March 2013

Where I come from, this is the month that’s supposed to roar in like a lion and whimper out like a lamb. Down here, it’s just another month of relatively mild weather, but with the added benefit of spectacular azaleas blooming everywhere and daylight extending into the evening hours to let us enjoy them a little longer every day. And we get St. Patrick’s Day, too! Who knew we lived in Paradise? Tell your snow-shoveling friends up north about our nasty 45 degree, rainy days and see how much sympathy you get.

It’s also nearly time for the society golf season to get kicked off, so check herein for information on (in reverse chronological order) our own SWLGS Crawfish Boil and Golf Tournament (Thursday and Friday, May 16th and 17th), the LGS Golf Tournament (Friday, April 26th), and the South Louisiana Oil Scouts Crawfish Boil and Golf Tournament (April 16th and 17th).

Of course most of us still have to work for a living, and to do that to the best of our ability, we need to stay informed. To help you out with that, we’ve scheduled another fine lunch presentation dealing with the regional geology of the Gulf of Mexico, entitled

**Continuing Insights into Structure and Stratigraphy of the Onshore Gulf Basin from Pre-Stack Depth Imaging of Mega-Regional Strike Lines from South Texas to the Florida Panhandle**

Presented by Ed Haire, with INEXS

On Tuesday, March 12, at 11:30 AM at the Petroleum Club

It should be a great talk. Check out the abstract and bio in this newsletter, and I hope to see you at the meeting.

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**2012-2013 SWLGS Officers**

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Continuing Insights into Structure and Stratigraphy of the Onshore Gulf Basin from Pre-Stack Depth Imaging of Mega-Regional Strike Lines from South Texas to the Florida Panhandle

Ed Haire¹, Don Howard¹, Barbara Radovich²

¹INEXS 1980 Post Oak Blvd., Suite 2050, Houston, Texas 77056
²ION Geophysical, 2105 City West Blvd., Suite 900, Houston, Texas 77042-2837

ABSTRACT

Mega-regional, 2D, pre-stack depth migrated (PSDM) strike lines can provide advances to the interpretation of the onshore Gulf Basin framework. Continuous seismic lines with consistent depth processing across nearly the full extent of the onshore portion of the basin allow onshore depocenters, structural axes, and canyons to be seen in their regional context. Plays dependent on new horizontal wells can be tied around the basin. A preliminary interpretation is presented of a key strike line that is made up of legacy onshore data and PSDM processed by ION Geophysical. The interpretation highlights a strike-view through the depoaxes of shelf margins forming while gravity sliding is occurring along the Base Louann detachment. Plays below salt welds and shale decollements show improved imaging. This is one of a series of seven strike lines of approximately 8500 miles and 380 individual line segments that ranges from a line hugging the coast to the northernmost line which traverses the East Texas Salt Basin, Sabine Uplift, North Louisiana Salt Basin, Mississippi Interior Salt Basin and Wiggin’s Arch to the Florida Panhandle. The strike lines tie together existing mega-regional dip lines and span across the basin from South Texas to Alabama and from the northern limit of the onshore Gulf Basin to the abyssal plain. The dip lines in some cases have been extended to tie the new strike grid. The interpretation has been tied to well control with a series of synthetics and check shot surveys and a comprehensive database of well tops.

BIOGRAPHY

Ed Haire
Vice President, Technology, INEXS

Ed Haire has been with INEXS® since 1993. He is responsible for managing many of the interpretation projects for customers including providing much of the geophysical evaluation for certain projects. Ed is responsible for managing the technical staff and many of the larger evaluation projects.

Ed has worked on numerous projects for customers such as Hollimon Oil, Rutherford, Drill Partners, Aspect, BP, Meridian and Torch. His particular expertise includes fully integrated field and project evaluations, AVO processing and analysis and extremely detailed analyses of analog production and nearby well control. Ed has
worked on projects in the UK, Colombia and Venezuela, plus Montana, Wyoming, Colorado, New Mexico, Texas, Louisiana and the Gulf of Mexico. He has worked on the regional interpretation of the GOM basin for the past three years.

Ed received his BS degree from Texas A&M in 1972, and began working at Seiscom-Delta developing his data processing skills. He moved in 1975 to Michigan Wisconsin Pipeline and in 1978 to Conoco, working onshore and offshore Texas. In 1979 Ed joined Union Texas Petroleum working the Gulf of Mexico. In 1980 he was transferred to Denver as Division Geophysicist and in addition to managing the geophysical staff, he worked the Williston Basin, the Montana disturbed belt and the Green River Basin.

