

# ***SIPES: Society of Independent Professional Earth Scientists***



## ***HOUSTON CHAPTER Newsletter***

**March 2007**

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### **March Luncheon Meeting:**

## ***“New Ideas and Their Diffusion: A Model for Exploration & Production Companies in the 21<sup>st</sup> Century”***

Presented by Arthur E. Berman

Date: Thursday, March 15, 2007

Time: Social Period 11:15 am  
Lunch 11:45 am

Location: Petroleum Club  
800 Bell  
Houston, TX 77002



**Arthur E. Berman**

### ***March Hospitality Sponsor***

SIPES Houston Chapter wishes to thank **Seismic Ventures** for the complimentary wine served during the social period.



Most petroleum exploration and production (E&P) companies have embraced risk evaluation and portfolio management practices, but are not replacing reserves except by acquisitions and mergers. There are 2 principle causes for failure to discover new reserves. First, approximately 80% of the world is controlled by state oil companies and is, therefore, unavailable for competitive investment and drilling. It is reasonable, therefore, that if companies must continue to prospect in the same 20% of the world's basins that the size of new discoveries should decline as it has.

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Members and Affiliates who register by **12:00 Noon, Tuesday March 13, 2007** pay only \$30. Guests, non-members, late registrations, or at-the-door pay \$35. **No-shows will be billed.** Call, fax, or e-mail your reservation to Mrs. B.K. Buongiorno at the SIPES address above. You can sign up for SIPES Meetings online at [www.sipes-houston.org](http://www.sipes-houston.org), but payment is still required by regular mail or at the door.

The other main reason for not finding significant new reserves in recent decades, and the focus of the present analysis, is failure to recognize and understand the implications of the Diffusion Model of Innovation for exploration and production (E&P) company organization, strategy and risk assessment.

The Diffusion Model was originally developed at Iowa State University Department of Sociology in the 1920s and 1930s as researchers studied how Iowa farmers adopted hybrid seed corn, one of the major agricultural advances of the early 20<sup>th</sup> century. Despite obvious advantages and the low risk to farmers of trying it, only 5% of the farm community adopted the new corn during the first 5 years of its availability. Other farmers adopted hybrid seed corn in quantum groups until, after 15 years all farmers were using the new corn. Only the first group—the early adopters—decided to use the new corn based on data; later adopters joined the trend based on social forces and momentum.

The Diffusion Model and the patterns of adoption of new ideas that it predicts, has profound implications for available and remaining opportunity, as well as entry cost, among the various adopter groups.

In petroleum exploration and production, opportunity is quite low for all but the first adopter groups in a new play or using a new technology. E&P history shows that companies do not understand this fundamental fact, as they rush to participate at great cost in plays that are already somewhat mature at the time of their entry. Examples include the deepwater Gulf of Mexico and the Barnett Shale plays.

At least one contributing factor to the relatively late entry of many companies into new plays or technologies is the risk evaluation process that they use to guide their decisions and strategies.

The risk process in most E&P companies discourages early entry into new plays and technologies. It encourages late entry into plays only after success has been demonstrated by early adopters. The risk process also promotes other activities such as buying other companies' reserves through acquisition and merger, and late entry into resource plays, where there is little doubt that the petroleum exists, along with the apparently more manageable risk of finding ways to making the venture economic.

The risk assessment process, as practiced in most E&P companies, practically ensures poor decisions, not because the risk process is flawed, but because of the way evaluations are done in a group or committee setting. Group dynamic studies show that groups generally reach poorer and higher risk decisions than their individual members make separately. Decision groups achieve superior solutions only when individuals have unique knowledge or information to bring to the group, when group members represent a diversity of experience, background and thinking styles, and when individual decision-making is relatively independent and decentralized.

Since management typically abdicates responsibility for all technical decisions, including risk assessment, to lower status people in the company, high potential employees opt out of the technical side of the business as quickly as possible. Because senior management does not value technical ideas, there is little incentive for technical staff to experiment with new models and approaches to exploration and production evaluation.

