	8:00 a.m.–5:00 p.m. Professionals \$300; Students \$50 (limited) 8:00 a.m.–3:00 p.m.
12	An Overview of Geothermal Energy (EMD)	Sunday, 10 April	8:00 a.m.–5:00 p.m. Professionals \$200; Students \$100 (limited)
13	Utilization of Conventional Core for Reducing Geologic Uncertainty: Deepwater Core Workshop, Gulf of Mexico (SEPM/AAPG)	Sunday, 10 April	8:00 a.m.–5:00 p.m. Professionals \$275; Students \$50 (limited)
POST-CONVENTION			
14	Hydraulic Fracturing of Shale Reservoirs (EMD)	Thursday, 14 April	8:00 a.m.–5:00 p.m. Professionals \$150; Students \$75 (limited)
15	Petroleum Resources & Reserves: An Overview of Recommended Practices (DPA)	Thursday, 14 April	8:00 a.m.–5:00 p.m. Professionals \$150; Students \$75 (limited)
16	Decision Making in E&P: From Evaluating Plays and Prospects to Efficient Appraisal and Development (AAPG)	Thursday-Friday, 14-15 April	8:00 a.m.–5:00 p.m. Professional AAPG Members \$995; increases to \$1,095 after 11 March Professional Nonmembers \$1,095; increases to \$1,195 after 11 March AAPG Student Members \$90 (limited)
17	Natural Fracture Characterization of Hydrocarbon Reservoirs: Principles and Applications (AAPG)	Thursday-Friday, 14-15 April	8:00 a.m.–5:00 p.m. Professional AAPG Members \$995 (increases to \$1,095 after 11 March) Professional Nonmembers \$1,095 (increases to \$1,195 after 11 March) AAPG Student Members \$90 (limited)



Pre-Convention Short Course 1

Houston Geological Society (HGS)

Fundamentals of Seismic Interpretation for Young Professionals

Date: Saturday, 9 April
Time: 8:00 a.m.–5:00 p.m.
Instructor: Donald Herron (Consultant, Sugar Land, Texas)
Fee: Young Professionals \$250
Includes: Course notes and refreshments
Limit: 30 people

This one-day class on seismic interpretation will benefit geologists who would like a review of the fundamentals of interpreting reflection seismic data. The class will have a combination of lecture and exercises. The exercises will illustrate how basic techniques and principles can be used to correctly interpret seismic lines and avoid pitfalls of incorrect interpretation. The class will not require knowledge of how to use a workstation; instead the emphasis will be on understanding concepts and applications. All material presented in the class will be provided on a CD.

The course will include lecture and correlation exercises covering topics such as seismic velocity, seismic resolution, overview of time and depth migration, horizon identification, horizon interpretation, fault interpretation, data quality and management, workstation pros and cons, and will conclude with a brief course summary and discussion of a final exercise.

Pre-Convention Short Course 2

Houston Geological Society (HGS)

Upstream Petroleum Economics for Young Professionals

Date: Saturday, 9 April
Time: 8:00 a.m.–5:00 p.m.
Instructor: Susan K. Peterson (Risky Decisions, Houston, Texas)
Fee: Young Professionals \$175
 Students \$88 (limited)
Includes: Course notes and refreshments
Limit: 60 people

This course introduces traditional economics applied to typical upstream oil and gas evaluations by following concepts with illustrative Excel-based exercises. We start with the process of economic evaluation (generate a cash flow forecast, time-value money, understand the scope and purpose, and test viability). Next, the economic analysis procedure is outlined, including where to go to get the appropriate information and estimates as inputs. We define common economic metrics used in the industry (net present value, internal rate of return, payout, profit to investment, finding and development costs, and others) and identify when certain metrics are more relevant than others.

Examples are drawn from domestic and international arenas, for onshore and offshore developments, and for conventional and unconventional resources. After analyzing individual investments and incremental economics, we consider multiple potential investments, where ranking projects is critical, and is achieved by considering constraints and business objectives and formulating fair-comparison models. The course will conclude with a high-level overview of portfolio considerations and complexities and the various valid ways to incorporate risk and uncertainty into our

economic analyses. Throughout the course, participants will be encouraged to actively engage in the economic analysis and then discuss the logical business decisions that would be taken based upon the analysis.

Pre-Convention Short Course 3

Petroleum Technology Transfer Council (PTTC)

CCS: The Reservoir – Characterization, Modeling and Monitoring

Date: Saturday, 9 April
Time: 8:00 a.m.–5:00 p.m.
Instructors: Robert (Bob) Trentham (Center for Energy and Economic Diversification, University of Texas Permian Basin, Midland, Texas) and Steve Melzer (Melzer Consulting, Midland, Texas)
Fee: Professionals \$250
 Students \$125 (limited)
Includes: Course notes and refreshments
Limit: 60 people
Content: 8 PDH

Carbon Capture and Storage (CCS), whether associated with enhanced oil recovery (EOR) or storage in deep saline aquifers, involves distinct but interrelated stages: capture, transportation, injection and storage, monitoring and (if applicable) CO₂ flood monitoring. The geoscientist, working alongside engineers, plays a key role in defining the reservoir through characterization, modeling and monitoring. This workshop includes sessions on reservoir screening and characterization, plume modeling and management, and hybrid (saline formations with residual oil) projects. Attendees will know how to screen and model candidate reservoirs for carbon storage and EOR, required data and models for reservoir characterization, injection and production, reservoir monitoring (surveillance) and the theory behind storage and EOR operations in hybrid projects.

Pre-Convention Short Course 4

Energy Minerals Division (EMD)

The Application of Shale Petrophysics Using Ancient to Modern Logs for Shale Gas and Oil Exploration

Date: Saturday, 9 April
Time: 8:00 a.m.–4:00 p.m.
Instructor: Mike Mullen (Realm Energy International, Denver, Colorado)
Fee: Professionals \$150
 Students \$75 (limited)
Includes: Course notes and refreshments
Limit: 80 people

We are not talking about the geologic ages in this class. This class is talking about the hunt for unconventional reservoirs using ancient to modern wireline and LWD logging tools. The class will start by looking at a brief history of logging measurements you are likely to encounter in the global pursuit of unconventional reservoirs. Then it will progress to the more modern logging tools as well as LWD measurements. No log analysis class is complete without reviewing the basics of interpretation. So a brief review of conventional interpretation techniques will be covered. Unfortunately, unconventional reservoirs just don't behave petrophysically as their conventional cousins. Techniques for identifying and evaluating unconventional reservoirs ranging from the simplistic to the complex will be presented. Using the hot unconventional resource plays in the U.S. as a base, the class will work through

a series of examples to highlight the techniques for unconventional reservoir evaluation applicable in the global search for hydrocarbons.

Pre-Convention Short Course 5

Society for Sedimentary Geology (SEPM) and Energy Minerals Division (EMD)

Sequence-Stratigraphic Analysis of Shales: Key to Paleoclimate Archives, Subsurface Fluid Flow and Hydrocarbon Source, Reservoir and Seal

Date: Saturday, 9 April
Time: 8:00 a.m.–5:00 p.m.
Location: Hyatt Regency
Instructors: Kevin Bohacs and Ovidiu Remus (ExxonMobil Exploration Company, Houston, Texas); Juergen Schieber (Indiana University, Bloomington, Indiana) and Joe MacQuaker (Memorial University, Newfoundland, Canada)
Fee: Professionals \$225
 Students \$50 (limited)
Includes: Course notes, refreshments and lunch
Limit: 60 people
Content: 8 PDH; 0.8 CEU

This course is designed for geologists who interpret fine-grained rocks, explore for or develop conventional hydrocarbons, shale gas or oil shale. Mudstones contain the most detailed records of earth history and are sources, reservoirs and seals of hydrocarbons, as well as serving as key elements in reservoir and aquifer models as baffles and barriers. Sequence stratigraphy provides an excellent framework within which to integrate the many scales of observations of physical, chemical and biological attributes necessary to understand these rocks across the spectrum of depositional settings. This workshop combines interactive lectures and exercises addressing the expression of depositional sequences in mudstones on seismic, well-log, core and outcrop data. Examples include the New Albany Shale, Barnett Shale, Shublik Formation, Kimmeridge Formation, Kingak Formation, Hue Shale, Mowry Shale and Monterey Formation.

Participants will practice recognition and correlation of significant stratigraphic packages through seismic stratigraphy, stacking pattern analysis of well-log, core and outcrop data, shale sedimentology, thin-section and geochemical data.

Although flooding surfaces and depositional-sequence boundaries may be subtly expressed in mudstones, they can be recognized through distinct changes observed in commonly available physical, chemical and biological data. Beyond the chronostratigraphic utility of correlative conformity, abundant paleoenvironmental information is recorded in fine-grained strata — depositional sequences do not just fade away into obscurity in distal reaches, but have objective attributes that allow extension of stratigraphic frameworks and play-element predictions over very large areas.

Flooding surfaces fundamentally record a critical increase in accommodation relative to sediment supply, commonly recorded in mudstones by laterally extensive accumulations of authigenic and pelagic components, along with evidence of sediment starvation and low bottom-energy levels. Even in mudstones, some may record minor erosion, reworking and lag formation due to low sediment supply, but all are marked by



a significant decrease in advected clastic input — contrasting with sequence boundaries.

Pre-Convention Short Course 6

Energy Minerals Division (EMD)

Uncertainty Analysis for Unconventional Plays

Dates: Saturday, 9 April–Sunday, 10 April

Time: 8:00 a.m.–4:30 p.m.

Instructors: Gary Citron (Rose & Associates, LLP, Houston, Texas) and Mark McLane (Rose & Associates, LLP, Midland, Texas)

Fee: Professionals \$300
Students \$150 (limited)

Includes: Course notes and refreshments

Limit: 40 people

This class is designed for geoscientists, engineers and decision makers who need to characterize the resource and value potential associated with unconventional resource plays, and then design the appropriate staged investment approach. By the end of the course, participants should be able to accomplish the following:

- Identify the main ingredients necessary for a successful play in tight sands, coal beds and shales
- Estimate the resource potential for defined play boundaries
- Determine the probability of flowable hydrocarbons from initial wells from available geologic information
- Discriminate from initial geologic information areas to focus initial drilling efforts
- Understand the role type production curves serve in drilling program assessments
- Describe the confidence in achieving certain goals

The introduction describes the various types of unconventional accumulations and provides a primer (or refresher) on statistical patterns and estimating under uncertainty. The unconventional realm is covered in three main families or reservoir systems (tight sand and chalk, coal bed, and shale). Within each family the charge, reservoir and sealing characteristics of viable plays are described. These are followed with various techniques to probabilistically assess the volumetric potential, and how to determine the chance of geologic success.

Multiple flow regimes of hydrocarbons through these reservoirs illustrate the need to augment reservoir models with observational data to design and craft representative production profiles on a per well basis, which can then be aggregated to represent the drilling program for the play.

The course concludes with a prescriptive, yet adaptive process to value staged investment programs targeting the identified resource potential, associated geologic concerns and commercial risks.

Pre-Convention Short Course 7

Division of Environmental Geosciences (DEG)

Seafloor and Top Hole Hazards to Offshore Drilling: Detection, Identification and Interpretation

Dates: Saturday, 9 April–Sunday, 10 April

Time: 8:00 a.m.–5:00 p.m.

Instructor: Peter Trabant (Consultant Oceanographer, Spicewood, Texas)

Fee: Professionals \$400
Students \$200 (limited)

Includes: Course notes, slides and refreshments

Limit: 35 people

This two-day course is organized for geologists, geophysicists, and engineers involved in offshore exploration and development operations.

The impact of geohazards on offshore oil and gas development can be significant. Typical geohazards include gas blowouts, shallow water flows or damage to jack-up rigs due to differential settling. This course will combine theory and practice to detect marine geohazards with remote sensing acoustic tools and workstation interpretation of shallow subsurface in terms of sequence stratigraphy on 2-D and 3-D data sets.

Course includes introduction; history and legacy data; hazards to offshore drilling and how to detect them; high resolution geophysical survey methods and tools, from surface vessels and AUVs to 3-D seismic cubes, including echo sounding systems, side scan sonar types, magnetometry, sub bottom profilers, 2-D seismic systems and multifold processing; workstation interpretation of 3-D seismic cubes for geohazards interpretation and interpretation of Pleistocene sequence stratigraphy — from shallow gas and hydrates to shallow water flows.

Pre-Convention Short Course 8

American Association of Petroleum Geologists (AAPG) and Energy Minerals Division (EMD)

The Application of Geomechanics in Unconventional Resources

Dates: Saturday, 9 April–Sunday, 10 April

Time: 8:00 a.m.–5:00 p.m.

Instructor: Daniel Moos (GeoMechanics International, Menlo Park, California)

Fee: Professional AAPG Members \$995; increases to \$1,095 after 11 March
Professional Nonmembers \$1,095; increases to \$1,195 after 11 March
AAPG Student Members \$90 (limited)

Includes: Course notes and refreshments

Limit: 50 people

Content: 1.5 CEU

People who are interested in a better understanding of the applications of geomechanics in the exploitation of unconventional resources — drilling and completion, stimulation, and well production over time — will benefit from this course.

Attendees will learn how a geomechanical model is developed and applied to reduce drilling lost time, improve production through better stimulation effectiveness, increase the value of microseismic data, and predict and mitigate the effects of depletion on reservoir performance.

Key topics will include:

- Introduction: What is geomechanics? What are the elements of a geomechanical earth model? How are unconventional reservoirs (shale and tight gas, CBM, and heavy oil) unique and how are they the same as conventional reservoirs?
- Constraining a geomechanical earth model, utilizing all available data, including how to make best use of acoustic logs, seismic, and image data
- The importance of matrix properties and of natural fractures; rheological models and their application to unconventional reservoirs

Applications will include:

- Selecting the best mud weight for safe drilling
- Exploiting natural fractures
- Stimulation design
- Predicting the effects of injection and depletion

Pre-Convention Short Course 9

Society for Sedimentary Geology (SEPM)

Sequence Stratigraphy for Graduate Students

Dates: Saturday, 9 April–Sunday, 10 April

Time: 8:00 a.m.–5:00 p.m.

Location: Hyatt Regency

Instructors: Vitor Abreu and Jack Neal (ExxonMobil Exploration Company, Houston, Texas)

Fee: \$25 (Graduate Students only)

Includes: SEPM book *CSP #9*, refreshments, lunch and SEPM bookstore gift card

Limit: 50 people

Content: 16 PDH; 1.6 CEU

This course is designed to teach graduate students the principles, concepts and methods of sequence stratigraphy. Sequence stratigraphy is an informal chronostratigraphic methodology that uses stratal surfaces to subdivide the stratigraphic record. This methodology allows the identification of coeval facies, documents the time-transgressive nature of classic lithostratigraphic units and provides geoscientists with an additional way to analyze and subdivide the stratigraphic record. Using exercises that utilize outcrop, core, well log and seismic data, the course provides a hands-on experience to learning sequence stratigraphy. The exercises include classic case studies from which many sequence stratigraphic concepts were originally developed.

The main objectives of the course are to review:

- Basic concepts and terminology of sequence stratigraphy
- The stratigraphic building blocks of depositional sequences
- Recognition criteria for the identification of depositional sequences and their components in outcrops, cores, well logs and seismic
- The application of sequence stratigraphy in non-marine, shallow marine and submarine depositional settings

Pre-Convention Short Course 10

Society for Sedimentary Geology (SEPM)

Seismic Geomorphology and Seismic Stratigraphy: Extracting Geologic Insights from 3-D Seismic Data

Dates: Saturday, 9 April–Sunday, 10 April

Time: 8:00 a.m.–5:00 p.m.

