

HGS

Bulletin

Volume 44 Number 2

Houston Geological Society

October 2001

TEXAS AND DEEPWATER

**Structural Styles of Passive—Margin
Deepwater Provinces**

International Explorationists Dinner Meeting

Mark G. Rowan

see page 15

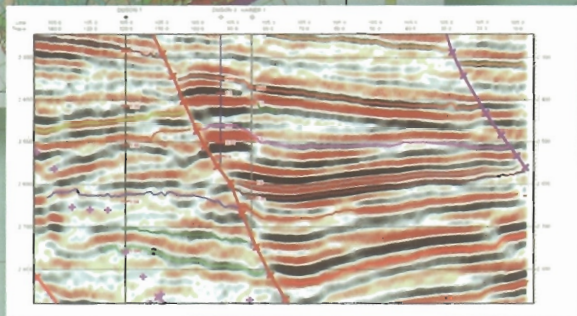
TEXAS

Shanghai Field, Wharton County

Ewing, et al.



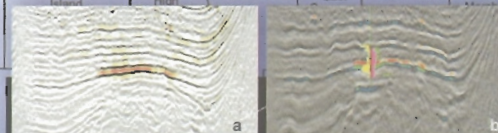
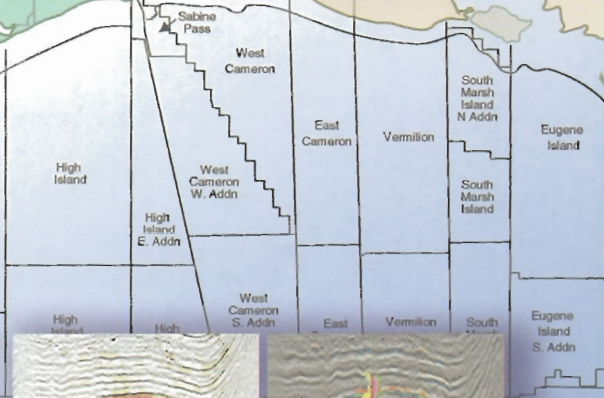
**Late Jurassic of the
East Texas Basin**
Norwood and Brinton
page 17



SHANGHAI

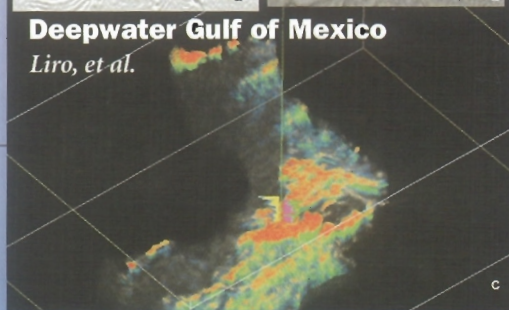
Houston

LOUISIANA



Deepwater Gulf of Mexico

Liro, et al.



Lexco Data Systems Introduces



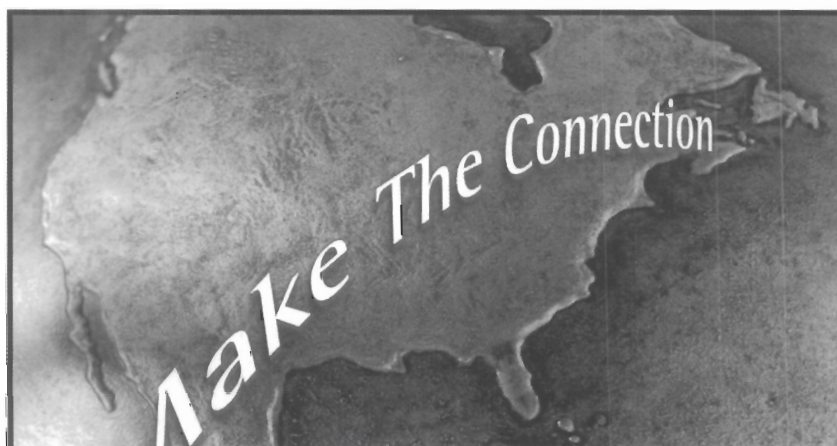
- Large scale map plotting capability using HP DesignJet™ Plotters
- Color coded Lease Ownership Maps
- Color coded Lease Expiration

OWL 6

For Windows 95/NT

- Monthly Well Completion Production for all past OCS production
- Mapping selected OWL6 reports
- Pipelines on OWL6 maps

OWL6 is now available for easy access to M.M.S. data.
Offshore Well and Lease Information for the Gulf of Mexico.
Visit our Website at www.lexco.com or call us for a demo and
free 90-day trial period!
(281)370-4313



www.a2d.com

**Your Total Well Log
Data Solution**

A2D's LOG-LINE™ is the industry's largest digital well log source. Download digital well log LAS data files, images (including smartRASTER™) and velocity data. Our coverage includes the entire Gulf of Mexico and blankets Texas/Louisiana, Permian Basin and the Rockies/MidContinent. LOG-LINE is your perfect e-business solution for well log data. No membership fee.

Get connected today at www.a2d.com!

Other Services:

- smartSECTION® Software
- smartRASTER™ Technology
- Data Management
- Well Log Digitizing
- Workstation-Ready /smartDigits

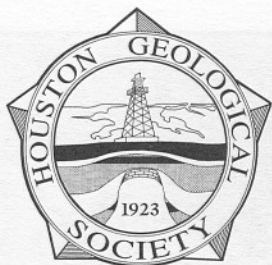


www.a2d.com

Well Log Data. Any Time. Anywhere. No membership fee.

A2D TECHNOLOGIES

888-LOG-LINE



The Bulletin

Houston Geological Society

Volume 44, Number 2

October 2001

contents

In Every Issue

- 5 From the President**
by Paul Hoffman
- 7 From the Editor**
by Wendy Hale-Erlich
- 28 GeoEvents Calendar**
- 41 Remembrances**
- 49 HGA/GeoWives**
- 53 Professional Directory**

about the cover

A collage of illustrations featured in this month's *Bulletin*.

Houston Geological Society

7457 Harwin, Suite 301
Houston, TX 77036-2190
Office Hours: 8 a.m.-5 p.m.
Phone 713-785-6402
Fax 713-785-0553

Office Manager:

Joan Henshaw
joan@hgs.org

HGS Web Page

<http://www.hgs.org>

Jobs Hotline is on
Web Page

The Houston Geological Society Bulletin (ISSN-018-6686) is published monthly except for July and August by the Houston Geological Society, 7457 Harwin, Suite 301, Houston TX 77036-2190. Subscription to this publication is included in the membership dues (\$20.00 annually). Subscription price for non-members within the contiguous U.S. is \$30.00 per year. For those outside the contiguous U.S., the subscription price is \$46.00 per year. Single-copy price is \$3.00. Periodicals postage paid in Houston, Texas.

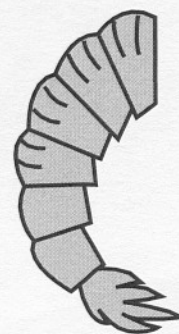
POSTMASTER: Send address changes to Houston Geological Society Bulletin, 7457 Harwin, Suite 301, Houston TX 77036-2190.

Technical Meetings

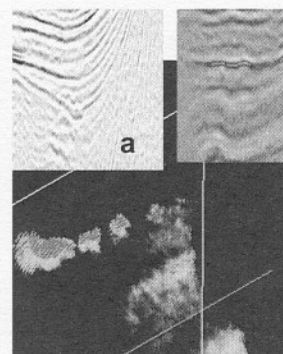
- 9 HGS General Dinner Meeting**
Workstation Visualization Techniques and Workflows: Examples from the Deepwater Gulf of Mexico
by Louis Liro, Kimberly Cline, Dan Knupp and Mary Kadri
- 13 HGS Environmental and Engineering Dinner Meeting**
E-business: Whats the Big Deal?
by Jeanne Perdue
- 15 HGS International Explorationists Dinner Meeting**
Structural Styles of Passive-Margin Deepwater Provinces
by Mark G. Rowan
- 17 HGS North American Explorationists Dinner Meeting**
Reexamination of Late Jurassic Reef Building in the East Texas Basin: A Mature Gas Play
by Edward M. Norwood, and Lise Brinton
- 19 HGS Luncheon Meeting**
Shanghai Field, Expanded Upper Yegua Trend, Texas Gulf Coast: Unexpected Reserves and a Distinctive Fault Style Defined by 3D Seismic
by Thomas E. Ewing
- 39 NeoGeos**
The Fall Calendar
by Kelly Latter and Andrea Adams

Feature Articles

- 32 Earth Science Week**
- 34 Feature Article**
Global Climate Change: One Geologist's Musings
by Jeff Lund



page 4

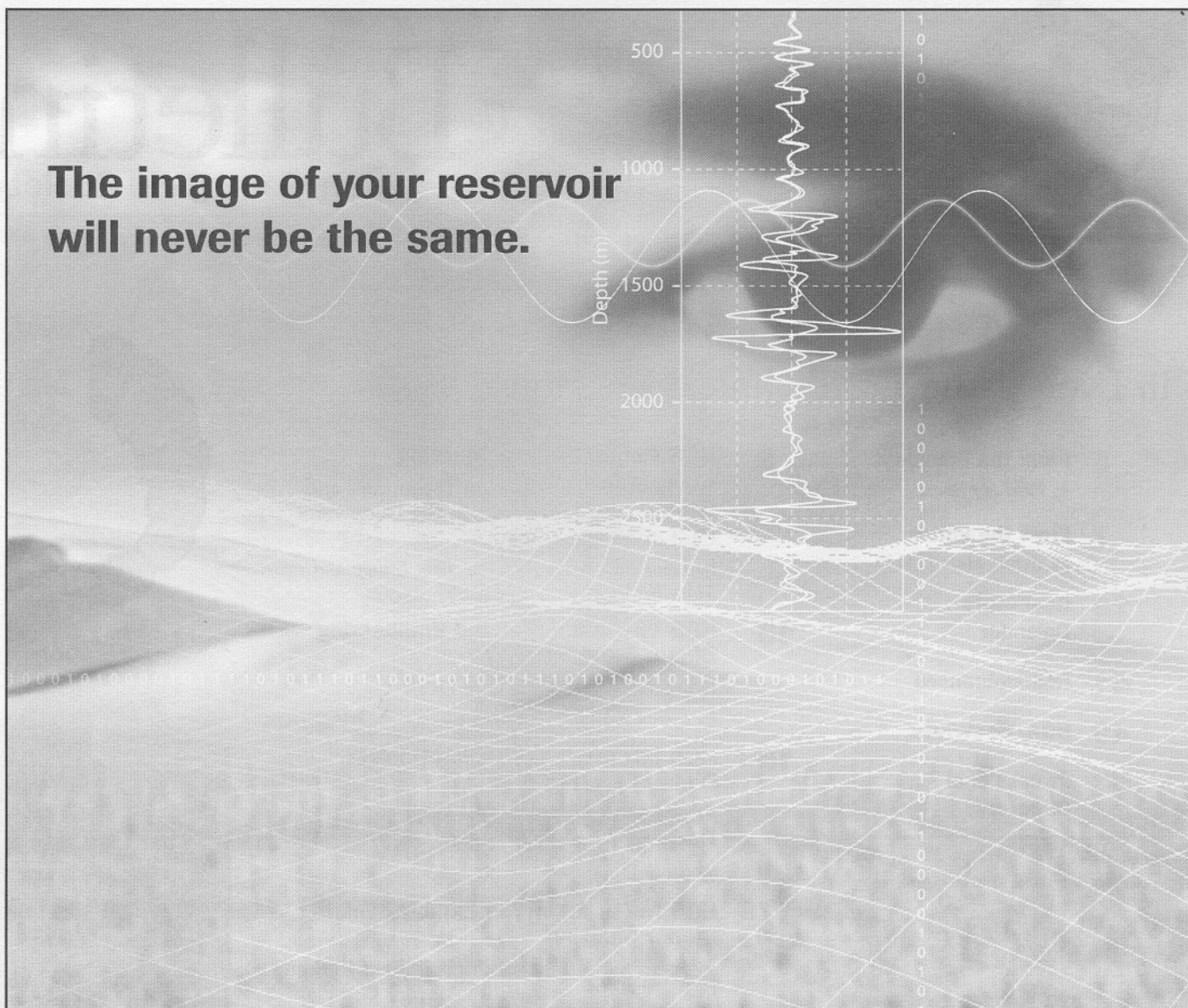


page 9



page 19

**The image of your reservoir
will never be the same.**



Extending into the reservoir. Enhancing your success.

The union of Western Geophysical and Geco-Prakla into WesternGeco has created a new dimension in seismic services – extending from exploration into development and production. Enabling our customers to work better. Smarter. More profitably.

By accelerating the delivery of cutting-edge seismic technology, we help exploration teams work faster, more accurately. And by extending advanced seismic into the reservoir, we provide appraisal and asset teams with data and services to ensure true optimization.

www.westerngeco.com

London: +44 1293 556655 **Houston:** +1 713-789-9600

Dubai: +971 4 306 7777 **Kuala Lumpur:** +60 3 2166 7788

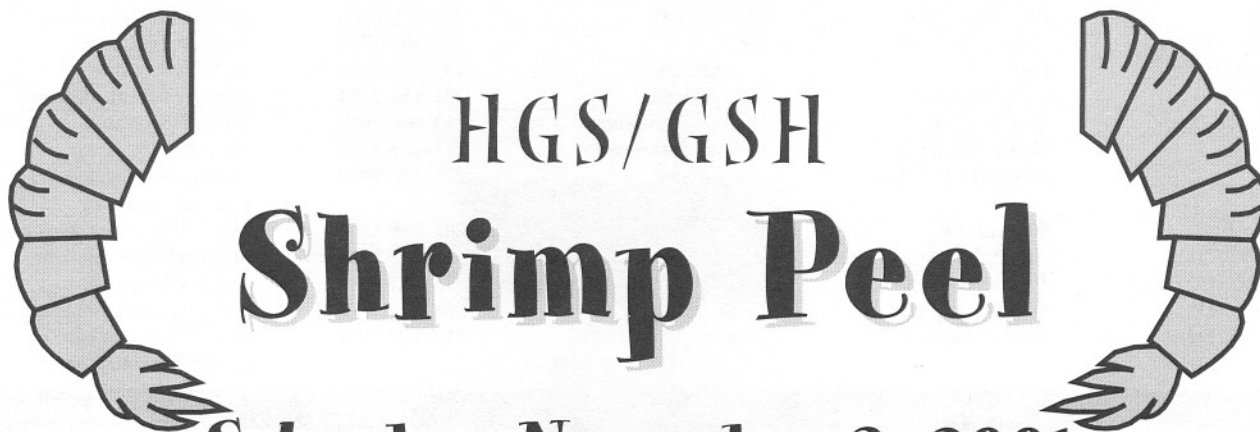
A Schlumberger / Baker Hughes company



Board of Directors 2001-02

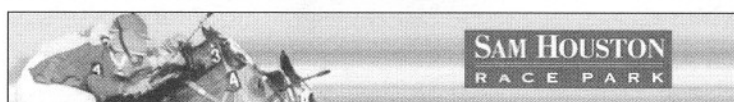
President (P)	Paul F. Hoffman	Duncan Oil	713-840-8755	phoffman@duncanoil.com
President-Elect (PE)	Denise M. Stone	BP	281-366-2705	stonedml@bp.com
Vice President (VP)	Paul W. Britt	Texlore Inc	281-494-3155	pwbritt@evl.net
Treasurer (T)	Craig Dingler	Safety Kleen	281-930-2394	cdingler@sprintmail.com
Treasurer-Elect (TE)	Rick L. Nagy	Phillips Petroleum	713-669-3469	rlnagy@ppco.com
Secretary (S)	Sharie Sartain	Phillips Petroleum	713-669-2194	smsarta@ppco.com
Editor (E)	Wendy Hale-Erich	Consultant	281-232-5092	bulletin_editor@hgs.org wherlich@pdq.net
Editor-Elect	Steve Levine	Conoco	281-293-1862	steve.d.levine@usa.conoco.com
Director 00-02 (D1)	Paul Babcock	People's Energy	713-652-2112x18	pbabcock@pecorp.com
Director 00-02 (D2)	Tom McCarroll	Louis Dreyfus Natural Gas	713-756-6580	mccart@ldng.com
Director 01-03 (D3)	Susan Cunningham	Noble Affiliates	281-872-3370	scunningham@nobleaff.com
Director 01-03 (D4)	Scott C. Sechrist	Panaco	713-970-3189	ScottSe@panaco.com acoustic@airmail.net

