

Gulf Coast Section

JANUARY 2016

ONNECT SPE GULF COAST SECTION NEWSLETTER

AGEN

LEADING SUCCESSFUL REFRACTURING CAMPAIGNS IN THE PERMIAN BASIN PERMIAN BASIN P. 18

CORPORATE ADAPTATION THE OIL PRICE DECLINE **BUSINESS DEVELOPMENT P. 22**

MEXICO SERIES: CHALLENGES DEEPWATER MEXICO

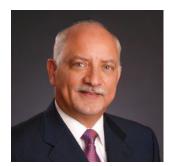
INTERNATIONAL P. 17

THROUGH THE EYES OF A RESERVOIR ENGINEER

2016 SPE PRESIDENT, DR. NATHAN MEEHAN RESERVOIR P.

GENE

CHAIR'S CORNER



DR. IVOR ELLUL 2015 - 2016 SPE-GCS Chair

A Happy New Year to all SPE Gulf Coast Section members!

e leave behind a year that proved challenging, but we look forward to the opportunities ahead. In the meantime, we remain conscious that many of our members find themselves between jobs and, as a society, it is our remit to advise and assist. To this end, I am pleased to lay out details of our *Members in Transition* initiative launched at the end of last year.

For those of you who, like me, qualify for the 25+ year membership ribbon at the ATCE, you know what these transitions are like. I recall December 1998 when, with oil hovering at \$11/bbl, and, as ranking executive at the company I worked for in Houston, I was tasked to develop the "cost optimization" list. I placed my name at the top, deciding that it was time for a transition! Three months later, and with oil at \$15/bbl, I started a consulting company. Looking back, I would have greatly benefited from an initiative like the one that SPE is enabling here.

The support provided by SPE was highlighted by Mark Rubin, Executive Director, in the May 2015 JPT, where he listed immediate benefits available to members. I encourage you to make use of these benefits. I certainly have.

- Local job board at spegcs.org/jobs/
- Job board on oilpro.com, a professional network for the oil and gas industry
- Dues waiver if unemployed (contact service@spe.org)
- Access to health insurance, including a private health exchange
- Free one-day registrations at OTC and ATCE in 2016
- 100 free webinars annually to help improve skills
- E-mentoring for young professionals who may not have experienced a downturn
- Access to PetroWiki, an ideal way to gain new expertise
- Free online competency management tool for members to assess their current professional capabilities

Our section plans to take the following additional steps:

Career counseling: The downstream energy industry tends to thrive when the upstream segment is slow. We plan to partner with the Houston sections of sister technical societies to leverage job opportunities while retooling engineers with additional downstream skills. We will relay information in this regard during a study group luncheon early in the year. In November, we launched a series of one-day Accelerated Learning Tutorials that can, again, provide opportunities to gain new expertise. There may also be opportunities to provide software training at discounted rates to unemployed members with collaborative effort.

A library of information is being developed incorporating financial assistance, unemployment counseling, and training availability from other non-profit organizations as well as federal government sources. This will be posted to the web shortly. **Networking:** The study group luncheons and evening events are invaluable tools, and we will continue to advertise these while possibly dedicating one event to the *Members in Transition* initiative. The **SPE Gulf Coast Section LinkedIn** page has been launched, and we plan for this to be an effective social media conduit for all our membership.

Options for self-employment: Our objective is to encourage the entrepreneurial spirit in members by providing courses relevant to establishing one's own business. We are also seeking technical support, such as that available through various Houstonarea small business incubators, for start-ups being contemplated by members. We are considering the development of a "Shark Tank"-type initiative to provide seed funding for new business ideas.

Community team programs: Giving back to the community is extremely satisfying, with available venues such as community-based humanitarian efforts traversing beyond oil and gas. We will present more information on this at GCS as well as at SPE level over the coming months.

Industry team programs: We are developing relationships with the business schools of several universities in our section to investigate the launch of funded projects akin to those typically run as part of MBA programs. Members will be able to apply to join teams working on topics where they believe they are able to add value.

We have a team of SPE-GCS volunteers working diligently on all subsets of the *Members in Transition* initiative, with Susan Howes (c.susan.howes@gmail. com) and Alex McCoy (Alexander_McCoy@oxy.com) leading the charge. Feel free to contact Susan or Alex directly, or myself at iellul@ciskventures.com.

Here's to a successful 2016. In the meantime, Watch This Space...

All the best!



GCS ENERGY TICKER



Please visit **spegcs.org** for more information!

January CONTENTS

STUDY GROUPS

Reservoir 1.6.16

Joint Meeting With SPEE RDC - Who We Are; What We Are Doing: What's Next?

Northside 11 1.12.16

Proppants: It Matters What You Pump

Drilling 1.13.16

How Do Drilling Automation and **Optimization Work Together?**

General Meeting 1.14.16

Shale Well Drawdown Management and Surveillance to Avoid EUR Loss and Impact on Re-Fracturing

International 1.19.16

Mexico Series: Challenges in Deepwater Mexico

Permian Basin 1.19.16

Leading Successful Refracturing Campaigns in the Permian Basin

Westside 1.20.16

Fracture Complexity: Signature Pressure Behavior and Analysis Methodology

Reservoir 21 1.21.16

The History of the World: Through the Eyes of a Reservoir Engineer

Business Development 22 Jusine 1.27.16

Apache's Adaptation to the Oil Price Decline

Projects, Facilities, and Construction 23 1.27.16

Decision Quality in Complex **Project Decision Making**

COMMITTEES

Technology Transfer

1.12.16 Economic Espionage in Oil and Natural Gas

Career Management 25

& Continuing Education 1.14.16

Oil Patch Writing Workshop

Career Management 26 & Continuing Education 1.21.16

Accelerated Learning Tutorial: Introduction to Managed Pressure Drilling

Young Professionals 20 1.17.16

Volunteer Event at the 2016 Chevron Houston Marathon

Young Professionals 29 1.21.16

Introduction to BCG and Management Consulting in Oil and Gas



Young Professionals

Executive Club Honors

30

Oilfield Games April 2016

Second Annual GCS Oilfield Games Scholarship Fundraiser

Auxiliarv **Event Notice**

IN EVERY ISSUE

SPE-GCS Membership	Report
November 2016	

Volunteer Spotlight Akhan Mukhanov

Then & Now Buddy Woodroof

Student Chapter Section TAMU-SPE University Of Houston-SPE



5

5

6

Event Recap

Young Professionals & Education Committee

SPE Gulf Coast Section Directory

BOARD OF DIRECTORS MEETING

THURSDAY, JANUARY 21 / 7:30 TO 10:30 AM

Location SPE HOUSTON OFFICE 10777 Westheimer Rd, Ste 1075, Houston, TX 77042

Event Contact SHARON HARRIS 713-457-6821 / 713-779-4216 FAX / sharris@spe.org

Navigate uncertain times. Rethink how you work.



Entero Reserves, Economics, and Decline Software

Isn't it time to stop manipulating data though the backend, creating manual queries to report in Excel, questioning your application security, getting frustrated with poor scenario comparisons, or using 3rd party tools to enter and edit data?

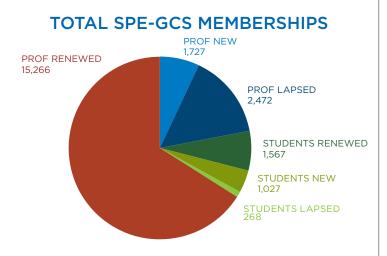
Entero MOSAIC delivers ASSET INTELLIGENCE to help you do your work faster, with less effort. It is **one comprehensive solution** that supports corporate, project, and well level processes for reserves, economics, and declines.

- **EFFICIENCY:** Experience up to 50% in productivity gains
- SPEED: Go from weeks to hours in entry, editing, evaluating, reconciling, and reporting
- **INTEGRITY:** Have confidence in your data with better visibility
- **TRUST:** Improve security through role based user/data management
- **INSIGHT:** Built-in stored results with scenario comparisons at the portfolio level

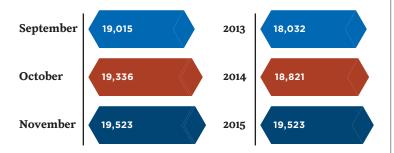
Learn more at www.entero.com/mosaic, or call toll-free at 877.261.1820.



SPE-GCS MEMBERSHIP REPORT EXTRA November 2016



CURRENT MEMBERSHIP TRENDS



STUDENT MEMBERSHIPS

STUDENTS	RENEWED NEW		TOTAL	
HCC	72 131		203	
Rice	57 38		95	
Texas A&M	1064	484	1548	
UH	357	324	681	
Unassigned	17 50		67	
TOTALS	1567	1027	2594	

*This chart does not reflect lapsed student memberships

DON'T MISS OUT RENEW YOUR DUES **TODAY!**



VOLUNTEER SPOTLIGHT AKHAN MUKHANOV

his month, SPE Gulf Coast Section is excited to feature Akhan Mukhanov as the Volunteer of the Month. Akhan got involved with SPE through a volunteering event at the Houston Energy Day Festival in 2013. From there, the Young Professionals Committee provided him a

supportive platform to start volunteering right out of the gates. This led to him joining the YP Board as Community Outreach Coordinator last year. Currently, Akhan serves as the Young Professionals Communication Chair, leading a team of three volunteers to streamline the communications process, revive past initiatives, and launch new ones.

Akhan is a Senior Consulting Production Engineer with Schlumberger Software Integrated Solutions, providing production engineering consulting services, training, and technical support to Schlumberger software clients. He earned his bachelor's degree in petroleum engineering at the Kazakh British Technical University in Almaty, Kazakhstan, and master's degree in petroleum economics and management at the IFP School in Paris.