Location: Hyatt Regency

Instructor: Henry Posamentier (Chevron, Houston, Texas)

Fee: Professionals \$300
Students \$50 (limited)

Includes: Course notes and refreshments

Limit: 50 people

Content: 16 PDH; 1.6 CEU

This course is designed to enhance interpretation skill sets with regard to geologic interpretation of seismic data. The overall objective is to present methods for reducing risk with regard to prediction of lithology, reservoir compartmentalization, and stratigraphic trapping potential in exploration and production.



Specifically, the participant will be shown:

- workflows designed to facilitate extraction of stratigraphic insights from 3-D seismic data
- techniques for 3-D seismic geomorphologic/stratigraphic analyses
- numerous examples of various depositional systems in various depositional settings

Pre-Convention Short Course 11

Society for Sedimentary Geology (SEPM)

GIS Analysis of Facies Patterns of Modern Carbonate Sands and Their Potential as Analogs for Hydrocarbon Reservoirs

Date: Saturday, 9 April–Sunday, 10 April

Times: 8:00 a.m.–5:00 p.m. (Saturday);
8:00 a.m.–3:00 p.m. (Sunday)

Location: Hyatt Regency

Instructors: Paul (Mitch) Harris (Chevron Energy Technology Co., San Ramon, California); James Ellis (Ellis GeoSpatial, Walnut Creek, California) and Sam Purkis (National Coral Reef Institute, Nova Southeastern Univ., Dania Beach, Florida)

Fee: Professionals \$300
Students \$50 (limited)

Includes: Course notes, refreshments, GIS Software and SEPM CW22; SC53; SC54

Limit: 50 people

Content: 14 PDH; 1.4 CEU

Processed satellite images, derived bathymetry (Digital Elevation Models), and interpretation maps for several modern carbonate sand bodies are organized into a GIS and form the basis for the short course. Goals are to develop morphometric data that will hopefully stimulate further studies of modern carbonate sands and enhance the potential of the modern deposits as analogs for hydrocarbon reservoirs. Each carbonate sand body is subdivided based on common sandbar patterns and analyzed for size and spatial patterns.

Objectives of the short course are: 1) to overview the geological setting of each study area; 2) present details of the workflow for image processing, building the GIS, creating a bathymetric DEM, and delineating the sand bodies and sand bars; 3) discuss detailed results of the sand body interrogation including statistical methods and comparison of results to previous work; and 4) present examples of moving the geospatial data from a high-end GIS into lower cost and more readily available viewers, i.e., GeoPDF, GoogleEarth, animation, and ArcExplorer.

Subjects to be discussed include recent advances in air- and space-borne remote sensing technology relevant to mapping facies distributions in modern carbonate depositional systems. Bring your laptops to load the SEPM digital publication DVDs, GeoPDFs, GoogleEarth files, and animations. Demonstration CDs of ESRI ArcGIS software (60-day trial license for Windows) will be available to load onto your laptop so you can interactively work with the GIS databases for Caicos, Exumas, Schooners, and TOTO during the workshop and after you return to your office. We

will show a diversity of geostatistical tools that can be developed using computational GIS and how they are applicable for the modeling of petroleum reservoirs.

Pre-Convention Short Course 12

Energy Minerals Division (EMD)

An Overview of Geothermal Energy

Date: Sunday, 10 April

Time: 8:00 a.m.–5:00 p.m.

Instructors: Richard Erdlac (Erdlac Energy Consulting, Midland, Texas), Tom Anderson (Rocky Mountain Oilfield Testing Center, Casper, Wyoming), Hal Macartney (Pioneer Natural Resources, Denver, Colorado), Richard Campbell (CH2M Hill, Englewood, Colorado), Will Gosnold (University of North Dakota, Grand Forks, North Dakota), Andrew Braff (Wilson Sonsine Goodrich & Rosati, P.C., Seattle, Washington), and Tom Williams (National Renewable Energy Laboratory, Golden, Colorado)

Fee: Professionals \$200
Students \$100 (limited)

Includes: Course notes and refreshments

Limit: 50 people

Geothermal energy is becoming increasingly important as the need for continuous high-capacity energy resources continues to increase. The production of geothermal energy for industrial purposes predates oil and gas drilling by some 20 years with thermal energy used at Lardarello, Italy. Electrical power was also first generated at Lardarello in 1913 and geothermal energy has increased in usage worldwide ever since. While most geothermal power is near surface and high temperature, there is a growing realization that geothermal energy exists deep in sedimentary basins where drilling for oil and gas has encountered hot water as a “nuisance” and a “liability.” Estimates of produced oil field waters are enormous and many water zones have been cased or closed off and are of sufficient high temperature that the heat can be used to generate electrical power.

This short course will cover a short history of geothermal development and classification, ongoing geothermal investigations by oil and gas operations, database development, power generation systems, leasing, electrical power grids, and other activities related to geothermal development. Presenters will come from industry, academia, and government agencies and will provide information on geothermal as related to oil and gas industry involvement.

Pre-Convention Core Workshop 13

Society for Sedimentary Geology (SEPM) and American Association of Petroleum Geologists (AAPG)

Utilization of Conventional Core for Reducing Geologic Uncertainty: Deepwater Core Workshop, Gulf of Mexico

Date: Sunday, 10 April

Time: 8:00 a.m.–5:00 p.m.

Instructors: Morgan Sullivan (Chevron, Houston, Texas) and Art Donovan (BP, Houston, Texas)

Fee: Professionals \$275
Students \$50 (limited)

Includes: Core Workshop notes and lunch

Limit: 100 people

Content: 8 PDH; 0.8 CEU

Some of the greatest challenges faced in the exploration and appraisal of deepwater reservoirs are predicting lateral continuity, thickness, vertical connectivity, and compartmentalization. To geoscientists, defining and distinguishing critical architectural styles (sheets vs. channels), which impacts producibility and economic viability, becomes even more challenging when seismic data quality is poor, such as in subsalt regions, or when the reservoirs are simply beneath seismic detection. In regions where seismic resolution is limited, the collection and integration of conventional core data can often provide the critical information necessary to better characterize and predict variations and thereby significantly reducing geologic uncertainty. The theme of this workshop is to highlight the geologic importance and economic value of conventional core data in the reduction of uncertainty in deepwater reservoir characterization.

Post-Convention Short Course 14

Energy Minerals Division (EMD)

Hydraulic Fracturing of Shale Reservoirs

Date: Thursday, 14 April

Time: 8:00 a.m.–5:00 p.m.

Instructor: Randy LaFollette (BJ Services Company, Tomball, Texas)

Fee: Professionals \$150
Students \$75 (limited)

Includes: Course notes and refreshments

Limit: 80 people

Attendees will be taught the fundamentals of hydraulic fracturing in shale reservoirs. The class will begin with the goals of hydraulic fracturing in shales, and will then progress to typical shale well architecture followed by a description of the hydraulic fracturing process. Basic fracturing calculations will be addressed and will include injection and fracturing pressure, rate, and hydraulic horsepower calculations. The propagation of hydraulic fractures in shales will be discussed in the context of rock mechanical properties description. Fracturing fluid, proppant, and chemical additive materials and selection appropriate to shales will be covered. The evolution of hydraulic fracturing treatments in shales will be highlighted in a series of case studies of different shale reservoirs. The class will conclude with a brief discussion of how geologists can help the fracturing engineer to be more successful in stimulating shale wells.

Post-Convention Short Course 15

Division of Professional Affairs (DPA)

Petroleum Resources & Reserves: An Overview of Recommended Practices

Date: Thursday, 14 April

Time: 8:00 a.m.–5:00 p.m.

Instructor: Daniel (Dan) Tearpock (Subsurface Consultants & Associates LLC, Houston, Texas)

Fee: Professionals \$150
Students \$75 (limited)

Includes: Course notes, refreshments and \$25 fee for JCORET Certificate

Limit: 80 people

Content: 0.8 CEU

This class is designed for geologists, geophysicists, engineers, support staff, supervisors, managers, resources or reserves evaluators, financial analysts, investors, bankers or anyone who needs to understand



the general geological recommended methods to estimate resources and reserves.

Reserves and resources are major factors in the valuation of energy companies. From evaluating fields to buy, to determining whether or not to participate in a certain prospect; from estimating the resources and reserves for a new discovery to determining the proved reserves for a company, the bottom line is how much oil or gas can ultimately be recovered and what can be placed on the books and produced with an acceptable return on investment.

This course on the "Overview of Recommended Geological Practices" has been reviewed, approved and endorsed by JCORET – The Joint Committee of Reserves Evaluators Training. JCORET is a committee composed of members from the following societies: the Society of Petroleum Engineers (SPE), the American Association of Petroleum Geologists (AAPG), the Society of Petroleum Evaluation Engineers (SPEE) and the World Petroleum Council (WPC).

Course Content

- General Introduction – Reserves vs. Resources
- Mapping surfaces – Structure maps, reservoir top and base of porosity maps
- Mapping of trapping faults (geology/geophysics)
- Down-dip limits in vertically stratified reservoir(s)
- Net sand and net pay
- Wedge zones (water, hydrocarbon and fault)
- Thickness determinations in deviated wells and dipping beds
- Net-to-gross ratios
- Application of porosity, permeability and saturation cut-offs
- Isochore maps (volume determinations for bottom and edge water reservoirs)

Post-Convention Short Course 16

American Association of Petroleum Geologists (AAPG)

Decision Making in E&P: From Evaluating Plays and Prospects to Efficient Appraisal and Development

Dates: Thursday, 14 April–Friday, 15 April

Time: 8:00 a.m.–5:00 p.m.

Instructors: P. Jeffrey Brown (ExplAnalysis, Inc., Oak Ridge, Tennessee) and Patrick Leach (Decision Strategies, Inc., Houston, Texas)

Fee: Professional AAPG Members \$995; increases to \$1,095 after 11 March
Professional Nonmembers \$1,095; increases to \$1,195 after 11 March
AAPG Student Members \$90 (limited)

Includes: Course notes and refreshments

Limit: 50 people

Content: 1.5 CEU

Few analyses are more burdened with uncertainty than estimating the volumes of oil and/or gas that might be

encountered in an exploration prospect, or group of prospects. Even after discovery, significant uncertainty remains, particularly in determining the optimal way to appraise and then develop the discovery. This course will touch upon aspects of risk and decision analysis as it applies to the entire E&P value chain. Geoscientists, engineers, managers, land negotiators, administrators, financial personnel and others who need to develop or improve their skill and understanding will benefit from attending this offering.

By the end of the course attendees will be provided with:

- A concise review of all statistical concepts necessary to conduct risk and decision analysis of prospects and plays
- A review of different ways to assess undiscovered/undeveloped potential of prospects, conventional plays, and unconventional plays
- Basic concepts of value of perfect and imperfect information
- Modeling methods for value of information, with several real-world exercises
- Assessment techniques for post-discovery uncertainty – economics, production uncertainty, value of additional information, optimal appraisal size and location
- Techniques and concepts for managing uncertainty in project timing

We propose to present an informative, intensive, entertaining and exercise-packed two-day course that will guide participants through the entire spectrum of exploration and development, from making play entry decisions and optimal placement of appraisal wells through deciding when to acquire additional seismic data, take conventional cores, conduct well tests, and/or implement early production systems.

Course content will follow a logical flow, from play entry through post-discovery. Each topic will be presented as a separate "chapter," with individual and group exercises conducted throughout to reinforce concepts and point out pitfalls in the process.

Post-Convention Short Course 17

American Association of Petroleum Geologists (AAPG)

Natural Fracture Characterization of Hydrocarbon Reservoirs: Principles and Applications

Dates: Thursday, 14 April–Friday, 15 April

Time: 8:00 a.m. – 5:00 p.m.

Instructor: Mohammed S. Ameen (Saudi Aramco, Dhahran, Saudi Arabia)

Fee: Professional AAPG Members \$995; increases to \$1,095 after 11 March
Professional Nonmembers \$1,095; increases to \$1,195 after 11 March
AAPG Student Members \$90 (limited)

Includes: Course notes and refreshments

Limit: 50 people

Content: 1.5 CEU

This course is designed for geoscientists, petrophysicists, engineers, and managers working on, or expected to deal with reservoirs in which fractures, in situ stresses and rock mechanical aspects are of concern and/or considered essential for exploration, development and reservoir management purposes.

The course will serve as an introduction to or an update on the principles and techniques of fracture and geomechanical characterization in order to facilitate an understanding of the benefits such techniques can bring to their daily operations if applied appropriately. We will cover the basic principles of fracture mechanics, fracture characterization, rock mechanics and geomechanical characterization relevant to the hydrocarbon industry with examples applicable to exploration, production, and reservoir management from a wide variety of reservoirs worldwide. No prior knowledge or experience is required.

By the end of the course, participants should be able to accomplish the following:

- Appreciate the impact of fractures, rock mechanical properties and in situ stresses on exploration, development and reservoir management operations
- Gain sufficient basic understanding of fracture mechanics, fracture types, in situ stresses and rock mechanics and available techniques to characterize them
- Apply the knowledge gained to make basic daily operational decisions relevant to fracture and geomechanical characterization needs, tools, and applications

The course keeps mathematical aspects to a minimum, and incorporates field examples to demonstrate the principles, applications and pitfalls in dealing with fractured reservoirs, contrasting diverse worldwide experiences.

The course is designed with key emphasis on:

- Basic definitions, methods and techniques of fracture, rock mechanical and geomechanical characterization
- Applications of fracture and rock mechanics and geomechanical characterization through case studies on: Exploration & prospect evaluation; reservoir development; geosteering; drilling and work-over; well planning & completion/stimulation; well testing design and interpretation
- Uncertainties and risks in fracture and geomechanical characterization

Small House ad



FIELD TRIPS

All Field Trips will depart from and return to the George R. Brown Convention Center unless otherwise noted.

Important notes regarding field trips

- Field trips are limited in size and are reserved on a first-come, first-served basis and must be accompanied by full payment.
- If you do not plan on attending the convention, a \$30 enrollment fee will be added to the field trip fee. This fee may be applied toward registration if you decide to attend the convention at a later date.
- A wait list is automatically created if a field trip sells out. The AAPG Convention Department will notify you if space becomes available.
- Before purchasing non-refundable airline tickets, confirm that the trip will take place, as trips may be cancelled if undersubscribed.
- It is important that you note your gender on your registration form for hotel room assignments.
- Several weeks prior to the trip, you will receive an itinerary with details of meetings points, transportation with the trip, phone and fax numbers and e-mail addresses of hotels and trip leaders, etc. Please indicate your fax number and e-mail address on your registration.
- Proper clothing and supplies are needed for the outdoors (hat, wind breaker, sturdy footwear, sunscreen and rucksack).
- Depending on location, temperatures can range from 50 to 90 degrees F with or without rain. Participants are advised to check local weather forecasts for latest updates. Insect repellent and sun protection (sunscreen and hats) are recommended.
- To help us better anticipate the number of attendees and avoid premature cancellation of field trips, please register before 14 March 2011. Field trip cancellations due to low enrollment will be made at this time.
- Neither AAPG nor trip leaders and their employers maintain insurance covering illness or injury for individuals.

There are a limited number of discounted registrations available for students on a first-come, first-served basis. If you wish to register for one of the discounted spots, please register online at www.AAPG.org/Houston2011. If a discounted space is still available it will show up during the registration process. If discounted spots are no longer available, you may register at the full fee; if we are able to add additional discounted spots we will refund the difference at that time.