Ed joined Monsanto Oil Company in Denver in 1982 as Division Geophysicist, and continued to oversee and work the Williston, Paradox, Powder River, North Park and Wind River basins. In 1986, BHP Petroleum purchased Monsanto Oil, and Ed continued to work these basins until he moved to Houston in 1987 to work the Gulf of Mexico for BHP. Ed left BHP in 1993 and joined INEXS®.
**SWLGS 2013 Annual Crawfish Boil**

American Legion Hall, 1501 Surrey Street, Lafayette, LA
5:30 PM Thursday, May 16, 2013
Tickets $10 for non-golfers, available at the door

_In conjunction with the SWLGS Annual Golf Tournament_

**WHERE:**  **Farm D’Allie**, Carencro, LA  **Our venue has changed!!**

**WHEN:**  8:00 AM Friday, May 17, 2013

**FORMAT:**  Four person scramble, shotgun start

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**GOLFERS**

Team Contact Name: ___________________  Member?  Y  N

E-mail address: ______________________

Phone number: ______________________

Handicap (0-36) or average score: __________

Name: ___________________________  Member?  Y  N

Handicap (0-36) or average score: __________

Name: ___________________________  Member?  Y  N

Handicap (0-36) or average score: __________

Name: ___________________________  Member?  Y  N

Handicap (0-36) or average score: __________

Cost (includes greens fees, golf cart, range balls, and Thursday night crawfish boil):

Member/Non-member………. $100

Please make checks payable to SWLGS. Mail entry forms and checks to:

Brian Brennan
c/o Plains Exploration and Production
400 E. Kaliste Saloom Road, Suite 3500
Lafayette, LA  70508

The tournament will be limited to the first 144 entrants. Current SWLGS members will be given priority if their registrations are received before May 1, 2013. Single entries are welcome and will be matched with available openings. For more information, contact Brian Brennan (bbrennan@pxp.com) at 337-354-5017.
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LAFAYETTE GEOLOGICAL SOCIETY
2013 GOLF SCRAMBLE
ENTRY FORM
Friday, April 26, 2012
1:00 PM SHOTGUN START
Lunch at 11:30AM
The Wetlands Golf Course

ENTRY FEE - $400 PER TEAM ($100/PERSON, Singles will be assigned)

RULES:
1. Participants should derive a portion of their livelihood from the oil and gas industry.
   Retired employees are welcome to participate. Affiliation with the LGS not required.
2. Hole prizes and team prizes will be awarded. Door Prizes galore!!
3. Teams will be flighted according to last years score and handicap if available.
4. No refunds, but in the event of a total rain out, the tournament will be rescheduled.
5. No entry forms will be accepted unless accompanied by entry fee.
6. All teams will be contacted through team captain.
7. Bogey is your friend, seniors tee off white tees, women off red tees, all others, blue tees.
8. Putting contest prior to play and top four teams playoff contest at end of tournament

FIELD LIMITED TO 128 PLAYERS & WILL BE ON FIRST COME BASIS........

Please submit numerical handicap

TEAM: PLAYER NAME PHONE HANDICAP
PLAYER: 
PLAYER: 
PLAYER: 
PLAYER: 

TOP PLAYER LISTED WILL BE DESIGNATED CAPTAIN

PAYMENT: MAKE CHECKS PAYABLE TO "LGS"
PLEASE RETURN COMPLETED ENTRY FORMS WITH PAYMENT TO:
Lafayette Geological Society
PO Box 51896
Lafayette, La. 70505

CONTACT INFORMATION: Tim Bennett
(337) 291-2720 ext. 106 (office) or (337) 962-2916 (cell)
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www.seismicexchange.com
Petroleum systems modeling — state of the art and future directions

Marek Kacewicz

Research Consultant and Basin Modeler

Chevron Energy Technology Company

Houston, TX

Funded by the AAPG Foundation J. Ben Carsey Endowment

Abstract:

Petroleum systems modeling (PSM) is an integration of different geological disciplines to analyze the formation and evolution of sedimentary basins and to study processes such as generation, migration, entrapment and preservation of hydrocarbons. PSM estimates mechanical and chemical compaction of sediments and the resulting porosity/permeability, computes pressure, estimates source rock maturity and the degree of kerogen transformation, models multi-component hydrocarbon generation, expulsion and migration, provides likely locations where hydrocarbons are trapped, and estimates composition and volumes of accumulated hydrocarbons. In addition to its primary function, which is to help reduce exploration risk related to hydrocarbon charge, PSM has become very useful in prediction of pre-drill pressure and effective stress, which are utilized in reservoir and seal quality analysis.