Akhan's passion for volunteering with SPE comes from both the unity and diversification of the organization. He is convinced that SPE is probably the best professional society on the global scale. Akhan believes volunteering with SPE is a great way to make friends and make a difference in the community while growing both personally and professionally.

Thank you, Akhan – we agree!





COLUMN BY BUDDY WOODROOF

JANUARY **1956**

After 14 years of cussing and discussing, Universal Consolidated Oil is finally producing oil from the Beverly Field in west LA on their 20th Century Fox movie lot lease. To please city fathers, Universal had to enclose the derrick and all power units, haul off all cuttings and discarded mud, and perform all operations during daylight hours. Sounds like a lot of trouble, but early production of both oil and gas has sustained the project.

The US Justice Department announces the resolution of a ship-sales scandal involving the illegal acquisition of World War II tanker ships from the Maritime Commission by the Onassis group of companies. (Remember him ... Jackie's second husband?)

Richardson and Bass (Now that was a pair of real wildcatters!) continue reaming operations on their 1 LL&E-Humble L well in South Louisiana. With a TD of 22,559 feet, this well has accomplished the deepest penetration of any global well to date.

Despite the lack of any commercial oil production to date, British Petroleum and Royal Dutch Shell continue to explore for oil in the Niger River Delta of Nigeria in a swampy jungle area known fondly as "white man's grave."

> East Texas crude oil - \$2.90/bbl; US active rig count - 2,557

JANUARY **1981**

Ralph Nader's Congress Watch vows to continue to push for a government-owned energy company that would enable the pursuit of a free-market philosophy in energy matters.

Pemex is reportedly investigating the possibility of marketing crude oil and/or petroleum products on European markets. (My, how the fortunes have changed for the US and our neighbor to the south during the past 35 years.)

A Texas A&M study concludes that normal discharges of used drilling muds into the sea have little or no effect on marine life. It has further been reported that the Gulf Coast has consistently yielded larger specimens of a number of fish species since marine life began using rigs for shelter.

France and Brazil continue to make significant commitments to alcohol motor fuels, with Brazil currently having one out of eight cars in the country running on ethanol.

US active rig count - 3,344



A Canadian operator drills the deepest oil well in the Gulf of Mexico: Nexen's Knotty Head prospect in Green Canyon Block 512.

Meanwhile, in Mississippi Canyon, Dominion E&P is finally able to open the tap on the Devil's Tower dry-tree spar, thanks to downstream infrastructure repairs of damage inflicted by Hurricane Katrina.

After reaching an agreement with Libya's National Oil Corp., ConocoPhillips and its partners, Marathon Oil and Amerada Hess, are cleared to resume oil and gas production operations in their Waha concessions in Libya after a 20-year hiatus.

The US Minerals Management Service takes the first step toward expanding its regulation of Outer Continental Shelf energy activities beyond oil and gas to include alternative energy activities, such as generation of electricity from wind or ocean waves, on the OCS.

Light sweet crude oil - \$63.39/bbl; Natural gas - \$9.99/MMbtu; US active rig count - 1,464

THE REST OF THE YARN

This month, TR passes the torch to William Howard Taft and then decides that he wants it back.



hen Theodore Roosevelt challenged William Howard Taft for the Republican presidential nomination in 1912, few cheered. Enemies accused him of monumental egotism, and most admirers, foreseeing his defeat, were worried that prosperity would frown on his quest for an unprecedented third term. As Roosevelt saw it, he had to involve himself. He had left the White House in 1909 with the expectation that Taft, his good friend and chosen successor, would continue on the progressive course set by the Roosevelt administration. Instead, Taft had filled his Cabinet with corporate lawyers, bungled a chance to overhaul an antiquated tariff that enriched manufacturers at consumers' expense, and undermined TR's farsighted environmentalism. Taft means well, Roosevelt would say, "but he means well feebly."

Then came the midterm elections of 1910. The GOP lost control of the House, and Roosevelt began criticizing Taft's policies in print. The final rupture occurred a year later, when Taft's attorney general filed an antitrust suit against the U.S. Steel Corp. because of a 1907 acquisition that Roosevelt had personally approved. TR was outraged. The decision to challenge Taft soon followed.

Roosevelt's campaign would not succeed, but the ideals that he and his Bull Moose Party enunciated in 1912 would resonate in American political life for decades. They still do. They shaped much of Franklin Roosevelt's New Deal and influenced domestic policy until the 1980s, when the Reagan revolution began dismantling social programs. Even now, echoes of that campaign can be heard in debates on what government should do for citizens and how to make it more accountable.

Next month, TR bolts the Republican Party to form the National Progressive Party with the stated intention of dissolving the unholy alliance between corrupt business and corrupt politics.

THEN CONOW

After Spain conquered Peru in the mid-19th century, what was their prime interest in the oil seeps on the westernmost point of the continent?

ANSWER TO DECEMBER'S QUIZ

Of refinery workers, production workers, all-manufacturing workers, and valet parkers, refinery workers had the highest reported average wage level circa 1960.

CONGRATULATIONS TO NOVEMBER'S WINNER Mark Glaser with Halliburton

If you would like to participate in this month's quiz, e-mail your answer to contest@spe.org by noon January 15. The winner, who will be chosen randomly from all correct answers, will receive a \$50 gift card to a nice restaurant.

PERFORATING & LOGGING EQUIPMENT

Meeting your exacting requirements.

Logging instruments | Perforating guns and setting tools | TCP firing heads Energetics | Wireline hardware & selective firing systems

www.huntingplc.com

HUNTING

Reduce water. Save money.

Hexion's AquaBond™ proppants reduced water by 92% without hindering the flow of oil compared to traditional resin coated sand in laboratory testing.

AquaBond proppants are enabling operators to reduce formation water disposal costs, maxmize well profitability, and lower cost per BOE.

Always Creating, Always Innovating.

16 Hexion Inc. All rights reserved. and ^sdenote trademarks owned by or licensed to Hexion Inc.

hexion com/oilfield

X HEXION

AquaBond

© 2015 Hunting

Reliability + Redundancy = Reduced Risk

The whole is greater than the sum of its parts.

The reliability of the newest fleet of vessels in the Gulf of Mexico *plus* the back-up capabilities of the most advanced redundant systems *equals* reduced operational risk on your sand control and well stimulation operations.

 \cap

0

BLUE TARPON

Q

Call us or visit <u>BakerHughes.com/GoM-vessels</u> and let the flexibility of the safest and most reliable vessels solve your deepwater challenges.



+1 713-879-1167

Study Group

RESERVOIR

Joint Meeting With SPEE RDC – Who We Are; What We Are Doing; What's Next?

The bylaws of the Society of Petroleum Evaluation Engineers establish the Reserves Definition Committee (RDC) to advise the SPEE Board and generally serve the SPEE and industry for "education ... on oil and gas reserves definitions." This presentation will describe who the RDC is and what the RDC has recently done and is now doing. There will also be discussion about what topics the RDC should work on next. The presentation will include status updates for SPE Petroleum Resources Management System; SPEE Monograph 4, "Estimating Reserves in Unconventional Developed Reservoirs"; and SPEE connections with the SEC and how SPEE provides SEC guidance.

ROD SIDLE



Rod Sidle is "semi-retired" while working as an independent consultant. He worked for Shell Oil Company and Royal Dutch Shell for 35 years before retiring in July 2009. His experience is primarily in reservoir engineering and economics with a focus on reserves estimation. Sidle is a member of SPE and SPEE. In SPEE, he is the Chair of the Reserves Definition Committee with past service on the

Board of Directors. He previously served SPE as a Distinguished Lecturer and as a member of the Oil and Gas Reserves Committee. Since retiring from Shell, Sidle has been a lecturer at Texas A&M University in the Petroleum Engineering Department on project evaluation, a Director of Reserves at Occidental Oil and Gas Corporation, and the Reserves Manager for Sheridan Production Company, a privately funded oil and gas producer.





EVENT INFO

Wednesday **1.6.16** 11:30 AM TO 1:00 PM

SPEAKER

Rod Sidle Independent Consultant Sidle Consulting

LOCATION

The Petroleum Club of Houston-Wyatt Suite 1201 Louisiana St, 35th Floor Houston, TX 77002

EVENT CONTACT

Alexsandra Martinez 956-249-0994 adinorah.martinez@gmail.com

> MEMBERS \$35/\$45 Walk-In

> NON-MEMBERS \$40/\$45 Walk-In



REDUCING COST PER BOE. READ THE WHOLE STORY AT FMSA.COM/4MONTHS



PetroSkills

To cut travel costs and maximize convenience, PetroSkills will deliver our most popular courses multiple times in Houston in 2016

Enroll soon to ensure your seat!

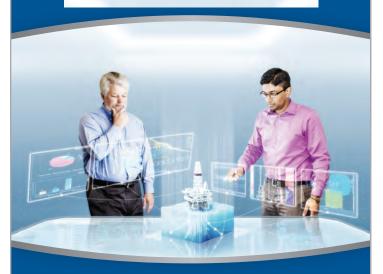


Did you receive your copy of the NEW 2016 Training Guide?

Download your copy or sign up to have a copy mailed to you at www.petroskils.com/catalog

For details on these or our other 250 sessions in the Gulf Coast, contact Patty Davis, (832) 426-1203 or patty.davis@petroskills.com, or see details and full selection at www.petroskills.com

Visualize the Possibilities



At Petrolink we see things a little more clearly.

You can too with our advanced real-time visualization tools. From customizable displays and collaborative environments to powerful analytics and reporting, we help you spot trends, gain insights and see the potential in your operations.

www.petrolink.com



Study Group

NORTHSIDE

Proppants: It Matters What You Pump

Second only to fracturing fluid, proppants play a major role in the hydraulic fracturing process. In 2014 alone, roughly 114 billion pounds of raw sand proppant was pumped in the United States. The trend shows that proppant production and usage is on the rise and will continue to play an important role in the fracturing process.