Committee	Chairperson	Phone	Email	Board Rep.
AAPG Delegate Foreman	John Jordan	281-618-6178	jjordan@kmg.com	D3
Academic Liaison	Art Berman	713-557-9076	aebberman@wt.net	D3
Advertising	Annette Mather	713-785-6402	ads@hgs.org	E
Advisory	Synthia Smith	713-621-5720	sesmith@biznavsys.com	P
Arrangements	Lee Boatner	713-586-5728	lboatner@houston.rr.com	VP
Awards	Dean Grafton	281-497-5983		D3
Ballot	Don Scherer	713-970-3158	dons@panaco.com	P
Calvert Fund	Carl Norman	713-743-3423	cnorman@uh.edu	PE
Computer Applications				D4
Continuing Ed	Robert Pledger	281-558-8585	rpledger@swbell.net	D2
Directory	Carol Lucas	713-393-4854	clucas@Paradigmgeo.com	S
Earth Sc. Wk - logistics	Janet Combes	281-463-1564	jmcombes@msn.com	D1
Earth Sc. Wk - schools	Alison Henning	713-868-5755	alison_henning@yahoo.com	D1
Earth Sc. Wk - general	Inda Immega	713-661-3494	immega@swbell.net	D1
Emerging Technology	Frank Rabbio	281-552-1000	frank_rabbio@oxy.com	VP
Eng. Council of Houston	Claudia Ludwig	713-723-1436	petra@hal-pc.org	D3
Eng. Council of Houston	Richard Howe	281-376-8744	rghowe@pdq.net	D3
Env. & Eng. Geology	Glenn Lowenstein	281-546-4365	goldlowe@sprintmail.com	VP
Exhibits	Jim Becnel	281-353-0359		D2
Field Trips	Howard White	281-618-6058	hwhite@kmg.com	D2
Finance	Ken Nemeth	713-609-5771	knemeth@houston.geoquest.slb.com	T
Fishing Tournament	Bobby Perez	281-240-1234	r_perez@jdkseis.com	D4
Foundation	Hugh Hardy	713-729-9208	mghwh@aol.com	PE
Fund Raising	Lee Backsen	713-993-9788	lbacksen@mindspring.com	P
Global Climate Change	Jeffrey Lund	281-618-6910	jlund@kmg.com	D3
Golf Tournament	Keith Blair	281-476-0322	blairinsur@hotmail.com	D1
Government Affairs	Randy Miller	713-880-4343	rvmil@hotmail.com	D2
Guest Night	Clint Moore	281-874-8730	clint_moore@anadarko.com	D1
Historical	Dan Bonnet	713-650-8008	bondate@kingwoodcable.com	S
Houston Energy Council	Sandi Barber	713-723-1480	sbarber@pdq.net	D3
Houston Geol. Auxiliary	Millie Tonn	713-960-0769	etnnot@aol.com	D2
International Ex.	Jim Tucker	281-829-0605	jtuckergeo@aol.com	VP
International Ex. Programs	Al Danforth	713-780-8622	al.danforth@worldnet.att.net	VP
Library	Bill Champion	713-779-2575	colbill088@aol.com	D2
Membership	Matt Bogнар	832-351-8510	matthew_bognar@veritasdgc.com	S
Museum of Nat. Sc.	Inda Immega	713-661-3494	immega@swbell.net	D1
N. American Expl.	Stephanie Matthews	713-529-7599	mmgeo@mindspring.com	VP
NeoGeos	Andrea Adams	713-609-4209	aadams@hess.com	VP
NeoGeos	Kelly Latter	281-366-3542	latterkk@bp.com	VP
New Publications	Tom Fiorito	713-224-1877	tfior@sextantenergy.com	D1
New Publications	Bill Rizer	281-574-4173	rizerwd@fbtc.net	D1
Nominations	Craig Moore	713-495-3034	cmoore@geoscience-services.com	P
Office Management	Jim Ragsdale	713-780-4393	jar1642@aol.com	PE
Personnel Placement	Mike Cline	713-665-5449	mikec@txresources.com	D4
Poster at Tech. Meetings	Gabor Tari	713-877-8544	GTari@vancoenergy.com	VP
Public Relations	Mark Cocker	713-752-2070	mcocker@scotia-group.com	D3
Publication Sales	Tom Mather	713-658-4106	geomather@aol.com	TE
Remembrances	Bill Robbins	281-986-6767	bill.robbs@totalfinalf.com	S
Scouting	George Krapfel	713-989-7433	ggkrapfel@cmsenergy.com	D4
Shrimp Peel	Lee Shelton	713-789-2444	lshelton@scacompanies.com	D1
Skeet Shoot	Ken Mohn	713-860-2141	kmohn@tgsnopec.com	D4
State Registration	Dave Rensink	713-296-6332	dave.rensink@apachecorp.com	D2
Tennis Tournament	Ross Davis	713-659-3131	rossdavis@davisbros.com	D4
Vendor's Corner				TE
Website	Bill Osten	713-669-2146	lwosten@ppco.com	D4



Saturday, November 3, 2001

5:30 p.m. – 10:00 p.m.



Sam Houston Race Park

7575 N. Sam Houston Pkwy. West
(Beltway 8 between Hwy 290 & I-45N)

Tickets \$25.00 Advance / \$35.00 at the Door

- Advance ticket sales through October 26
- Tickets mailed to you beginning October 3
- Event held on the Infield (weather permitting)
- No refunds

2001 Shrimp Peel Ticket Order Form

Name _____
Company _____
Address _____
Phone E-mail _____
Number of tickets _____

Make checks payable to HGS/GSH Shrimp Peel

Mail to: Subsurface Consultants & Associates / Attn : Lee Shelton
2500 Tanglewilde, Suite 120 * Houston, Texas 77063

For more information call 713-789-2444 or e-mail: LShelton@scacompanies.com

Shrimp • Beer & Beverages • Horse Races • Live Music



by Paul F. Hoffman

The Climate Change Debate

Our government and the governments of many other countries are engaged in deliberations on the subject of climate change. Ideally, our government's use of public resources will reflect the will of her citizens, yet very few citizens possess meaningful knowledge of the variability of Earth's climate and the factors that govern its change. We members of the Houston Geological Society, on the other hand, have been formally educated in the study of the Earth, a great many of us with advanced degrees. We are therefore far better equipped than most citizens to judge the various assertions advanced in this debate.

As members of HGS, and as citizens of our various countries, we have a responsibility to do more than just judge the merits of this debate. We have a responsibility, stated in the HGS Constitution, as one of the express purposes of our society, "to disseminate and facilitate discussion of geological information". This is pertinent to the climate change debate. As citizens, we have a responsibility to bring information that we have, which is pertinent to public policy, to the attention of our fellow citizens and to do what we can to ensure that policy makers and lawmakers act in ways that reflect full recognition of such information.

We discharge these responsibilities best if we take steps to remain fully informed on the science. AAPG has done us and those actively involved in the debate a great service publishing "AAPG Studies In Geology #47"—*Geological Perspectives of Global Climate Change*. I heartily recommend that everyone read this book, or at the very least its opening chapter: "Introduction and Overview". This chapter, by the way, is available online at: <http://www.searchanddiscovery.com/documents/gerhard/index.htm>. There is simply no reason for any of us to go another day with less than a basic command of the factors that influence earth's ever-changing climate. I also recommend that you read past President Jeff Lund's article on global warming found on page 34 in this issue.

Once armed with up-to-date knowledge, let's share this as generously as possible. How many of us have talked about this subject during the past 6 months with neighbors or in-laws, or with our kids' high school or college-age friends? Too often I hear misinformation repeated in ignorance. It should not go unchallenged when we know better, whether it is uttered by our neighbors or by newspaper editorial-writers. It can be downright entertaining to point out some of the amazing facts about our Earth's history to someone who's recently begun to worry about a potential 4-ft. rise in sea level!

One way in which HGS is already disseminating geological information is through its Earth Science Week activities scheduled October 6–14. The work of our Earth Science Committee has grown into an exceptional program with broad appeal. Its past events have been very well attended and will undoubtedly be again this year. I encourage all of you to attend at least one of these events. If the spirit moves you, contact the leadership of this committee (contacts on page 3 of the Bulletin) and lend a hand. Let's us HGS members do our part to open wider that great big Earth Science window on the world.

My congratulations to John O. Hastings, Mark E. Gregg, and Charles T. Bukowski, Jr., whose paper, "Developing an Exploration Tool in a Mature Trend: A 3D AVO Case Study in South Texas", presented at our January 2001 Lunch Meeting, was selected as the Best Paper for 2000–2001.

I hope all of you had as much fun as I did with our Executive Board foursome at the HGS Golf Tournament. Sincere apologies to anyone we may have injured with errant tee shots!

If you don't already have the Shrimp Peel on your calendars, mark it down now—Saturday, November 3. Make your reservations now. IF THE THIRD TIME REALLY IS A CHARM, we'll be on the infield at the Sam Houston Race Park to watch the horses run. See you there! □



HGS Bulletin Instructions to Authors

All materials are due by the 15th of the month, 6 weeks before issue publication. Abstracts should be 500 words or less; extended abstracts up to 1000 words; articles can be any length but brevity is preferred as we have a physical page limit within our current publishing contract. All submissions are subject to editorial review and revision.

Text should be submitted by e-mail as an attached text or Word file or on a clearly labeled diskette in Word format with a hard-copy printout to the Editor.

Figures, maps, diagrams, etc., should be digital files using Adobe Illustrator, Freehand, Canvas or CorelDraw. Files should be saved and submitted in .eps (Adobe Illustrator) format. Send them as separate attachments via email or on a diskette or CD if they are larger than 1 MEG each, accompanied by figure captions that include the file name of the desired image. DO NOT EMBED them into your text document, they must be sent as separate files from the text. DO NOT USE POWERPOINT, CLIPART or Internet images (72-DPI resolution) as these do not have adequate resolution for the printed page and cannot be accepted. All digital files must have 300-DPI resolution or greater at the approximate size the figure will be printed.

Photographs may be digital or hard copy. Hard copies must be printed on glossy paper with the author's name, photo or figure number and caption on the back. Digital files must be submitted in .jpg or .eps format with 300-DPI or greater resolution at the printing size and be accompanied by figure captions that are linked by the file name of the image. The images should be submitted as individual e-mail attachments (if less than 1 MB) or on CD or zip disk.

Advertising

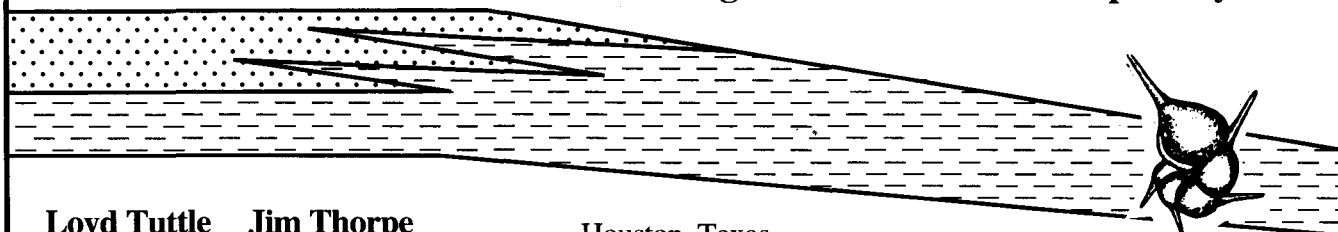
The *Bulletin* is printed digitally using QuarkXPress. We no longer use negatives or camera-ready advertising material. Call the HGS office for availability of ad space and for digital guidelines and necessary forms or e-mail to ads@hgs.org. Advertising is accepted on a space-available basis. Submit new ads or renewals by the 15th of the month, 6 weeks before issue publication.

RANDOM INSIDE					Inside Front Cover		Inside Back Cover		Outside Back Cover	Page 2	Calendar Page*
No. of Issues	Eighth	Quarter	Half	Full	Full	Half	Full	Half	Half	Full	Quarter
10	\$762	\$1284	\$2304	\$4383	\$5718	\$3119	\$5198	\$2860	\$4332	\$5260	\$1540
9	\$762	\$1284	\$2304	\$4383	\$5718	\$3119	\$5198	\$2860	\$4332	\$5260	\$1540
8	\$694	\$1168	\$2076	\$3988	\$5202	\$2838	\$4730	\$2602	\$3942	\$4786	\$1400
7	\$616	\$1040	\$1865	\$3550	\$4630	\$2525	\$4210	\$2316	\$3508	\$4260	\$1184
6	\$546	\$918	\$1650	\$3141	\$4098	\$2235	\$3726	\$2049	\$3105	\$3768	\$1104
5	\$460	\$775	\$1392	\$2648	\$3453	\$1885	\$3140	\$1728	\$2617	\$3178	\$930
4	\$375	\$632	\$1132	\$2154	\$2810	\$1533	\$2554	\$1405	\$2128	\$2585	\$757
3	\$303	\$510	\$918	\$1746	\$2277	\$1242	\$2070	\$1140	\$1725	\$2094	\$612
2	\$215	\$363	\$652	\$1240	\$1617	\$882	\$1470	\$808	\$1225	\$1488	\$436
1	\$135	\$228	\$410	\$780	\$1018	\$555	\$925	\$532	\$780	\$936	\$275
Business Card \$125 per 10 Issues – Send two cards (\$25 for each additional name on same card)					Geo-Classified Ad \$25 Per Issue Text Only			TWO-COLOR AD (Black and editor's choice) ♦ add 15% to cost *Color is included in price			

PCI

PaleoControl, Inc.

Drilling Wells - Data Bases - Proprietary Paleo



Loyd Tuttle Jim Thorpe

Bob Liska Bob Drake

Houston, Texas

713-849-0044

ltuttle@hal-pc.org



by Wendy Hale-Erich

Letters to the Editor can be sent to
bulletin_editor@hgs.org

On Being the Monster

This month in the United States we will celebrate the shortening and cooling of the days with Halloween, when kids dress up as ghosts, ghouls, or cartoon characters, parading through the night in search of candy and the thrill of a slight scare. Monster costumes are a common theme for Halloween; however, in our society monsters come in many forms. Modern American culture continues to create monsters out of groups and industries viewed as waiting to take advantage of an opportunity to do harm to the general public for their own self-interest. These may be groups that serve a vital role in society, which few would seriously consider eliminating. Such groups as lawyers and, currently, electric power companies come readily to mind. These groups have been portrayed as “monsters” at society’s door, viewed as seeking treats but returning only tricks or worse.

The oil and gas exploration and production industry, in which many of our members work, has in my view been made into another one of these monsters. Self-serving politicians, some nongovernmental organizations and the media continue to portray the oil and gas industry to the general public as consisting of heartless monsters out for nothing more than money at the expense of the environment and everyone else, even their own employees. A recent example is the movie “Proof of Life” last year. Can you remember seeing a balanced portrayal of the industry or its people recently? While the industry wears that monster mask, the credibility of its geoscientists is impaired and we consequently have diminished impact on the critical issues of the day.

To balance this monstrous image, the importance and value of the oil and gas industry should be publicly restated in a dialogue that probably best begins with each one of us. One way of stating this value to those outside the industry is to look at life spans. In the industrialized nations, life spans have lengthened from an average of about 45 years at about 1900 to about 70 years now. At the highest level, this has come from the increased wealth of these nations, and that wealth was derived from the increased productivity provided by our low-cost hydrocarbon fuel economy. Enhanced societal wealth led to improvements in health care, sanitation, food production and transportation, education, and safety, many of which were ultimately transferred to the world at large. Literally billions of people are alive today as a result of benefits from the hydrocarbon-based economies. When I am challenged on some aspect of the oil and gas industry’s monster image, I don’t hesitate to point this out. Restating the value the oil and gas industry continues to bring to society is long overdue.

Internationally the burning of fossil fuels is widely regarded as a major driving force in the current climatic warming cycle, or global warming, discussed separately by Paul Hoffman and Jeff Lund in this issue. Kathy Shirley’s August 2000 *AAPG Explorer* article summarized the need for moderation and reasoned debate on this subject, which is already strongly polarized. The oil and gas geoscience community has much to contribute to this debate, but the monster image of the hydrocarbon industry undercuts the credibility of almost anyone who works in it. As an example, our assessments of exploration opportunities on a worldwide basis depend on an understanding of climate change as it applies to depositional systems. Oil and gas geoscientists recognize that there have been more than 20 major glacial and interglacial episodes during the last 750,000 years, and that these fluctuations in ice volume have driven deepwater sedimentation patterns in many areas. More recently, the Little Ice Age rippled through Europe for 500 years, from the mid-1350s to the mid-1850s, when the current warming phase began (before CO₂ resulting from human activity became significant in the atmosphere). These shifts were driven by the interaction of forces we cannot yet even clearly model, let alone attempt to

Editors’s Letter continued on page 16

EXPLORATION DATA SERVICES of the GULF COAST

- ★ **REGIONAL GEOLOGICAL MAPS OF THE GULF OF MEXICO**
 - Two pertinent horizons
 - 1" = 4000' scale
 - Maintained up-to-date
 - 85-95% of all wells correlated
 - Geophysical interpretation
 - Producing horizons in all fields noted
 - Pipelines & fairways
 - Available for a small monthly fee/service area
- ★ **CROSS-SECTIONS**
 - Regional network
 - Available for a minimal monthly fee
- ★ **WELL INFORMATION ON COMPUTER**
 - Well identification information including API number
 - Legal surface and bottomhole locations
 - Tops and Faults - measured & TVD depths
 - Formation at TD
 - Initial Perforations
 - Available to customers of the mapping service
 1. Minimal per/well fee
 2. Low lease price if an entire mapping service area desired

P.O. BOX 1480 • LIVINGSTON, TX 77351
(936) 646-4639 • FAX: (936) 646-4284

Petroleum Systems of Deep Water Basins: Global and Gulf of Mexico Experience

GCSSEPM FOUNDATION 21st ANNUAL BOB F. PERKINS
RESEARCH CONFERENCE, December 2-5, 2001, Houston, TX

The rims of deep water basins have yielded large volumes of oil and gas in areas like the Gulf of Mexico and the North Sea. As the new century unfolds, these reserves are being depleted and the deep, distant centers of productive basins around the world have begun sounding the siren's call. Last year, we presented Deep Water Reservoirs. This year we will expand on the theme and talk about basin framework, structural-thermal-depositional basin evolution, and salt-fluid-hydrocarbon sediment interactions. All papers will be presented in a poster format; because of time constraints, we will select the most significant work for oral talks. All authors will be writing expanded abstracts or complete articles which will be published on a CD.

For more information, check out our web site at www.gcssepm.org or call Foundation Headquarters at 281-586-0833.

PUZZLED?

Faster

Cost Effective

Personalized Service

Total Package

Visit us at the EAGE...
Booth #1801



Seismic Micro-Technology, Inc. The KINGDOM Company™ www.seismicmicro.com +1 713 464 6188

The KINGDOM Suite+ (TKS+) works where you work – as a standalone in your office, with your laptop on a plane, conducting interpretation in an asset team environment, and/or while developing the big geoscience presentation.

TKS+ is structured to share its resources simultaneously, and with 'team interpretation', throughout all its applications. Each product draws information from a single set of project data to perform the specific and independent functions for which it was designed. The original project data and newly created information are instantly available for use by any other product in TKS+.

The six modules that make up The KINGDOM Suite+, include 2d/3dPAK, SynPAK, VtiPAK, TracePAK, ModPAK, and its newest module, EarthPAK.

We're Not...

Monday, October 8, 2001

Westchase Hilton • 9999 Westheimer
Social 5:30 p.m., Dinner 6:30 p.m.

Cost: \$25 Preregistered members; \$30 Nonmembers & Walk-ups

Make your reservations now by calling 713-917-0218 (5-0-1) or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number, and membership ID#).