PRE-CONVENTION			
1	Central Belize Mixed Margin: Long-Lived Isolated Carbonate Platforms, Young Barrier Reef on Siliciclastics and Atolls on Karst (SEPM)	Monday, 4 April, 8:55 a.m. – Saturday, 9 April, 7:15 p.m.	Professionals and Students \$3,800
2	Holocene Geology and Hurricane Effects on the Chenier Plain, Southwestern Louisiana, and Bolivar Peninsula, Southeastern Texas (HGS)	Friday, 8 April, 8:00 a.m. – Saturday, 9 April, 6:00 p.m.	Professionals \$460; Students \$230 (limited)
3	Behind the Scenes Tour of NASA Space Center with Harrison “Jack” Schmitt, Apollo 17 Moonwalker, and Space Shuttle Geoscientists Astronauts Jim Reilly and Andrew Feustel (HGS)	Saturday, 9 April, 8:00 a.m. – 5:00 p.m.	Professionals \$195; Students \$98 (limited)
4	Was Hurricane Ike the Big One? Effects and Aftermath of a Giant Storm (AAPG Student Chapter/SEPM)	Saturday, 9 April, 8:00 a.m. – 8:00 p.m.	Students/Faculty \$25
5	Impact of Active Faults on Land-Based Engineered Structure in the Gulf Coastal Zone (DEG/EMD)	Saturday, 9 April, 8:30 a.m. – 4:00 p.m.	Professionals \$100; Students \$50 (limited)
POST-CONVENTION			
6	Nonconventional Mudstone Reservoirs Field Seminar: South Texas (SEPM/EMD)	Wednesday, 13 April, 2:30 p.m. – Friday, 15 April, 7:00 p.m.	Professionals \$500; Students \$100 (limited)
7	Quaternary Depositional Systems of the East Texas Coast and Shelf (SEPM)	Thursday, 14 April, 8:00 a.m. – 7:00 p.m.	Professionals \$280; Students \$100 (limited)
8	A Brief Geologic History of Central Texas (HGS)	Thursday, 14 April, 6:00 a.m. – Friday, 15 April, 8:30 p.m.	Professionals \$275; Students \$138 (limited)
9	Microbial Carbonates in the Upper Cambrian of Central Texas (HGS)	Thursday, 14 April, 12:00 p.m. – Saturday, 16 April, 6:30 p.m.	Professionals \$405; Students \$203 (limited)



Pre-Convention Field Trip 1

Society for Sedimentary Geology (SEPM)

Central Belize Mixed Margin: Long-Lived Isolated Carbonate Platforms, Young Barrier Reef on Siliciclastics and Atolls on Karst

Dates: Monday, 4 April, 8:55 a.m.– Saturday, 9 April, 7:15 p.m. (departs from Houston International Airport 8:55 a.m. and departs from Belize 3:45 p.m., arriving at the Houston International Airport at 7:15 p.m.)

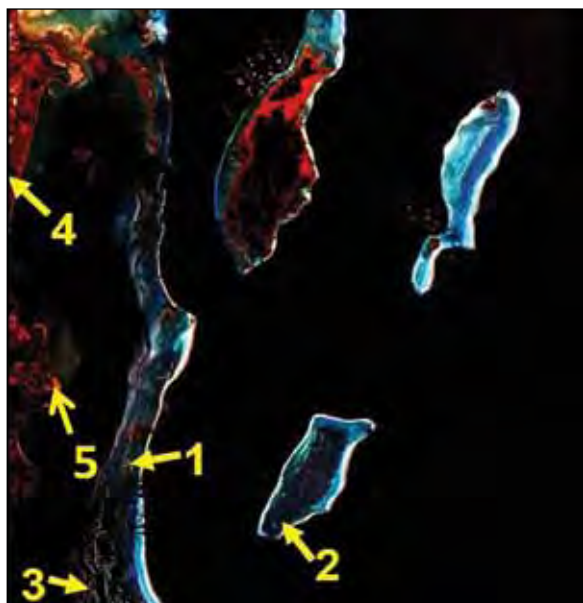
Leaders: Dr. André W. Droxler (Rice University, Houston, Texas) and Dr. Timothy M. Dellapenna (Texas A&M University, Galveston, Texas)

Fee: Professionals and Students \$3,800

Includes: Round trip flights from Houston to Belize, flight over the main visited areas, five nights' lodging based on double/triple occupancy at Pelican Beach Resort on South Water Caye and Dangriga, meals, refreshments, chartered boat, chartered flight, guidebook and national preserves park entrance fees.

Limit: 20 people

Content: 32 PDH, 3.2 CEU



Offshore Belize field area. Photo by André W. Droxler.

This trip will be beneficial to geologists, geophysicists, engineers and anyone else interested in enhancing their understanding of modern mixed shallow water carbonate and coarse- to fine-grained siliciclastic depositional environments as analogs for subsurface studies and in the context of well-established Plio-Pleistocene sea level fluctuations. The central Belize margin is an ideal field trip destination because of its relatively compact size and scale, the high diversity of reef systems (barrier and back barrier reefs and atolls) thriving in close proximity to a siliciclastic coastal zone, and the existence of industry and academic data sets and recent studies upon which the field trip has been organized.

Observations of marine modern mixed carbonate and siliciclastic shallow depositional environments will be discussed throughout the field trip in the newly developed context that modern barrier reefs and atolls are relatively "young," mostly stacked, late Brunhes

transgressive and early highstand carbonate systems. Globally, modern Barrier reefs were established during the mid Brunhes on top of early Brunhes mostly lowstand siliciclastic coastal deposits, whereas modern atolls formed over early Brunhes karstified carbonate islands.

Notes: This trip includes extensive boating, swimming, snorkeling, moderate hiking and a flight over the main visited areas, all weather permitting. Individuals should be in good physical condition for these activities. During the four days in the field, transects through the barrier reef and back barrier reef (Day 1), Glovers Atoll (Day 2), the shelf lagoon Rhomboid Reefs (Day 3) and along the siliciclastic coast (Days 4 and 5) will be examined mostly on boats and by snorkeling.

Important Visa Information: A visa to enter Belize is required for some countries. A U.S. passport valid for six months after the departure on 9 April 2011 is the single requirement for U.S. citizens to enter Belize.

Pre-Convention Field Trip 2

Houston Geological Society (HGS)

Holocene Geology and Hurricane Effects on the Chenier Plain, Southwestern Louisiana, and Bolivar Peninsula, Southeastern Texas

Dates: Friday, 8 April, 8:00 a.m.– Saturday, 9 April, 6:00 p.m.

Leaders: Donald E. Owen (Lamar University, Beaumont, Texas) and Richard A. Ashmore (Consultant, Houston, Texas)

Fee: Professionals \$460
Students \$230 (limited)

Includes: Transportation, one night's lodging in the dormitory at the Rockefeller Wildlife Refuge, lunch on 8 and 9 April, dinner on 8 April, breakfast on 9 April

Limit: 20 people



Destruction behind the Geotube after Hurricane Ike hit Gilchrist, Texas. The only structure on the beach that remained partially standing were the stilts of a beach cabin that was located seaward of the protective Geotube. Photo by Richard A. Ashmore.

This field trip will travel from Houston to the world-famous Chenier Plain of southwestern Louisiana and the Bolivar Peninsula of southeastern Texas, both of which have been devastated by hurricanes recently. The purpose of the trip is two-fold: (1) to observe and understand how sand/shell chenier ridges develop from erosion of shoreline mudflats during transgression and to compare cheniers with regressive beach ridges; (2) to observe and understand the effects of geologically frequent hurricane storm surges and cold-front passages on development of cheniers and beach ridges as well as on human structures.



Sea Rim State Park, Texas, after Hurricane Ike. Photo by Richard A. Ashmore.

For example, the Rita-destroyed town of Holly Beach and Hurricane Ike-destroyed town of Gilchrist will be visited. After an overnight stay in the dormitory at the remote Rockefeller Wildlife Refuge on the coast, participants will observe the transition from chenier to transgressive strand-plain to barrier-island coast along the Bolivar Peninsula of Texas during the return trip to Houston.

Note: The smallest available rooms have four twin beds; others have six or eight. A men's and a women's restroom/shower are down the hall from the rooms. The dorm is on stilts above ground level, assessable only by stairs. There are no handicapped facilities or elevator.

Pre-Convention Field Trip 3

Houston Geological Society (HGS)

Behind the Scenes Tour of NASA Space Center with Harrison "Jack" Schmitt, Apollo 17 Moonwalker, and Space Shuttle Geoscientists Astronauts Jim Reilly and Andrew Feustel

Date: Saturday, 9 April, 8:00 a.m. – 5:00 p.m.

Leaders: Harrison H. "Jack" Schmitt (Apollo 17 astronaut, Houston, Texas), James Reilly (former shuttle astronaut STS 89, 104, and 117, Houston, Texas), and Andrew Feustel (shuttle astronaut, STS 125, Houston, Texas)

Organizers: Charles Sternbach (Star Creek Energy, Houston, Texas), Linda Sternbach (2011 AAPG Convention Technical Program Committee Chair, Houston, Texas) and Bill Ambrose (BEG and co-chair Astrogeology committee, Austin, Texas)

Fee: Professionals \$195
Students \$98 (limited)

Includes: Transportation, lunch, guidebook, entrance fee

Limit: 44 people

A tour of the National Aeronautics and Space Administration is always popular for technical conventions in the Houston metroplex. The great majority of such events are more entertainment events rather than field trips, such as this one.



Apollo 17 Lunar Module Pilot and Astrogeologist Harrison "Jack" Schmitt (center) will lead a field trip to Space Center Houston where participants will view actual moon rocks and recovered space vehicles from the Apollo program and get behind-the-scenes stories from the NASA lunar program. Photo by Linda Sternbach.



Rocket Park at Space Center Houston has a full-size model of the Apollo 17 rocket and lunar module. Photo by Linda Sternbach.

For the AAPG 2011 convention, we are fortunate to have Apollo 17 Astronaut and former U.S. Senator Harrison H. "Jack" Schmitt joining our NASA trip. Dr. Schmitt was the only geologist to walk on the moon and collect samples for analysis. He later served as a United States Senator from New Mexico and continues to be an avid supporter of our space program. In addition, Jim Reilly (former space shuttle astronaut) and Andrew Feustel (space shuttle astronaut) plan to be in attendance and will share their experiences during lunchtime discussions.

Participants will travel to the NASA complex by chartered bus. Once at NASA, their staff will organize the group for the day's activities and set the schedule for both the tour and talks focusing on planetary geology and space exploration. Walking will be light with trams provided between stops and mostly indoor activities.

Our tour of the NASA complex in Clear Lake will begin by visiting the Apollo 17 space capsule and Moon rock labs and displays. Later, the group will gather for talks on topics including the geology of the Earth, Moon and Mars. Discussions will include "geology from space" drawing upon the personal experiences of Jim Reilly and Andrew Feustel, both geoscientists and space shuttle astronauts.

In the afternoon we will visit Mission Control and have a tour of the Saturn V rocket display (Apollo "18") with Dr. Schmitt giving narration. We'll also stop to see the pool training center for space shuttle astronauts.

As you would expect, many spectacular NASA displays and photographs will be included in these presentations. We will see historical artifacts, like the

podium from where President John F. Kennedy gave his speech to "reach the moon within this decade."

A similar version of this trip sold out at the AAPG 2006 Houston convention and was very popular. This event will be open to both convention attendees and their spouses/guests.

Pre-Convention Field Trip 4

AAPG Student Chapter (AAPG-SC/SEPM)

Was Hurricane Ike the Big One? Effects and Aftermath of a Giant Storm

Date: Saturday, 9 April, 8:00 a.m.– 8:00 p.m.

Leaders: Chris Barker and LaRell Nielson (Stephen F. Austin State University, Nacogdoches, Texas) and Robert Clarke (Consultant, Irving, Texas)

Fee: Students/Faculty \$25

Includes: Transportation, lunch, refreshments, guidebook

Limit: 35 people (students and faculty only)



The Galveston sea wall does not help much if you are on the wrong side of it. This gift shop lost its windows and walls during Hurricane Ike. But at least it fared better than its neighbor, a restaurant, the only remains of which are the broken pilings in the foreground. Photo by Chris Barker.

This trip is presented for all geoscience students and faculty advisors as an opportunity to study the effects of Hurricane Ike on the area around Galveston, Texas. Hurricane Ike was the third costliest storm to ever hit the U.S. coast and the largest and most intense hurricane of 2008.

Our focus will be on damage done by Ike to buildings and roads, the effectiveness of erosion control structures, patterns of rapid erosion and deposition during the giant storm and sedimentological changes since the hurricane.

Our first stops will be at Galveston Island State Park, which was extensively damaged by Ike, to look at deposition since the hurricane and the Park's efforts to rebuild. We will see both sides of this thin barrier island

as we examine beaches, dunes, marshes and tidal flats. From the park we travel to Galveston's massive seawall, built after the deadly hurricane of 1900, and discuss its effectiveness during Hurricane Ike. Buildings immediately behind the seawall survived with little damage, but hundreds of low-lying structures in the city were flooded by a 'back bay' storm surge.

After crossing Galveston Bay on the ferry, we will drive along Bolivar Peninsula where devastation from Hurricane Ike was almost total and entire communities were swept into the bayside lagoon. We will examine the positive and negative effects of geo-tubes, the undercutting of roads and structures and study the relocation of sediments during and after the hurricane. We will also look at High Island Salt dome and oil production associated with it.

As we traverse the coast, we will ask, "Was Ike the Big One? Was it a storm large enough to prove that Galveston's erosion barriers are adequate for all future hurricanes?" The answers to these questions have serious implications for the island community's safety and plans. We will also address the question, "How do shoreline processes rebuild a barrier island after a major storm event?"

Pre-Convention Field Trip 5

Division of Environmental Geosciences (DEG) and Energy Minerals Division (EMD)

Impact of Active Faults on Land-Based Engineered Structure in the Gulf Coastal Zone

Date: Saturday, 9 April, 8:30 a.m.– 4:00 p.m.

Leaders: Dr. Carl E. Norman (Professor Emeritus, University of Houston, Houston, Texas) and Richard G. Howe (Terra Cognita Geological Services, Houston, Texas)

Fee: Professionals \$100
Students \$50 (limited)

Includes: Transportation, boxed lunch, refreshments, guidebook

Limit: 22 people



House five years after foundation repair (1985). Photo by C. Norman.



House with recurring foundation problems (2003). Photo by TSI.



Approximately 450 active normal faults are confirmed on land in the Texas-Louisiana Gulf Coastal Zone. Although all are generally aseismic, slip rates reach as high as 1.5 inches per year across deformation zones a few tens of feet wide. Field trip stops in western and northwestern Houston will include a variety of settings where engineered structures are currently undergoing fault-related deformation. Field discussion will include a review of surface and subsurface methods for locating and mapping the faults, determination of fault zone widths and rates of slip. As time permits, working hypotheses for the origin of the faults and their recently high slip rates will be discussed.

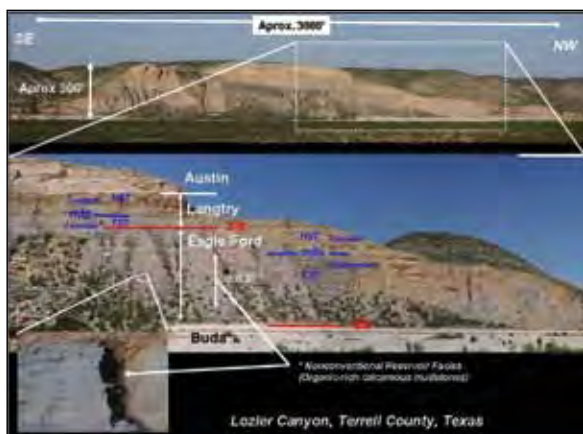
Notes: Dress is casual and comfortable shoes are recommended. There will be little walking as the vans have good access to points of interest.