This presentation will cover points such as:

- Where does natural sand proppant come from?
- The mining process is the key to quality, natural product. Ensuring that everything from the planning stage to drying and sizing is done correctly is critical to the performance of the proppant.
- Can any type of sand be called a proppant?
- Some engineers think that all proppants are created equal and can produce the same results. The truth, though, is that no two proppants are alike. Each formation that the proppant is produced from has different properties that can either aid or impair a well's production.
- If no two proppants are alike, how can you compare one to another?

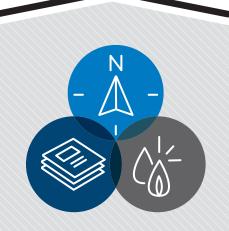
There are specific questions you should ask your proppant supplier to help you establish a baseline comparison of products. We will discuss those questions and what the answers can mean for your well's production.

ERIC WESTBROOK



Eric Westbrook has over 35 years of experience in the industrial mineral industry. He is the Vice President of Global Energy Technology for Unimin Energy Solutions, the world's largest producer of hydraulic fracturing sand. Westbrook has a strong background in mineral exploration, process engineering, and mining. He utilizes those skills to solve customer and industry problems in creative and innovative ways.

The four patents he holds are a testament to his extensive knowledge and experience. For the past nine years, Westbrook was the chief technical officer for Sibelco Asia. He has a global understanding of the minerals used throughout the oil and gas industry.



EVENT INFO

Tuesday **1.12.16** 12:00 PM TO 1:30 PM

SPEAKER

Eric Westbrook Vice President Global Energy Technology Unimin Energy Solutions

LOCATION

Southwestern Energy 10000 Energy Dr Spring, TX 77389

EVENT CONTACT

Sumitra Mukhopadhyay 281-784-5742 smukhopadhyay@ superiorenergy.com

> MEMBERS \$35/\$50 Walk-In

NON-MEMBERS \$40/\$50 Walk-In

REGISTRATION LINK spegcs.org/events/3109/

ProTechnics

KNOW WHERE PRODUCTION IS COMING FROM.





Fluid Diagnostic Tracer

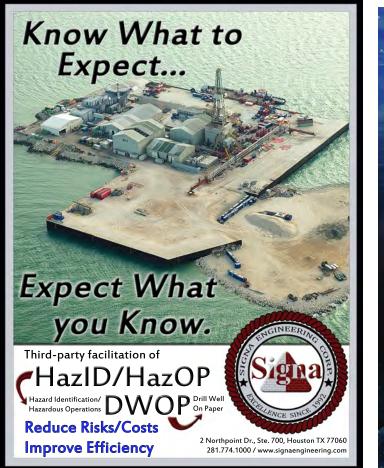
The industry's first comprehensive after-frac flow profile tracer technology that simultaneously evaluates both frac fluid clean-up and hydrocarbon production over time.

FLOWPROFILER provides critical information such as:

- Simultaneous Zonal Clean-Up & Production
- Hydrocarbon Production Indexed to Geologic Horizons
- Hydrocarbon Production Over Time
- Well Spacing Insights



For more information on FlowProfiler, visit us at www.corelab.com/protechnics or call us at 713-328-2320





DRILLING

How Do Drilling Automation and Optimization Work Together?

Study Group

We have recently completed a drilling automation project revealing multiple key drilling issues needing optimization. The automation measurement system reveals downhole issues limiting the system's performance and requiring countermeasures beyond what can be compensated for during normal drilling operations. We will present a few examples and discuss potential next steps.

MATTHEW ISBELL



Matthew Isbell graduated from the University of Texas with a BSME and has 27 years of experience optimizing drilling performance in fields around the world. He is a Drilling Optimization Advisor at Hess focused on developing and implementing a continuous improvement process to target and address value limiters during drilling and completion operations.

KEITH TRICHEL



Keith Trichel graduated from Texas A&M University with a BSME and has 34 years of experience, including a number of roles focused on optimizing drilling performance in different applications around the globe. He is a Drilling Engineering Advisor in the Bakken Drilling Performance Team at Hess. His primary focus is to drive continuous improvement efforts aimed at identifying and eliminating ROP limiters

in order to improve well delivery time and reduce cost.

SUPPORT THE SPE-GCS SCHOLARSHIP FUND New opportunities are available this year to support SPE Gulf Coast Section. Corporate sponsorships and individual donations benefit the

SPE-GCS Scholarship program, which has awarded more than \$3 million in scholarships since 1963 to local engineering students.

For Corporate Registration & Information: spegcs.org/sponsorship-opportunity/ For Individual Scholarship Donation Information: spegcs.org/spegcs-scholarship-fund/



EVENT INFO

Wednesday **1.13.16** 11:30 AM TO 1:00 PM

SPEAKERS

Matthew Isbell Drilling Optimization Advisor Hess Corporation

Keith Trichel Drilling Optimization Advisor Hess Corporation

LOCATION

The Downtown Club 1100 Caroline St, Floor C Houston, TX 77002

EVENT CONTACT

Tom Wick 713-806-2631 fieldwick2@gmail.com

MEMBERS \$35

NON-MEMBERS \$45

STUDENTS & TRANSISTIONING \$10

January, 2016 **13**

Measure oil and gas stage flow... optimize future well development.

A Tracer Production Log[™] gives continuous data to help plan your next well:

- Clean out efficiency
- Compare geology with oil and gas productivity
- Assess stimulation design effectiveness
- Well trajectory and spacing optimization

Frac smart, recover more with Tracerco technologies

To learn more about our local field and lab capabilities contact:

4106 New West Drive, Pasadena, TX 77507, USA Tel: +1 281-291-7769 | Fax: +1 281-291-7709 | www.tracerco.com/reservoir-characterisation



Tracerco

Providing Insight Onsite

Bespoke solutions.

When it comes to petrophysics, one size does not fit all. Spend smarter with our made-to-order interpretations.

petrophysicalsolutions.com



Petrophysical Solutions, Inc.

PETROPHYSICS THAT PAYS OFF



CRITICAL WELL ENGINEERING CONSULTING SERVICES

VIKING'S TEAM OF HIGHLY TRAINED PETROLEUM PROFESSIONALS LEND THEIR EXPERIENCE TO CREATIVE WELL DESIGNS.

WE CAN HELP PLAN AND EXECUTE YOUR TOUGH WELLS.

VISIT OUR WEBSITE: WWW.VIKINGENG.NET OR CALL: (281) 870-8455 IN HOUSTON

WHAT MAKES TIW AN INNOVATOR?

Maximizing customer productivity.

Liner Hanger Systems
Expandable Systems
Completion Systems
Call: 713.729.2110 or log on at www.tiwoiltools.com



ENGINEERING INNOVATION WORLDWIDE

Study Group

GENERAL MEETING

Shale Well Drawdown Management and Surveillance to Avoid EUR Loss and Impact on Re-Fracturing

Over the last 10 years, the shale revolution in North America has shown the great potential that exists in the shale plays and their potential impact in altering the energy picture worldwide. The magnitude of the resource and production data was very encouraging. Early data showed rapid decline in the first year, as much as 90%, raising some concerns about the long-term viability of the predicted Estimated Ultimate Recovery (EUR) values for these wells.

To investigate the causes and impact of the observed large annual decline in the first year, technical studies were undertaken. As a result of those studies, the industry discovered that production practices led to such rapid decline. Methods to mitigate and reduce these large annual declines and preserve the predicted EURs were developed, and production practices were adjusted. The resulting approach, referred to as "Drawdown Management," was developed and strictly applied in the majority of shale plays (gas or oil). This new drawdown management methodology resulted in reducing the first-year production decline to 60% and sometimes less.

In this discussion, we will review the elements that were found to greatly impact shale well productivity, along with field results showing how these elements impacted the predicted EUR from these wells. Furthermore, we will outline the relation between this approach of production management and the need for re-fracturing in shale plays.

Can't attend in person? Register for the webinar version of this event.

DR. IBRAHIM S. ABOU-SAYED

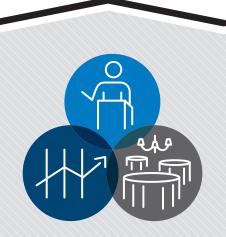


Dr. Ibrahim S. Abou-Sayed is the founder and president of i-Stimulation Solutions Inc. Abou-Sayed has more than 34 years of industry experience focused on well stimulation and production enhancement for tight reservoirs and shale plays.

Since early 2008, he has focused his activities in support of developing Haynesville, Bossier, Marcellus, Eagle Ford and Utica

shale plays. His responsibilities included geomechanical modeling, lateral landing zone selection, setting stimulation strategy and implementation, failure analysis and remedy, developing the extended drawdown management program, and shale refracturing technology.

Previously, he worked for Advantek International Inc. At ExxonMobil, where he worked for more than 22 years, Abou-Sayed was responsible for Stimulation R&D, technical services, and training. He is one of the pioneers of horizontal well stimulation technology. He also worked for Gulf Oil in the well stimulation and production engineering areas. Abou-Sayed has worked in more than 15 countries, authored more than 40 papers and co-authored five patents. Abou-Sayed has received awards and recognitions from the Society of Petroleum Engineers, including Distinguished Member and Distinguished Service awards.



EVENT INFO

Thursday **1.14.16** 11:30 AM TO 1:00 PM

SPEAKER

Dr. Ibrahim S. Abou-Sayed President & Founder i-Simulation Solutions Inc.