Computational complexity of PSM depends on the quality and resolution of seismic and well input data, maturity of the project (exploration, development or production), availability of tectonic/structural/mechanical earth models, and availability of geochemical data. Typical models at present are not too large (several millions grid cells) and the subsurface is represented by relatively simple structured meshes. The utilization of structured meshes often results in inadequately represented internal model boundaries such as faults and may lead to incorrect hydrocarbon migration scenarios.

The availability of high resolution seismic and well data allows for building higher resolution and more complex models, spanning from seismic to nano, hence allowing for more accurate representation of complex features and processes. This requires incorporation of unstructured/adaptive meshes and also the utilization of algorithms that couple poromechanics, basin modeling, seismic data and inversion, and utilization of high performance computing platforms, e.g., GPU- or FPGA-based as well as optimized libraries for solving large, ill-conditioned, sparse matrices.

This talk presents the state-of-the-art in PSM and discusses recommended directions required for addressing future needs of exploration for conventional / unconventional resources and interactions with geomechanics and seismic.
Biography:

Marek Kacewicz is research consultant and basin modeler at Chevron Energy Technology Company in Houston, Texas. His primary responsibilities include research and technology applications integrating petroleum systems modeling, seismic inversion, velocity modeling, pressure prediction, geomechanics, and structural modeling.

Prior to Chevron, Marek worked as a research geologist at ARCO Exploration and Production Research Center in Plano (Texas, USA), as a basin modeler at Unocal Exploration & Exploitation Technology in Sugar Land in Houston (Texas, USA), Alexander von Humboldt Fellow at the Freie Universitaet Berlin (Berlin, Germany), and Research Assistant at the University of Warsaw (Warsaw, Poland). Marek has over 20 years of experience in petroleum systems modeling, exploration, and research.

His experience includes both conventional and unconventional resources and covers a wide range of sedimentary basins worldwide. Some of Marek’s professional honors include receiving the 1986 International Association for Mathematical Geology Vistelius Research Award, being selected for the Alexander von Humboldt Fellowship (Germany); and receiving the 2005 AAPG Gabriel Dengo Memorial award.

Kacewicz has an M.S. degree in Numerical Mathematics / Computer Science and a Ph.D. in Earth Sciences, both from the University of Warsaw (Poland).
SOUTH LOUISIANA OIL SCOUTS
2013 ANNUAL CRAWFISH BOIL, GOLF TOURNAMENT & BENEFIT
LAFAYETTE, LA

The South Louisiana Oil Scouts Association cordially invites you to our Annual Event on April 16, 2013 and Golf Tournament on April 17, 2013.

This year the SLOSA will be collecting $10/pp to join us for Boiled Crawfish, refreshments and door prizes. A portion of the proceeds will benefit The Faith House of Acadiana, Women and Children’s Shelter. www.faithhouseacadiana.com

Tuesday, April 16th Crawfish Boil @ “Acadian Village” Starting at 6:30 PM
200 Greenleaf Drive, Lafayette, LA
www.acadianvillage.org

Wednesday, April 17th Golf Tournament
ENTRY FEE $100
Shotgun start at 8:00 AM at Farm d’Allie Golf Club
www.golfcarencro.com

Please make checks payable to:

SOUTH LOUISIANA OIL SCOUTS ASSOCIATION

Entries will be limited to 144 golfers. The deadline for entries is April 12, 2013. This year’s event will be a four-man scramble. Golf prizes will be awarded immediately following the tournament.

Mulligans/chances will be sold @ registration to benefit The Faith House of Acadiana, with a Prize drawing from the International Oil Scouts Association.

BLUE JEANS ARE NOT ALLOWED ON THE GOLF COURSE. SHIRTS WITHOUT COLLARS CANNOT BE WORN ON THE GOLF COURSE.

Please send your golf entry as soon as possible to Bob Deibel at the address below. Please make checks payable to South Louisiana Oil Scouts Association. If you have any questions, call Drew Villarreal at (337) 521-2202 or Bob Deibel at (504) 738-1903. No reply is necessary if you plan only to attend the Open House.

Mail to:
Bob Deibel
102 Donelson Drive
Harahan, LA 70123

Name_________________________________________ Phone #__________________________
Company_________________________________________
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