Post-Convention Field Trip 6

Society for Sedimentary Geology (SEPM) and Energy Minerals Division (EMD)

Nonconventional Mudstone Reservoirs Field Seminar: South Texas

- Dates:** Wednesday, 13 April, 2:30 p.m. – Friday, 15 April, 7:00 p.m.
- Leaders:** Dr. Art Donovan, Scott Staerker, Tony McClain, Dr. Jonathan Evenick, Angeni Agrawal and John Freeman (BP, Houston, Texas)
- Fee:** Professionals \$500
Students \$100 (limited)
- Includes:** Transportation, two nights' lodging based on double occupancy, lunches, refreshments
- Limit:** 40 people
- Content:** 16 PDH, 1.6 CEU



Lozier Canyon Outcrop. Photo by Art Donovan.

Probably some of the best exposures of a major source rock/nonconventional mudstone reservoir in the U.S. can be found in Eagle Ford (Boquillas) outcrops along and near U.S. Highway 90 just north of Del Rio, Texas, in Val Verde and Terrell counties. In these outcrops, organic-rich calcareous mudstones similar in age and facies to the strata being exploited in the subsurface of Webb, LaSalle and McMullen counties to the southeast can be studied. With thousands of feet of lateral continuity and hundreds of feet of vertical relief these Eagle Ford exposures provide a unique opportunity to examine the lateral continuity and vertical variability of nonconventional mudstone reservoirs, their facies, mechanical properties, as well as sequence stratigraphic setting at a scale similar to completions in the subsurface.

The purpose of this field seminar is to use the Eagle Ford exposures of south Texas as props to facilitate discussions on the geologic, engineering, petrophysical, geochemical and geophysical challenges associated with exploring and exploiting oil and gas resources from nonconventional mudstone reservoirs. The field seminar leaders' specialties span a wide variety of geoscience and engineering disciplines. All have worked the Eagle Ford and other nonconventional mudstone plays in the subsurface of North America and thus bring a wealth of multi discipline expertise, knowledge and experience to the subject of nonconventional mudstone reservoirs.

Many of the key localities that will be visited during this field trip are on private property with restricted access, making this field trip a very unique opportunity to study many of the classic Eagle Ford localities in south Texas which have been inaccessible to over a generation of geoscientists.

Notes: There will be moderate hiking with strong boots and hard hats required.

Post-Convention Field Trip 7

Society for Sedimentary Geology (SEPM)

Quaternary Depositional Systems of the East Texas Coast and Shelf

- Date:** Thursday, April 14, 8:00 a.m. – 7:00 p.m.
- Leader:** Dr. John B. Anderson (Rice University, Houston, Texas)
- Fee:** Professionals \$280
Students \$100 (limited)
- Includes:** Transportation, lunch, refreshments, trip notes
- Limit:** 18 people
- Content:** 10 PDH, 1.0 CEU



Brazos River at the coastline. Photo by John B. Anderson.

The East Texas coast and adjacent continental shelf is an ideal natural laboratory for examining depositional processes and facies of shallow water coastal and marine environments. During this field trip we will visit and/or discuss several depositional systems and examine sediment cores and high resolution seismic records from these and other offshore environments. The objective is to understand the facies architecture of these environments, the distribution of these facies on the continental shelf during the last glacial eustatic cycle and their preservation potential. We will also discuss how to predict the occurrence, shape and internal character of different sand bodies on the continental shelf given a sequence stratigraphic framework.

Notes: There will be moderate hiking around water bodies. Light boots recommended.

Post-Convention Field Trip 8

Houston Geological Society (HGS)

A Brief Geologic History of Central Texas

- Dates:** Thursday, 14 April, 6:00 a.m. – Friday, 15 April, 8:30 p.m.
- Leaders:** Tom Miskelly (Arapahoe Community College, Littleton, Colorado), Alex Pachos (College of the Mainland, Texas City, Texas) and Maik Pertermann (San Jacinto College, Pasadena, Texas)
- Fee:** Professionals \$275
Students \$138 (limited)
- Includes:** Transportation, one night's lodging in Fredericksburg based on double occupancy, 1 lunch and 2 breakfasts
- Limit:** 50 people



Hike the trail to the summit of Enchanted Rock State Natural Area. This is currently the highest point of the 1 Ga batholiths with the Llano Uplift. Photo by Chuck Kaiser.

Only a few hours from Houston, the relatively small geographic area of Central Texas captures an amazing sweep of Texas's geologic history across time, from the Pre-Cambrian to the Eocene. Experienced petroleum industry professionals and students will be able to 'walk back in time' and explore the geologic history of Texas.

The field trip aims to inspire anyone new to the industry and will also offer an opportunity for students, geoscience educators and industry professionals to learn the essentials about the geologic history of Central Texas. We will see Earth's story unfold, beginning with the crystalline rocks emplaced during the Proterozoic Grenville Orogeny and then examine the rich deposits of clastics and carbonates that reveal cyclic sea-level transgressive-regressive depositional sequences laid down from the Cambrian to the Tertiary.

Everyone will be invited to contribute their expertise to group discussions that will focus on the wide range of petrologic characteristics and geologic structures we will observe in the field. Everyone will return to his or her office or classroom with a renewed appreciation for the "big picture" of geology.

Post-Convention Field Trip 9

Houston Geological Society (HGS)

Microbial Carbonates in the Upper Cambrian of Central Texas

- Dates:** Thursday, 14 April, 12:00 p.m. – Saturday, 16 April, 6:30 p.m.
- Leaders:** Wayne Ahr (Texas A&M, College Station, Texas), André Droxler (Rice University, Houston, Texas) and William A. Morgan (ConocoPhillips, Houston, Texas)
- Fee:** Professionals \$405
Students \$203 (limited)



Includes: Transportation, kayak rental, two nights' lodging in Hill Country Inn in Mason based on double occupancy, boxed lunch on 15 April, guidebook

Limit: 23 people



This microbial bioherm (about 40 feet thick) in the Point Peak Member of the Wilberns Formation (Cambrian) will be observed during our kayak trek along the Llano River. Photo by Brian Pratt.

Field Trip Day One (Friday)

The first day trip by kayak will start at White's Crossing near Mason, Texas, and we will see famous exposures of microbial buildups in the Point Peak Member, Wilberns Formation. As we paddle downstream, we will have close-up views of microbial bioherms that have fallen into the river from cliffs alongside. As we pass gradually up-section through the Point Peak, we will have a chance to get out on the riverbank to see a variety of sedimentary structures including mud cracks and flat-pebble conglomerates, some of which are "edgewise" conglomerates formed by strong eddy currents that spun the flat pebbles into accumulations that look like "pinwheels." Our lunch stop will provide an opportunity to walk over a continuous exposure of stromatolitic and thrombolitic biostrome microbialites. After lunch we will see microbial bioherms with superbly preserved stromatolite accumulations at water level. This location offers a chance for close-up photos of stromatolites in cross-section. As we near the end of our float, we will be passing out of the Point Peak and through the San Saba Member of the Wilberns Formation.

Field Trip Day Two (Saturday)

Day two of our trip is a half-day excursion to the U.S. Highway 87 crossing on the San Saba River. After arriving, we will walk along the river on both sides of the bridge to examine large ripple marks in grainstones of trilobite-brachiopod hash and microbial bioherms in vertical succession, some with well-developed stromatolitic "capping sequences." Thrombolitic and laminar macrostructures also occur in the buildups at this location.

Discussions will place this area in the context of the stratigraphy, depositional settings, and hydrocarbon reservoirs of the Cambrian-Ordovician Great American Carbonate Bank.

Physical conditions: Modest physical exertion — paddling a kayak most of Day One. Day Two is easy walking for a few hundred yards but the ground is uneven. Not recommend for handicapped persons because of required paddling and portaging (a few meters distance) kayaks on Day One and walk on uneven ground on Day Two.

Note: Need shoes for wading (will get wet).

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AAPG 2011 Annual Convention & Exhibition 10-13 April 2011, Houston, Texas

Information and updates www.AAPG.org/Houston2011



GARY BARCHFELD

STUDENT ACTIVITIES

Student and Faculty Lounge

Date: Monday, 11 April–Wednesday, 13 April
Time: During exhibition hours
Location: Exhibition Hall

Complimentary refreshments are provided each day during exhibition hours. The lounge offers students their own place to meet with fellow students and industry professionals to develop career contacts and lifelong friendships.

Student Career Seminar

Date: Monday, 11 April
Time: 4:00 p.m.–5:30 p.m.
Location: Hilton Americas-Houston
Fee: \$10

This workshop is designed to assist students and recent graduates in their quest for employment in the petroleum and environmental industries by better understanding the activities of day-to-day life in the energy/environmental industries as well as specific job search strategies and tips for finding that perfect job. There is a brief presentation on how to gain employment, practical guidelines for resume development and interviewing tips. The remainder of the session is a panel format.

Following introductions, students will be encouraged to ask questions and engage the panel in a discussion about the outlook on current staffing needs, recruiting trends, what companies are looking for in future employees, etc. Additional recruiters will also be available to answer questions. This workshop is sponsored by the AAPG/SEG Student Expo Committee, which organizes expos and job fairs across the country at various times of the year. Information about these expos can be found at www.studentexpo.info. This is an excellent opportunity to learn more about careers in the industry and meet potential recruiters.

AAPG/SEPM Student Reception

Date: Monday, 11 April
Time: 5:30 p.m.–8:00 p.m. (Awards presentations 6:00 p.m.–6:30 p.m.)
Location: Hilton Americas-Houston

All students and faculty attending the convention are invited to the AAPG/SEPM Student Reception. Enjoy hors d'oeuvres and refreshments while mingling with your peers. An introduction will be given by an ExxonMobil representative before the top three poster authors from the Shell-sponsored "Selected Academic Research Topics: Student Presentations" receive awards. The Jim Hartman Service to Students Award

will be conveyed to AAPG recipient(s) who have contributed exceptional service to AAPG's Student Programs. The awards program closes with the presentation of the Schlumberger-sponsored Outstanding Student Chapter Awards along with the Imperial Barrel Award prizes.

Meet 'n' Greet

Make plans to participate in the annual Meet 'n' Greet event. This is a great networking opportunity and serves as a link to connect students and professionals at ACE. The Young Professionals Committee oversees this event and pairs students and young professionals with AAPG members/experienced attendees to guide newcomers through the convention experience.

Participants will have the opportunity to be introduced prior to the Opening Session on Sunday afternoon. Professionals may be paired with one or more students/young professionals. Experienced attendees will then go to the Opening Session with their group and are encouraged to also show the students/young professionals around the Exhibit Hall floor during the Icebreaker Reception, introducing them to other AAPG members and their colleagues. This program grows in popularity every year with positive reviews from all who participate. Please make plans now to attend by checking the appropriate box on your registration form. More information will follow at a later date.

Imperial Barrel Competition

The Imperial Barrel Award competition returns to the AAPG Annual Convention. Universities offering master's-level degrees in petroleum geosciences are eligible to participate in this international competition. IBA provides a unique opportunity for students to gain valuable experience by participating in an exploration evaluation, presenting to a panel of senior industry experts and competing to win scholarship funding.

This group competition is a global exploration geosciences project focused on the assessment of the petroleum potential of a basin. Teams will be provided a complete data set and will have a few weeks to complete a technical assessment of the basin's petroleum prospects. At the convention, teams will give a 30-minute presentation of their work with recommendations for future activity. A panel of industry experts will judge the technical work and presentations. The results of the competition will be announced at the Student Reception on Monday, 11 April, and the top three teams will win generous cash prizes.

If your company is interested in sponsoring and attending, or for more information, visit www.AAPG.org/IBA.



Career Seminar

How to be an Independent

Date: Sunday, 10 April
Time: 8:30 a.m.–2:00 p.m. (lunch break on own from 11:30 a.m.–12:45 p.m.)
Location: Hilton Americas-Houston
Fee: \$10

You too can be a successful independent — just attend this seminar to find out how!

Have you ever gone through merger-mania? Are you looking to leave your company and go out on your own? Or are you just curious about the world of the independents and consultants? If so, come join others like yourself and attend the AAPG/DPA/SIPES Foundation Career Transition Seminar and learn from the best! Topics to be covered include:

- Legal issues for the independent/self-employed
- Accounting and financial “musts” you should know
- How to set up an office and find needed materials/information with which to work
- Different types of consulting: deal screener/deal generator/interpreter
- To workstation or not ... PC or Unix, the latest information on software and hardware for the consultant

Career Center

Dates: Monday, 11 April: 8:30 a.m.–5:00 p.m.
Tuesday, 12 April: 8:30 a.m.–5:00 p.m.
Wednesday, 13 April: 8:30 a.m.–2:00 p.m.
Location: George R. Brown Convention Center

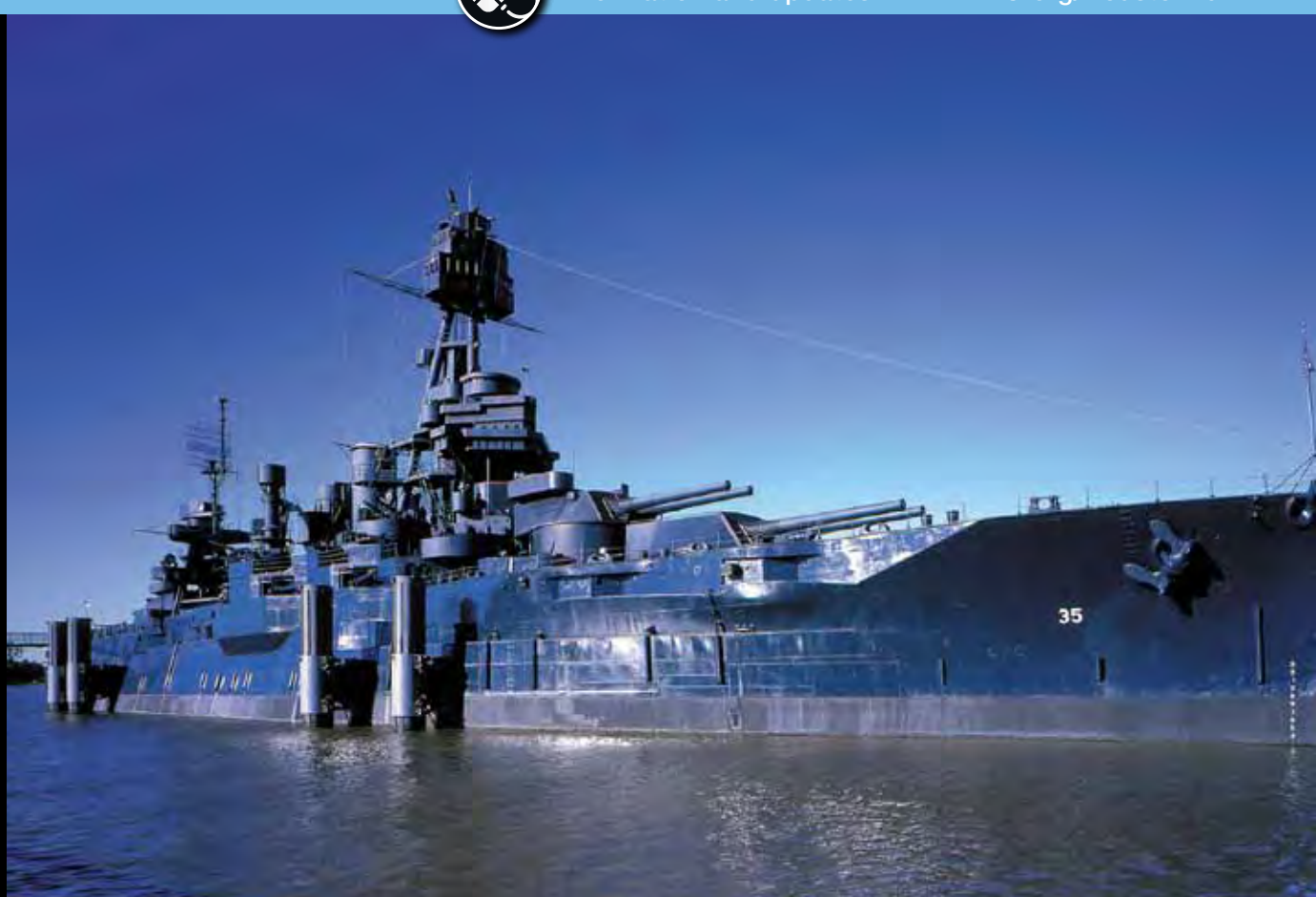
Make your career connection at ACE in Houston! The AAPG Career Center is THE place to find your job or next qualified geoscientist! Our Career Center recognizes that job seekers and employers within the industry are looking for opportunities that maximize their resources at the same time limits the amount of time they would otherwise spend searching for each other. AAPG's reputation makes this a logical and reliable resource for employers and job seekers within our industry.