LOCATION

The Petroleum Club of Houston 1201 Louisiana St, 35th Floor Houston, TX 77002

EVENT CONTACT

Barry Faulkner 281-627-8790 barryfaulkner@earthlink.net

MEMBERS \$35

NON-MEMBERS \$40

REGISTRATION LINK

spegcs.org/events/3084/

Stop squeezing. Start expanding.

www.EnventureGT.com

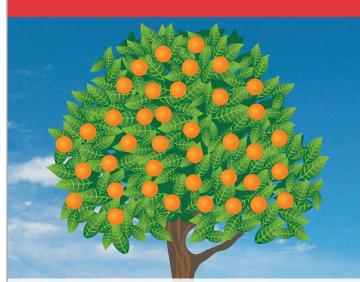


Success Rate				
Solutions Matrix	Cement Squeeze			
Longevity	Low	High		
Isolation	Low to Medium	High		
Integrity	Low to Medium	High		

Save the cement! Contact the expandable tubular experts at Enventure to maximize the efficiency and value of your well.



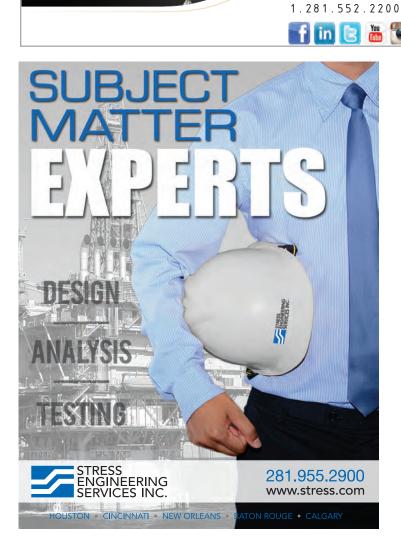
ORANGE IS THE NEW GREEN



Flotek's citrus-based, environmentally friendly **CnF**® fracturing additives will revolutionize the way the world thinks about fracturing and will improve your production.



For more information contact cesimkt@flotekind.com or call 832-308-CESI (2374)



INTERNATIONAL

Mexico Series: Challenges in Deepwater Mexico

Chris Garcia will discuss some of the major challenges facing companies that want to explore for oil and gas offshore in deepwater Mexico. The presentation will compare deepwater basins between Mexico and GOM USA (differences and similarities) and how they relate to well construction challenges. Mexico has drilled more than 50 deepwater wells to date, and this learning curve has been accelerated with application of technologies and processes. Other operational considerations include access to technology, logistics, regulations, HSE, and security.

CHRIS GARCIA



Chris Garcia received his BS in petroleum engineering from the University of Texas at Austin in 1984. His first three years after college were spent working with Zapata Offshore, a deepwater drilling contractor. The next 28 years were spent leading the typical Schlumberger oilfield life: working in 11 countries, making 18 moves, working on mostly offshore and deepwater projects. Garcia's prior

assignments include Deepwater Theme Manager for GOM USA, Deepwater Business Development Manager in Mexico, Deepwater Latin America Adviser, and his present position as the Mexico International Account Director and Deepwater Advisor. His present responsibilities consist of working primarily with IOC clients that are arriving to Mexico. As a deepwater advisor, he has multiple deepwater theme initiatives that include internal training and competency development, peer review advisor, and R&E advisor. He is a former DOT (Deepwater Offshore Technology) committee member, SPE Committee Chairman and presenter at multiple Latin America conferences, and coordinator for Schlumberger deepwater technical papers.



EVENT INFO

Tuesday **1.19.16** 11:30 AM TO 1:30 PM

SPEAKER

Chris Garcia Mexico International Account Director and Deepwater Advisor Schlumberger Oilfield Services

LOCATION

The Petroleum Club of Houston 1201 Louisiana St, 35th Floor Houston, TX 77002

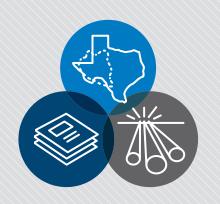
EVENT CONTACT

Barry Chovanetz 214-475-771 bchovanetz@yahoo.com

> MEMBERS \$35

NON-MEMBERS \$40









SPEAKER

Anton Babaniyazov Staff Production Engineer ConocoPhillips

LOCATION

Norris Center – Westchase 9990 Richmond Ave, Ste 102 Houston, TX 77042

EVENT CONTACT

Amy Timmons Atimmons1114@att.net

> MEMBERS \$35/\$40 Walk-In

> NON-MEMBERS \$40/\$45 Walk-In

PERMIAN BASIN

Leading Successful Refracturing Campaigns in the Permian Basin

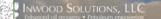
With the growing numbers of aging wellbores, rework in the existing zones such as refracturing helps to reduce temporarily abandoned well counts and increase production rates, and often reserves. In spite of the suppressed oil prices, the "rework inventory" remains high and economically attractive for Permian Basin operators. This presentation will focus on steps to assure a high success rate of refracturing treatments. The information will be supported by case histories and lessons learned from refracturing job planning, execution and evaluation. Specific attention will be given to the challenges of well candidates' selection, fracturing placement, diversion, and well integrity.

ANTON BABANIYAZOV

Anton Babaniyazov is a Staff Production Engineer for ConocoPhillips. He leads implementation of infill drilling and recompletion programs in Permian conventional assets.

Prior to ConocoPhillips, Babaniyazov served in a variety of domestic and international upstream production and development positions for Schlumberger-Integrated Project Management (IPM), including Drilling Engineer in Oman, Facility and Production Engineer in South Africa offshore, Production Lead for gas assets in Romania, and reservoir and production engineering assignments in West Texas.

He is a graduate of Tomsk Polytechnic University in Russia with an MS degree in petroleum engineering.



Petroleum Engineering Enhanced Oil Recovery Project Management Profitability Analysis Reservoir Simulation

> Dr. J Roger Hite Inwood Solutions, LLC (713) 385-5343 hite@inwood-solutions.com

WESTSIDE

Fracture Complexity: Signature Pressure Behavior and Analysis Methodology

During hydraulic fracture propagation, three regions may be identified from the pressure response: 1) near-well, which extends tens of inches, 2) mid-field, which extends tens of feet, and 3) far-field, which extends hundreds of feet from the wellbore. Each region can experience simple, tortuous, and complex fracture behavior, creating unique pressure signatures. In unconventional reservoirs, geo-mechanical conditions may allow the creation of complex fracture networks (i.e., non-planar propagation) that can be initiated and propagated in multiple planes and generally have a dominant or primary fracture.

Specific to highly deviated and horizontal wellbores, complexity manifests itself as turning, twisting, and longitudinal events as hydraulic fractures propagate in the near and mid-field regions, and then reorient in the direction of principal stress planes in the far-field. This creates an increased fracturing pressure that does not diminish instantly when the fracture treatment is shut-in and results in anomalously high apparent net pressures, as evidenced by amplified ISIPs and rapidly declining pressures that dissipate minutes after shut-in.

High apparent fracturing stress gradients are often seen that are much greater than the overburden stress gradients. Although suggestive, these high-stress gradients are not indicative of horizontal fractures in the far-field, but rather related to fracture complexity in the mid-field. Understanding mid-field fracture complexity is critical in interpreting fracture treatment pressure responses and optimizing treatment designs in multi-stage/multi-cluster horizontal wells.

This presentation discusses methods to properly identify and incorporate complex fracture pressure interpretation for fracture treatment design, post-job pressure matching, and stage/ cluster spacing designs related to fracture interference.

LUCAS BAZAN

Lucas Bazan specializes in hydraulic fracture stimulation and the evaluation of fractured well performance. He formed Bazan Consulting Inc. in 2008 after two years with BP and eight years with ConocoPhillips. The firm focuses on hydraulic fracture design and audits, optimization, onsite implementation, and post-fracture production evaluation of tight gas, coalbed methane, and shale reservoirs in North America. Bazan holds degrees in physics from Texas State University and petroleum engineering from Texas A&M University. He has authored and co-authored more than 20 technical publications focusing on hydraulic fracturing and well performance topics, including studies for the US Department of Energy and national oil companies



EVENT INFO

Wednesday **1.20.16** 11:30 AM TO 1:00 PM

SPEAKER

Lucas Bazan Consultant Bazan Consulting Inc.

LOCATION

Norris Center-Westchase 9990 Richmond Ave, Ste 102 Houston, TX 77042

EVENT CONTACT

Stephen Loving 713-328-2244 stephen.loving@corelab.com

> MEMBERS \$40/\$45 Walk-In

NON-MEMBERS \$45

UNCONVENTIONAL BY DESIGN

IMPROVE THE ECONOMICS OF YOUR NEW AND REFRACTURED WELLS

FTSI's NuFlo® system is a suite of degradable diverting agents with various particle sizes designed to temporarily block existing fractures, allowing new fractures to develop. The NuFlo® system is customizable for near wellbore and far-field applications to help you get the most out of your refrac and new well completions. Learn more at **FTSI.COM**



Unconventional by Design

866.877.1008 | FTSI.COM

FTS









A LEADER IN WELL COMPLETION

DELIVERING GLOBAL SOLUTIONS FOR E&P CHALLENGES

- Drilling & Completion
- Well Control
- Reservoir & Production

SIERRA

+1.713.956.0956 • Sierra-Hamilton.com

HAMILTON

Integrated Energy Services ,Inc.