HGS General Dinner Meeting

Louis Liro¹, Kimberly Cline¹, Dan Knupp¹, and Mary Kadri²

¹Veritas Exploration Services, Houston, Texas, USA

²Veritas Exploration Services, Calgary, Alberta, Canada

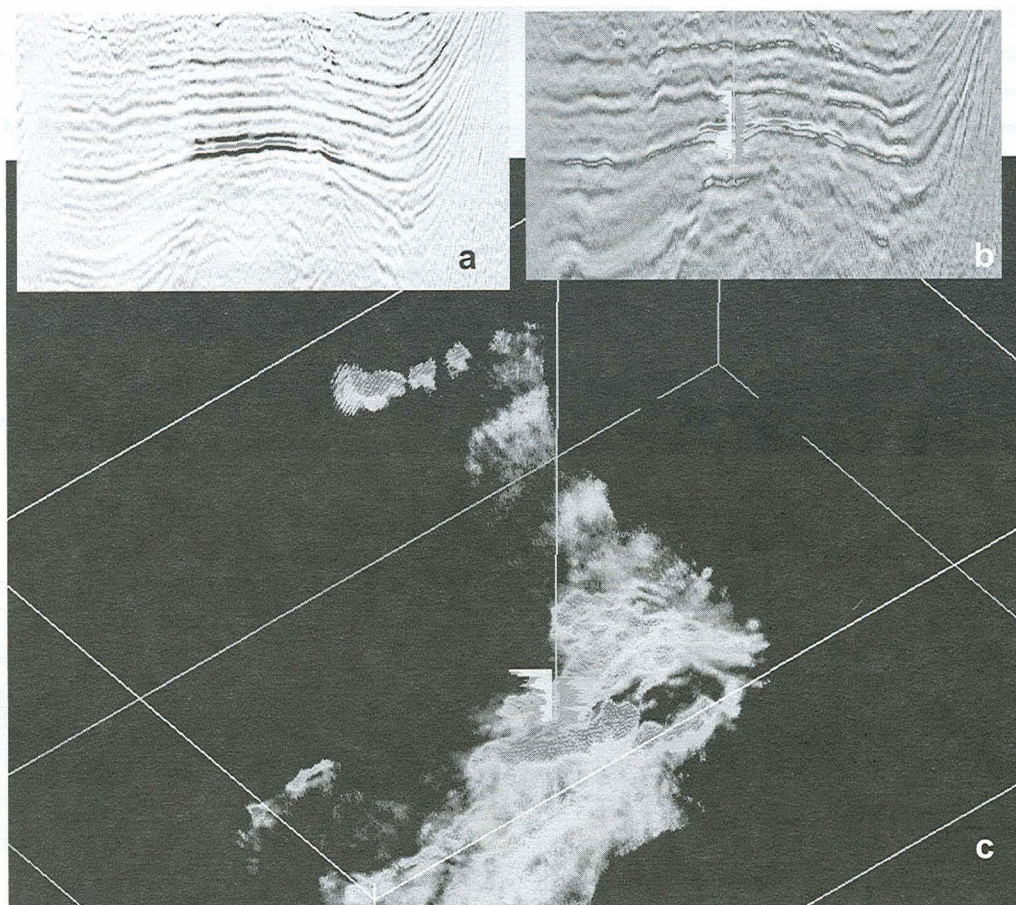


Figure 1: Well log correlation and attribute co-rendering, deepwater Gulf of Mexico field. (a) Strong amplitude observed on vertical section of conventional (amplitude) data can be compared with (b) AVO fluid factor data and well control and (c) visualized view of these attributes away from well control.

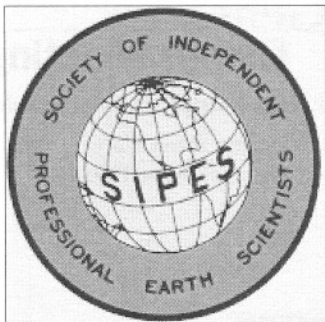
Workstation Visualization Techniques and Workflows: Examples from the Deepwater Gulf of Mexico

Abstract

All phases of the upstream petroleum industry, from wildcat exploration to field development, now benefit from massive amounts of available data. Seismic interpretation in particular benefits from 3D seismic data volumes that nearly blanket the entire offshore Gulf of Mexico. Depth migration of seismic data has advanced to the point where the interpreter can literally treat views extracted from a three-dimensional seismic volume as a “digital outcrop”.

Armed with these data and well control for calibration, it is now possible to rapidly quantify stratigraphic mapping, seismic facies analysis, and fault definition. By interactively decimating the data through opacity and subvolume detection techniques, individual fairways and prospects can be described and evaluated. Co-rendering amplitude with other seismic attribute volumes allows rapid calibration to well data and identification of attribute combinations that effectively delineate exploration and production

General Dinner Meeting continued on page 11



Getting More Hydrocarbons Out of Reservoirs: Advances in Formation Evaluation Analysis

HOUSTON CHAPTER SIPES SEMINAR

Wednesday, October 10, 2001

Shell Auditorium in the Tunnel beneath One Shell Plaza, downtown Houston

8:00 a.m. to 5:00 p.m.

David P. Murphy, Shell Technology and University of Houston: High tech advances in formation evaluation, logging while drilling, mudlogging analysis.

Ron Bonnie, Halliburton: Direct measurement of fluid volumes using NMR logs, low resistivity pay, heavy oil, MRIL logs, LWD, predicting fluid flow using logs.

Neil Stegent, Halliburton: Case studies in Oklahoma and Carthage field, Texas. Using Sti-MRIL logs to save money on completions and get better production rates after frac jobs.

Gerald Markowitz, Texaco and David Gillis, Schlumberger: 3D visualization and depth migration of Vermillion Bay salt dome Iberia Parish, LA, using well logs, borehole geophysical tools to predict velocity.

Alf Klaveness, consultant: 3D seismic while drilling: borehole geophysics.

Course notes include CD-ROM with color presentations of all speakers.

\$50.00 for members* by October 8

\$75 for non-members by October 8

\$90.00 at the door

(*Members in SIPES, HGS, SPEE,
GSH, HAPL, SPE Gulf Coast,
SPWLA Gulf Coast, API Houston)

Send your name, address,
phone number and check to:
SIPES Houston Chapter
811 Dallas, Suite 829
Houston, TX 77002 Questions?
Call B. K. Starbuck @ (713) 651-1639



Deepwater Clastics Training Course

November 12-14, 2001 - H.E.S.S. Club, 5430 Westheimer, Houston

The current course has already been given to over 130 people and is designed for geoscientists, engineers and managers who wish to enhance their knowledge of deepwater clastics and improve their understanding of these complex reservoirs. The 2 1/2 day course will cover the following topics:

- Deepwater Processes • Effect of Seafloor Topography • Fan Terminology • Tectonic Settings of Submarine Fans • "Fill & Spill" Model
- Sequence Stratigraphy in Deepwater Environments • Use of Biostratigraphy • Facies Types & Sedimentary Structures from Core
- Submarine Channels & Channel Complexes • Submarine Canyons • Sheet-Sand Systems • Channel/Levee Systems • Contourites
- Slumps and Slides • Debris Flows & Megabeds • Sedimentary Remobilization • Reservoir Modelling • Paleocurrent Indicators
- Seismic Examples and Seismic Pitfalls • Lessons Learned During Exploration and Development
- Slope & Salt Withdrawal Mini Basin Trapping Styles • Gulf of Mexico Plays & Exploration History • Practical Exercises

Course Times: Nov 12th: 8:30am- 5pm (registration 8-8:30am), Nov 13th: 8:30am-5pm. Nov. 14th: 8:30am -12 noon

Course fee includes: • Comprehensive course notes • 3 Continental breakfasts • 2 Lunches • Refreshments

REGISTRATION FORM

Name of Attendee: _____ (one person per form)
Company: _____
Address: _____
City: _____
State/Zip: _____
Tel: _____
Fax: _____
email: _____

Check ☐
One ☐

Check enclosed for \$950.00, payable to "Cossey & Associates Inc."

Please invoice the following person for the amount of \$950.00:

Please mail completed form to:
Cossey & Associates Inc.
P.O. Box 270866
Houston
TX 77277-0866

Name: _____
Company: _____
Address: _____
City: _____
State/Zip: _____

Refund Policy: A full refund, less a non-refundable registration fee (\$150) will be given if written cancellation is received by October 11th, 2001. No refunds will be issued after October 11th. Substitutions from the same company are allowed.

parameters, providing effective input to reservoir characterization (Figure 1).

The essence of modern data visualization is the opportunity to view many classes and types of data rapidly and seamlessly in a machine-independent manner. The use of 3D visualization is independent of user interpretation, maintaining objectivity in the project evaluation. 3D visualization also retires the "2D paradigm", where all interpretation and data presentation occurs on paper, poster, or monitors. Data visualization, while commonly portrayed in large visualization rooms employing expensive hardware, begins rather with the simplest question of "what if...?" in the interpreter's mind as he or she works at more conventional workstations. The key to visualization is to translate that question rapidly into a working model, which can be constructed and evaluated in realtime by a technically integrated staff. Visualization allows for rapid evaluation of work programs; it is now possible at the onset of a project to review the data, identify prospective regions or reservoir trends, assess key technologic challenges, and determine an efficient work direction, all in the course of an afternoon.

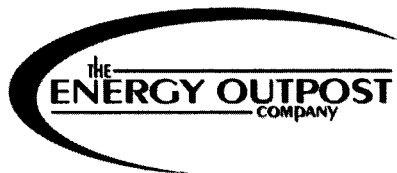
We demonstrate these techniques by displaying workflows and examples from 3D prestack depth-migrated seismic volumes in

the deepwater Gulf of Mexico and other deepwater basins. Examples of full-volume description of allochthonous shallow salt bodies, use of supra-salt sediment geometries to unravel complex shallow salt remobilization history, identification and 3D mapping of channelized and fan-form sediment intervals, and mapping of probable field extent utilizing calibrated seismic attributes will be displayed in both images and animations.

Biographical Sketch

Lou Liro is a senior geologist for Veritas Exploration Services in Houston. He has over 20 years of experience in exploration and field development. Prior to Veritas, Lou worked in geophysical and geologic research units, domestic and international exploration, and international development for a major oil company. His specialties are reservoir stratigraphy, salt tectonics, and petroleum systems evaluation. He has published and presented over 50 papers on sequence stratigraphy, salt tectonics, and workstation visualization and has taught courses in sequence stratigraphy and basin evaluation.

For more information contact Mr. Liro at Veritas DGC, 10300 Town Park, Houston, Texas 77072, telephone: 832 351-8950, fax 832 351-8775, and e-mail louis_liro@veritasdgc.com. □



ENTERING OUR SIXTH YEAR OF SUCCESSFUL OUTSOURCING SOLUTIONS FOR E&P

- ✓ **Integrated "Near-Field" Exploration & Field Development using advanced GeoQuest & Hampson Russell technologies on Ultra 80's:**
 - 3D interpretation, Quantitative log/seismic facies & property mapping, inversion, neural network inversion (Emerge), fault modeling (FW3D), AVO, "SeisClass", depth conversion (InDepth), sequence stratigraphy.
- ✓ **Integrated GG&E Reservoir Simulation services for field development in coordination with Gemini Solutions of Houston.**
- ✓ **Highly experienced staff, both domestic and international.**
 - GOM, West Africa, SE Asia, South America, Middle East, Australia

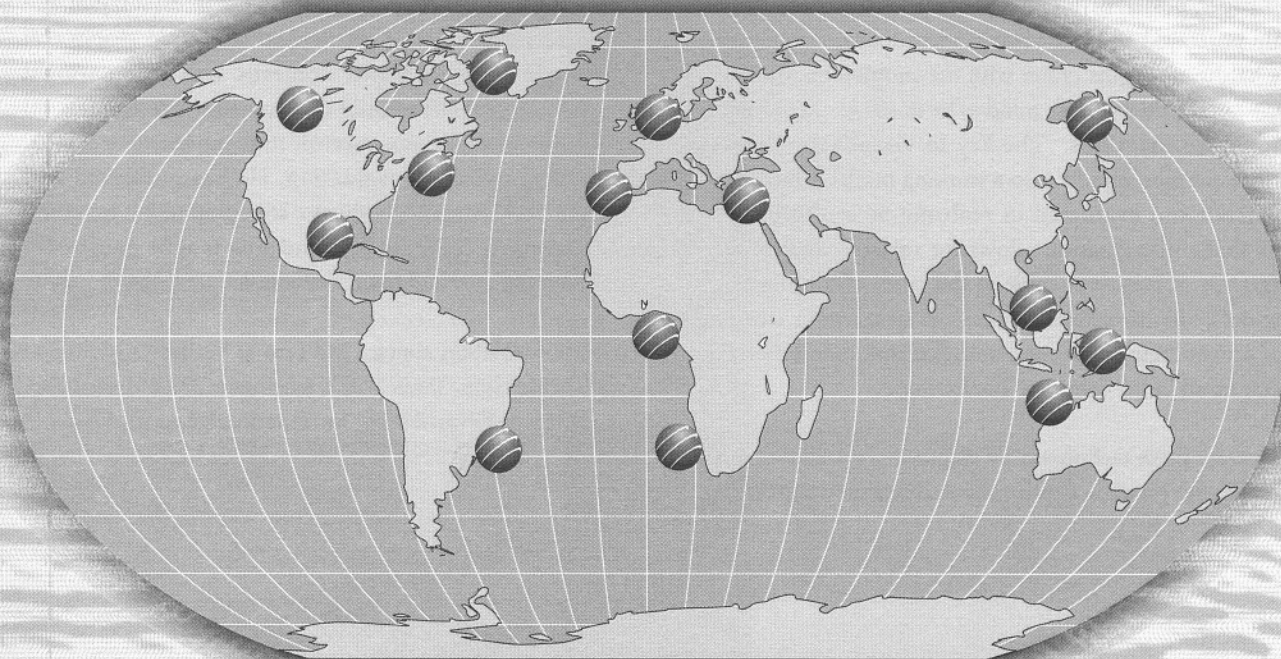
"Adding Value through Experience, Integration and Speed"

The Energy Outpost Company
1919 North Loop South, Suite 665
713-802-1900 Fax: 713-802-1901
www.EnergyOutpost.com

Steve Tobias, President

TGS NOPEC

G E O P H Y S I C A L C O M P A N Y



Exploring a world of opportunities.

- *Non-Exclusive Seismic Surveys*
- *Seismic Data Acquisition*
- *Seismic Data Processing*
- *Integrated Regional Interpretations*
- *Gravity / Magnetic Data & Services*

USA
2500 CityWest Blvd. Suite 2000
Houston, Texas 77042-3018
Phone: (713) 860-2100
Fax: (713) 334-3308

NORWAY
Baarsrudveien 2
N-3478 Naersnes, Norway
Phone: +47 31 29 20 00
Fax: +47 31 29 20 10

UK
Graylaw House, 21/21A
Goldington Rd. Bedford, MK40 3JY, UK
Phone: +44 (0) 1234 272407
Fax: +44 (0) 1234 272408

AUSTRALIA
Level 5, MLC House, 1100 Hay Street
West Perth 6005 Western Australia
Phone: +61 8 9480 0000
Fax: +61 8 9321 5312

www.tgsnopec.com

Thursday, October 11, 2001

Westchase Hilton • 9999 Westheimer
Social 5:30 p.m., Dinner 6:30 p.m.

Cost: \$25 Preregistered members; \$30 Nonmembers & Walk-ups

Make your reservations now by calling 713-917-0218 (5-0-6) or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number, and membership ID#).

HGS Emerging Technology Dinner Meeting

by Jeanne Perdue

Senior Technology Editor, Harts E & P Magazine
Jperdue@chemweek.com

E-Business: What's the Big Deal?

Abstract

The author will discuss the benefits and advantages of the various kinds of e-business web sites, including:

- e-procurement sites
- acquisition and divestiture auctions
- workflow efficiency applications
- virtual collaboration via the Internet
- knowledge management
- e-learning, and
- application Service Providers (ASPs)

The surviving dot-coms in the upstream oil and gas sector will be compared to the dot-bombs, and forecasts and quotes from major e-business players will be shared. A list of handy e-business Web sites will be given as a handout.

Biographical Sketch

JEANNE PERDUE is Senior Technology Editor of *Harts E&P* magazine. After receiving her BS degree in chemistry at the State University of NY at Albany, she went to work for Texaco in the Bellaire research laboratories testing oils and rock cores. Jeanne ran her own technical marketing company called JuMPstart Ventures prior to joining Hart Publications in 1996. Jeanne has been very active in the Society of Petroleum Engineers. She was the first woman to be appointed Review Chairman for the *SPE Reservoir Engineering* journal, she helped develop the SPE MasterDisc CD-ROM and SPE Magic Suitcase, and she currently chairs the Gulf Coast Section's Community Services Committee. □



Volunteers Needed! Be a GCAGS Judge!

The GCAGS needs your help judging oral sessions and posters at the 2001 Annual Convention in Shreveport Oct. 17-19. This important function determines the winners of the A. I. Levorson Award as well as the winners of the best presentation and poster. Judges are invited to a complimentary breakfast at which they will receive instructions and materials. All that is required is observation of the papers or posters in your session, completion of a straightforward judging form, and submission of those forms to the Awards Committee. The committee will compile the scores and the winners will be honored at next year's convention. Just check the appropriate box on your preregistration form, and the Awards Committee will contact you to determine your preference for the session(s) you are interested in judging. Every effort will be made to place judges in the session of their choice. Likewise, out-of-town judges will be scheduled on Friday afternoon unless they so request. Your participation will be both rewarding and appreciated!

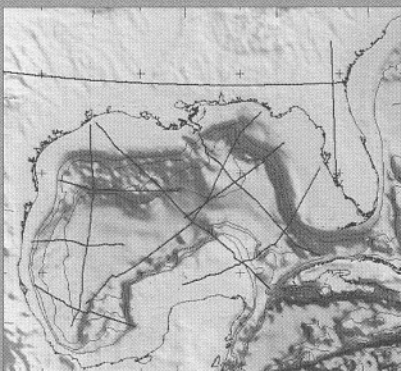
For more information, or to volunteer, contact Bill Meaney at 318-227-2000 or by e-mail at bmeaney@andersonoilandgas.com

GoMES

Gulf of Mexico Evolution & Structure


Basin-wide Gravity & Magnetics Interpretation

AVAILABLE NOW



Interpretation: Basement, Base Crust, Ocean-Continent Boundary, 12 Mega-Regional Modeled Cross Sections, 136 page report, Evolutionary Model. **Data:** Over 148,000 km Magnetic & 114,000 km Gravity

Contact
Dale Bird
281-463-3816
dale@birdgeo.com


bird
GEOPHYSICAL

*Interpreting
The
World*

Interpretation³

Quality Interpretations for Quality Prospects

Nina Lian

Alex MacKeon

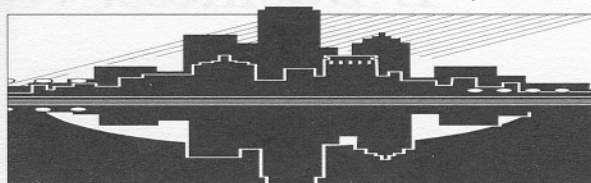
Dan Shaughnessy

Specializing in 3-D Seismic Interpretations
Integrated Field Studies
Sequence Stratigraphy
Domestic and International
Landmark Workstations

Visit Our Website: <http://www.interp3.com>

11767 Katy Freeway, Suite 300
Houston, Texas USA 77079
Telephone: (281) 293-7770
Fax: (281) 293-0556
E-mail: drs@interp3.com

SKYLINE ENERGY, LLC

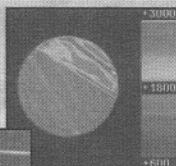
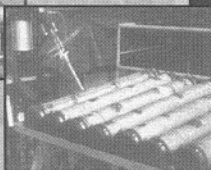


*Is actively seeking open acreage drilling prospects
in Texas, Louisiana, Mississippi and New Mexico
Finders Fee and Overriding Royalty*

Donnie Jones Contact (281) 481-0881

PTS Labs

CORE ANALYSIS SERVICES



PTS Labs International, Inc.