Petroleum companies reward their management largely without regard or accountability for reserve additions through exploration and production. Poor company performance has led to repeated technical staff reductions over the past 30 years which, in turn, has discouraged young people from entering petroleum-related fields. The result is a depleted work force that has little replacement potential, but remains unappreciated and inadequately rewarded by employers.

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## Volunteers Needed

**The Board of Directors is seeking volunteers to form a committee to encourage young earth scientists.**

**For more details or if you are interested in joining this effort, please contact Pat Shannon at (713) 785-2599.**

## 2007 SIPES Houston

### Chapter Officers

<i>Chairman</i>	Patrick J. Shannon	713-785-2599
<i>Chairman-Elect</i>	James M. Norris	713-376-9361
<i>Secretary</i>	Michael L. Jones	713-654-0080
<i>Treasurer</i>	Mark Gregg	713-266-3820
<i>Past Chairman</i>	Larry J. Rairden	832-654-6580

### Committee Chairmen

<i>Web Site</i>	Phil Martin	281-664-7000
<i>Technical Program</i>	Mark E. O'Koren	281-363-4474
<i>Continuing Education</i>	Stephen P. Hartzell	713-651-9100
<i>Hospitality</i>	Duncan D. DuBroff	713-542-2198
<i>Membership</i>	James M. Grubb	713-591-1155
<i>Deal Buyers List</i>	Amparo Kennedy	281-681-2103
<i>Public Relations</i>	John M. Jurasin	832-242-6000
<i>Political Affairs</i>	Dan L. Smith	713-759-6095 x305

### SIPES National Directors

Paul Britt	281-494-3155
Ray Blackhall	281-370-7807

### SIPES Office Manager

B.K. Buongiorno	713-651-1639
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Technical staff also bears responsibility for poor E&P performance. Staff has not adequately embraced inventive application of new analysis and technology and has, not generally developed new ideas for exploration and production. Seismic attribute analysis and deepwater facies models are believed by most to be the cutting edge of E&P but the diffusion model shows that, since everyone is using these approaches, they will yield limited future opportunities.

Petroleum E&P companies must understand the implication of the diffusion model to their business in order to become more successful. E&P companies, if they are to survive, must re-establish new ideas and the inventive people who conceive them as the core capability of their organizations. Senior management must involve themselves in the world of technical ideas and abandon the absurd notion that they are business people who can afford to leave science to technical risk committees.

E&P companies and their managers must learn to encourage and embrace inventiveness, along with the risk it brings. Companies should abandon highly structured, bureaucratic organizations where managers are rewarded for not making mistakes. Senior management should have their pay linked to reserve additions made only through drilling, and not through acquisition. E&P company strategies should acknowledge that, while petroleum is a commodity, the business of discovering and producing it is not a commodity business and cannot be approached and managed that way.

### **Professional Biography**

Arthur Berman is a geological consultant with specialty in subsurface petroleum geology, seismic interpretation, and database design and management. He is currently consulting for several independent oil companies working on exploration and production projects in North America and in international locations. Previously, he worked for Amoco in both Denver and Houston for over 20 years. He has worked extensively in Latin America.

He was Editor of the Houston Geological Society Bulletin in 2004-2005 and is currently a columnist for World Oil. He has published over 20 articles on geology and technology during the past 10 years. Publication topics include petroleum exploration, sequence stratigraphy, oil and gas price trends and cycles, coastal subsidence, earthquakes, tsunamis, and petroleum geopolitics.

He has given presentations to the American Association of Petroleum Geologists, Houston Geological Society, the Geophysical Society of Houston, The South Texas Geological Society, Corpus Christi SIPES, the American Society of Civil Engineers, Shell Oil Company, PetroChina, Sinopec, and several universities in the past 2 years.