Robert Barba Petrophysicist Log Analysis Completion Optimization

> 500 N. Capital of TX Hwy Building 4-150 Austin, TX 78746 C: (713) 823-8602 F: (713) 583-9400 RBarba75@gmail.com

www.integrated-energy-services.com

ARMSTRONGASSOCIATES

OVER 25 YEARS SERVING ENERGY PROFESSIONALS CONTRACT REVIEW / NEGOTIATION EMPLOYMENT NON-COMPETES SEVERANCE CIVIL RIGHTS LITIGATION COMPETITIVE RATES

440 LOUISIANA STREET, SUITE 900 HOUSTON, TX ARMSTRONGATLAW.COM



STATE AND A COMPANY OF STATE

Study Group

RESERVOIR

The History of the World: Through the Eyes of a Reservoir Engineer

We can view human history as a function of thermodynamics and energy usage. In this talk, Dr. Nathan Meehan quickly covers historical energy usage and emphasizes the role of reservoir engineers in changing the future. What has to be done to grow production and reserves in an extended low-price environment? What are the implications for the near-term?

2016 SPE PRESIDENT, DR. NATHAN MEEHAN



Dr. Nathan Meehan has 40 years of global experience in reservoir engineering, reserve estimation, hydraulic fracturing, and horizontal well expertise. He serves as Senior Executive Advisor to Baker Hughes. Previously, he was President of CMG Petroleum Consulting, Vice President of Engineering for Occidental Oil & Gas, and General Manager E&P Services for Union Pacific Resources. Meehan is 2016

President of the Society of Petroleum Engineers.

Meehan earned his BS in physics from the Georgia Institute of Technology, his MS in petroleum engineering from the University of Oklahoma, and his PhD in petroleum engineering from Stanford University. Meehan previously served as Chairman of the Board of the CMG Reservoir Simulation Foundation and as a Director of the Computer Modelling Group, Ltd., Vanyoganeft Oil Company, Pinnacle Technologies Inc., the Society of Petroleum Engineers, and JOA Oil & Gas BV.

He is an SPE Distinguished Member and the recipient of SPE's Lester C. Uren Award for Distinguished Achievement in Petroleum Engineering, the DeGolyer Distinguished Service Medal, and the SPE Public Service Award. He serves on the Board of the Georgia Institute of Technology's Strategic Energy Institute and the petroleum engineering advisory boards of the University of Texas, Penn State University, and the University of Houston. He is an appointed member of the Interstate Oil & Gas Compact Commission and a widely published author. Meehan is a licensed professional engineer in four states.



EVENT INFO

Thursday **1.21.16** 11:30 AM TO 1:00 PM

SPEAKER

Dr. Nathan Meehan Senior Executive Advisor Baker Hughes

LOCATION

Sullivan's Steakhouse 4608 Westheimer Rd Houston, TX 77027

EVENT CONTACT

Alexsandra Martinez 956-249-0994 adinorah.martinez@gmail.com

> MEMBERS \$35/\$45 Walk-In

> NON-MEMBERS \$40/\$45 Walk-In





EVENT INFO

Wednesday **1.27.16** 5:00 PM TO 7:00 PM

SPEAKER

John J. Christmann IV CEO Apache Corporation

LOCATION

Four Seasons Hotel 1300 Lamar St Houston, TX 77010

EVENT CONTACT

Cody Felton 281-221-3042 Cody.Felton@energynet.com

> MEMBERS \$35/\$40 Walk-Ins

NON-MEMBERS \$40

> STUDENTS \$10

BUSINESS DEVELOPMENT

Corporate Adaptation to the Oil Price Decline

Apache has responded to the industry downturn with a comprehensive approach that positions it very well for current and future success. Early in 2015, the company aggressively reduced its activity levels and capital spending to align with the significant decline in oil prices. From peak levels, Apache's worldwide rig count has declined by approximately 90 rigs. The company has streamlined its portfolio and strengthened its balance sheet through \$10.5 billion of non-strategic asset sales in 2014 and 2015.

Apache has also realigned its management and organizational structure, resulting in material G&A cost savings. Throughout this period of significant change and evolution, Apache's asset base and operational teams have continued to deliver, which has resulted in the company consistently exceeding its 2015 worldwide production targets. With a keen focus on maximizing recovery and minimizing costs, Apache is continuing to expand its North America resource opportunity through a combination of 1) acquiring acreage and seismic data at lower costs 2) targeting areas with stacked pay and 3) embracing the financial flexibility provided by its relatively low decline rate and long-life assets.

We welcome you to join us for an informative discussion around these and other adaptation strategies, preceded by fellowship and networking during the popular 5:00 PM social hour.

SEASON PASS HOLDERS: You do not need to register for this event, as your Season Pass has automatically registered you for all 2015-2016 Business Development events. Thank you for being a Season Pass holder!

JOHN J. CHRISTMANN IV



John J. Christmann IV was appointed Chief Executive Officer and President of Apache effective Jan. 20, 2015, and joined the company's board of directors on Jan. 20, 2015. He previously served as executive vice president and chief operating officer – North America, since January 2014; region vice president – Permian Region from 2010 through 2013; vice president – Business Development, since January

2004; and production manager for the Gulf Coast Region since April 2003. Prior to that, Christmann held various positions of increasing responsibility in the business development area since joining the company in 1997.

Previously, he was employed by Vastar Resources/ARCO Oil and Gas Company in business development, crude oil marketing, and engineering assignments.

Christmann is a member of the Texas Tech University Petroleum Engineering Academy. He received his bachelor's degree in petroleum engineering from the Colorado School of Mines and MBA from Southern Methodist University. Study Group

PROJECTS, FACILITIES, AND CONSTRUCTION

Decision Quality in Complex Project Decision Making

What are the biases and conditions that can make project decisions difficult? How can elements of decision quality address them to improve both the decisions that are made and the efficiency with which they are made? Whether with conventional or unconventional projects, Greenfield or late-life assets, practical decision quality can play an important role helping project teams improve the efficiency and quality of the decisions required to move their projects through the stage gates of execution.

Decision research and psychologists suggest that humans have two modes of thinking when it comes to decisions: System 1 thinking is automatic, instinctive and emotional; and System 2 thinking is slow, logical and deliberate. Daniel Kahneman, winner of the Nobel Prize in Economics, introduced these ideas and terms in his excellent book *Thinking, Fast and Slow.* Knowing when and how to apply System 2 thinking with groups of people to move complex decisions forward is the topic for this presentation.

The frequent high risk and high cost of decisions in the oil industry demands efficient, informed decision making. The key to that is a clear strategy, which is updated as new information is obtained to ensure quality decisions. Teams benefit from a structured approach to define their problem and some viable alternatives to consider, run those by their stakeholders, and then evaluate their options with the ability to consider inherent risks and uncertainties. This presentation will discuss decision biases and the elements of decision quality, and then introduce the workflow using a complex oil industry late life asset case example.

The event will follow this schedule:

11:00 AM to 11:30 AM 11:30 AM to 1:00 PM 1:00 PM to 1:30 PM Sign in and networking Lunch and presentation Networking and close

ELLEN COOPERSMITH



Ellen Coopersmith has a BS in petroleum engineering from the Colorado School of Mines. She is the Founder and President of Decision Frameworks, an international consulting, training and software practice focused on building decision capability in the oil industry. Prior to forming Decision Frameworks, Coopersmith worked at Conoco Inc. for 16 years, the last five of those as the Director

of Decision & Risk Analysis. She is a board-certified Decision Analysis Fellow, a Professional Engineer, and a published speaker on decision making and decision quality implementation. She has headed up a global practice of decision analysis for 22 years.



EVENT INFO

Wednesday 1.27.16

SPEAKER

Ellen Coopersmith Founder and President Decision Frameworks

LOCATION

Texas A&M Mays Business School at City Centre 800 Town and Country Blvd Houston, TX 77024

EVENT CONTACT

Bryan W. Marlborough 985-232-0318 bryan.marlborough@gmail.com

> MEMBERS \$35

+---

NON-MEMBERS \$45

> STUDENTS \$10

REGISTRATION LINK

spegcs.org/events/3107/

Economic Espionage in Oil and Natural Gas

Our nation's secrets are in jeopardy — the same secrets that make your company profitable.

The FBI estimates billions of US dollars are lost to foreign competitors every year. These foreign competitors target economic intelligence in advanced technologies and flourishing US industries. Furthermore, FBI investigations indicate economic espionage and trade secret theft against US oil and natural gas companies and institutes are on the rise. Over the past two years, foreign actors have targeted and collected against US companies, universities, think tanks, and government research facilities for oil and natural gas information concerning upstream, midstream and downstream processes. The FBI continues to lead efforts to mitigate, neutralize and disrupt the theft of US oil and natural gas intellectual property and trade secrets that could be used by foreign governments or foreign companies to gain an unfair economic advantage.

MICHAEL S. MORGAN



Special Agent Michael S. Morgan joined the FBI in 1998. Assigned to the Washington Field Office, he worked on espionage and media leak investigations. He then spent five years working on complex technical operations with members of the US Intelligence Community. Morgan was promoted to serve as a Supervisory Special Agent at FBI Headquarters in Washington, D.C., where he oversaw highly sensitive

joint operations between the FBI and US intelligence community partners.

In July 2007, Morgan was assigned to the Houston Division, where he managed counterintelligence squads investigating national security violations. He also served as the Counterintelligence Program Coordinator for the Houston Division. In January 2015, Morgan was selected to serve as the FBI Strategic Partnership Coordinator for the Houston Division.

EVENT INFO

TUESDAY 1.12.16 11:30 AM TO 1:00 PM

SPEAKER

Michael S. Morgan Special Agent & Strategic Partnership Coordinator FBI - Houston Division

EVENT LOCATION

Norris Center – Westchase 9990 Richmond Ave, Ste 102 Houston, TX 77042

EVENT CONTACT

Carol Piovesan 949-232-6353 cpiovesan@apooffshore.com

MEMBERS/NON-MEMBERS \$35



(713) 981-5558 | info@pvisoftware.com | Houston, TX



Manufacturers of Drilling Motor Components

Mud Motor Power Sections (Sizes: 2 7/8" to 11 1/2")

Matrix-3[®] Coated Bearings

www.dyna-drill.com

Coil Tubing Power Sections (Sizes: 1 11/16" to 3 3/4")

Power That Lasts[™]

Oil Patch Writing Workshop

The Oil Patch Writing Workshop will focus on upstream jargon and oil industry writing standards following the SPE Style Guide.