4342 West 12th Street
Houston, Texas 77055
Phone: 713-680-2291
Fax: 713-680-0763
Website: www.ptslabs.com

In-house Capabilities:

- CT Scanning for Core Orientation & Imaging
- Core Photo Printing
- Web Server
- Large Capacity for Routine & Advanced Core Testing (Pc, a, m & n, and Rel. Perm.)
- Wellsite Core Preservation and Stabilization
- NMR @ Temperature and Confining Stress
- Petrographic Services (XRD, SEM, and TS)
- Integrated Data Reports

by Mark G. Rowan,
Rowan Consulting, Inc.,
Boulder, Colorado

Structural Styles of Passive-Margin Deepwater Provinces

Abstract

Passive margins with salt or overpressured shale layers typically undergo gravitational failure above the weak detachment. The deepwater, distal provinces are dominated by contractional tectonics that balances proximal extension and downdip translation of the overburden. Failure is driven by a combination of gravity gliding above a basinward-dipping detachment and gravity spreading of a sedimentary wedge with a seaward-dipping bathymetric surface. Continued deformation is driven primarily by shelf and upper slope sedimentation, which maintains the bathymetric slope and the resulting gravity potential, and by increased basinward tilting. Deformation is retarded or halted by distal thickening of the overburden caused by the folding itself or by lower slope and abyssal sedimentation. Differences in deepwater deformation along various passive margins, such as the northern Gulf of Mexico or offshore west Africa, can be explained in part by differences in sedimentation, loading subsidence, thermal subsidence, and cratonic uplift.

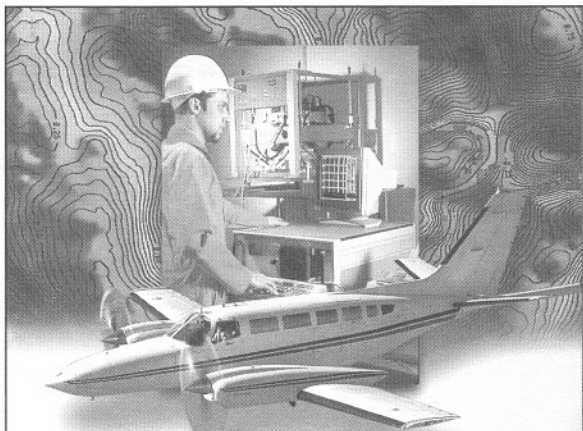
Salt is a viscous material with no effective strength, whereas shale is a frictional material whose strength depends on the amount of overpressure. This rheological difference has several important ramifications. First, salt-cored folds are generally symmetrical with only minor faulting, whereas shale-detached foldbelts typically comprise asymmetric fault arrays with multiple detachment levels. Second, deformation above salt usually occurs immediately, beneath only a thin overburden, whereas shale-based deformation does not happen until there is a sufficient thickness of sediment to create overpressured conditions. Third, the location of salt-cored folds is controlled by the basinward pinchout of the salt, the toe of the slope, and thickness variations within the original salt layer, whereas the location of shale-detached deformation depends largely on the variable build-up and release of overpressure over time.

Salt can also reduce the gravity potential of the failing margin in other ways. The bathymetric slope can be decreased by proximal subsidence into salt and distal inflation of salt. The inflated salt, as well as existing diapirs or salt walls, can be squeezed laterally, thereby accommodating significant shortening. This, in turn, drives further diapirism and/or lateral salt extrusion. Extruded salt may amalgamate to form extensive salt canopies, so that subsequent gravitational failure may take place largely on shallow, allochthonous detachments rather than on the autochthonous salt level.

Biographical Sketch

MARK G. ROWAN is an authority on salt tectonics and the instructor for AAPG's "Practical Salt Tectonics" school, and is a consultant in Boulder, Colorado. Mark received a BS from CalTech in 1976, an MS from U.C. Berkeley in 1982, and a PhD in structural geology from the University of Colorado at Boulder in 1991. He spent 3 years at Sohio Petroleum Co. in Denver (1982–1985), 4 years at Geo-Logic Systems in Boulder (1985–1989), and 3 years at Alastair Beach Associates in Glasgow, Scotland (1989–1992). He then returned to the University of Colorado, and in 1996 he was appointed a Research Assistant Professor and headed up a large industrial research consortium investigating Gulf of Mexico salt tectonics. Mark left this position in 1998 and founded his own company, where he consults and teaches for industry and conducts research on salt tectonics. He is widely published, having authored or co-authored over 40 papers and 75 abstracts. □

**Note: If your mailing label has a blue stripe on it,
your membership has expired and this is your
last issue.**



Fast, Accurate Subsurface Data Fugro-LCT Airborne Gravity

Fugro-LCT, along with Fugro Airborne Surveys (FAS), provides the highest resolution airborne gravity services in the oil and gas industry.

Surveys are conducted in the harshest environments using gravity and GPS technology developed by LCT and supporting aircraft operations from FAS. The system is not dependent on any specific aircraft or extensive airframe or avionics modification.

Airborne gravity, coupled with aeromagnetics and other airborne geophysical surveys, allows for truly integrated seismic-gravity-magnetic interpretations using tight Fugro-LCT Software links with Landmark™, GeoQuest™ and other leading software systems.

When you need fast and accurate subsurface data, go airborne and call Fugro-LCT today.



FUGRO-LCT

Houston
713-369-6100

UK
+44-(0)1908-286100

Singapore
+65 543 0200

www.lct.com

AIRBORNE GRAVITY

Editor's Letter

continued from page 7

modulate. If we cannot model the natural climatic drivers, we are not ready to make critical decisions about the importance of the manufactured ones. More study is needed to bring us to the stage where we can make these decisions. The reality is that we could have a major sea-level rise or fall regardless of what the human-generated component of atmospheric CO₂ is doing. If we are not successful in moderating this debate, we risk being silent partners in the implementation of extreme measures to reduce human-generated atmospheric CO₂ at the expense of the global economy, with the distinct possibility that such measures cannot at the end of the day change an inevitable climatic shift already in progress. Weakening the global economy just when its strength is needed to provide societies with the flexibility to respond to inevitable climatic change may affect the survival of our societies and our species.

I hope the geoscience community will help to strip away the monster mask that has been placed over the face of the oil and gas industry. This industry, like most others, has had its polluters, its selfish promoters, its sorry individuals and events. But on balance the world is a better place now than it would have been without the driving economic improvements the industry has fueled. We can and should make improvements every year. We have vital perspectives to contribute in a critical world debate. Let's work to make them effective. □

GCAGS 2001

ODYSSEY TO SUCCESS



51st Annual Convention

**Gulf Coast Association of Geological Societies (GCAGS) and
Gulf Coast Section of SEPM (Society of Sedimentary Geology)**

October 17-19, 2001 • Shreveport, Louisiana

Hosted by the Shreveport Geological Society

"Odyssey to Success." For over a hundred years, geologists have been on a journey of exploration and discovery that has led them to the Gulf of Mexico. Since the 1993 Shreveport convention, many have successfully completed their odyssey here on the banks of the Red River. You will see a difference in the skyline, including five new riverboat casinos, 16 new hotels, and many fine restaurants and challenging golf courses.

So point your compass toward Shreveport this October and join us in sharing your odyssey for knowledge and achievement. Hope to see you at 5:00 p.m. on Wednesday, October 17, for the Opening Session, immediately followed by the Icebreaker Reception.

- **To register:** Contact the AAPG Convention Department at one of the numbers below to have a registration form sent to you or visit www.aapg.org for a downloadable registration form and fax it to (800) 281-2283 (U.S./Canada only) or (918) 560-2684 or mail it to the AAPG Convention Department at the address below
- **To exhibit:** Contact Sarah Alexander, AAPG Exhibits Assistant, at phone (888) 945-2274 ext. 692 (U.S./Canada only) or (918) 560-2692, fax (918) 560-2684, or e-mail exhibits@aapg.org
- **For more information:** Contact the AAPG Convention Department at P.O. Box 979, Tulsa, OK 74101-0979 or 125 W. 15th St., Tulsa, OK 74119; phone (888) 945-2274 ext. 617 (U.S./Canada only) or (918) 560-2617; fax (800) 281-2283 (U.S./Canada only) or (918) 560-2684; or e-mail convene@aapg.org

Monday, October 22, 2001

Westchase Hilton • 9999 Westheimer
Social 5:30 p.m., Dinner 6:30 p.m.

Cost: \$25 Preregistered members; \$30 Nonmembers & Walk-ups

Make your reservations now by calling 713-917-0218 (5-0-4) or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number, and membership ID#).

HGS North American Explorationists Dinner Meeting

by Edward M. Norwood¹ and Lise Brinton²

¹ Clayton Williams Energy, Inc., Midland, Texas

² Geological Consultant, LithoLogic, Inc., Denver, Colorado

Reexamination of Late Jurassic Reef Building in the East Texas Basin: A Maturing Gas Play

Abstract

In 1993, Marathon Oil Company drilled the MOC Poth #1 near the western margin of the East Texas Basin. The well was completed in an Upper Jurassic reefal buildup approximately 350 feet thick. This outstanding gas well discovery kicked off a new gas play in a basin with a long history of extensive exploration. The depositional model in use at Marathon for its several reef discoveries can now be reexamined using additional information provided by 100 wells during 7 years of exploratory drilling. Workers can now focus on the identification of conditions favoring optimal reef growth and porosity development in Upper Jurassic reefs.

A faulting episode at or near the end of Upper Jurassic Gilmer (Cotton Valley) time dislocated the carbonate ramp and effectively reshaped the shelf margin and basin. The topography created by this faulting event proved advantageous for reef growth and facilitated clastic sediment bypass into adjacent synclinal troughs. Evidence indicates that this faulting episode post-dated deposition of the Gilmer (Cotton Valley) Limestone and predated any significant Bossier deposition. Seismic data shows slide blocks composed of Gilmer Limestone were carried basinward. Deposition of the Lower Bossier shows no evidence of disruption by this décollement faulting but does exhibit draping over fault toes of Gilmer blocks.

Derivative maps of paleogeographic surfaces were generated to identify the trend of the reef tract. They also served to underscore the value of sediment traps that protected coral reefs from the influx of clastic sediment shed from the nearby shelf. The highly developed, thickest, microbially bound, coral dominated, reefal buildups are positioned near the western margin of the East Texas Basin.

In 1998, Clayton Williams Energy, Inc. reinvigorated and expanded the Jurassic Reef play by stepping out 35 miles southwest of Marathon's Riley Trust discovery to drill a successful reef wildcat. The limits of the play have yet to be defined.

Biographical Sketch

EDWARD M. NORWOOD attended Potomac State College and West Virginia University, receiving his bachelor's and master's degrees from WVU in 1956 and 1957. He has worked as a petroleum geologist for 43 years in the employ of several companies including Phillips Petroleum Co., Pennzoil Company, and more recently Marathon Oil Company and Clayton Williams Energy. Ed's range of experience spans several regions, including the Alaskan North Slope, the Appalachians, California, the Gulf Coast and the East Texas basins. □

Call for AAPG Delegates

Are you interested in helping set the direction for AAPG? Perhaps you should consider submitting your name as a candidate for election to the AAPG House of Delegates.

The local delegation representing Houston meets at lunch on the first Wednesday of each month (September–June) to review membership applications. Delegates should be prepared to attend the House of Delegates meeting at the annual AAPG national convention. As part of AAPG's governing body, the delegates vote on issues critical to the AAPG. These issues include amending the constitution and bylaws, which are the fundamental governing rules for the society.

e-mail to: cmoore@geoscience-services.com before January 1, 2002.

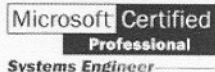
Mark R Etheredge

Consulting and Generating Geologist
Certified Network and Computer Technician

Computing Solutions for the petroleum industry
Convert paper files, maps, prospect brochures
to digital format, CD storage, CD presentations
Web pages created, web site taxonomy and design

Office 281 469-6095 Cellular 713 705-0053

Email etheredg@hal-pc.org



Please visit professional web pages at www.hgs.org

Reservation Codes

Use these codes to make voice mail meeting reservations.

Call 713-917-0218

Dinner Meeting (5-0-1)

Environmental and Engineering (5-0-2)

International Explorationists (5-0-3)

North American Explorationists (5-0-4)

Luncheon Meeting (5-0-5)

Emerging Technology (5-0-6)

New Technology from MICRO-STRAT INC.

Find More Oil & Gas Reserves!

- Correlate your reservoir sands
- ID type of sands
- Determine if sands are perpendicular or parallel to strike

Deepwater

Age Date Seismic Reflectors & Reservoir Sands While Drilling

- Shingled turbidites
- Slope fan channel, sheet sands
- Basin floor fan

What is below the Salt?

- ID type of reservoir sands
- Inter-lobe slope fan correlations
- High Resolution Biostratigraphy

All deliverables in color using HP DesignJet 2500CP. All data in ASCII Format - Workstation Ready

For information Call Bernie Shaffer, Ph.D. or Walter W. Wornardt, Ph.D.

e-mail: msiw3@Micro-Strat.com, Web-Page: www.Micro-Strat.com

5755 Bonhomme, Suite 406, Houston, TX 77036 Tel:
713/977-2120 Fax: 713/977-7684

13 Road 315, New Maadi, Cairo, Egypt
Tel/Fax: (20-2) 702-6067

Non-Exclusive

AEROMAGNETIC DATA

Houston- Jeff Rowe

T: +1 713 369 6123

jrowe@fugro.com

Calgary- Jim Genereux

T: +1 403 777 9280

jgenereux@fugroairborne.com

Ottawa- Ken Keeler

T: +1 613 731 9575

kkeeler@fugroairborne.com

www.fugroairborne.com

NON EXCLUSIVE AEROMAGNETIC DATA

- Our North American coverage includes 6.7 million line km or 4.2 million line miles.



FUGRO AIRBORNE SURVEYS AT YOUR SERVICE AROUND THE WORLD

HGS Luncheon Meeting

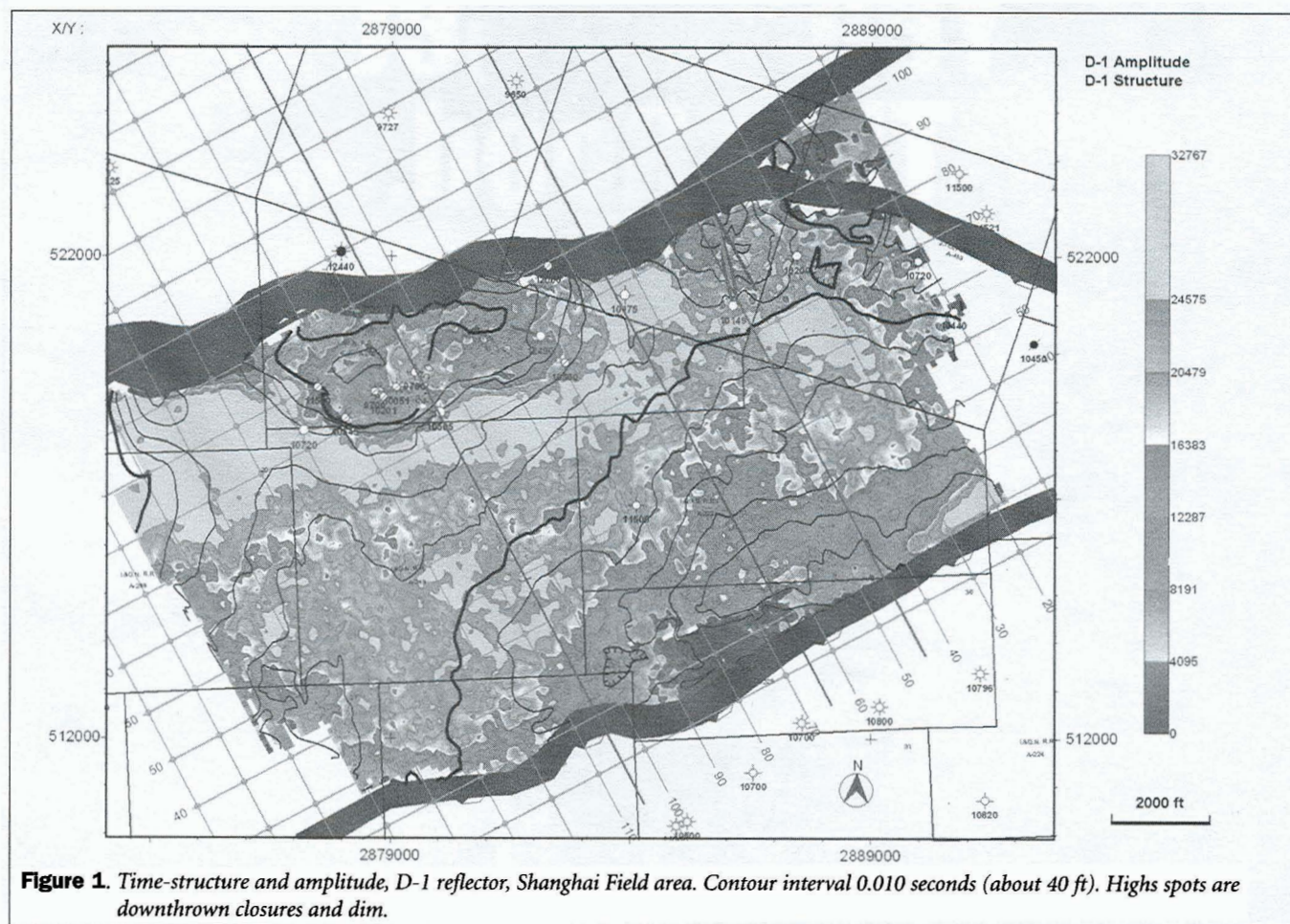
by Thomas E. Ewing,
Venus Exploration, Inc.,
San Antonio, Texas

Wednesday, October 31, 2001

Petroleum Club, 800 Bell (downtown)
Social 11:15 a.m., Lunch 11:45 a.m.

Cost: \$25 Preregistered members; \$30 Nonmembers & Walk-ups

Make your reservations now by calling 713-917-0218 (5-0-5) or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number, and membership ID#).