The Career Center offers a variety of resources for attendees to connect with employment opportunities. Bring your resume and/or job listings to the Career Center and post on our bulletin board at no charge. While all attendees may post their resume on the bulletin board, AAPG members have the additional benefit of posting their resumes on our Online Career center for maximum industry exposure. Volunteers will be onsite to assist with this process, as well as schedule interviews, assist companies with posting jobs online or review resumes (with paid package), and establish times for company representatives that wish to occupy a table and meet job seekers that visit our onsite Career Center.

For additional information, please contact:
Career Services Committee Chair Pat Gordon
ptg@apxww.com (primary)

or

Vicki Beighle, AAPG Member Services Manager
vbeighle@aapg.org (secondary)



Greater Houston Convention and Visitors Bureau

Community Outreach

San Jacinto Battleground State Historic Site and Battleship *Texas*: Volunteers to Preserve American History

Date: Sunday, 10 April 2011
Time: 8:00 a.m.–2:00 p.m.
Location: San Jacinto State Historic Site, 3523 Battleground Road, LaPorte, Texas
Fee: \$15
Limit: 100 people
Includes: Transportation from the Hilton Americas-Houston, lunch, drinks and gloves

In town early? Please join us in two volunteer activities at the same site — restoration of the San Jacinto battle site on the 1,200-acre grounds or restoration onboard the historic Battleship *Texas*. We have planned a half day of work for you to assist with these multiple projects coordinated by Texas State Park representatives.

Volunteers are needed to assist with the superb ongoing restoration of sailor compartments of the Battleship *Texas*. The mighty ship was launched in 1914 and saw service in the North Sea in WWI and the Atlantic/Pacific theaters in WWII including the battles of Normandy, Iwo Jima and Okinawa. Volunteers are also needed for the reclamation of the battleground on which Texian troops under General Sam Houston achieved the independence of Texas by defeating a Mexican Army led by General Santa Anna on 21 April, 1836. Tours of both sites will be conducted by park experts. http://www.tpwd.state.tx.us/spdest/findadest/parks/san_jacinto_battleground/

Please wear appropriate clothing that you don't mind getting dirty. Long pants, tennis shoes or boots, hat and sunscreen are recommended for those working on the grounds. Lunch will be provided by the Monument Inn; afterwards the bus will leave at 1:30 p.m. to return to the hotel by 2:00 p.m.

Convention Volunteers Needed

The ability to create a positive and smooth-flowing convention is greatly enhanced by the participation of a strong pool of volunteers. Please consider contributing to the success of the ACE by volunteering in one or more of the following areas: Judges Room; Opening Session; Oral Sessions; Poster Sessions and Registration.

Volunteer for at least four hours and receive: \$25 for every four to six hours worked; attendee amenity; Program Book; Abstract volume and CD-ROM of abstracts.

By registering online at www.AAPG.org/Houston2011 you can select the day(s) and time(s) you are available, as well as the location(s) you prefer. If you are unable to register online, select “I want to be a student volunteer” on your completed registration form and you will be contacted for your preferences. To receive benefits, volunteers must be either students or employees in the industry who are recent (2009-2010) graduates.

For more information on becoming a volunteer, please contact:
Bonnie Milne, Volunteer Chair (bonniemilne@gmail.com)



GARY BARCHFIELD

SEPM ACTIVITIES

SEPM (Society for Sedimentary Geology), which holds its annual meeting in conjunction with the AAPG Annual Convention & Exhibition, hopes that everyone will enjoy a great meeting in Houston and will take advantage of the excellent technical program, short courses and field trips, as well as the specific activities listed here. If you have any questions about SEPM activities, feel free to contact Theresa Scott (tscott@sepm.org) or Howard Harper (hharper@sepm.org) at SEPM Headquarters.

SEPM Business Meeting/Luncheon

The Search for Source Rocks on Mars

Date: Tuesday, 12 April

Time: 11:30 a.m.–1:30 p.m.

Fee: \$35

Location: Hyatt Regency Houston



John Grotzinger

John Grotzinger is a geologist interested in the evolution of surficial environments on Earth and Mars. Field and subsurface exploration-scale mapping studies are the starting point for more topical laboratory-based studies involving geochemical, geologic and geochronological techniques. Grotzinger has a decade-long involvement with Petroleum Development of Oman focused on production from intra-salt carbonate reservoirs. Currently, he is the Chief Scientist for the Mars Science Laboratory Rover mission due to launch in 2011. He is also a member of the Mars Exploration Rover Science Team and HiRISE camera imaging team on Mars Reconnaissance Orbiter as well as being the Fletcher Jones Professor of Geological Sciences at Caltech.

Recent Rover and Orbiter missions to Mars show that sedimentary rocks are surprisingly common. Constrained to be billions of years old, these rocks are remarkably well preserved and represent diverse eolian, fluvial, deltaic and evaporitic environments. Combined observations indicate that sulfate-rich sedimentary rocks may be most abundant and are globally widespread over many hundreds of square kilometers at low latitudes, forming thickness in excess of 2000 m. Facies observed by the Mars Exploration Rover Opportunity are dominated by porous eolian deposits with local fluvial reworking. Incipient evaporite playa facies, dominated by Ca and Mg sulfates, are also present. The success of the MER mission stimulated development of an even-more capable rover: Mars Science Laboratory (MSL) due to launch in 2011.

The primary goal of MSL will be to directly assess the present and past habitability of the Martian rock record. MSL will include instruments capable of detecting organic compounds, measuring TOC and determining the isotopic composition of biologically important elements such as C and S. Landing sites will be chosen that optimize the chance to encounter low-energy sedimentary environments that maximize the accumulation of organic matter and preservation of potential biomarkers.

Evaporites are strong candidates because of their known potential to preserve organic matter. A second important target would be clay-rich mudstones deposited in fluvio-deltaic or lacustrine settings. The detection of these environments must be based on orbital remote sensing, using spectroscopic data to detect preferred minerals and image data to map depositional sequences and predict where fine-grained rocks and evaporites are likely to occur.

SEPM President's Reception and Awards Ceremony

Date: Tuesday, 12 April

Time: 8:00 p.m.–9:30 p.m.

Location: Hyatt Regency Houston



Paul "Mitch" Harris

SEPM President Paul "Mitch" Harris invites you to an evening of celebration to honor the 2011 award winners of SEPM (Society for Sedimentary Geology) and the perfect place to network and visit with colleagues, old and new.

The Twenhofel Medal, the highest award of SEPM given in recognition of a career of outstanding contributions to sedimentary geology, will be presented to Walter Dean. SEPM Honorary Membership, given for both scientific contributions and service to the society will be awarded to Dag Nummedal.

The other science award recipients are: Miriam Kastner, who will receive the Francis P. Shepard Medal in



recognition of excellence in marine geology; Barun Sen Gupta, the Raymond C. Moore Medal in recognition of excellence in paleontology; David Rubin, the Pettijohn Medal for excellence in sedimentology; and Richard Twitchell, the Wilson Award for excellence in sedimentary geology by a younger scientist.

SEPM will honor the recipients of the Best Paper Awards for 2009 in both of our journals, *Journal of Sedimentary Research* and *PALAIOS*.

SEPM will also recognize the Best Presentation Awards from the 2010 Annual Meeting in New Orleans. The Best Oral Presentation Awardees presented "Palynology Across a Sequence Boundary in the Wilcox Group, Central Texas" by Regina Dickey and Thomas Yancey. The Best Poster Presentation is a tie, going to "Characterization of Tide-Dominated Heterolithic Reservoir" by Berit Legler, Howard Johnson, Gary Hampson, Matthew Jackson, Christopher Jackson, Ahmed El-Barkooky, Rodmar Ravnas, David Alsop and Xavier Le Varlet and "Faults, Depositional Setting, Sea Level Change and Diagenesis" by Erin M. Young, Robert Goldstein and Evan Franseen.

As always SEPM will also recognize the members of the 2011 Annual Meeting Organizing Committee, without whom the meeting could not take place, and SEPM Foundation Student Grant recipients.

The reception will begin at 8:00 p.m., with cocktails, available at cash bars, and substantial hors d'oeuvres. The awards ceremony will start at 8:30 p.m.

SEPM Research Group Meetings and Reception

Date: Monday, 11 April
Time: 8:00 p.m.–11:00 p.m.
Location: Hyatt Regency Houston

The Society for Sedimentary Geology (SEPM) would like to invite anyone who is interested in research group activities to attend the SEPM Research Group Meetings. Individual Research Groups will meet on Monday, 11 April. Specific locations will be announced later. Check the SEPM website for updates at www.sepm.org.

AAPG/SEPM Student Reception

Date: Monday, 11 April
Time: 5:30 p.m.–8:00 p.m.
Location: xxx

The Society for Sedimentary Geology (SEPM) would like to invite all students to attend the combined AAPG/SEPM Student Reception sponsored by ExxonMobil. The reception is held just prior to the SEPM Research Group meetings on Monday, 11 April at the (AAPG Location). Students can enjoy food and drink and then go on to the SEPM Research Group topic of their choice to network and listen to the latest discussions.

SEPM Research Symposium

Source to Sink: Evaluating the Significance of Interdependence of Depositional Systems

Date: Tuesday, 12 April
Time: 8:00 a.m.–12:00 p.m. and 1:15 p.m.–5:05 p.m.
Location: Room 342
Chair: C. Paola, O. Martinsen, H. Posamentier and B. Romans

Details about this Symposium are located on page XX.

SEPM Field Trips, Short Courses and Core Workshop

Dates: Pre- and Post-Convention

See details on pages 13-21.

Be sure to check out the great array of trips and courses available for this meeting. Students, be sure to check out the Sequence Stratigraphy Course for Graduate Students (sponsored by ExxonMobil) and the discounted student seats available for each SEPM course and special GOM core workshop (sponsored by Chevron).

SEPM Best Presentation Competition (Oral and Poster)

Last year SEPM tried a new method to identify the Best Oral and Poster Presentations from the SEPM-sponsored technical sessions — attendee balloting — rather than using specific judges. For 2011, SEPM is continuing along this path.

Meeting attendees are asked to vote for the best SEPM oral presentation and best SEPM poster presentation that they attended on each day of the meeting (Monday, Tuesday and Wednesday). Voting for the three "Best Orals" and "Best Posters" will be possible at a special SEPM website, by texting to a special phone number or by filling out a ballot at the SEPM booth. Details will be in the on-site program book.

Remember this applies only to the SEPM technical sessions, not to any of the AAPG, EMD or DEG technical sessions. SEPM Session Chairs will remind the audience about the balloting.

Note: The SEPM Student Research Session will be judged separately by a special panel of judges.

House ad 1/3 V

AAPG 2011 Annual Convention & Exhibition

10-13 April 2011, Houston, Texas

Information and updates www.AAPG.org/Houston2011



GUEST ACTIVITIES

There is no better time of the year in Houston than the springtime! The weather is pleasant and the Bluebonnets are at the peak of their offering. The guest program committee has sorted through all the opportunities in Houston and picked the very best for your entertainment and intellectual enjoyment.

You are also invited to enjoy the comforts of the Hospitality Room in the Hilton Americas Hotel. The Hilton Americas is located across the street from the George R. Brown Convention Center. The Hospitality Room will be the perfect place to visit with friends, relax and enjoy refreshments. Volunteers will be available to assist with tours and local information. Brochures and maps of Houston and surrounding areas will be available.

Hospitality room hours:

Monday, 11 April.....8:00 a.m.–3:00 p.m.
 Tuesday, 12 April.....8:00 a.m.–3:00 p.m.
 Wednesday, 13 April.....8:00 a.m.–12:00 p.m.

Please wear your convention badge for admittance to the Hospitality Room and other events.

Private Lunch Cruise and Kemah Boardwalk

Date: Monday, 11 April
Time: 10:00 a.m.–5:00 p.m.
Fee: \$120
Includes: Transportation, tour guide, bottled water, lunch
Limit: 30 people

Enjoy the warm spring winds aboard the bright and inviting Star Cruiser. Guests will enjoy a customized meal and a cruise around beautiful Clear Lake and Galveston. The main salon is fully enclosed and climate controlled. The open bow area features perimeter seating. Cruise through marinas and million dollar yachts and homes as you dine. Following the three hour cruise, guests will be transported to the Kemah Boardwalk for shopping and fun.

Located in Clear Lake, on the bay, Kemah is loaded with never-ending fun for all ages. With all the many things to do, Kemah never fails to entertain.

Premium Outlet Shopping

Date: Tuesday, 12 April
Time: 9:15 a.m.–2:15 p.m.
Fee: \$38
Includes: Transportation, tour guide, bottled water, VIP Coupon Book
Limit: 30 people

Houston Premium Outlets is more than just a great collection of the finest designer labels and brands. Include a shopping stop during your trip to Houston. Houston Premium Outlets are easy to reach, located approximately 30 miles northwest of downtown Houston. With 145 stores, there is something for everyone.

A sampling of stores available:

2b bebe, 7 for All Mankind, AX Armani Exchange, Adidas, Aeropostale, American Eagle Outfitters, Ann Taylor Factory Store, Anne Klein, Banana Republic Factory Store, BCBG Max Azria, Brooks Brothers Factory Store, Burberry, Charlotte Russe, Elie Tahari, Escada Company Store, Gap Outlet, Hugo Boss, J. Crew, Juicy Couture, Kenneth Cole, Lacoste, Lucky Brand, Michael Kors, Perry Ellis, Puma, Saks Fifth Avenue Off 5th, St. John Outlet, Talbots, Theory, Tommy Hilfiger, Tory Burch, True Religion, U.S. Polo Assn., Under Armour, Van Heusen, White House|Black Market, and Wilson's Leather.

Houston Art Tour

Date: Tuesday, 12 April
Time: 9:45 a.m.–2:30 p.m.
Fee: \$80
Includes: Transportation, bottled water, admission to the Museum of Fine Arts Houston, lunch at Monarch in Hotel ZaZa,

Located in the heart of Texas' largest city, the Museum of Fine Arts Houston, is a dynamic cultural complex consisting of two museum buildings, two art schools, two decorative arts centers, and a sculpture garden. The MFAH main campus consists of the Law and Beck Buildings, the Glassell School of Art, and the Sculpture Garden.