Developed for engineers and geoscientists, especially those with English as a second language, this course starts by defining the parts of speech as building blocks, then shows how to use them to build strong sentences, paragraphs and documents that are clear, concise and correct. Grammar, usage, capitalization, and punctuation rules are covered using good and bad writing examples taken from real-life oil industry writings. Microsoft Word tips for formatting text, figures, tables, and equations will be shared, along with editing and proofreading techniques for polishing the final writing product.

JEANNE PERDUE



Jeanne Perdue received a BS degree in chemistry from the State University of New York at Albany. She started her career as a chemist at the Texaco Research Laboratories in Bellaire, where she did core analysis and heavy oil analysis. She later conducted research and literature searches at the Texaco Library – before Google was invented. Perdue then became an oil and gas journalist, covering drilling and

information technology for Hart's E&P magazine and launching Upstream Technology magazine, which won local and international awards from the Society for Technical Communication. She is now a technical writer at Occidental Petroleum, preparing field development plans, maintenance and operations procedures, best practices, and concession proposals for the Middle East Support Team.

A Distinguished Member of the Society of Petroleum Engineers, Perdue has served as Scholarship Chair, Community Services Chair, Membership Chair, Secretary, and Chair of the Gulf Coast Section. She has also served as a technical editor and Review Chairman for the SPE Reservoir Engineering journal and was instrumental in getting SPE papers digitized for searching on CD-ROM, which has since become www.OnePetro.org. She has also served on the Alief ISD school board and was president of the Alief ISD Education Foundation for 10 years.

EVENT INFO

THURSDAY **1.14.16** 8:30 AM TO 1:00 PM

SPEAKER Jeanne Perdue Technical Writer Occidental Petroleum

EVENT LOCATION

SPE Houston Training Center 10777 Westheimer Rd, Ste 1075 Houston TX 77042

EVENT CONTACT

Sunil Lakshminarayanan 832-627-3470 sunil_lakshminarayanan@oxy.com

MEMBERS \$50/\$60

NON-MEMBERS \$55/\$60



2016-2017 SPE-GCS Scholarships

SPE-GCS scholarships are available to students who maintain a GPA of 3.0 or higher and are majoring in petroleum engineering, geology, or a related discipline. Students not majoring in petroleum engineering or geology, but who complete an internship with a company in the oil and gas industry are also eligible.

The Requirements for New Applicants:

- Currently reside in Houston OR 29-county Gulf Coast area (see link below for eligible counties)
- Enroll in an engineering or science program at a university in the Fall
- Currently be a high school senior
- Minimum SAT score of 1650
- Be a U.S. citizen
- Completely fill out the scholarship form and turn in by deadline: 2.12.16
- High school transcripts
- Activities, awards and honors
- SAT and/or ACT score
- Professional reference letters
- Financial need (if applicable, not required)
- Short essay (approx. 500 words)

For more information, application & instructions: spegcs.org/committees/scholarship-internship/

NOTE:

Each 2016-17 first-time scholarship recipient may be eligible for a summer internship with an oil & gas company on availability. Renewable yearly scholarship (\$2,000/semester, \$4,000/academic year) up to 4 years

Build more production and assurance into your deepwater wells

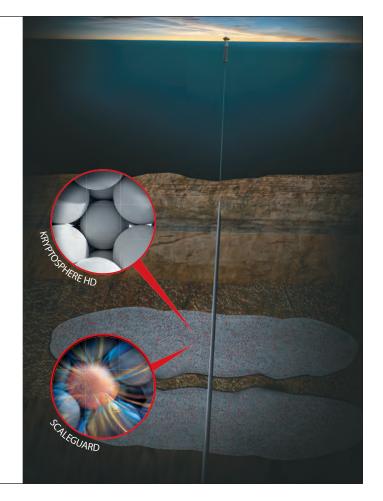
By engineering our SCALEGUARD® proppant-delivered scale inhibiting technology with KRYPTOSPHERE® HD ultra conductive, high-density ceramic proppant as the substrate, CARBO has created a unique technology ideally suited to Gulf of Mexico Lower Tertiary development.

The tailored technology provides the highest level of long-term conductivity and maintains fracture integrity under cyclic loading in ultra-high closure stress formations, together with long-term protection from scale throughout the entire production network.

Build enhanced production, reduced lifetime cost and less risk into your next deepwater Gulf of Mexico well with CARBO.



carboceramics.com



Accelerated Learning Tutorial: Introduction to Managed Pressure Drilling

This one-day tutorial is structured to give attendees a broad overview of Managed Pressure Drilling. Topics covered include:

- Standard definition for Managed Pressure Drilling
- Similarities and contrasts between conventional drilling, UBD and MPD
- The operating window planning vs. real
- Recognizing an MPD candidate well technical/economical/safety value
- Recognized variants of MPD
- Continuous Flow
- Conventional Well Control practices vs. MPD Influx control and management
- Conventional losses management vs. MPD losses management
- Onshore/shallow waters MPD application
- Deepwater MPD systems
- The MPD Operating Matrix
- Well balancing in tight windows MPD methods
- Surge/Swab management in MPD
- Dynamic Influx test
- Dynamic FIT/LOT differences with conventional FIT/LOT
- Dynamic wellbore strengthening
- Closed Loop cementing
- Managed Pressure Drilling equipment and interfaces with the rig
- Standard MPD procedures discussion (in function of MPD variant)
- MPD in HPHT wells considerations
- HSE aspects

MAURIZIO ARNONE

Maurizio Arnone is the MPD/UBD Engineering Manager for the US Region at Weatherford International Ltd. He has over 10 years of MPD/UBD experience with Weatherford in several regions. Arnone started his drilling engineering career in 1997 working for PDVSA. He earned his bachelor's and master's degrees in mechanical engineering.

HARSHAD PATIL

Harshad Patil is a Senior MPD Engineer for Weatherford International Ltd. Patil started his oilfield career in 2004 after completing his master's in petroleum engineering from LSU. He has since worked for several companies, including Hess Corporation as a drilling engineer, Schlumberger, Smith International, and Weatherford. Patil started his MPD-specific career with @Balance in 2010 as rig-site MPD supervisor/engineer. He has led many MPD jobs in GOM and internationally.



EVENT INFO

THURSDAY



SPEAKERS

Maurizio Arnone MPD/UBD Engineering Manager Weatherford International Ltd.

Harshad Patil Senior MPD Engineer Weatherford International Ltd.

EVENT LOCATION

SPE Houston Training Center 10777 Westheimer Rd, Ste 1075 Houston TX 77042

EVENT CONTACT

Sunil Lakshminarayanan 832-627-3470 sunil_lakshminarayanan@oxy.com

MEMBERS/NON-MEMBERS \$350

NOTE

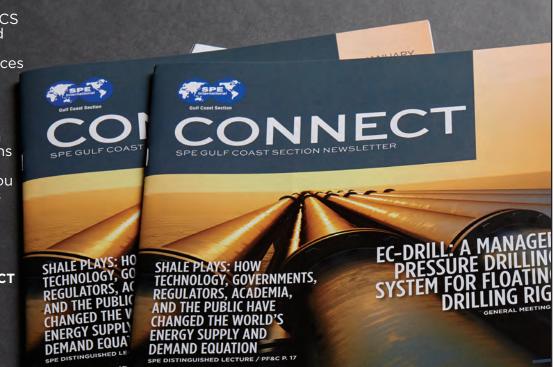
A limited number of subsidized passes for this 1-day tutorial will be available for students, retired professionals and professionals with no corporate support. Please e-mail Sunil Lakshminarayanan (sunil_lakshminarayanan@oxy.com) for more details.

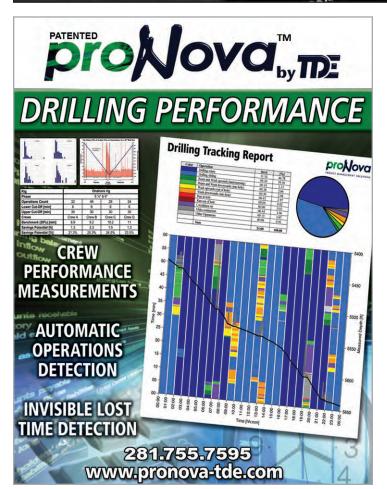
DO YOU WANT TO GET YOUR BUSINESS IN FRONT OF 16,000 OF THE MOST INFLUENTIAL PETROLEUM ENGINEERS AND OIL AND GAS PROFESSIONALS EVERY MONTH, 12 TIMES A YEAR?

Advertise in the SPE-GCS Connect Newsletter and enjoy competitive rates while placing your services at the fore front of your targeted audience.

Our colorful, glossy, high-quality publication is envied by SPE sections around the world! Our flexible options allow you to choose from ad sizes based on your needs and budget.

FOR MORE INFO CONTACT Pat Stone Star- Lite Printing, Inc. 281-530-9711 Starlite1@sbcglobal.net





PROFESSIONAL REGISTRATION REVIEW COURSES FOR PETROLEUM ENGINEERING

The Courses cover topics on the Texas State Board Petroleum Engineering Professional Examination.