Shanghai Field, Expanded Upper Yegua Trend, Texas Gulf Coast: Unexpected Reserves and a Distinctive Fault Style Defined by 3D Seismic

As presented in *3-D Seismic Case Histories from the Gulf Coast Basin*: GCAGS, 1998, p. 283-299.

Abstract

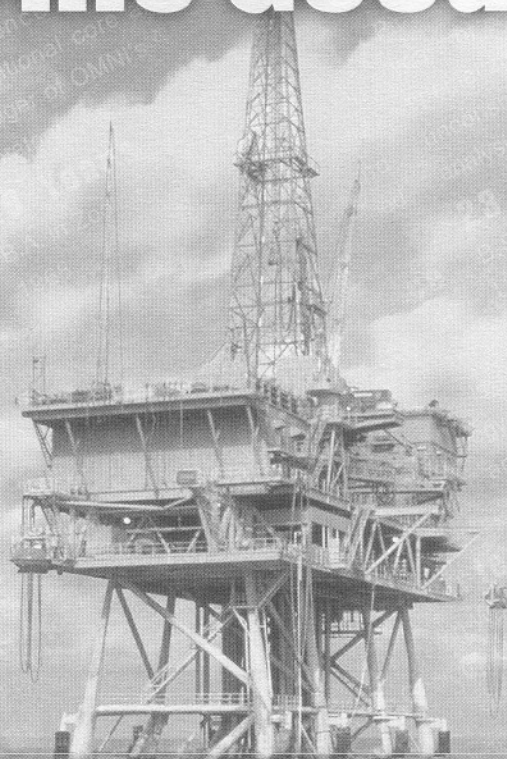
A 3-D seismic survey resulted in efficient drainage by a directionally drilled well of a previously unrecognized, 80-acre structure on trend with 1980s production from Upper Yegua reservoirs at Shanghai Field.

Upper Yegua deltaic sandstones form a wedge that thickens into the Shanghai Fault. The top of the wedge (D-1) forms a series of downthrown closures transitional to rollover anticlines, with normal southward dip to the south. The base of the wedge (E-1) dips north into the fault, but is upturned into the main fault in various places, forming a series of "flaps" with apparent normal drag. The D-1 highs overlie the E-1 flaps. The structures were

continued on page 21

It Took Us ~~432~~ Years to Get This Good.

536



Experience is everything. That's why OMNI Laboratories continues to add to its team of seasoned scientists. Today, the OMNI experts bring over 500 years of expertise to each and every project. Together, we provide the intelligence, experience and knowledge to help you optimize oil and gas production.

At OMNI, we've got the answers.



Laboratories, Inc.

7 Locations in the United States, Venezuela and Brazil • Headquarters: Houston, TX 832-237-4000 • www.omnilabs.com

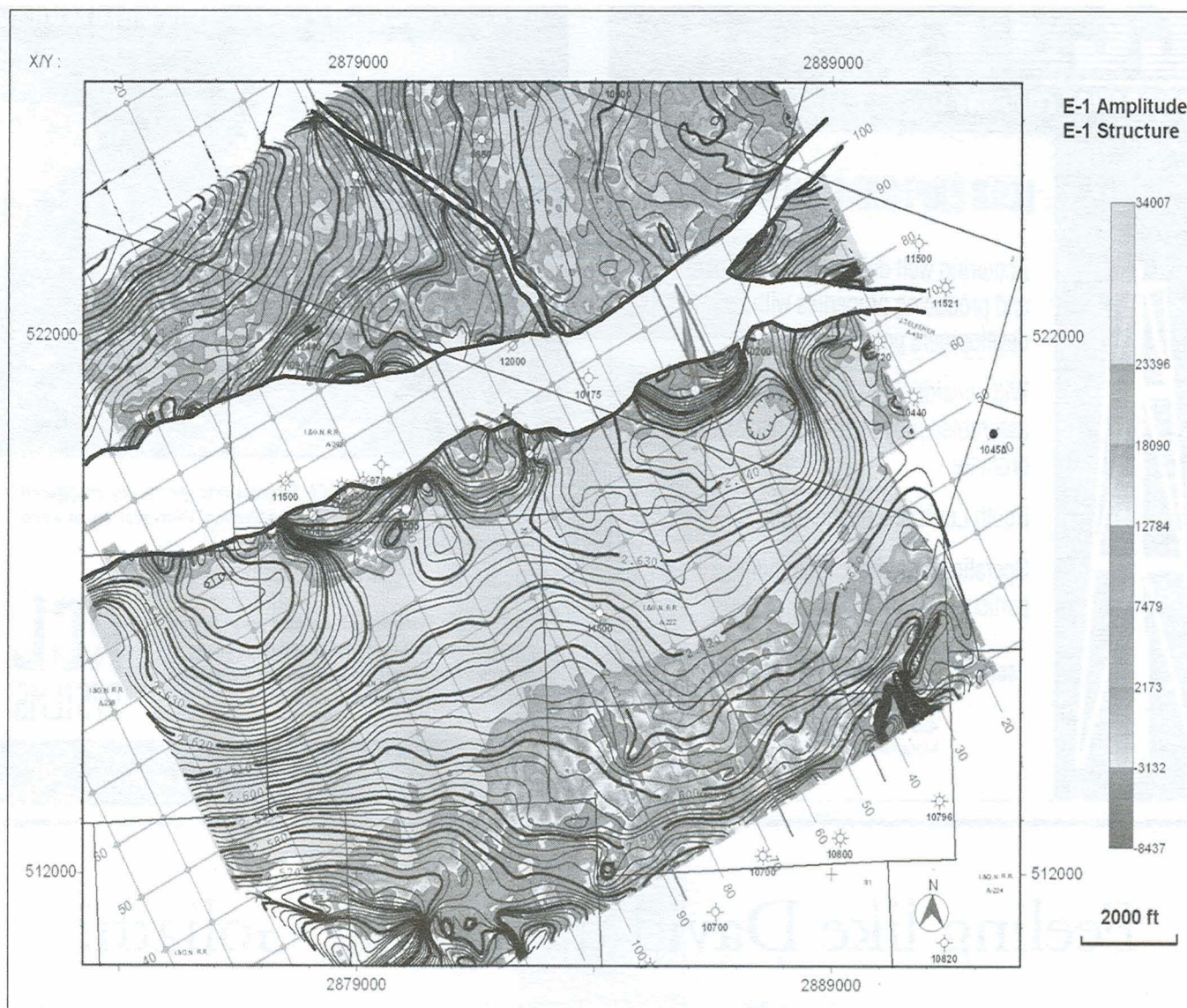


Figure 2. Time-structure and amplitude, E-1 reflector, Shanghai Field area. Contour interval 0.002 seconds (about 8 ft). High spots are southeast-dipping flaps and dim.

formed by differential movement along the fault plane—differential stickiness—during and after Upper Yegua deposition.

History

Shanghai Field (Wharton County, Texas) lies in the Jackson-Wharton Fairway of the Expanded Yegua Trend (Ewing and Fergeson, 1989, 1991).

Ladd Petroleum and Venus Oil developed four stacked Upper Yegua reservoirs at Shanghai Field (D-1 shallowest, D-3, D-5 and E-1 deepest) in 1985–1986 (Hart and others, 1988; Parker and Swenson, 1989). Eleven completions in six wells yielded 24.6 BCFG and 814 MBC from some 250 acres.

In December 1986, Ladd discovered Shanghai East Field in the same Upper Yegua sandstone sequence downthrown to the

Shanghai fault, two miles east of the original field. Two wells were drilled. The first well was completed in the E-1 sandstone and the second well produced from the D-series sandstones. The two wells produced 3.3 BCFG and 196 MBC by the end of 1994.

Venus discovered Lower Yegua gas pay beneath the old field in 1993. To develop the Lower Yegua, Venus acquired with others a 9.8-square-mile 3D seismic survey. As a by-product, we found a new untapped 80-acre structure. We also identified the structural style of the Shanghai Field and can speculate on its origin.

Shanghai Field Structure

Seismic reflectors at the shallower D-1 and deeper E-1 levels clearly define the Yegua 25 wedge of deltaic sediment downthrown to the Shanghai Fault. At D-1, the field shows a weak rollover closure but is primarily a downthrown closure. The D-1

continued on page 23

LLOG

EXPLORATION COMPANY

LLOG EXPLORATION COMPANY

Acquiring well defined drilling prospects and producing properties with development potential.

Will consider both open acreage ideas and assembled prospects with reasonable promote.

South Louisiana onshore and state waters.

Operations required. Minimum participation 50-75%.

**CONTACT Scott Gutterman or Jim Zatkiewicz
(504) 833-7700**

433 Metairie Road, Suite 600
Metairie, LA 70005



Geophysical Workstation Solutions



The cutting edge...RCL Systems has specifically configured the latest technology into a Geophysical Workstation to keep you on the cutting edge.

Plus...RCL Systems will pre-load your seismic interpretation software and configure it onsite to have you interpreting data on your new workstation within minutes of delivery!

**RCL
SYSTEMS**

Call today... 1-800-758-1771 or 281-240-2777 or visit us on the World Wide Web, www.rcl.com.

Feeling like David up against Goliath?

We are just a stone's throw away.

Bianchi ★ Lagarde, P.C.

A powerful legal team with a proven record of success.

Richard Bianchi** -- former Texas Civil District Judge

Richard Lagarde -- Board Certified Civil Trial Law, Texas Board of Legal Specialization.

***Contingency fee arrangement.**

440 Louisiana, Suite 1200 • Houston, Texas 77002 • Phone 713.223.0660 • Fax 713.223.0667 • 1.800.294.9624

www.lonestarlawyers.com

*Court costs and litigation expenses are paid from your share of any recovery. If there is no recovery, you will not be responsible for court costs or litigation expenses. **Not certified by the Texas Board of Legal Specialization.

“peak reflector” dims in association with production (Figure 1). At E-1, distinctive flaps of upturned sediment underlie the shallower closures, coming out of a tight syncline lying near the fault (Figure 2). Where there is a productive field, the E-1 shows a dip reversal from reverse to normal dip adjacent to the Shanghai Fault (Figure 3). Between fields, the E-1 dips directly back into the fault with no reversal (Figure 4). The E-1 reflector also dims within the productive area. The intermediate, thick D-3 and D-5 sandstones show strong amplitude related to the original gas-water contact.

The Henry Closure

Seismic characteristics identical to the productive Shanghai Field were found on a small (80-acre) structure less than a mile east along the Shanghai Fault between Shanghai Field and Shanghai East field. The structure appears to be identical though smaller than the Shanghai Field (downthrown closure at D-1, flap at E-1) and similar to the Shanghai East Field. Bright spots related to fluid contacts in the D-3 and D-5 zones were imaged, as well as dim spots in the D-1 and E-1 (Figure 5). The structure migrates along the fault plane, so that a vertical well could not efficiently develop the four anticipated pays. Therefore Venus planned a directional well which would penetrate the sandstones at an angle of 50° from the vertical.

The #1 Henry well discovered 314-368 ft of gas column with 52-127 ft of high-quality net pay distributed in five zones at the

depths predicted from the seismic survey. The well is anticipated to produce over 4 BCFG and 300 MBC.

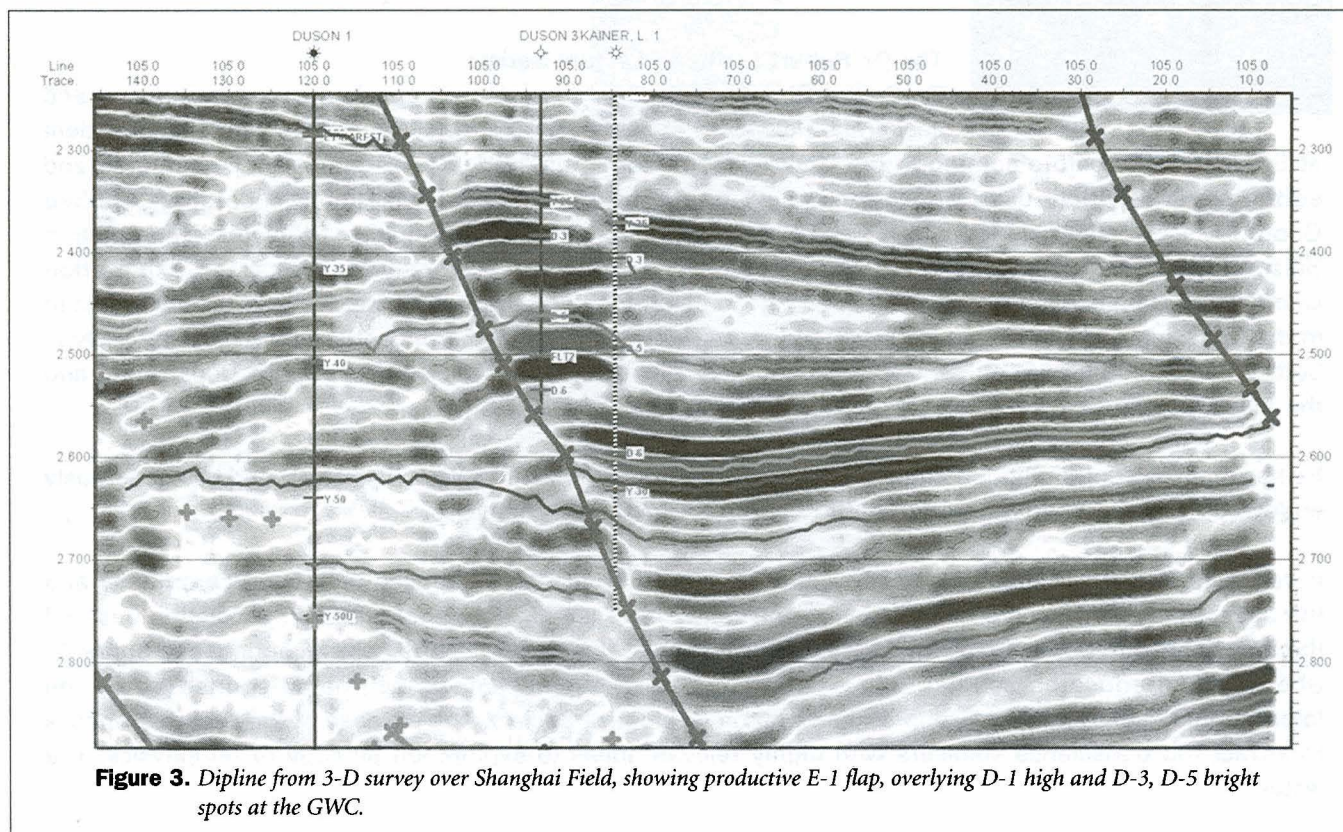
Origin of the Upper Yegua Structures

The Shanghai chain of fields form a distinctive series of down-thrown closures within the depositional wedge of the Upper Yegua, underlain by flaps of sharply tilted rocks in the lower part of the wedge. In the flaps, dip is a sharp normal drag, compared with the reverse drag nature of the wedge base elsewhere. This implies that the expansion of the Yegua 25 section is lowest over the structural crests and greatest between and downdip of these crests.

Gulf of Suez normal faults show a similar evolution from local normal to regional reverse drag (Gawthorpe and others, 1997). In areas where expansion takes place without the fault penetrating to the free surface, normal drag develops as a “growth fold” over the buried fault. When and where the fault penetrates to the surface, the usual reversed-drag develops, with thickest accumulation occurring against the main growth fault.

The same mechanism may apply at Shanghai. Along parts of the fault during Upper Yegua deposition, the fault “stuck” and did not break the seafloor, and overall subsidence due to the regional faulting formed a growth fold, now seen as flaps of normal drag sediments. Later, these imperfections were smoothed out, and reverse drag formed the main wedge of Upper Yegua sediment.

continued on page 25

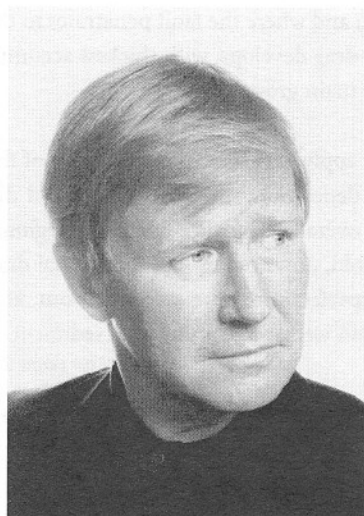




**University of Houston
Department of Geosciences**

**University of Houston
Geoscience Alumni Association**

**JOHN DEWEY will address the
HGS International Group
at the Third annual Robert E. Sheriff Lecture,
November 19th**



John F. Dewey, renowned authority on plate tectonics, will be the featured speaker at the third annual Robert E. Sheriff Lecture Series on November 19th at the Westchase Hilton. The lecture series is sponsored by the University of Houston Department of Geosciences and UH Geoscience Alumni Association in association with the Houston Geologic Society International Group. Dr. Dewey's topic is *"Transtension in arcs and orogens."*

In addition, there will be posters and presentations on current thesis and dissertation research activities of UH graduate students. Get a quick synopsis of presentations from the AAPG, GSA, SEG, GCAGS and AGU conventions and meet the next generation of geoscientists from UH.

The Dr. Robert E. Sheriff Lecture Series:

Dr. Robert Sheriff has had a long and distinguished career in industry and academia. He was chief geophysicist at Chevron and a senior vice president at Seiscom Delta before coming to the University of Houston in 1981. He has authored, co-authored and edited several widely used books for exploration and production geoscientists, including: *Applied Geophysics*, *Geophysical Methods*, *Reservoir Geophysics*, *Exploration Seismology*, *Problems in Exploration Seismology and their Solutions*, *Seismic Stratigraphy* and his *Encyclopedic Dictionary of Exploration Geophysics*. He has played an instrumental role in helping build the reflection seismology faculty and staff in the Geosciences Department at UH to the largest in the nation. Dr. Sheriff contributes very generously in both time and funding to student and programmatic causes within both the Geoscience Department and the Allied Geophysical Lab.

He has recently contributed funding for two graduate student endowed fellowships at UH and has generously endowed the Robert and Margaret Sheriff Chair in Exploration Geophysics.

In recognition of Dr. Sheriff's many contributions to the University, the applied petroleum community and the geoscience profession as a whole, the University of Houston Geoscience Alumni Association initiated the Sheriff Lecture Series in 1999. We are very pleased that this year's lecture, which continues to honor Dr. Sheriff as an educator, scholar, and a proponent for the geosciences, will be co-sponsored by the International Explorationists Group of the Houston Geological Society. The purpose of the Lecture Series is to attract top geoscience speakers with highly relevant ideas to exploration geology or geophysics. The lecture on *"Transtension in arcs and orogens"* by **Dr. John F. Dewey** will be the third in the series.