Art has been nominated to serve as a board member of the Southeast Louisiana Flood Protection Authority West, New Orleans Region, covering Orleans and Jefferson parishes on the west bank of the Mississippi River.

He has an M.S. (Geology) from the Colorado School of Mines and a B.A. (History) from Amherst College.



### **SIPES Houston Chapter 2006 Membership Directory**



[www.sipes-houston.org](http://www.sipes-houston.org)

### **The 2006 Houston Chapter Directory is Here!**

The new updated Directory for the Houston Chapter of SIPES will be available to members at our monthly luncheon meetings. Be the first to have a copy of this useful tool for networking with local SIPES members. Directories are also available from the SIPES office. The printing of the directory was generously underwritten by our color advertisers, all Houston Chapter members and Affiliates.

### **Technical Article Needed for the SIPES Quarterly**

The Houston Chapter of SIPES is responsible for furnishing a technical article that will appear in the February, 2008 issue of the *SIPES Quarterly* newsletter. This article can be about new technology, industry activity or research being conducted in an area that would be interesting to independents.

If you are interested in contributing an article, please contact Jim Norris at 713-376-9361.

# February Luncheon

Approximately 90 members and guests attended the luncheon on February 15. Steve Blanke with Anadarko discussed the recent development of the “Sleeping Giant” Vernon Field in North Louisiana. Hospitality was provided by Excalibur Consulting and Duncan DuBroff.



Chmn. Pat Shannon presents Past Chmn. Larry Rairden with a plaque in recognition of his service in 2006.



February hospitality sponsors and Houston Chapter members Jeannie Mallick (Excalibur Consulting) and Duncan DuBroff.

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## February Chapter Board Meeting

Discussions at the February 15, 2007 Chapter Board Meeting included the following:

- Pat Shannon (Chairman) discussed his two main goals for 2007, increasing membership and encouraging young earth scientists.
- The Board approved a \$100 donation in Dr. Fred Stricklin’s memory to the SIPES Foundation.
- It was noted that a number of applications have been received for the four \$500 scholarships for University of Houston Geoscience students. The four scholarship winners will be selected by Phil Martin (Web Site) and Mark Gregg (Treasurer).
- Jim Grubb (membership chairman) presented a membership application for David Woods which was reviewed and approved for submission to SIPES National.

### *Upcoming SIPES Meetings*

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| <b>April 19, 2007</b>   | <b>SIPES Luncheon at Petroleum Club</b> , speaker Mark Nibbelink, Drilling Info, on “ <i>Gulf Coast Exploration--Swimming, Drowning or Treading Water?</i> ”                              |
| <b>May 17, 2007</b>     | <b>SIPES Luncheon at Petroleum Club</b> , speaker Richard Adams, Carr Resources, on “ <i>Basement Tectonics and Origin of the Sabine Uplift</i> ”   |
| <b>June 7, 2007</b>     | <b>SIPES Luncheon at Petroleum Club</b> , speaker Skip Hobbs, Ammonite Resources, on “ <i>The Future of the Global Oil Industry: Resources, Challenges and the Geoscience Workforce</i> ” |
| <b>June 18-21, 2007</b> | <b>SIPES Annual Meeting, Monterey, California</b>   |

### *Upcoming HGS Events*

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| <b>March 12, 2007</b> | <b>General Dinner Meeting:</b> Westchase Hilton, 9999 Westheimer Rd., 5:30 p.m.             |
| <b>March 19, 2007</b> | <b>International Dinner Meeting:</b> Westchase Hilton, 9999 Westheimer Rd., 5:30 p.m.       |
| <b>March 20, 2007</b> | <b>Northsiders Luncheon:</b> Sofitel Hotel-Greenspoint, 425 N. Sam Houston Pkwy, 11:30 a.m. |
| <b>March 26, 2007</b> | <b>North American Dinner Meeting:</b> Westchase Hilton, 9999 Westheimer Rd., 5:30p.m.       |