> 2016 HOUSTON COURSES: (8:00 AM - 5:00 PM) I AUGUST 22 thru 26, 2016 II SEPTEMBER 26 thru 30, 2016

P: 405-822-6761 | E: bingwines@cox.net winrockengineeringinc.com



The Wells Team LLC. Deep Water Engineers

> Providing Services in: Well Planning Wellbore Certifications Consulting

979-479-5778 713-825-9544 A Registered Engineering Firm 13155

Volunteer Event at the 2016 Chevron Houston Marathon

Please join the SPE-GCS Young Professionals group as we volunteer at the Chevron Houston Marathon.

We will have two different groups. One will help at the refueling station from 6:30 AM to 10:00 AM. The second group will help from 9:00 AM to 12:00 PM on different activities at the RunFest, mostly recycling and educating the public on what to recycle.

Refueling Station Volunteers:

Set up and distribute Gatorade and water to the half marathon runners on Montrose Boulevard at the intersection of Willard and Bomar streets. Clean up after the last runner passes. Wear weather-appropriate clothing and comfortable shoes. Show up at 6:30 AM at the refueling station at Montrose and Bomar. Several days prior to the event, your station captain will contact you by email with final instructions, such as parking suggestions.

Green Crew Recycling Volunteers:

During the EXPO, Green Crew volunteers roam the area, educating the public on what can be recycled and how to divert trash from landfills. They will help educate runners, spectators and fellow volunteers on what receptacle to place their trash in (recycle or compost). Volunteers will also assist EXPO vendors with sorting trash and disposing of it in the proper receptacle. Volunteers may also assist in bagging and transporting waste as needed. This is an indoor job and requires a fair amount of walking. Wear comfortable shoes. Volunteers are provided with a Green Crew shirt, vest, extra rolls of liners, and latex gloves.

Committee: Young Professionals

Introduction to Management Consulting in Oil and Gas

Have you ever wondered what management consultants do in our industry? Would you like to learn more?

The SPE Young Professionals Gulf Coast Section invites you to come along and experience a different kind of technical event:

- Get an overview of the role management consultants play in our industry
- Learn how a petroleum engineer can transition into consultancy.
- Discuss some of the hot topics currently shaping the industry.
- Hear first-hand from an engineer about his experiences in management consulting.
- Take part in an interactive case study from a real project.
- Ask any questions you have about management consulting in oil & gas.

The event is sponsored and hosted by Boston Consulting Group. BCG is a global management consulting firm with 12,000 employees and 82 offices in 46 countries. The firm advises clients in the private, public and not-for-profit sectors, including more than two-thirds of the Fortune 500. BCG was ranked second in Fortune's "100 Best Companies to Work For" in 2015.

Drinks and cocktail food will be served. The event is limited to the first 50 registrants. Please sign up ASAP.

EVENT INFO

SUNDAY 1.17.16

6:30 AM TO 12:00 PM

REGISTRATION

Shift 1: spegcs.org/events/3090/ Shift 2: spegcs.org/events/3091/

EVENT LOCATION

George R. Brown Convention Center 1001 Avenida De Las Americas Houston, TX 77010

EVENT CONTACT

John Matheus john.matheus@entercoms.com 817-312-5142

Danny Marquez dannymarquez0@gmail.com 832-305-3761

Catalina Leal catalina.leal@bakerhughes.com

EVENT INFO

THURSDAY

1.21.16 5:00 PM TO 7:00 PM

EVENT LOCATION Boston Consulting Group

1221 McKinney St, 30th Floor Suite 3000 Houston, TX 77010

EVENT CONTACT

Sahil Malhotra 832-854-7885 sahil.malhotra@chevron.com

MEMBERS/NON-MEMBERS \$20

REGISTRATION spegcs.org/events/3105/

Executive Club Honors Active Participation

The Executive Club is a project of the SPE-GCS Young Professionals Communication Committee to encourage active involvement.

The committee collects attendance data from other committees and, at the end of each board year quarter, draws three winners. The more members participate in events, the greater their chances of winning.

The Q1-2015 winners are:

- Platinum Winner Katherine Armstrong
- Gold Winner Andres Benitez
- Silver Winner Madina Nurakova







Oilfield Games

Second Annual SPE-GCS Oilfield Games Scholarship Fundraiser - Coming in April

Help us make this second annual SPE-GCS scholarship fundraiser bigger and better by supporting the Oilfield Games as a participant or sponsor.

Oilfield Games is a half-day, interactive oilfield simulation where asset teams of up to four people will compete to maximize the recovery and profitability of a mature field while applying the principles of responsible corporate citizenship.

Participants: Individuals and teams can sign up online for \$65 per member or \$75 per non-member.

Sponsors: The success of the Oilfield Games hinges on the support of our sponsors. Sponsorship includes recognition in the SPE-GCS Connect Newsletter and event program, and on event signage. Sponsors are also entitled to register participants according to their sponsorship level:

- \$7,500 Diamond Sponsor: 8 participants
- \$5,000 Platinum Sponsor: 6 participants
- \$3,500 Gold Sponsor: 4 participants
- \$2,000 (2): 2 participants
- \$1,000 (1): 1 participant

All of the net proceeds raised by the Oilfield Games will benefit the Society of Petroleum Engineers Gulf Coast Section Scholarship Fund.

EVENT INFO

SATURDAY 4.9.16 10:00 AM TO 2:00 PM

EVENT LOCATION

Norris Center at CityCentre Red Oak Ballroom 816 Town & Country Blvd, Ste 210 Houston, TX 77024

EVENT CONTACT

Lindsey Ferrell 281-453-6058 spevolunteer@frontline-group.com

MEMBERS/NON-MEMBERS \$65/\$75

For more information about sponsorships, participating or volunteering, please contact the event Chair, Lindsey Ferrell, at spevolunteer@frontline-group.com or 281-453-6058.

SPE-GCS **STUDENT CHAPTER PAGE** TEXAS A&M & UNIVERSITY OF HOUSTON



UH SPE CHAPTER: INDUSTRY AWARENESS DAY FEATURES 2016 SPE PRESIDENT NATHAN MEEHAN

On November 13th, The University of Houston SPE student chapter hosted 2016 SPE International President Dr. Nathan Meehan. Meehan delivered a talk about the history of the world through the eyes of a petroleum engineer, sharing with students the insights he gained from his experiences in the oil and gas industry.

During the afternoon portion of Industry Awareness Day, Jeanne Perdue, SPE-GCS past chair held a technical writing workshop to prepare students for the 2015-2016 local student paper contest.

UPCOMING EVENT: UHSPE GOLF TOURNAMENT – MARCH 11TH, 2016 (12PM-5PM)

Take some time out of the office to network and participate in our scramble style golf tournament this spring held at the Black Horse Golf Club in Cypress, Texas.

This tournament features plaques for top teams, hole prizes and a raffle. Proceeds will benefit SPE UH student chapter. For more information about registration and sponsorship, please email contactus@uhspe. org and visit www.uhspe.org.

TAMU SPE HOSTS WORKSHOPS AND FIELD TRIPS

The student chapter of the Society of Petroleum Engineers at Texas A&M University facilitates petroleum engineering students' transition from the classroom to industry by complementing the theoretical understanding provided by regular coursework with software training and field trips. The initiative is led by the technical training committee, which is a part of the chapter's professional development board. The committee plans and executes field trips, lectures, and one-day workshops featuring the most commonly applied software for reservoir engineering, production engineering, drilling and completion, and economics.

Last fall, the committee hosted technical workshops on two hydraulic fracturing design and optimization packages, StimPlan and Gohfer, as well as MatBal, a reservoir modeling tool based on material balance. It also hosted a distinguished lecturer seminar on the 2010 Macondo Blowout by John Turley.



FOR SPRING, THE COMMITTEE HAS CONFIRMED WORKSHOPS IN:

- PVTSim, a phase behavior modeling tool
- Pipesim, a multiphase flow simulation in wells
- Fast-DeclinePlus, a production analysis and reserves evaluation tool
- Ecrin, an integrated platform for the analysis of dynamic data and transient pressure tests

A lecture from Delta Oil Tools has also been confirmed, and the committee is still extending invitations to other companies. If your company wishes to participate in future training events, please contact Francisco Tovar at tovarf@tamu.edu. The committee also plans field trips to provide students with a closer look at industry operations. This December, a group of students saw how Weatherford designs its surface pumping units at its facilities in Katy, Texas. This month, students will take a look at the Clariant Oil Services Center of Excellence in Houston.

The majority of the funding for the technical training committee is provided by industry. In most cases, the workshops and field trips are funded by the company teaching or hosting, further allowing students to connect with the industry professionals who give back so much. Other companies that have been involved with aiding in the development of students into engineers and leaders are Halliburton, Oxy, Variance Reduction, and Rock Flow Dynamics.



Student Chapter Directory

HOUSTON COMMUNITY COLLEGE Raymond McCoy

rqm3rd@yahoo.com

RICE Yichen Liu astron.liuy@gmail.com

TEXAS A&M

Shawn Guice SPE_President@pe.tamu.edu

UNIVERSITY OF HOUSTON

Mohamad Salman president@uhspe.org

SPE-GCS CONNECT EVENT **RECAP**

The SPE-GCS **Education Committee** organized a **High School Recruiting Fair** at Memorial High School on November 18. The event was planned and coordinated by Katie Essary, HS Recruiting Fair Chair. Students and parents got information about careers in the oil and gas industry and talked with representatives of universities about applications and admissions. The event attendees also benefited from a very insightful keynote address by Dr. Ivor Ellul, SPE-GCS Chairman.





SPE-GCS High School Recruiting Fair













On November 2, SPE-GCS **Young Professionals** hosted a professional event at the Petroleum Club of Houston. Our guest was David D. Dunlap, President, CEO and Director of Superior Energy Services. He conducted a very insightful discussion on the subject "The Role of Mergers & Acquisitions in Resetting the Energy Landscape." The Young Professionals would like to thank our sponsor, Superior Energy Services. The event was full, with more than 70 attendees.