References

- Ewing, T.E., and W.G. Ferguson, 1989, The downdip Yegua trend—an overview: GCAGS Transactions, v.39, p. 75–83.
- Ewing, T.E., and W.G. Ferguson, 1991, Stratigraphic framework, structural styles and seismic signatures of Downdip Yegua gas-condensate fields, central Wharton County, Texas Gulf Coast: GCAGS Transactions, v.41, p. 255–275.

Gawthorpe, R.L., Ian Sharp, J.R. Underhill, and S. Gupta, 1997, Linked sequence stratigraphic and structural evolution of propagating normal faults: *Geology*, v.25, n. 9, p. 795–798.

Hart, R.E., P.E. Hoffman, and R.W. Parker, 1988, Shanghai delta complex: a glimpse of expanded Yegua trend (abs.): AAPG Bulletin, v.72, p. 194–195.

Parker, R.W., and D.R. Swenson, 1989, Central Texas downdip Yegua Trend—an overview: in *The Downdip Yegua—State of the Trend*: Houston Geological Society, n.p. □

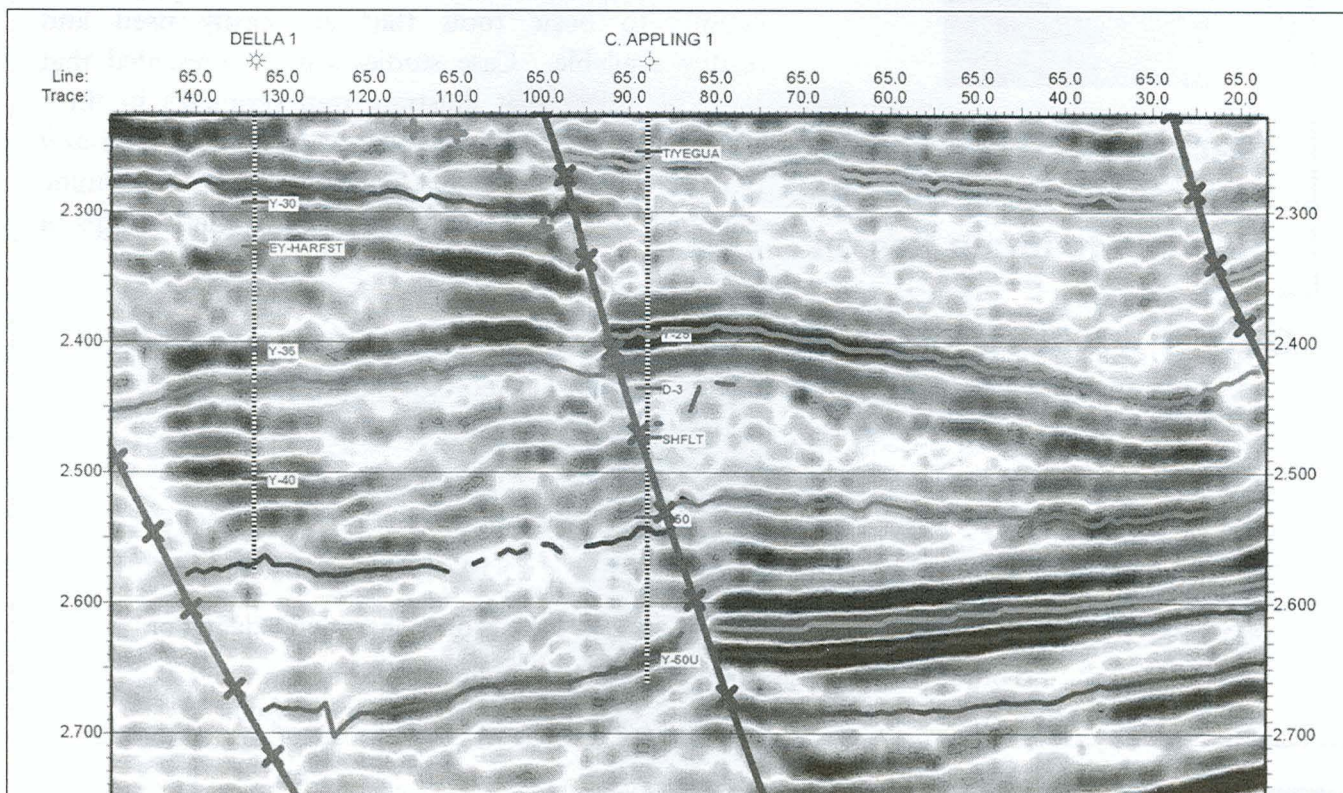


Figure 4. Dipline from 3-D survey over Ladd #1 Appling, showing lack of flap, high and production.

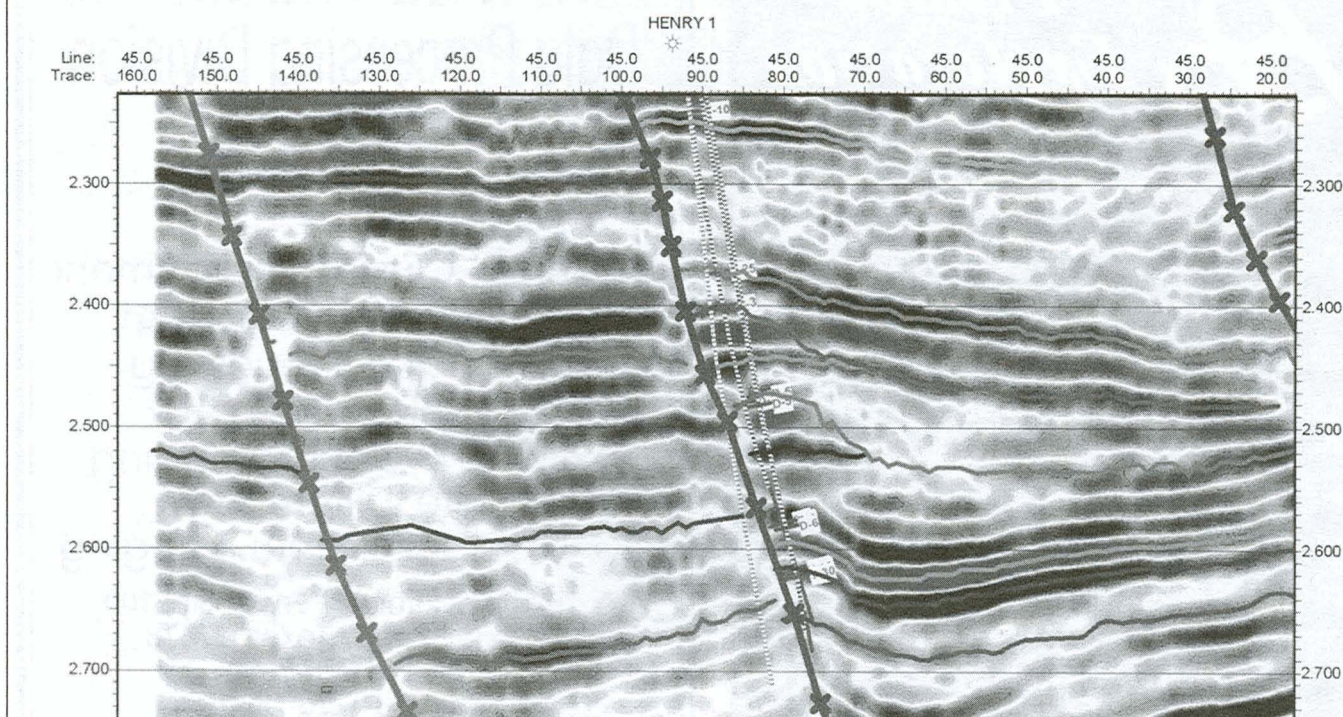
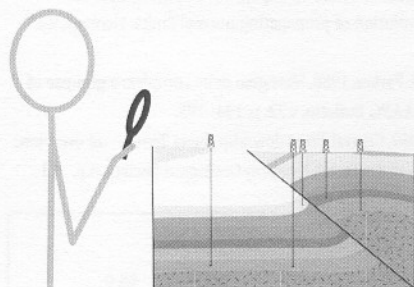


Figure 5. Dipline from 3-D survey over the Henry closure, showing cognate features to Shanghai Field, and well trajectories.



Structural Traps and Fractured Reservoirs of the Rocky Mountain Region

Structural Traps and Fractured Reservoirs of the Rocky Mountain Region, will be a forum to introduce and discuss new tools, techniques and case studies that have added valuable understanding to the region. Tools and techniques presented will range from workstation applications to basic tools that are easily used and readily available. Case studies will be presented that show new data that illustrate trap geometry in three dimensions. Presentations will be 30-minute talks and there will be poster sessions. A field excursion to examine examples of trap geometry and fracture relationships in the Denver area is anticipated.

October 1, 2001 - Denver, Colorado - At the Denver Marriott City Center

Sponsored by: Rocky Mountain Association of Geologists and PTTC

The following are some of the anticipated speakers

Eric Erslev,
Colorado State University

Chuck Kluth, Chevron

Peter Hennings, Phillips

Steve Laubach,
Texas Bureau of Economic Geology

Wayne Narr, Chevron

Don Stone, Sherwood Exploration

For information visit RMAG's website: www.rmag.org

Or call: Sandi Pellissier at RMAG, 303.573.8621, e-mail: RMAGdenver@aol.com



**Preston
Exploration
L.L.C.**

*1717 Woodstead Court, Suite 207
The Woodlands, Texas 77380*

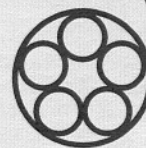
Internally funded, privately-held exploration company is seeking high potential (50+ BCF or 5+ MMBO) exploration prospects both onshore and in inland state waters for the following areas: South Louisiana, Texas Gulf Coast, South Texas, and East Texas. Will consider prospects that are ready to drill or at the idea level. Operations are preferred, but, non-operated interest with acceptable operator will be considered.

CONTACT:

Joe Eubanks or Bo Blue at

Tel: (281) 367-8697 Fax: (281) 364-4927

Fairfield Industries Data Processing Division



- Super Cluster Environment
1000 CPU's & Growing!
- Full Service Processing
- 3D Kirchhoff Pre-stack
Time & Depth Imaging
- 3D Finite Difference
Pre-stack Depth Imaging

14100 Southwest Frwy, Ste 100

Sugar Land, Texas 77478

Tel: 281-275-7500

Fax: 281-275-7660

janderson@fairfield.com

LiveQuest

EXTRA SPECIAL DELIVERY.



Introducing the LiveQuest* Application Service Provider (ASP) solution. Offering you the fastest possible way to put advanced E&P interpretation, economic and risk analysis, and data management applications from GeoQuest and Merak to work in your company. Delivering the capability right to your screen—without the IT overhead. Right now. This minute.

LiveQuest will change the way you access software and data forever. And transform the way you work. Read all about it: www.geoquest.com.

www.is.slb.com

*Mark of Schlumberger.



Schlumberger



October 2001

Sunday

Monday

Tuesday

Wednesday

Members Pre-registered Prices: General Dinner Meeting\$25 Env. & Eng.\$25 Luncheon Meeting\$25 International Explorationists\$25 North American Expl.\$25 Emerging Technology\$25 Non-members and walk-ups.\$30	1 Note: If your mailing label has a blue stripe on it, your membership has expired and this is your last issue.	2	3
7	8 HGS General Dinner Meeting Louis Liro, Kimberly Cline, Dan Knupp, and Mary Kadri <i>Workstation Visualization Techniques and Workflows: Examples from the Deepwater Gulf of Mexico</i> See page 9	9 GeoWives Tea Indonesian Consulate See page 49  Earth Science Week—Oct. 8–14 See pages 32–33	10 SIPES Seminar See page 10
14 Earth Science Field Trip <i>Spindletop Museum Field Trip</i> Sunday the 14th See page 33	15 HGS International Dinner by Mark G. Rowan <i>Structural Styles of Passive-Margin Deepwater Provinces</i> See page 15  Deadline for submitting articles and advertising for the November Bulletin	16	17 GCAGS 51st
21	22 HGS North American Dinner Meeting by Edward M. Norwood and Lise Brinton <i>Reexamination of late Jurassic Reef Building in the East Texas Basin; A Maturing Gas Play</i> See page 17	23	24 West Texas C
28	29	30	31 HGS Luncheon Meeting by Thomas E. Ewing <i>Shanghai Field, Expanded Upper Yegua Trend, Texas Gulf Coast: Unexpected Reservoir and a Distinctive Fault Style by 3D Seismic</i> See page 19

The source for solutions to geological, log evaluation, and drilling / completion problems

- Unconsolidated core analysis services / core handling ■ Improved sidewall core analysis
- Formation damage evaluation ■ Capillary pressure and resistivity studies
- Laser particle size distribution ■ Specialized and custom photography
- X-ray diffraction, SEM, and thin-section petrography



Core Petrophysics, Inc.— 10050 West Gulf Bank Rd., Suite 214, Houston, Texas 77040 (713) 896-4499
 Core Petrophysics, Inc.— 1217 Dealers Ave. New Orleans, Louisiana 70123 (504) 733-6583
 Core Petrophysics, Inc.— 1015 N. Cruse, Broussard, Louisiana 70518 (318) 837-8616
 Core Petrophysics de Venezuela, C.A.— Barcelona, Anzoátegui, Venezuela 011 58 81 776067

GEOEVENTS

Thursday

Friday

Saturday

4	5	6 Earth Science Day <i>Earth Exploration Extravaganza at the Museum of Natural Science</i> See pages 32
11 HGS Emerging Technology Dinner Meeting by Jeanne Perdue <i>E-Business: What's the Big Deal?</i> See page 13	12	13 Earth Science Field Trips <i>"Beneath Your Feet" Field Trip</i> Saturday the 13th See page 33
8 SIPES Luncheon <i>Annual Convention, Shreveport Louisiana</i> Oct. 17-19 See pages 16	19	20 Reservation Codes Use these codes to make voice mail meeting reservations. Call 713-917-0218 Dinner Meeting (5-0-1) Environmental and Engineering (5-0-2) International Explorationists (5-0-3) North American Explorationists (5-0-4) Luncheon Meeting (5-0-5) Emerging Technology (5-0-6) e-mail: joan@hgs.org
5 <i>Geological Society Fall Symposium</i> See page 38	26	27

Reservations:

Reservations for technical meetings must be made or cancelled **by noon on the last business day before the event**. Voicemail and automated reservations are electronically marked with the date and time they are made. If you make your reservation by email, a reply is sent confirming it. If you do not receive one, **assume it has not been** made and try again. Once name tags and lists are prepared, no more reservations can be added even if they are sent.

◆ = New or Changed Locations



Upcoming GeoEvents

October 1

RMAG Symposium,
Denver, Colorado
see page 26

October 5

GSH Tennis Tournament,

October 24-26

West Texas Geological Society
Fall Symposium, Midland, Texas
see page 38

October 29

DAPL/RMAG/DGS Prospect Fair,
Denver, Colorado
see www.rmag.org

November 3

Shrimp Peel
see page 4

November 8

HGS/SPE/HEC Luncheon,
Denver, Colorado

November 12

General Meeting—Water on
Mars: Its History, Likely
Distribution and Implications for
Future Exploration

November 14

HGS Class
Investigations into Seismic Inversion
see page 43

November 17-18

NeoGeos Beach Cleanup
see page 39

November 19

3rd Annual Robert E. Sheriff Lecture
see page 24



Petro-Temps Inc.

"Your Petroleum Placement Professionals"

2500 Tanglewilde, Suite 480
Houston, Texas 77063
(832) 251-0553
(832) 251-0157 Fax

909 Polydras St., Suite 1450
New Orleans, LA 70112
(504) 592-4007
(504) 522-9097 Fax

Technical and Administrative Professionals
with Exploration & Production Experience

Engineers • Geologists • Geophysicists • Landmen • Petrophysicists • Technicians
Administrative Assistants • Clerks • Data Processors • Secretaries

www.petro-temps.com

Houston • New Orleans

Working Together



E&P Information Solutions

Based on extensive audits and considerable client input, the two finest U.S. well and production databases (Petroleum Information and Dwights) are combined to create one powerful new database. And, it's available now!

PI+Dwights PLUS™ data is the single most comprehensive and reliable source for U.S. permits, drilling activity, well completion records and production volumes and tests. Data, delivery options and application tools work in tandem. This results in easy and flexible access to information for reserve and acquisition analysis, exploration and exploitation, and so much more.

The companies of IHS Energy Group have been collecting, standardizing, managing and delivering information to meet the needs of the petroleum industry since 1928. We understand your unique requirements and remain committed to delivering the products and services you need to succeed.

888.OIL.DATA
www.ihsenergy.com

**IHS
ENERGY
GROUP**

Copyright 2001. All rights reserved.
Petroleum Information/Dwights LLC d/b/a IHS Energy Group.
All trademarks belong to Petroleum Information/Dwights LLC.

Petroleum Information/Dwights LLC • PI (ERICO) • Petroconsultants S.A. • IEDS • MAI Consultants • AccuMap

The University of Texas at Austin establishes The John A. and Katherine G. Jackson School of Geosciences

John A. Jackson, a retired Dallas oilman and noted philanthropist, has given \$25 million to create the John A. and Katherine G. Jackson School of Geosciences at The University of Texas at Austin. The new school will unite the Department of Geological Sciences, the Bureau of Economic Geology, and The University of Texas Institute for Geophysics, bringing together more than 100 faculty and research scientists. "The synergy expected from this partnership will ensure that The University of Texas at Austin maintains preeminence in education and research in the geosciences for generations to come," said UT Austin President Larry R. Faulkner.