With its encyclopedic collection and an exciting schedule of international loan exhibitions and award-winning programs, the MFAH is one of the premier destinations in the United States for art lovers.

Following your visit to the MFAH, you will enjoy lunch at Hotel ZaZa Houston's Monarch Urban Bistro & Lounge. Bursting with aromatic flavors and the hum of conversation, Monarch pairs gourmet food with a vibrant atmosphere. Monarch's Terrace showcases the restaurant's delightful views of the Museum of Fine Arts and the Mecom Fountains.

After lunch, you will have some free time to explore the museum district. Sculpture gardens and fountains will top off your art adventure.



Greater Houston Convention and Visitors Bureau



Photo courtesy of Houston Premium Outlets



Greater Houston Convention and Visitors Bureau



Enrichment Programs

Front Row at the Opera

Date: Monday, 11 April
Time: 1:00 p.m.–2:30 p.m.
Location: Hilton Americas-Houston
Fee: No fee — Please note your interest when registering

Did you know that *The Marriage of Figaro* is just one opera in a trilogy which includes *The Barber of Seville* and *The Ghosts of Versailles*? Or that Mozart took a risk just for writing the story, which is connected to the French Revolution? It was considered an affront to the nobility. Oh, the scandal!

Join us for an insightful and entertaining presentation of the “back story” of one of opera’s most beloved works, delivered by Houston Grand Opera’s Master Docent and music lover Adelma Graham. Learn the colorful details of the life Mozart and his librettist, as well as the current production of *Figaro* at Houston’s Wortham Center.

Beauty Secrets

Date: Tuesday, 12 April
Time: 1:00 p.m.–2:30 p.m.
Location: Hilton Americas-Houston
Fee: No fee — Please note your interest when registering

Makeup artist Edward Sanchez’s clients include Janet Jackson, Paula Abdul, LeAnn Rimes and Houston socialites. A degreed biochemist by training, Sanchez reaches for brands found at your neighborhood pharmacy, as well as his own product line.

He wants to empower women with the right information about makeup, and along with his assistants, uses humor and some serious inside scoop about affordable makeup and skin-care that can make us all look great.

These items will be moved to previous page so all guest activities/tours fit on one page

House ad

AAPG 2011 Annual Convention & Exhibition

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GENERAL INFORMATION



Registration Hours

Saturday, 9 April 7:30 a.m.–5:00 p.m.
Sunday, 10 April 7:30 a.m.–7:30 p.m.
Monday, 11 April 7:30 a.m.–5:00 p.m.
Tuesday, 12 April 7:30 a.m.–5:00 p.m.
Wednesday, 13 April 7:30 a.m.–12:00 p.m.

Business Meetings

AAPG House of Delegates Meeting

Sunday, 10 April, 8:00 a.m.

SEPM Business Meeting/Luncheon

Tuesday, 12 April, 11:30 a.m.

Convention Center

All events take place in sections C, D and E at the George R. Brown Convention Center unless otherwise indicated.

1001 Avenida de las Americas
Houston, Texas 77010
GPS Coordinates: Latitude: 29.7543 and Longitude: -95.35768

The GRBCC features a 1,600-space parking garage located at the corner of Polk Street and Avenida de las Americas. The parking lot is connected to the GRBCC and the Hilton by Level 2 skywalks.

Convention Shuttle

The AAPG shuttle bus system provides convenient transportation Sunday through Wednesday between selected convention hotels and the George R. Brown Convention Center. Please note that some hotels are within walking distance of the convention center and will not be serviced by the shuttle buses. Lobby D is the pick-up and drop off point for the convention center. Look for "AAPG Shuttle" signs for more information.

Cyber C@fé

Check in at home or the office with the free e-mail service available in the Cyber C@fé, located inside the Exhibition Hall during show hours.

Electronic Capturing

Capturing or photographing contents of oral or poster presentations or exhibition booths via any electronic media is strictly prohibited at all AAPG conventions and conferences.

Judge Your Peers' Papers and Posters

Your participation in the judging of papers and posters is requested! This important function determines the winners of the Matson Award, Braunstein Award and Best Poster Awards and Division Awards. Your effort will involve judging and evaluating one or more oral or poster sessions. Stop by the Judges' Room to pick up your packet of judging materials and enjoy a beverage or snack on your way to the session. Please mark your registration form to volunteer to judge at the 2011 convention!

SEPM has implemented a new method of judging the SEPM Best Oral and Best Paper Award. Please see page 25 for more information.

No-Smoking Policy

Smoking is prohibited at the Convention Center.

Obtaining a Visa

It is your responsibility to apply for a passport, visa or any other required documents and to demonstrate to consular officials that you are properly classifiable as a visitor under United States law. AAPG cannot assist you with the interview process, nor can anyone representing the sponsoring organizations call an embassy or consulate on your behalf to provide support for granting a visa. Should your application be denied, AAPG can neither intervene in the process nor change the decision of the governmental agency.

All expenses connected with obtaining proper documentation are your responsibility.

If you need a visa letter from AAPG, you must be registered and fully paid for the convention. You may request a letter by selecting the box either online or on the printed registration form.

AAPG supplies this letter for visa purposes only. All expenses involved with attending the convention are your responsibility. If your visa application is denied and AAPG receives a copy of the denial by fax (+1 918 560 2684) before 13 April 2011 your registration fee only will be refunded, less a cancellation charge.

To learn about the visa application process, understand current requirements and get updates on recent developments go to www.unitedstatesvisas.gov.

Registering with Your Embassy

Travel advice to tourists suggests that you register with your country's consulate or embassy when traveling abroad.



Social Activities

Things to do in Houston

In addition to the fine dining and shopping, you'll find sporting and cultural events such as those listed below or found online at www.AAPG.org/Houston2011.

Houston Astros

AAPG Night at the Ballpark is officially scheduled for Saturday, 9 April 2011. Can't make it that night? No worries — discounted tickets are available for games held the week of the convention. Minute Maid Park is adjacent to the George R. Brown Convention Center. To purchase your discounted ticket visit www.astros.com/aapg and enter password: aapg.

Saturday, 9 April	Florida Marlins	6:05 p.m.
Sunday, 10 April	Florida Marlins	1:05 p.m.
Monday, 11 April	Chicago Cubs	7:05 p.m.
Tuesday, 12 April	Chicago Cubs	7:05 p.m.
Wednesday, 13 April	Chicago Cubs	7:05 p.m.

Level	Normal Price	AAPG Price
Field Box	\$41	\$23
Bullpen	\$27	\$16
Mezzanine	\$21	\$13
Terrace Deck	\$23	\$15
View Deck I	\$16	\$10
View Deck II	\$13	\$8

Houston Rockets

AAPG Night with the Rockets is officially scheduled for Monday, 11 April 2011. This is the final regular season game with the Dallas Mavericks. The Toyota Center is adjacent to the George R. Brown Convention Center. To purchase your discounted ticket visit www.rockets.com/aapg and enter password: aapg

Monday, 11 April Dallas Mavericks 7:30 p.m.

Houston Theatre

Hobby Center for the Performing Arts
 800 Bagby
 Suite 200
 Houston, Texas 77002
 Phone: +1 713 558 8887
 Web: www.tuts.com/default.aspx
 Located 0.9 miles from the George R. Brown Convention Center.

Theatre Under the Stars (TUTS) presents *Curtains*, the Broadway musical comedy whodunit-smash-hit from the creators of *Cabaret* and *Chicago*. Discounted tickets through www.tuts.com/default.aspx. Performances during ACE will be:

Saturday, 9 April, 2:00 p.m. and 8:00 p.m.
 Sunday, 10 April, 2:30 p.m.

Alley Theatre

615 Texas Avenue
 Houston, Texas 77002
 Phone: +1 713 220 5700
 Web: www.alleytheatre.org
 Located 1.2 miles from the George R. Brown Convention Center.

Amadeus is a Tony Award-winning play of obsession and vengeance. Discounted tickets are available through www.alleytheatre.org.

Saturday, 9 April, 2:30 p.m. and 7:30 p.m.
 Sunday, 10 April, 2:30 p.m.
 Tuesday, 11 April, 7:30 p.m.
 Wednesday, 12 April, 7:30 p.m.
 Thursday, 13 April, 7:30 p.m.

These need to go with the Houston Information page

House Ad

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HOUSTON INFORMATION



About Houston

By day, you'll find downtown's George R. Brown Convention Center central and convenient, as the facility is set within 15 minutes of Houston's most sought-after neighborhoods. Just a short distance from the GRB, attendees will find diverse districts filled with the city's top places to eat, drink and shop. Link to the Houston microsite from www.AAPG.org/Houston2011 for information on area attractions.

Climate

Springtime temperatures are generally not hot, ranging from highs of 75–82 degrees F (23.9–27.8 degrees C) and lows of 56–64 degrees F (13.3–17.8 degrees C). Rain and thunderstorms are not uncommon at this time of year.

Transportation

William P. Hobby Airport (HOU)

7800 Airport Blvd.
Houston, Texas 77061
Phone: +1 713 640 3000
Distance from the convention center: 12 miles
Drive time: 20 minutes
Taxi: \$20-\$25*; Shuttle \$18* **one-way**
~~*one way~~

George Bush Intercontinental Airport (IAH)

2800 North Terminal Road
Houston, Texas 77032
Phone: +1 281 230 3100
Distance from the convention center: 25 miles
Drive time: 30 minutes
Taxi: \$35-\$45*; Shuttle: \$25* **one-way**
~~*one way~~

METRO's Airport Direct

METRO's Airport Direct offers a convenient, reliable service directly from the downtown Airport Direct Passenger Plaza (815 Pierce) to George Bush Intercontinental Airport (IAH) Terminal C. The Airport Direct Passenger Plaza is a short walk from the Downtown Transit Center METRORail station. Fee (subject to change) is \$15* one way and with departures every 30 minutes.

Phone: +1 713 635 4000

Web: www.ridemetro.org.

Local Public Transit

- METRORail offers convenient, accessible service within the heart of the city between downtown Houston and Reliant Park. The red line is 7.5 miles long. One-way fare is \$1.25*
- METRO Bus System runs mostly on city streets, stopping at every other corner along its route. One-way fare is \$1.25*.

Taxis

\$6 cab fare anywhere downtown

The City of Houston has authorized a flat taxi fare of \$6 for all trips in the downtown area. This \$6 fare will apply anywhere within the Central Business District, bounded by Interstate 45, Interstate 10 and U.S. 59.

*Rates subject to change



**Ad
(Milan)**

AAPG 2011 Annual Convention & Exhibition

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Convention Accommodations

Please book your room through the AAPG Housing Bureau. This helps AAPG meet hotel room block commitments, plan shuttles and avoid penalties that may ultimately increase convention expenses.



Hotel See hotel location map on page 57.	Single/ Double	Extra Person	Distance to Convention Center	Dining	Bar/ Lounge	Parking**	Pool	Fitness Center	Business Center	Internet	News- paper	Hotel Shuttle***
1. Courtyard Houston Downtown/ Convention Center*	\$129	\$5	7 blocks	✓	✓	\$22/valet	✓	✓	✓	Free	Upon request	✓
2. Four Seasons Hotel Houston	\$199 \$249	\$25	3 blocks	✓	✓	\$13/valet	✓	✓	✓	\$12/day	Upon request	
3. Hilton Americas-Houston (AAPG Headquarters)	\$189/\$204	\$15	Adjacent	Free Breakfast	✓	\$18/self \$28/valet	✓	✓	✓	\$12.95/day	In room	
4. Holiday Inn Express Houston Downtown/ Convention Center	\$119	\$10	2 blocks	✓		Free	✓	✓	✓	Free	Lobby	
5. Hyatt Regency Houston* (SEPM Headquarters)	\$175	\$25	10 blocks	✓	✓	\$16/self \$25/valet	✓	✓	✓	\$9.99	Upon request	✓
6. Inn at the Ballpark	\$199	\$20	4 blocks	✓	✓	\$22/valet		✓	✓	Free	Lobby	✓
7. Residence Inn Houston Downtown/ Convention Center*	\$138	\$5	6 blocks	✓	✓	\$22/valet	✓	✓	✓	Free	Lobby	✓

*Nonsmoking hotel / **Parking rates are subject to change / ***Not the official convention shuttle / Hotel rates do not include taxes

Deposits

All hotels require a credit card guarantee equal to the first night's stay as a deposit. A valid credit card and expiration date should be provided with your room request. Your credit card may be charged for your first night's stay (including taxes), approximately one month prior to arrival.

Hotels may cancel room reservations without notification if one night's deposit is not received prior to your scheduled arrival. If you would like to make your deposit via check, first complete the housing form and mark the appropriate box (paying via check) and then fax to +1 847 996 5401.

Please do not send your check to the housing bureau. Checks or cash received for hotel deposits will be returned to you. Mail your check directly to the hotel after 17 March, along with your hotel acknowledgement letter.

Online

All reservations made online must include a credit card number and expiration date for your room deposit.

Multiple Room Requests

You may reserve up to five rooms online with individual names. One credit card or individual credit cards may be used.

Suite Requests

Please contact the AAPG Housing Bureau at aapg@experient-inc.com to request a suite. We suggest you reserve a standard hotel room in the event suites are unavailable. You may cancel this reservation by contacting the AAPG Housing Bureau once you have received confirmation of your suite reservation.

Rates

To receive the convention room rate, all hotel reservations must be made through the Housing Bureau.

New hotel reservations must be booked with the Housing Bureau by 17 March. Any changes or cancellations after 17 March must be sent directly to the hotel.

At many hotels, any guaranteed room reservation not cancelled 72 hours prior to arrival and not used will subsequently be billed by the hotel to your credit card account. In addition, some hotels will charge a penalty for early check-out if they are not notified prior to your arrival.

Transportation

When choosing your hotel preference, please consider the modes of transportation available to your hotel.

See map on page 57 for locations.



Complete this form, detach and mail or fax by 17 March 2011 to:

**AAPG Housing Bureau
 AAPG Hotel Reservations
 568 Atrium Drive
 Vernon Hills, IL 60061 USA**

**Fax: +1 847 996 5401
 +1 800 521 6017
 (U.S. and Canada)**

**Tel: +1 847 996 5876
 +1 800 974 3084
 (U.S. and Canada)**

- All reservations must be received by 17 March in order to guarantee convention rates.
- Reservations will be assigned on a first-come, first-served basis.
- A written acknowledgement will be sent to you via e-mail or fax from PASSKEY indicating which hotel you have been reserved in, based on availability.
- Reservations not secured with a credit card will require a check deposit to be sent directly to the assigned hotel along with your acknowledgment letter after 17 March.

Thank you for booking your room through the Housing Bureau. This helps AAPG meet hotel room block commitments and avoid penalties.

Hotel Map Legend
 (See page 57)

1. Courtyard Houston Downtown/Convention Center*
2. Four Seasons Hotel Houston
3. Hilton Americas-Houston (AAPG Headquarters)
4. Holiday Inn Express Houston Downtown/Convention Center
5. Hyatt Regency Houston* (SEPM Headquarters)
6. Inn at the Ballpark
7. Residence Inn Houston Downtown/Convention Center*

*Non-smoking

Questions:
 Please direct all housing questions to aapg@experient-inc.com.

For the purpose of faxing, detach along dotted line.