EVENT NOTICE Auxiliary

There will be no January 8 meeting of the SPE-GCS Auxiliary. Check the February newsletter for our plans that month. It is still tentative, but we are exploring Masraff's for the meeting.

If you know of some one who is interested in joining the Houston SPE-GCS Auxiliary, please contact Nancy Giffhorn at rgiffhorn@aol.com or (281) 360-4631.



Gulf Coast Section 2016-2016 Board of Directors CHAIR

Ivor Ellul, CiSK Ventures 713-240-2740 iellul@ciskventures.com

VICE CHAIR Deepak Gala, Shell 281-544-2181 deepak.gala@shell.com

PAST CHAIR Jeanne Perdue, Occidental 713-215-7348 jeanne_perdue@oxy.com

SECRETARY

Gabrielle Guerre Morrow, Ryder Scott 713-750-5431 gabrielle_guerre@ryderscott.com

TREASURER Alex McCoy, Occidental 713-366-5653 alexander mccoy@oxy.com

VICE TREASURER David Flores

281-381-5828 david_p_flores@yahoo.com

Board Committee Chairs CAREER MANAGEMENT

Sunil Lakshminarayanan, Occidental 713-344-1249 sunil_lakshminarayanan@oxy.com

COMMUNICATIONS Subash Kannan, Anadarko 713-385-7242 Subash.Kannan@anadarko.com

COMMUNITY SERVICES Marissa Davis, Baker Hughes 281-231-3418 marissa.davis@bakerhughes.com

EDUCATION Simeon Eburi, Chevron 832-854-3134 simeon.eburi@chevron.com

MEMBERSHIP

David McCalvin, McCalvin Enterprises 281-818-7504 david@mccalvinenterprises.com

PROGRAMS Fady Chaban 832-387-7249 chabanf@gmail.com

SOCIAL ACTIVITIES Jim Sheridan, Baker Hughes – retired 281-740-0913 sherim@operamail.com

TECHNOLOGY TRANSFER Carol Piovesan, APO Offshore 281-282-9291 cpiovesan@apooffshore.com

YOUNG PROFESSIONALS Chiedozie "Dozie" Ekweribe, Chevron 832- 854-7599 Dozie@chevron.co

DIRECTORS AT LARGE 2014-2016 Jenny Cronlund, BP 281-366-8966 jenny.cronlund@bp.com

Torrance Haggerty, T.R. Consulting 281-714-5472 thaggerty06@gmail.com

Eric Kocian, Exxon Mobil 832-624-7962 eric.m.kocian@exxonmobil.com

DIRECTORS AT LARGE 2016-2017

John "J.J." Jackson, Unimin Corp. 832-247-0233 jsjackson@unimin.com

Alvin Barber, Schlumberger 713-513-2431 abarberspe@gmail.com

Mark Fleming, Suntrust Robinson Humphrey 832-603-2305 Mark.Fleming@SunTrust.com

SPE GULF COAST NORTH AMERICA REGIONAL DIRECTOR

J. Roger Hite, Inwood Solutions, LLC 713-385-5343 hite@inwood-solutions.com

SECTION MANAGER

Kathy MacLennan, SPE-GCS 713-457-6813 kmaclennan@spe.org

SECTION ADMIN

Sharon Harris, SPE-GCS 713-457-6821 sharris@spe.org

Committee Chairs

AUXILIARY Nancy Giffhorn 281-360-4631 rgiffhorn@aol.com

AWARDS BANQUET

Jeremy Viscomi, Petroleum Technology Transfer Council 785-864-7396 jviscomi@pttc.org

CASINO NIGHT Rini Assad, Scientific Drilling 713-447-7478 rini.assad@scientificdrilling.com

ESP WORKSHOP Noel Putscher, Newfield 281-674-2871 nputscher@newfield.com

GOLF CO-CHAIRS Cameron Conway, KB Industries 281-217-0660 cconway@kb-industries.com

Marc Davis, Champions Pipe and Supply 713-248-3956 mdavis@championspipe.com

Robin Smith, Halliburton 713-907-1694 robin.smith@halliburton.com

INTERNSHIPS

David Li, DSL Ocean Group 713.299.7568 dsl6625@yahoo.com

NEWSLETTER

Lynn Ponder, Frontline Group 281-352-9164 editor@spegcs.org

PUBLICITY

Vanessa Scobie, Energy Profit Media LLC 832.303.8830 vanessa@energyprofitmedia.com **OILFIELD GAMES** Lindsey Ferrell, The Frontline Group 512-913-7112 spevolunteer@frontline-group.com

SCHOLARSHIP

Jennifer Pinnick, Chevron 713.372.1737 gcs-scholarship@spemail.org

INDUSTRY COLLABORATION

Bryan Marlborough 985-232-0318 bryanmarlborough@gmail.com

SPONSORSHIP Open

SPORTING CLAYS Paul Conover, NOV 713-346-7482 paul.conover@nov.com

TENNIS James Jackson, Halliburton – retired 832-444-2383 Jjackson5223@gmail.com

WEB TECHNOLOGY Shivkumar Patil, Aker Solutions 713-369-5352 Shivkumar.Patil@akersolutions.com

Study Group Chairs

BUSINESS DEVELOPMENT David Pantoja, Citi A&D Group 713-821-4715 david.pantoja@citi.com

COMPLETIONS & PRODUCTION

Jonathan Godwin 713-259-9726 jongodwin@hotmail.com

DIGITAL ENERGY

John Reichardt 713-586-5950 John.Reichardt@rpsgroup.com

DRILLING Ernie Prochaska, NOV Downhole 832-714-3842 ernie.prochaska@nov.com **GENERAL MEETING** Robert Saucedo, ASHMIN 281-773-4135

rsaucedo@ashmin.com

HSSE AND SOCIAL RESPONSIBILITY

Trey Shaffer, Environmental Resources Management (ERM) 281-704-3664 Trey.Shaffer@erm.com

INTERNATIONAL Barry Chovantez, Santander 713-850-9955 bchovanetz@yahoo.com

NORTHSIDE Robert Estes, Baker Hughes 713-879-4414 robert.estes@bakerhughes.com

PERMIAN BASIN Amy Timmons 281-384-0882 atimmons1114@att.net

PETRO-TECH Jessica Morgan, Blackstone Minerals 713-929-1633 jmorgan@blackstoneminerals.com

PROJECTS, FACILITIES, CONSTRUCTION Mark Faucher, TFG, LLC 713-212-9067 mfaucher@all-llc.com

RESEARCH & DEVELOPMENT Kitty Harvey, Cameron

281-901-3245 Kitty.Harvey@c-a-m.com

RESERVOIR Mohammad Tabatabaei, Marathon 713-553-5642 mtabatabaei@marathonoil.com

WATER & WASTE MANAGEMENT

Joe Kilchrist, Consultant 713-302-2727 jkilchrist@sbcglobal.net

WESTSIDE

Steve Loving, Core Laboratories, LP 713-328-2244 stephen.loving@corelab.com



NEWSLETTER COMMITTEE

CHAIR | Lynn Ponder editor@spegcs.org

AD SALES | Pat Stone starlite1@sbcglobal.net

BOARD LIAISON | Subash Kannan

NEWSLETTER DESIGN | DesignGood Studio designgoodstudio.com

SPE HOUSTON OFFICE

GULF COAST SECTION MANAGER Kathy MacLennan | kmaclennan@spe.org

GCS ADMINISTRATIVE ASSISTANT Sharon Harris | sharris@spe.org

HOURS & LOCATION 10777 Westheimer Rd, Ste 1075 Houston, TX 77042 P 713-779-9595 | F 713-779-4216 Monday - Friday 8:30 a.m. to 5:00 p.m.

PHOTO SUBMISSIONS

We are looking for member photos to feaure on the cover of upcoming issues! Photos must be at least 9" by 12" at 300 DPI. Email your high-resolution picture submissions to: editor@spegcs.org

CHANGE OF ADDRESS To report a change of address contact:

SPE Member Services Dept. P.O. Box 833836 Richardson, TX 75083-3836 1.800.456.6863 | service@spe.org

CONTACT For comments, contributions, or delivery problems, contact editor@spegcs.org.

ADVERTISE YOUR BUSINESS IN THE SPE-GCS NEWSLETTER

Connect is printed 12 times per year and contains premium positions for advertisers wanting to reach some of the most influential oil & gas professionals in the world.

For information on advertising in this newsletter or on the SPE-GCS website, please contact: Pat Stone, Star-Lite Printing, Inc. 281-530-9711 / starlite1@sbcglobal.net

Integrated Directional Drilling Services



pair a rig with a downhole toolset - designed to work together. Learn more:

www.precisiondrilling.com/directional

- high quality people
- lower well costs and HSE risk
- higher quality wellbore





NON-PROFIT ORGANIZATION U.S. POSTAGE PAID PERMIT NO. 6476 HOUSTON, TX

SOCIETY OF PETROLEUM ENGINEERS GULF COAST SECTION

10777 Westheimer Road Suite 1075 Houston, TX 77042

CALENDAR

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
			Reservoir			
3	4	5	6	7	8	9
		Northside	Drilling	General Meeting		
		Technology Transfer		Continuing Ed/Career Mgmt.		
10	11	12	13	14	15	16
Young Professionals		International	Westside	Reservoir		
		Permian Basin	Westshilde	Board of Directors Continuing Ed/Career Mgmt.		
17	18	19	20	Young Professionals 21	22	23
24			Business Development			
			Projects, Facilities & Construction			
31	25	26	27	28	29	30