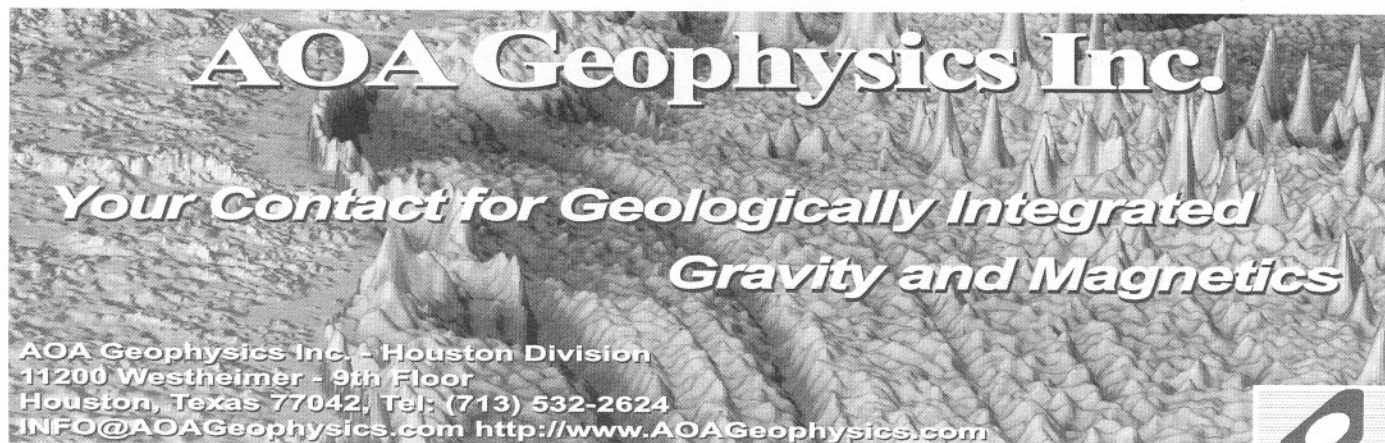
The UT Austin Department of Geological Sciences is one of the largest, most diverse, and highest ranked geoscience departments in the United States. Its 29 faculty and 11 researchers and lecturers are engaged in teaching at the graduate and undergraduate level, as well as conducting fundamental and applied research. The Department's doctoral program in stratigraphy and sedimentology is the top-ranked program in the country, and the paleontology, hydrogeology, and tectonics doctoral programs are ranked in the top 10 nationally. The Department is unique in geosciences because of its Geology Foundation—established by The University of Texas Board of Regents in 1953 to "promote the growth, progress and development of geological education, research and graduate study at The University of Texas"—which had assets of more than \$50 million before the Jackson gift. Mr. Jackson, who received his degree in petroleum geology from UT Austin in 1940, is an Honorary Life Member of the Geology Foundation.

The Bureau of Economic Geology, established in 1909, is the oldest organized research unit at UT Austin and enjoys an international reputation for excellence in energy and environmental research. Its diverse staff of 59 research scientists, representing the disciplines of geology, geophysics, petrophysics, and engineering, conduct basic and applied research worldwide. Research examples include salt

deformation, fractures, carbonate and clastic systems, multicomponent seismic analysis, coastal erosion, geologic mapping, water resources and quality, the unsaturated zone, and a variety of remote sensing applications. The Bureau also conducts long-term, integrated research projects investigating energy resources from the basin to reservoir scale, using state-of-the-art technology. The Bureau functions as the State Geological Survey, maintains an archive of all downhole geophysical logs from oil and gas wells that are submitted to the Railroad Commission of Texas, and manages the largest public core repository in the United States.

Founded in 1972 by Maurice Ewing, one of the most highly acclaimed Earth scientists of the 20th Century, The University of Texas Institute for Geophysics (UTIG) is an organized research unit within the UT System. Its 28 research scientists investigate the dynamic geophysical processes that influence Earth's structure and climate. They also develop new mathematical models, data processing, and imaging techniques that are relevant to natural resource exploration and the assessment of geologic hazards. Recognized as a leading academic research group in geophysics, UTIG carries out research all over the world and conducts large-scale, multi-investigator, multi-institutional field programs. Most notable among UTIG's international collaborations is a long-standing involvement in scientific ocean drilling through the Deep Sea Drilling Project, the Ocean Drilling Program, and the planned Integrated Ocean Drilling Program.

The \$25 million endowment for the new school will help support research, especially in the areas of water, energy, and mineral resources. Funds will also be used for curriculum enrichment, graduate student fellowships, and salary support. This gift follows a donation of \$15 million for the renovation of the UT Geology building made by Jackson and his wife late last year. □



AOA Geophysics Inc.

*Your Contact for Geologically Integrated
Gravity and Magnetics*

AOA Geophysics Inc. - Houston Division
11200 Westheimer - 9th Floor
Houston, Texas 77042, Tel: (713) 532-2624
INFO@AOAGeophysics.com <http://www.AOAGeophysics.com>



Exciting Events Planned for Earth Science Week,

October 6–14

www.hgs.org/esw.html

New this year: Views of the Earth Symposium

The HGS Earth Science Week Committee

The **Views of the Earth Symposium** is a new event for Earth Science Week—it is an exciting opportunity to meet with leaders in the science and energy sector and to hear their ideas on and experiences in the many fascinating aspects of earth science! It will be held Saturday, October 6, 2001 at the Houston Museum of Natural Science (HMNS). The symposium will begin at 7 p.m., following an informal reception at which the participants will be able to meet the speakers and visit with each other. The symposium will be a series of talks, including time for questions and answers. Dr. Neal Lane will lead off the evening. Dr. Lane is a professor at Rice University and a Senior Fellow at the Baker Institute for Public Policy. Dr. Lane has served as Assistant to the President for Science and Technology, as director of the White House Office of Science and Technology, and as Director of the National Science Foundation Arrangements are pending for two other speakers, a leader in the energy industry and a prominent geoscientist. For up-to-date details, see <http://www.hgs.org/esw01.htm>. Questions can be addressed to Janet Combes, (jmcombes@msn.com).

This event is open to the general public as well as members of the HGS, and is FREE to everyone. Space is limited and reservations are required, see <http://www.hmns.org/> or call the Museum's reservation line, 713-639-4629.

CALENDAR OF EARTH SCIENCE WEEK EVENTS IN HOUSTON

Join us for an enjoyable week as a visitor or a volunteer. Bring your family and friends!

Saturday, October 6, 2001, 11:00 a.m. to 5:00 p.m. (volunteers needed 10:30–2:30 and 1:30–5:30)

Earth Exploration Extravaganza at the Houston Museum of Natural Science—Weiss Energy, Paleontology and Cullen Mineral Halls. A day of family fun at the museum: Energy Passport contest, amazing demonstrations, special presentations and programs at the World Energy Theater, recognition of winners of a K–12 Earth Science contest. Free with Museum admission.

Saturday, October 6, 2001, 2:00 p.m.

Opening Ceremony for Houston's Earth Science Week in Museum of Natural Science Pendulum Hall. The HGS, the Museum and other participating societies (to date: Association for Women Geologists, Geophysical Society of Houston, the Gulf Coast Section-SEPM, Houston Gem and Mineral Society, Houston House of Delegates of AAPG, National Association of Black Geologists and Geophysicists, Society of Petroleum Engineers-Gulf Coast Section, Society of Independent Professional Earth Scientists, Texas Earth Science Teachers Association) are requesting that Mayor Brown issue a proclamation declaring Earth Science Week in Houston, to be presented during the opening ceremony. Free with Museum admission.

Saturday, October 6, 2001, 7:00 p.m. (volunteers needed for registration)

Views of the Earth: An Earth Science Symposium at the Houston Museum of Natural Science. *See description at top of this page.* Registration requested; free to all.

For more information on ESW events at the Museum contact
Inda Immega, immega@swbell.net, or Denise Martin dmartin@hmns.org

Monday–Friday, October 8–12, 2001 (volunteers needed to talk at area schools)

We encourage all HGS members to give a talk in a local school of your choice or in response to specific requests to the HGS. For information contact Alison Henning: alison_henning@yahoo.com). Slide sets, rock and mineral trays, and other materials are available on loan through the HGS (information: aebberman@wt.net). You can get one free set of posters and other materials to donate to the classroom from the AGI (www.earthscienceworld.org/week/). The Houston Gem and Mineral Society also has rock and mineral sets to lend (lexyb@airmail.net or mineraldesign@aol.com).

Saturday, October 13, 2001

For the Metropolitan Association for Teachers of Science (MATS) fall conference at the HMNS, the HGS will sponsor a presentation and distribute Earth Science Week kits to the attending teachers. The MATS conference is a great opportunity for the HGS to reach out to area teachers, and this will be the fourth year of HGS participation.

Saturday, October 13, 2001, 10:00 a.m. to 2:00 p.m. (volunteers needed to assist as guides and in logistics)

“Beneath Your Feet” Field Trip to explore High Island geology: the salt dome, oil field story, the Pleistocene fossil outcrop, beach geology and ecology. This trip is a joint effort of HGS, the HGMS, and the HMNS. Registration requested (jmcombes@msn.com). Get there on your own. Free to all. See the following article on field trips. For more info : hgms_trips@hotmail.com

Sunday, October 14, 2001, 1:00 p.m. to 4:00 p.m.

Spindletop-Gladys City Boomtown Museum – ESW visit. Get there on your own. Museum admission fee. See separate article on field trips. For more info : hgms_trips@hotmail.com

TWO Field Trips Announced for Earth Science Week 2001

Saturday, October 13–Field trip to High Island Oil Field and McFadden Beach. Arrive on your own at any time between 10 a.m. to 2 p.m., for a joint field trip given by Houston Geological Society, HGS NeoGeos, Houston Museum of Natural Science, and the Houston Gem and Mineral Society.

Directions: Take I-10 east from Houston, exit 828 at Hwy 124 (at Winnie), and drive south on Hwy 124 for about 18 miles. Stop at the leader’s vehicle (marked with orange tape and signs) for a map of the stops.

We will have stops, staffed by geoscientists and museum personnel, to talk about “High Island”, pumping jacks, area seismic, sedimentary structures on the beach, beach and nearshore ecology, Pleistocene fossils, and human impact on the beach. Bring water and lunch if desired, and dress appropriately for the weather. McFadden Beach has NO services.

Sunday, October 14–Visit Spindletop-Gladys City Boomtown Museum, Beaumont, Texas. Arrive any time between 1 and 4 p.m.

Directions: for a map see www.spindletop.org.

There will be re-enactors and geoscientist docents to help you look back to the 1901 oil boom.

Sign up: Trips are free except for the Spindletop Museum admission on Sunday, but you need to register. E-mail jmcombes@msn.com, give your name and the number of adults and children coming. These are family-friendly activities. Further details will be posted on the HGS Web calendar, at www.hgs.org/coursidx.htm,

Neal Immega, Field trip leader

Andrea Adams and Kelly Latter, NeoGeos chairs

Global Climate Change: *One Geologist's Musings*

A worldwide debate is occurring on the topic of climate change; commonly referred to as "global warming". This debate seems to focus on three questions: Is "global warming" really happening? If so, is human activity a cause? Finally what can be done about it? A quick review of articles in the popular press might lead one to the conclusion the debate has already finished. There are profound implications to the outcome of this debate. Political and economic impacts arising from this debate will effect all our lives and do so significantly.

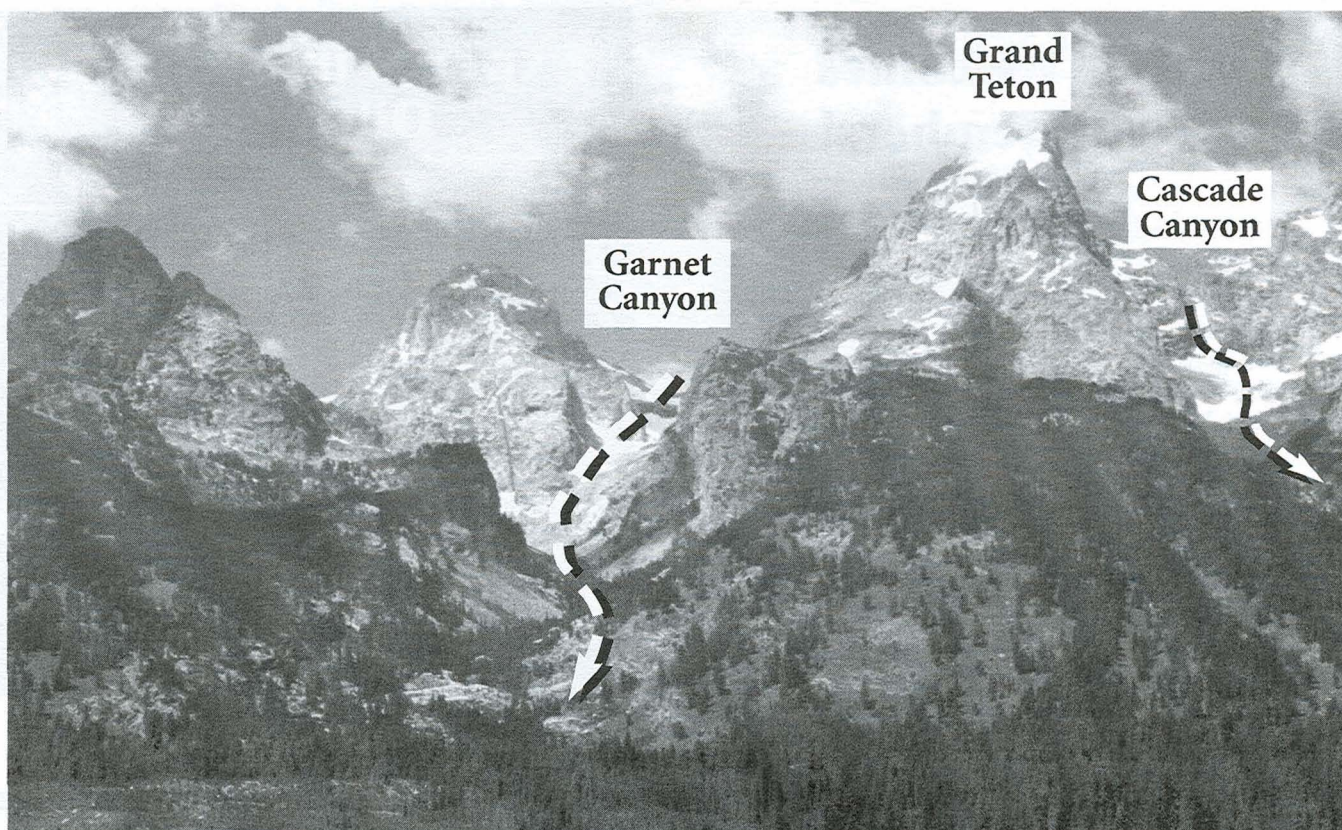
My musings and my reason for writing this article arise from a concern. I perceive this debate is occurring outside the context of basic knowledge about the Earth's history!

The concepts that the earth's climate changes and that sea level rises and falls, often seem new to nongeoscientists that I have talked to. The general public believes, I'm afraid, that rising sea level, as a possible future event, is a newly identified phenomenon revealed by Newsweek, Time and CNN! In contrast, for geoscientists these concepts are commonly accepted knowledge, indeed, basic in the day-to-day work of correlating strata, well logs and seismic reflections using the principles of sequence stratigraphy, paleontology, biostratigraphy and paleoecology.

As a geologist, I am often surprised at the response when I mention the most basic concepts of earth history to non-geoscientists. Carl Sagan coined a term, "demons in the darkness", in which he referred to the power of myth, pseudoscience and ignorance in our culture. A survey, cited by AAPG President Marlan Downey, in his address at the opening ceremony of the 2001 Denver AAPG Convention revealed that most Americans would rather attend a lecture on astrology than one on astronomy. I submit that debating "global warming" outside the framework of basic historical geologic knowledge is akin to allowing the "demon" of ignorance into the public policy arena, perhaps unintentionally, but hazardous for correct conclusions.

I feel strongly that we as geoscientists have to get more involved in discussions with our own acquaintances outside our profession about the global warming debate. We owe it to our society to find ways to express the range of Earth's climate variations throughout geologic time in ways our non-geoscience friends can understand, in order to give them perspective on the debate. Such discussions can take place anywhere, at the soccer field, the golf course or the cocktail party. I would like to share one of my most effective anecdotes for discussion of "global warming" here, hopefully to encourage you to help in the crusade to inject some basic earth history information into people's perspective as the debate goes on. I hope you agree! My anecdote involves a lesson I draw from geologic observations in two of the most spectacular places on earth, the Grand Teton mountain range of western Wyoming and southern Greenland. Places which have dramatic scenery and obvious differences, or, are they really so different?

I have been a student of the Grand Teton mountain range (Figure 1), south of Yellowstone National Park in western Wyoming, since my first visit during undergraduate years in college. One's appreciation of the Tetons increases with understanding of the natural processes, which have created its imposing beauty. The key geologic process, which has sculpted these granite peaks, is, erosion by glaciers! In fact, the Teton range is a world-class example of alpine glaciation, slow moving "rivers" of ice formed at high altitude, which flow slowly down slope with such enormous force they cut and shape solid rock. The remnants of the Teton glaciers still exist at high altitude. They can be visited, touched, and used as a water supply for hikers and climbers. When did sufficient ice exist in Wyoming to cause this amazing landscape to form? Geologic evidence, including dating of shells buried in the glacial outwash, indicates massive glacial activity peaked 25,000 years ago and ended only about 12,000 years ago, yesterday in geologic time! In fact, classic geologic studies tell us the Pleistocene epoch, about the last two million years, was a time of repeating cycles of glacier



formation, with advance and retreat leaving ridges of gravel, sand and silt at the foot of each canyon which trap spring water to form the beautiful lakes, such as Jenny Lake, at the foot of each canyon. There is evidence that ice existed on the valley floor of Jackson Hole as recently as 9,000 years ago.

Now I turn the conversation to a place where large active continental glaciers can be seen today, southern Greenland. Here actively flowing glaciers move to the sea, eroding the bedrock. The mountains of Greenland protrude through the ice sheets, often looking like islands caught between rivers of ice (Figure 2). The canyons being formed today in Greenland would look like the exposed valleys in the Grand Teton range if they were ever exposed. The point of all this is to illustrate, I hope clearly and dramatically, that only a few thousand years ago, Wyoming looked like Greenland does today. What caused the Wyoming ice sheets to melt? Certainly not CO₂ from fossil fuels, unless the mammoths were driving cars!

Anthropologists study the impact of climate cycles on the migration of Paleo-Indian people across the Aleutian land bridge. This bridge was formed as sea level dropped because so much water was being converted to massive glacial ice sheets. Fascinating accounts of this are detailed in *National Geographic* articles such as the October 1998 issue's "The Peopling of the Earth".

In fact, today's geoscientists, in both the academic and industrial worlds use a standardized reference scale of worldwide sea-level rise and fall, with sea level changing hundreds of feet

periodically over the last few million years. This calibrated cyclic change in global sea level resulted as the volume of glacial ice varied. As the climate cooled, more ice formed and less water remained in the oceans, as warm weather melted ice, more water moved to the oceans causing a rise in sea level. The cyclical changes in sea level have occurred repeatedly over the last million years and are one of the key processes in sequence stratigraphic models, which are employed by geologists in many applications, notably petroleum exploration.

My point?