Convention Accommodation Registration

Housing reservations due to the AAPG Housing Bureau by **17 March 2011**.
 Make reservations online at www.AAPG.org/Houston2011 or fax your completed form to +1 847 996 5401

First/Forename		Last/Surname	
Company/University		Title	
Company Address			
City		State	Zip/Postal Code
Day Telephone		Mobile Telephone	
E-mail		Fax	

Acknowledgements will be sent to the above E-mail or fax number

Arrival Date:	Departure Date:
----------------------	------------------------

Hotel Preference
 Enter hotel numbers in order of preference

1 _____
 2 _____
 3 _____

If hotel choices are not available, which is more important? rate location

Occupants
 List the full name of all persons who will be occupying the room

1 _____
 2 _____
 3 _____
 4 _____

If sharing a room, send only one reservation form listing all room occupants. Do not send more than one form per reservation.

Room Type

Multiple room requests
 You may reserve up to five rooms online or by completing a form with individual names and fax it to +1 847 996 5401 or +1 800 521 6017 (U.S. and Canada).

Suite requests
 Please contact the AAPG Housing Bureau at aapg@experient-inc.com to request a suite. We suggest you reserve a standard hotel room in the event suites are unavailable. You may cancel this reservation by contacting the AAPG Housing Bureau once you have received confirmation of your suite reservation.

Single (1 person/1 bed) smoking non-smoking
 Double (2 person/1 bed) smoking non-smoking
 Double/Double (2 persons/2 beds) smoking non-smoking
 Triple (3 persons/2 beds) smoking non-smoking
 Quad (4 persons/2 beds) smoking non-smoking

Handicapped-accessible room

Other requests:

Guarantee/Form of Payment
All reservations must be guaranteed. Quoted prices do not include taxes.

Check (Payment by check must be sent directly to the hotel along with your hotel acknowledgment letter after 17 March)
 Credit Card: Visa MasterCard American Express Diners Club Discover

Credit Card Number	Expiration Date
Printed Name on Card	Signature

AAPG 2011 Annual Convention & Exhibition

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Convention Registration Information

Register on or before 15 February for the best deal. Cancellations and refunds are accepted through 10 March 2011.

	On/before 15 February	On/before 21 March	After 21 March
AAPG Member and Associated Member*	US \$445	US \$520	US \$645
AAPG Emeritus Member**	US \$223	US \$263	US \$323
Join and Save***	US \$445 +dues	US \$520 +dues	US \$645 +dues
Nonmember	US \$545	US \$625	US \$745
Student Member and Associated Member*	US \$45	US \$45	US \$60
Student Nonmember	US \$60	US \$60	US \$75
One-day Member and Associated Member* (<input type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday)	US \$280	US \$280	US \$280
One-day Nonmember (<input type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday)	US \$360	US \$360	US \$360
One-day Exhibition Only (<input type="checkbox"/> Sunday <input type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday)	US \$100	US \$100	US \$100
Field Trip/Short Course Registration Only (Not registering for convention)	US \$30	US \$30	US \$30
Guest Name of guest:	US \$85	US \$85	US \$85
Guest of an AAPG Emeritus Member Name of guest:	US \$43	US \$43	US \$43

*AAPG (American Association of Petroleum Geologists), AASP (American Association of Stratigraphic Palynologists), AWG (Association of Women Geoscientists), CPC (Circum-Pacific Council For Energy & Minerals Resources, Inc.), GSL (Geological Society of London), GSA (Geological Society of America), HGS (Houston Geological Society), IAMG (International Association of Mathematical Geology), NABGG (National Association of Black Geologists & Geophysicists), SEPM (Society for Sedimentary Geology), SIPES (Society of Independent Earth Scientists), SPWLA (Society of Professional Well Log Analysts), TSOP (The Society For Organic Petrology)

**You must be a current member for a minimum of 30 years and 65 years old before you qualify. Contact AAPG Member Services at +1 918 560 2643 to verify Emeritus status.

***Join and Save* allows you to become a member of AAPG during the registration process. By joining and paying dues during registration you will immediately receive the member rate.

On-Site Registration

Registration will be in Exhibition Hall E of the George R. Brown Convention Center.

Registration hours:

Saturday, 9 April7:30 a.m.–5:00 p.m.
 Sunday, 10 April7:30 a.m.–7:00 p.m.
 Monday, 11 April.....7:30 a.m.–5:00 p.m.
 Tuesday, 12 April7:30 a.m.–5:00 p.m.
 Wednesday, 13 April.....7:30 a.m.–12:00 p.m.

It's Easy to Register

Online Registration by Credit Card

www.AAPG.org/Houston2011

Online registration allows you to know immediately which events (short courses, field trips, luncheons, tours, etc.) are available and if you are registered for an event. If an event is not available, it will not appear on the screen or it will indicate "sold out."

Faxing or mailing your registration will delay this process and events may sell out while your registration is in transit. To add an event after you have registered, follow the instructions on the next page under the heading "Changes/Cancellations/Refund Policy." Please be careful not to register online again, as this will result in duplicate charges.

Mail-In Registration

Download a registration form at www.AAPG.org/Houston2011 or use the form on pages 58-59.

AAPG Registration Center c/o Exgenex
 437 Turnpike St.
 Canton, MA 02021-1411
 United States

Phone-In Registration

+1 781 821 6732
 Monday – Friday, 8:00 a.m. to 5:00 p.m. (EST)

Fax-In Registration

+1 781 821 6720

Duplicate registrations and charges may occur if you send more than one copy of a registration form.

Registration Types

- **Members, Associated Society Members, Join and Save, Nonmembers and Student Registrants:** Receive access to the Opening Session, Icebreaker, Technical Sessions, Refreshment Breaks and Exhibition, as well as a copy of the Program Book and Abstracts (print volume and CD) and attendee amenity.
- **One-Day Registrants:** Receive access to the Technical Sessions, Refreshment Breaks and Exhibition for the day of registration, as well as a copy of the Program Book and Abstracts (print volume and CD) and attendee amenity.
- **One-Day Exhibition Only Registrants:** Receive access to the exhibition for the day of registration.
- **Field Trip/Short Course Registration Only:** Receive access only to short courses and field trips for which you register. If you do not register for the convention and exhibition in addition to the short courses and field trips, you will not receive access to any activities or events during the convention and exhibition.
- **Guest Registrants:** Receive access to the Opening Session, Icebreaker, Technical Sessions, Refreshment Breaks and Exhibition. A guest must be registered by a convention registrant; a person who qualifies as a guest may not be a member of AAPG or a professional in the industry.

Confirmations

A detailed confirmation, including information about the registration type, products selected, payment information, receipt, etc., will be e-mailed to you within 24-48 hours. Please retain this acknowledgement for your records. Should you not receive a confirmation, please contact the AAPG Registration Center/Exgenex by e-mail at aapgregistration@exgenex.com or phone at +1 781 821 6732.

Save time on-site by bringing your confirmation that includes a barcode. Badges and tickets will be printed when you check in on site.

Note: Some company systems will not print the barcode on the confirmation. In this case, your registration ID number or name will be used.



Convention Registration Information

Register on or before 15 February for the best deal. Cancellations and refunds are accepted through 10 March 2011.

Payment

Registration cannot be processed unless full payment is received with the registration form. Payment may be made by check, money order, credit card or wire transfer. Cash payments in U.S. dollars are accepted on site only. AAPG does not accept purchase orders as a form of payment and does not invoice for conventions.

Check or Money Order

Made payable in U.S. dollars to: AAPG 2011 ACE

Credit Card

American Express, Diners Club, Discover, MasterCard and Visa are accepted.

Wire Transfer

Please e-mail convene@aapg.org for information on paying by wire transfer. If you plan to pay your registration fee by wire transfer, please allow ample time so that AAPG receives notification of the transfer prior to 28 March. If a wire transfer is received after this date, we cannot guarantee that it will be applied to the individual record.

Name Badge and Tickets

To be admitted to any convention activity, you must wear your official AAPG 2011 Annual Convention & Exhibition name badge. Information on your badge will appear as it is completed on your registration form. To ensure accuracy, please print clearly. Preregistered attendees may pick up badges and tickets at the Registration Desk.

Changes/Cancellations/Refund Policy

Changes can be made by following the instructions on your confirmation or contacting the AAPG Registration Center/Exgenex by e-mail (aapgregistration@exgenex.com), fax, telephone or mail (see page 56 for fax number, telephone and mailing address). Amendments to your registration or events will be accepted until 10 March 2011.

Cancellations can be made by following the instructions on your confirmation or contacting the AAPG Registration Center/Exgenex by e-mail (aapgregistration@exgenex.com), fax, telephone or mail (see page 56 for fax number, telephone and mailing address) by 10 March. Cancellations received on or before 10 March will be fully refunded less a \$50 processing fee. Refunds will not be issued after 10 March or for "no-shows"; however, substitutions are always allowed.

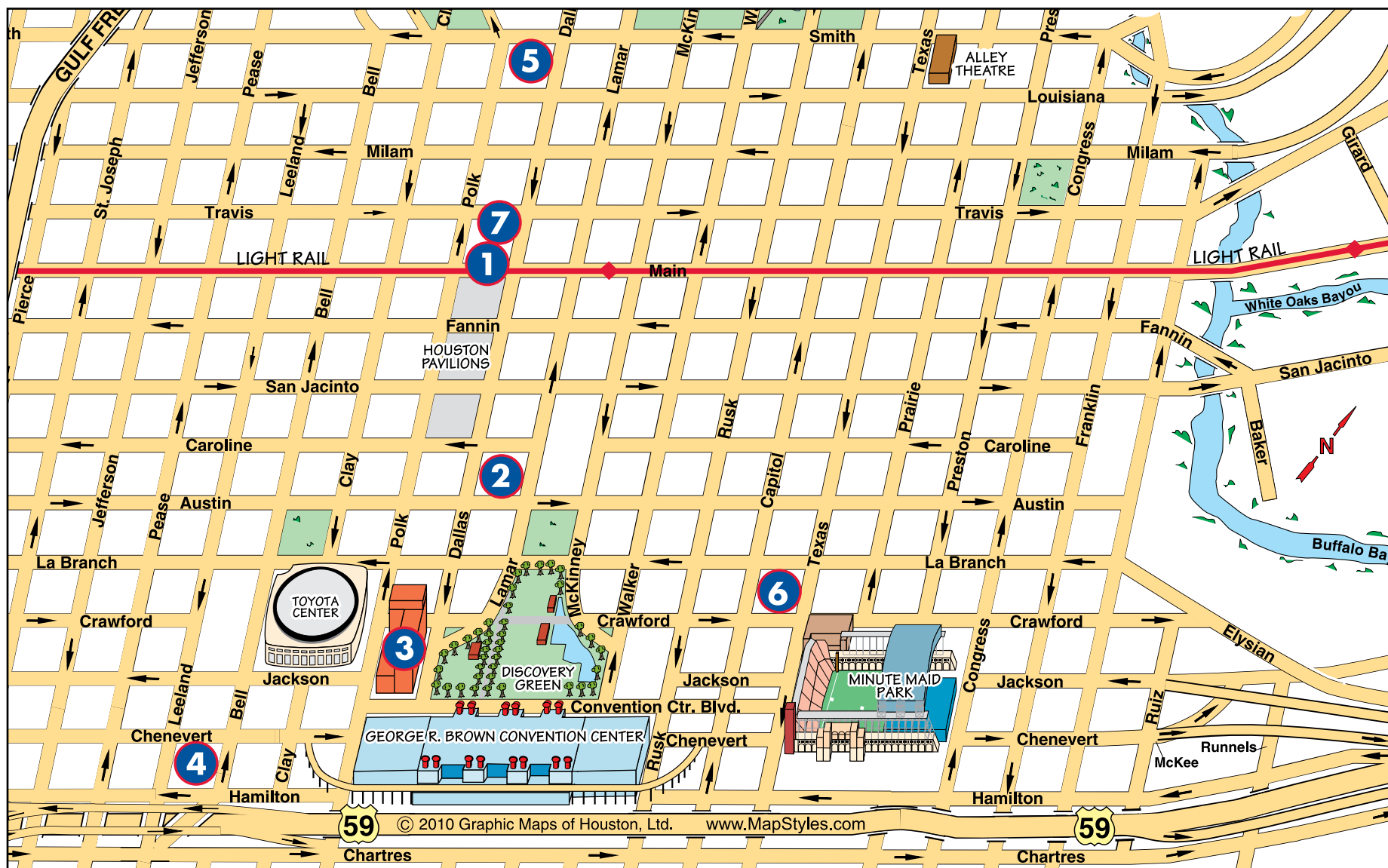
Cancellation of Under-Subscribed Events

Please register early to help avoid cancellation of events. We realize the inconvenience and expense you may incur due to cancellation and will make every effort not to cancel any events held in conjunction with the convention. However, at times it does become necessary to cancel events due to under-subscription. We cannot accept responsibility for costs associated with any cancellations of under-subscribed events, i.e. airline tickets, hotel deposits, etc. Refund of the event fees will be issued if an event is cancelled.

Sold Out Events

If an event is sold out, it will be noted on the web site. If you register online and wish to be placed on the wait list, please mark the event. If your registration is received by mail or fax, you will automatically be placed on the wait list.

AAPG 2011 Annual Convention & Exhibition Hotel Locations - Downtown Houston



1. Courtyard Houston Downtown/Convention Center, 2. Four Seasons Hotel Houston, 3. Hilton Americas-Houston (AAPG Headquarters), 4. Holiday Inn Express Houston Downtown/Convention Center, 5. Hyatt Regency Houston (SEPM Headquarters), 6. Inn at the Ballpark, 7. Residence Inn Houston Downtown/Convention Center

AAPG 2011 Annual Convention & Exhibition

10-13 April 2011, Houston, Texas

Information and updates www.AAPG.org/Houston2011



Convention Registration Form Page 1



STEP ONE: CONTACT INFORMATION

AAPG Member Number _____

First/Forename _____ Last/Surname _____

Company/University _____ Title _____

Company Address _____

City _____ State _____ Zip/Postal Code _____

Country _____

Day Telephone _____ Mobile Telephone _____

E-mail _____ Fax _____

Country of Residence _____ Country of Citizenship _____

I certify that the above information is true and correct

Four ways to register

Online: www.AAPG.org/Houston2011

Fax: +1 781 821 6720

Mail: AAPG Registration Center
c/o Exgenex
437 Turnpike Street
Canton, MA 02021-1411

Phone: +1 781 821 6732
(Mon – Fri; 8:00 a.m. – 5:00 p.m. EST)

Use one form for each registrant (professional/student). All authors, speakers, chairs, co-chairs and session chairs must register and pay the appropriate fee.

Cancellations received by 10 March 2011 will be refunded less a \$50 cancellation fee. No refunds will be issued after 10 March.

Please fill out the following questionnaire

Are you a member of any of the following? Check all that apply

- AAPG AASP AWG CPC
 GSL GSA HGS IAMG NABGG
 SEG SEPM SIPES SPE SPWLA
 TSOP

I belong to the following AAPG Divisions:

- DEG DPA EMD

I am a(n): Check all that apply

- AAPG Section President
 AAPG Region President
 Affiliated Society President
 DEG President DEG Officer
 DPA President DPA Officer
 EMD President EMD Officer

I am a: Check all that apply

- Speaker Poster Presenter Session Chair
 Field Trip Leader Short Course Instructor

Which best describes your occupation?

- Academic Engineer Geologist
 Geophysicist Landman
 Other _____

Which best describes your position?

- CEO/President Vice President
 Manager Staff Employee
 Independent Consultant Professor
 Student Retired
 Other _____

Gender:

- Male Female

Age:

- 24 and under 25-29 30-39
 40-49 50-59 60-69 70+

Special Needs:

- Wheelchair Rental
 Wheelchair Accessible
 Vegetarian
 Other Dietary Needs _____

Other:

- I need a letter for Visa purposes
 I want to be a judge
 I want to be a student volunteer
 Withhold my name from exhibitor mailing lists
 Meet-n-Greet Information

STEP TWO: SELECT REGISTRATION TYPE

	On/before 15 February	On/before 21 March	After 21 March
AAPG Member and Associated Member*	US \$445	US \$520	US \$645
AAPG Emeritus Member**	US \$223	US \$263	US \$323
Join and Save***	US \$445 +dues	US \$520 +dues	US \$645 +dues
Nonmember	US \$545	US \$625	US \$745
Student and Associated Member*	US \$45	US \$45	US \$60
Student Nonmember	US \$60	US \$60	US \$75
One-day Member and Associated Member* (<input type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday)	US \$280	US \$280	US \$280
One-day Nonmember (<input type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday)	US \$360	US \$360	US \$360
One-day Exhibition Only (<input type="checkbox"/> Sunday <input type="checkbox"/> Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday))	US \$100	US \$100	US \$100
Field Trip/Short Course Registration Only	US \$30	US \$30	US \$30
Guest Name of guest:	US \$85	US \$85	US \$85
Guest of an AAPG Emeritus Member Name of guest:	US \$43	US \$43	US \$43

*AAPG (American Association of Petroleum Geologists), AASP (American Association of Stratigraphic Palynologists), AWG (Association of Women Geoscientists), CPC (Circum-Pacific Council For Energy & Minerals Resources, Inc.), GSL (Geological Society of London), GSA (Geological Society of America), HGS (Houston Geological Society), IAMG (International Association of Mathematical Geology), NABGG (National Association of Black Geologists & Geophysicists), SEPM (Society for Sedimentary Geology), SIPES (Society of Independent Earth Scientists), SPWLA (Society of Professional Well Log Analysts), TSOP (The Society For Organic Petrology)

**You must be a current member for a minimum of 30 years and 65 years old before you qualify. Contact AAPG Member Services at +1 918 560 2643 to verify Emeritus status.

***"Join and Save" allows you to become a member of AAPG during the registration process. By joining and paying dues during registration you will immediately receive the member rate.

Total amount due for registration \$ _____

STEP THREE: PRODUCTS FROM PAGE TWO (Please include page two when mailing or faxing your registration form if products are selected)

Total amount due from page 2 products \$ _____

STEP FOUR: PAYMENT INFORMATION AND WAIVER/RELEASE

Total amount due (registration and products) \$ _____

Check (Number: _____) American Express MasterCard Visa Diners Club Discover Wire Transfer (contact: convene@aapg.org for instructions)

Credit Card Number _____ Expiration Date _____

Name on Card (Please Print) _____ Signature _____

Full payment is due with registration form. Please make checks payable to: AAPG 2011 ACE

By registering for the AAPG 2011 Annual Convention & Exhibition, I release and agree to indemnify The American Association of Petroleum Geologists (AAPG) and the Houston Geological Society (HGS) and the agents, officers, servants and employees or each, from all liability for any loss, damage or injury sustained by me while involved in any way with the Convention & Exhibition except that each of AAPG and HGS is not released from such liability to the extent the same is caused by its actual negligence or willful misconduct. I have read and understand this waiver and release.



Convention Registration Form Page 2

AAPG Member Number

First/Forename

Last/Surname

SHORT COURSES AND FIELD TRIPS

Short Courses P=Professional, YP=Young Professionals, S=Student, F=Faculty Advisor, G=Graduate Student

	Fee	Tickets	Total
1 Fundamentals of Seismic Interpretation for Young Professionals (YP)	\$250	___	___
1 Fundamentals of Seismic Interpretation for Young Professionals (S)	\$125	___	___
2 Upstream Petroleum Economics for Young Professionals (YP)	\$175	___	___
2 Upstream Petroleum Economics for Young Professionals (S)	\$88	___	___
3 CCS: The Reservoir – Characterization, Modeling and Monitoring (P)	\$250	___	___
3 CCS: The Reservoir – Characterization, Modeling and Monitoring (S)	\$125	___	___
4 Application of Shale Using Ancient to Modern Logs for Shale Gas...(P)	\$150	___	___
4 Application of Shale Using Ancient to Modern Logs for Shale Gas...(S)	\$75	___	___
5 Sequence-Stratigraphic Analysis of Shales: Key to Paleoclimate Archives...(P)	\$225	___	___
5 Sequence-Stratigraphic Analysis of Shales: Key to Paleoclimate Archives...(S)	\$50	___	___
6 Uncertainty Analysis For Unconventional Plays (P)	\$300	___	___
6 Uncertainty Analysis For Unconventional Plays (S)	\$150	___	___
7 Seafloor and Top Hole Hazards to Offshore Drilling:... (P)	\$400	___	___
7 Seafloor and Top Hole Hazards to Offshore Drilling:... (S)	\$200	___	___
8 The Application of Geomechanics... (AAPG Member) *\$1,095 after 11 March	*\$995	___	___
8 The Application of Geomechanics... (Non Member) *\$1,195 after 11 March	*\$1,095	___	___
8 The Application of Geomechanics... (Student AAPG Member)	\$90	___	___
9 Sequence Stratigraphy for Graduate Students (G)	\$25	___	___
10 Seismic Geomorphology and Seismic Stratigraphy... (P)	\$300	___	___
10 Seismic Geomorphology and Seismic Stratigraphy... (S)	\$50	___	___
11 GIS Analysis of Facies Patterns of Modern Carbonate Sands... (P)	\$300	___	___
11 GIS Analysis of Facies Patterns of Modern Carbonate Sands... (S)	\$50	___	___
12 An Overview of Geothermal Energy (P)	\$200	___	___
12 An Overview of Geothermal Energy (S)	\$100	___	___
13 Utilization of Conventional Core for Reducing Geologic Uncertainty:... (P)	\$275	___	___
13 Utilization of Conventional Core for Reducing Geologic Uncertainty:... (S)	\$50	___	___
14 Hydraulic Fracturing of Gas Shales (P)	\$150	___	___
14 Hydraulic Fracturing of Gas Shales (S)	\$75	___	___
15 Petroleum Resources and Reserves... (P)	\$150	___	___
15 Petroleum Resources and Reserves... (S)	\$75	___	___
16 Decision Making in E&P... (AAPG Member) *\$1,095 after 11 March	\$995	___	___
16 Decision Making in E&P... (Non Member) *\$1,195 after 11 March	\$1,095	___	___
16 Decision Making in E&P... (AAPG Student Member)	\$90	___	___
17 Natural Fracture Characterization... (AAPG Member) *\$1,095 after 11 March	\$995	___	___
17 Natural Fracture Characterization... (Non Member) *\$1,195 after 11 March	\$1,095	___	___
17 Natural Fracture Characterization... (AAPG Student Member)	\$90	___	___

SHORT COURSE TOTAL \$ _____

Field Trips P=Professional, S=Student, F=Faculty Advisor, G=Graduate Student

	Fee	Tickets	Total
1 Central Belize Mixed Margin: Long-Lived Isolated Carbonate Platforms... (P, S)	\$3,800	___	___
2 Holocene Geology and Hurricane Effects on the Chenier Plain...(P)	\$460	___	___
2 Holocene Geology and Hurricane Effects on the Chenier Plain...(S)	\$230	___	___
3 Behind the Scenes Tour of NASA Space Center...(P)	\$195	___	___
3 Behind the Scenes Tour of NASA Space Center...(S)	\$98	___	___
4 Was Hurricane Ike the "Big One"?...(S, F)	\$25	___	___
5 Impact of Active Faults on Land-Based Engineered Structure... (P)	\$100	___	___
5 Impact of Active Faults on Land-Based Engineered Structure... (S)	\$50	___	___
6 Nonconventional Mudstone Reservoirs Field Seminar... (P)	\$500	___	___
6 Nonconventional Mudstone Reservoirs Field Seminar... (S)	\$100	___	___
7 Quaternary Depositional Systems of the East Texas Coast and Shelf (P)	\$280	___	___
7 Quaternary Depositional Systems of the East Texas Coast and Shelf (S)	\$100	___	___
8 A Brief Geologic History of Central Texas (P)	\$275	___	___
8 A Brief Geologic History of Central Texas (S)	\$138	___	___
9 Microbial Carbonates in the Upper Cambrian of Central Texas (P)	\$405	___	___
9 Microbial Carbonates in the Upper Cambrian of Central Texas (S)	\$203	___	___

FIELD TRIP TOTAL \$ _____

MEMBERSHIP

Becoming an Associate Member of AAPG enables you to register at the member rate. See page 60-61 for details and application.

	Fee	Tickets	Total
Associate Member (with a North American mailing address)	\$45	___	___
Associate Member (with an international mailing address)	\$65	___	___

MEMBERSHIP TOTAL \$ _____

EVENTS AND ACTIVITIES

Luncheons P=Professional, S=Student

	Fee	Tickets	Total
All-Convention Luncheon (Monday)	\$50	___	___
EMD Luncheon (Tuesday)	\$45	___	___
DPA/PROWESS Luncheon (Tuesday)	\$45	___	___
DEG Luncheon (Wednesday)	\$40	___	___
SEPM Luncheon (Tuesday)	\$35	___	___

Career Seminars

	Fee	Tickets	Total
How to be an Independent (Sunday)	\$10	___	___
Student Career Seminar (Monday)	\$10	___	___

Community Outreach

	Fee	Tickets	Total
Volunteers to Preserve American History (Sunday)	\$15	___	___

Guest Activities

	Fee	Tickets	Total
Private Lunch Cruise and Kemah Boardwalk	\$120	___	___
Premium Outlet Shopping	\$38	___	___
Houston Art Tour	\$80	___	___

Enrichment Programs

	Fee	Tickets	Total
Front Row at the Opera	No Fee	___	___
Beauty Secrets	No Fee	___	___

EVENTS AND ACTIVITIES TOTAL \$ _____

TOTAL AMOUNT DUE FROM ALL SECTIONS \$ _____

Be sure to send this page along with page one when mailing your registration form if products are selected.

JOIN AAPG NOW FOR \$45* AND SAVE ON YOUR REGISTRATION



*\$45 with a North American mailing address. \$65 with an international mailing address.

Onward and Upward

Joining the American Association of Petroleum Geologists is a great way of actively participating in the geology community. Since its founding in 1917, the American Association of Petroleum Geologists has been a pillar of the worldwide scientific community. The original purpose of AAPG — to foster scientific research, advance the science of geology, promote technology and inspire high professional conduct — still guides the Association today.

Currently the world's largest professional geological society with more than 30,000 members, AAPG provides publications, conferences and educational opportunities to geoscientists and disseminates the most current geological information available to the general public.

AAPG, an international geological organization, has members in more than 116 countries around the world. Included among its members are geologists, geophysicists, CEOs, managers, consultants, students and academicians.

Benefits of AAPG Membership

Members of AAPG are eligible for a variety of benefits. In addition to subscriptions to both the AAPG *Bulletin* and the AAPG *Explorer* and discounts on publications, meetings and courses, each member is eligible for:

- group insurance programs, including life, health and disability insurance
- monthly receipt of the AAPG *Bulletin* and the AAPG *Explorer*
- online access to past issues of AAPG *Bulletin*, *Explorer* and current abstracts from meetings and lecture tours

- discounts on books and other publications
- many types of education forums from schools to videotapes to DVDs
- services of the AAPG Foundation Energy Resources Library
- AAPG Foundation Grants-in-Aid Program
- registration savings on conferences and exhibitions
- AAPG GeoCare Benefits Insurance Program
- AAPG Career Center and Membership Registry

Membership Classifications

Active Membership

Applicants for Active Membership must have a bachelor's degree in the geological sciences and a minimum of three years experience in the professional practice or teaching of geology. A master's degree subtracts one year from the experience requirement, and a doctorate subtracts two.

Associate Membership

Any person not qualified for any other class of membership who is a graduate of a college of acceptable standards whose employment is associated with geology may apply for election as an Associate. The Executive Committee may waive degree requirements — if in its judgment an applicant has adequate professional experience and has attained professional standing.

Student Membership

Those students majoring in geology or a related field at a college of acceptable academic standards are eligible to become student members.



IT'S EASY TO JOIN AND SAVE!

Non-members registering for the AAPG 2011 Annual Convention & Exhibition receive the Member rate by paying the AAPG Associate Membership dues at the time of registration. For fastest service, go to www.AAPG.org/Houston2011 and click "Register Now," "Non-Member" and select "Join and Save." You may also use the application form on page 61 of this Announcement and mail your completed Registration Form along with your Associate Membership Form to AAPG Headquarters at the address listed below. Convention Registration Forms are downloadable at www.AAPG.org/Houston2011.

For more information on AAPG Membership, please contact:

AAPG Membership Services Department
P.O. Box 979 • Tulsa, OK 74101-0979 • USA
Tel: +1 918 560 2643 • +1 800 364 2274 (U.S. and Canada only)
Fax: +1 918 560 2694 • E-mail: jdorman@aapg.org

www.AAPG.org



AAPG ASSOCIATE MEMBERSHIP APPLICATION

Please print legibly and complete all information.

NAME

COMPANY/SCHOOL

ADDRESS

CITY STATE ZIP/POSTALCODE

COUNTRY

TELEPHONE FAX E-MAIL

DATE OF BIRTH (MONTH/DAY/YEAR) CITIZENSHIP MALE FEMALE

EDUCATION

I HAVE RECEIVED THE FOLLOWING DEGREE(S): B.S. M.S. Ph.D. OTHER (specify):

MY MAJOR WAS: GEOLOGY GEOPHYSICS ENGINEERING OTHER:

SCHOOL LOCATION GRADUATION DATE (MONTH/YEAR)

EXPECTED GRADUATION DATE (STUDENTS) GRADUATE UNDERGRADUATE OTHER (specify):

EXPERIENCE

MY PRESENT EMPLOYMENT IS WITHIN EXPLORATION, RESEARCH OR TEACHING OF: GEOLOGY GEOPHYSICS PETROLEUM ENGINEERING
 OTHER (specify):

MY EXPERIENCE LEVEL AS OF THIS DATE IS: LESS THAN ONE YEAR 1-3 YEARS 4-6 YEARS 7-10 YEARS MORE THAN 10 YEARS

IF REQUESTED, I WILL SUBMIT A COMPLETE RÉSUMÉ OR CV AND DOCUMENTATION OF MY TRAINING. I UNDERSTAND MEMBERSHIP IS SUBJECT TO REVIEW AND I AGREE THAT AAPG'S CONSTITUTION, INCLUDING BYLAWS AND CODE OF ETHICS, SHALL BE THE SOLE MEASURE OF MY RIGHTS.

SIGNATURE DATE

AAPG USE ONLY

NO. RECEIVED APPROVED BY NOTIFIED



AAPG Membership Services Department
P.O. Box 979 • Tulsa, OK 74101-0979 • USA
Tel: +1 918 560 2643 • +1 800 364 2274 (U.S. and Canada only)
Fax: +1 918 560 2694 • E-mail: jdorman@aapg.org



REGISTER NOW
to be part of ACE 2011!

Early-bird pricing
ends 15 February.
Save hundreds
by registering early!

www.AAPG.org/Houston2011

AAPG

2011 ANNUAL
CONVENTION & EXHIBITION

with SEPM (Society for Sedimentary Geology) and host: HGS (Houston Geological Society)

TECHNICAL PROGRAM & REGISTRATION ANNOUNCEMENT