It has been occurring in carefully documented cycles for tens of millions of years. Today, we are about 25,000 years into a warming cycle, which by all past evidence will be followed by cooling. Yes, strange as it seems, our beloved national parks could again be the sites of thousands of feet of ice like they were only yesterday in geologic time! The beautiful scenery of the present day mountains of Wyoming resulted from the past action of glaciers. The same processes, which are the key to understanding Wyoming's past, are happening today in Greenland, a beautiful example of the 19th century insights of pioneering geologists.

So, is there a global climate change? YES

Is this period we live in, a warming period? YES

What causes these dramatic cycles?

Many causes are possible including cycles of solar energy output,

continued on page 37



HGS Welcomes New Members!

*New members effective
September 1, 2001*

Active

Douglas Beckman
Hudson Biery
Richard Bishop
Keith Blair
Richard Byrd
Steven Carlson
Joseph Devay
Dennis Dull
Clive Ferebee
John Groce
Robert Grote
Gary Hall
Kyou Kim
Leonard Lind
John McNeely
Robert Menzie, Jr.
Melissa Morse
Scott Munsell

Active

Kester Okpiabhele
Rekha Patel
Oscal Ramierz
Kevin Stephens
Mark Sun
Dixon Van Hofwegen
Elton Wolter

Associate Members

Michael Bertness
Craig Bivins
Richard Jackson
Rudy Wildenstein

Students

Robert Hampton
Robert Moses, Jr.
Mychal Murray

Experts in Upstream Oil & Gas



**Technical Graphics & Drafting
Creative Services & Desktop Publishing**

Management of Graphics Departments

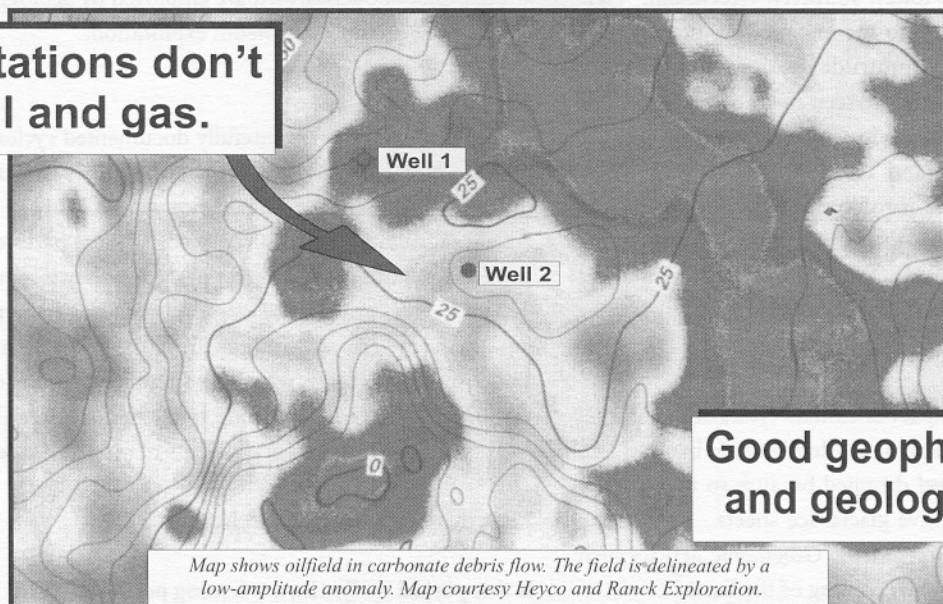
www.manzanitaalliances.com

P.O. Box 941088 - Houston, Texas 77094
Telephone: 281-560-3010 - Fax: 281-855-6711

SEIS-STRAT SERVICES, INC.

A Full Service Geophysical and Geological Consulting Group

**Workstations don't
find oil and gas.**

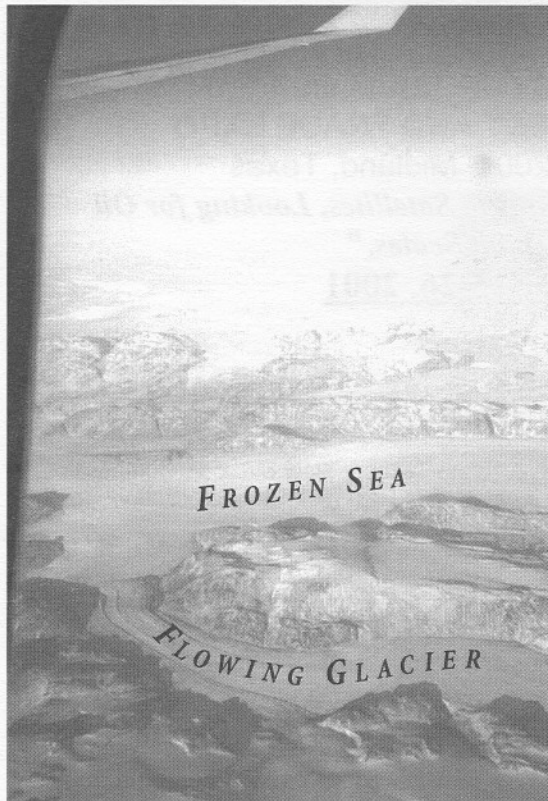


**Good geophysicists
and geologists do!**

Map shows oilfield in carbonate debris flow. The field is delineated by a low-amplitude anomaly. Map courtesy Heyco and Ranco Exploration.

Call Jory A. Pacht at (713) 532-5588 for help with your 3D and 2D seismic interpretation and exploration and development geology needs.

11111 Wilcrest Green; Suite 203; Houston Texas 77042 Ph: (713) 532-5588; Fax: 532-5599



changing climate as continents change position and atmospheric and oceanic circulation changes. We're not sure but scientific research continues.

Could human activity, such as a carbon dioxide release from fossil fuel burning be the cause?

Possible, but the industrial revolution began only 150 years ago! Human activity cannot explain everything. Tens of thousands of years in the final cycle of the current warming phase are unexplained if burning fossil fuel is the cause.

Is the concept of sea level rise or global warming a brand new phenomenon never before experienced on our planet, and only recently revealed to mankind in the popular press?

No, classic geologic studies identify worldwide sea level and temperature change as naturally recurring, well-established, plant-wide phenomena.

Does this change the perception being promulgated by politicians and the popular press and perhaps cause us to question human activity as the sole, indisputable "cause" of "global warming"? I Hope So!

Fellow geologists, let's participate and bring our insight to what should be a rational, open, scientific discussion of the evidence before profound policy is implemented! Have fun at your next barbecue or cocktail party!

Jeffrey Lund, Global Climate Change Committee

Climate Change 2001 Report

The Intergovernmental Panel on Climate Change (IPCC) has completed and published three of its four-part Third Assessment of Climate Change Report (TAR). The three volumes are entitled: Climate Change 2001: The Scientific Basis (Volume I); Impacts, Adaptations and Vulnerabilities (Volume II); and Mitigations (Volume III).

These reports, along with a Synthesis volume due out in September, are most likely to be extremely important to policy makers in evaluating the magnitude of, effects, and responses to global warming. They represent an international synthesis including information from more than 2500 scientific experts in 60 countries. The summary conclusions were read line by line and approved by over 100 United Nations and World Meteorological Organization member countries, who sponsored the IPCC and the reports. Climate Change 2001: The Scientific Basis (V.I) is most likely to be of the greatest interest to HGS members. Whether you agree with the conclusions or not, the scope and range of this report, and its likely impact on policy makers, makes it important reading for any HGS member interested in the global warming debate. A summary of the volumes can be found at the World Meteorological Organization Website: www.wmo.ch (choose Hot Topics from the menu, then choose World Climate News Vol. 19, June 2001, then see pgs.2,3,7-10. These are pdf files). The volumes themselves are available from the publisher, Cambridge University Press, or from online vendors.

—Editor

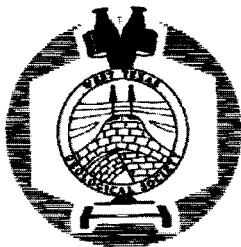


my printer

**WE ARE A FULL SERVICE
PRINT SHOP WITH AN IN-HOUSE
GRAPHIC DESIGN DEPARTMENT
THAT PRODUCES**

**NEWSLETTERS
BROCHURES
MARKETING KITS
BUSINESS FORMS
CORPORATE STATIONERY PACKAGES
REPRINTING OF ARTICLES
MAGAZINE ADVERTISEMENTS
PRODUCT/SERVICE/PRICE LISTS
INVITATION PACKAGES
DIRECT MAIL AND REPLY PIECES
MANUFACTURING CATALOGS
AND MUCH MORE!**

**713.270.0777 • 713.270.4253 FAX
myprinthe@aol.com**



WEST TEXAS GEOLOGICAL SOCIETY

2001 FALL SYMPOSIUM and 7th Annual PROSPECT AND TRADE EXPO

October 24-26, 2001, Midland, Texas

*"The Permian Basin: Microns to Satellites, Looking for Oil
and Gas at all Scales."*

2001 Fall Symposium – October 25-26, 2001

TWO FULL DAYS OF PRESENTATIONS

A sampling of papers to be presented (A full list of titles is available at www.wtgs.org/fallsymp):

- Upper Pennsylvanian and Lower Permian Stratigraphy and Porosity Distribution, Southwest Andrews Area, Eastern Central Basin Platform, Andrews County, Texas
- Pennsylvanian-Lower Permian Mounds and Reefs in the Permian Basin (West Texas – New Mexico): Composition, Evolution, Distribution, and Reservoir Characteristics The Importance of Layering in Reservoir Characterization: South Wason Clear Fork Reservoir, Gaines County, Texas
- Fracture Characterization using Rotary-Drilled Sidewall Cores: An Example from the Ellenburger Group, West Texas
- Effects of Meteoric Recharge on Cenozoic Migration of Petroleum, Wason Field Area, Northern Shelf of the Permian Basin

Contact Tim Hunt at 915/684-4404 or the WTGS Office at 915/683-1573, Fax 915/686-7827, wtgs@usaonline.net

Prospect and Trade Expo - October 24, 2001

EXHIBITORS: WTGS EXPO 2001 offers you a unique opportunity in Midland to expose your prospect, property, specialized services, etc. to a large audience in a short period of time. This event is held in conjunction with the 2001 Fall Symposium and has drawn over 500 people in each of the past 6 years.

VIEWERS: Past exhibitors have included individuals and companies of all sizes presenting projects from the Permian Basin, Mid-Continent and Gulf Coast. Typically, 30+ prospect exhibitors have been present in past years. The EXPO is also a great networking occasion for all attendees.

Contact Russell Richards at 915/682-5241 or the WTGS Office at 915/683-1573, Fax 915/686-7827, wtgs@usaonline.net

2001 Apache Mountains Field Trip

October 19-21, 2001, Begins/Ends in Midland, Texas

**Shelf Deposits and More in the Guadalupian
of the Apache Mountains, West Texas**

"Not Your Average Guadalupian"

This field trip will be headquartered in Van Horn, Texas and will include areas on private land not normally accessible to geologists. Grayburg and Queen formation shelf deposits of the Permian will be the main focus of this trip. The Apache Mountains are the southwest (windward) shelf margin of the Delaware Basin. These outcrops have not been studied since the mid 1960s and are the best analog for the southern Central Basin Platform. They represent a very different setting and geometries from those seen in the Guadalupe Mountains. Come and see:

- ☞ A different Guadalupian geometry than typically seen in the Guadalupe Mountains
- ☞ "Beheaded" Clinoforms on a distally steepened ramp
- ☞ Mounds in the Grayburg
- ☞ Grayburg without sand
- ☞ And much, much more.

Contact Bob Trentham at 915/552-2432 or the WTGS Office at 915/683-1573, Fax 915/686-7827, wtgs@usaonline.net

Visit the WTGS Website at www.wtgs.org

NeoGeos Fall Calendar

Hello NeoGeos!

Stay tuned for details regarding the following upcoming events. More information will be sent out in our monthly e-newsletter. If you would like to receive the NeoGeos e-newsletters, and are not currently on our distribution list, please send an e-mail request to neogeos@ev1.net and you will be added to the list!

NeoGeos are geoscientists who are relatively new to the geologic industries (petroleum and environmental); have less than 5 years of work experience after school; or those who have changed careers and are new to geology entirely. We now have over 225 NeoGeos on our roster, and we welcome you to join us if you fit these criteria. We meet for monthly socials, participate in HGS events, and host bi-monthly talks.

We look forward to seeing you at the following events:

October 6th—CVG Day at the HMNS—NeoGeos “Certified Volunteer Geologists” came out in full force last year to help out during the Earth Science Week Kickoff at the Houston Museum

of Natural Science. Please join us this year for this wonderful event. See the Earth Science Week write-up on pg. 32 for more information.

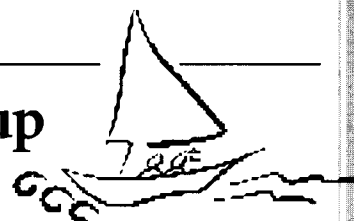
October 13th—Earth Science Week Field Trip—High Island—The NeoGeos will again be working as volunteers during the ESW field trip. See pg. 33 for the official announcement.

November 17 and 18—NeoGeos Beach Clean-up at Padre Island National Seashore, Corpus Christi—The NeoGeos will be heading down to Corpus Christi to clean up beach pollution. This will be an overnight camping trip—see announcement on this page.

If you're interested in attending and helping out with these events, please let us know! Send your e-mail response to neogeos@ev1.net. Thanks for your continued interest in NeoGeos!



NeoGeos Beach Clean-up & Social BBQ



Come and make a difference to the pollution on one of Texas' most beautiful beaches!

- **When**—November 17 and 18.
- **Where**—Padre Island National Seashore, Corpus Christi.
- **Come and pick up trash on one of the most remote beaches in Texas, camp on the beach and meet other NeoGeos at our beach BBQ.**
- **The plan** is to drive to Corpus Christi on Saturday at 10 a.m. (approximately 4 hours), set up camp, collect trash in the afternoon, have a beach BBQ in the evening, collect trash again early on Sunday morning. The rest of Sunday is yours to stroll along the beach, watch the wildlife (big birding country), kayak (available for rental just outside the park), windsurf (classes available in the park), returning to Houston by 8 p.m. on Sunday evening.
- **What you need to bring**—tent (if you have one), sleeping bag, any drinks you want (including water), a cap and sunscreen lotion.
- We will provide hot dogs, burgers, and trimmings for the BBQ and cereals for breakfast.
- **Transportation**—carpooling with a percentage of your gasoline money reimbursed for cars with 3+ people.

To enable us to organize both the food and the carpooling we need to know who is interested in going on the beach clean-up weekend. Please send an email to Helena Griffiths (hgriffiths@shellus.com), or ring her at 713-245-7978. We will need to know if you need a ride, need space in a tent, or have special requirements.

For more information on Padre Island National Seashore, visit <http://www.nps.gov/pais/index.htm>.

This event is being sponsored by
Shell Exploration & Production





**Geological Mapping Services
Structure Maps on CD-ROM
Base Maps
Geological Data Centers
Executive Reference Maps
Formation Tops Data File**

For more information call Geomap Company at
(713) 520-8989 or E-Mail at sales@geomap.com.

THE TNRCC TRRP TRAINING PROGRAM

**Texas Risk
Reduction
Program**
[30 TAC 350]



**A Hands-On
Short Course
for Environmental
and Industry Professionals**

**Houston
OCTOBER 10, 11, 12**

For More Info:
www.gsi-net.com Tel 713-522-6300

Presented by Groundwater Services, Inc., in association
with the Air & Waste Management Association (AWMA)
Gulf Coast Chapter, and with participation by the Texas
Natural Resource Conservation Commission (TNRCC).



GROUNDWATER
SERVICES, INC.



BTA OIL PRODUCERS

- ◆ **ACQUIRING:** Drilling prospects in the Texas and Louisiana Gulf Coast onshore and state waters.
- ◆ **PREFERRED:** Operations, 3D support, Minimum 25% participation
- ◆ **CONTACT:** Paul Barber, ph: 281-872-5022, e-mail: pbarber@btaoil.com
16825 Northchase, Suite 680, Houston, TX 77060



Geological Data Library, Inc.

Houston's TECHNOLOGY Data Library
Workstation Rentals for Members/Guests
SMT, Geographix, Neuralog Applications
Logs, Maps, Production Data, Research
Internet Access, Many Other Services

713 658-0033
811 Dallas, Suite 930
www.GeologicalData.com

Remembrances

Since the last communication (July 10) from the HGS Remembrances Committee, our geological community has lost the following members:

Charles F. Brown, 68, died July 9, 2001. After serving in the US Air Force during the Korean War, Charles graduated from LSU with a BS in petroleum engineering. He was an active member of the Houston Geological Society and the Society of Petroleum Engineers. A donation will be made to the HGS Undergraduate Scholarship Fund.

Jesse L. George, Jr. died July 24, 2001, at the age of 80. Jesse served his country in WW II in Europe before graduating in 1947 from Texas Tech University with a BS in petroleum engineering with a geology minor. He worked for several companies during his distinguished career including Texaco, Sohio, Rutherford Oil, and as CEO and Chairman of Deminex, U.S. Jesse was a former President of both the Houston and Lafayette Geological Societies and was active within the AAPG. A donation will be made to the Seton Highland Lakes Hospice of Burnet.

William C. Robbins, Remembrances Committee
bill.robbs@totalfinaelf.com
713-647-3506

Free Resources at the Houston Public Library!

The Houston Public Library's Earth Science Collection is only as good as Houston could make it. That is due to hard work by the staff and by previous HGS Library Committees. The Library Committee was created to provide liaison with Houston Public Library (HPL). The principal purpose for the committee is to provide guidance and support for the "geological stacks", which started as publications bequeathed to HPL by several old-time big-name geologists. At about the same time HGS donated a fund to "Establish a Petroleum Collection" in HPL. As that purpose is now fully accomplished, that fund has been combined with other funds for the general use of HPL.

The Committee for many years was run by Eve Moody. Under her guidance the Earth Science Collection, originally the geologic stacks, was moved to open shelves for greater access by the geologic community. Over the years HGS contributed maps, books, and equipment to the library. HPL has developed a great collection of Geology and Petroleum Technology in the Business, Science and Technology Department. They have many E-logs and driller's logs, some available to the public there only.

Some other historically valuable material of interest to geologists is in the "Texas Room" in the Julia Ideson Building (the "old library").

Bill Champion,
HGS Library Committee
colbill088@aol.com

The Workstation Place

16360 Park Ten Place, Suite 102
Houston, Texas 77084

281 492-1856
SSTARR9711@aol.com

Affordable NT Workstations featuring SMT Interpretation Software ... Complete range of color inkjet plotters...

Presentation and conference room facilities included. Other NT software is available by special arrangement.

Rates you can afford:

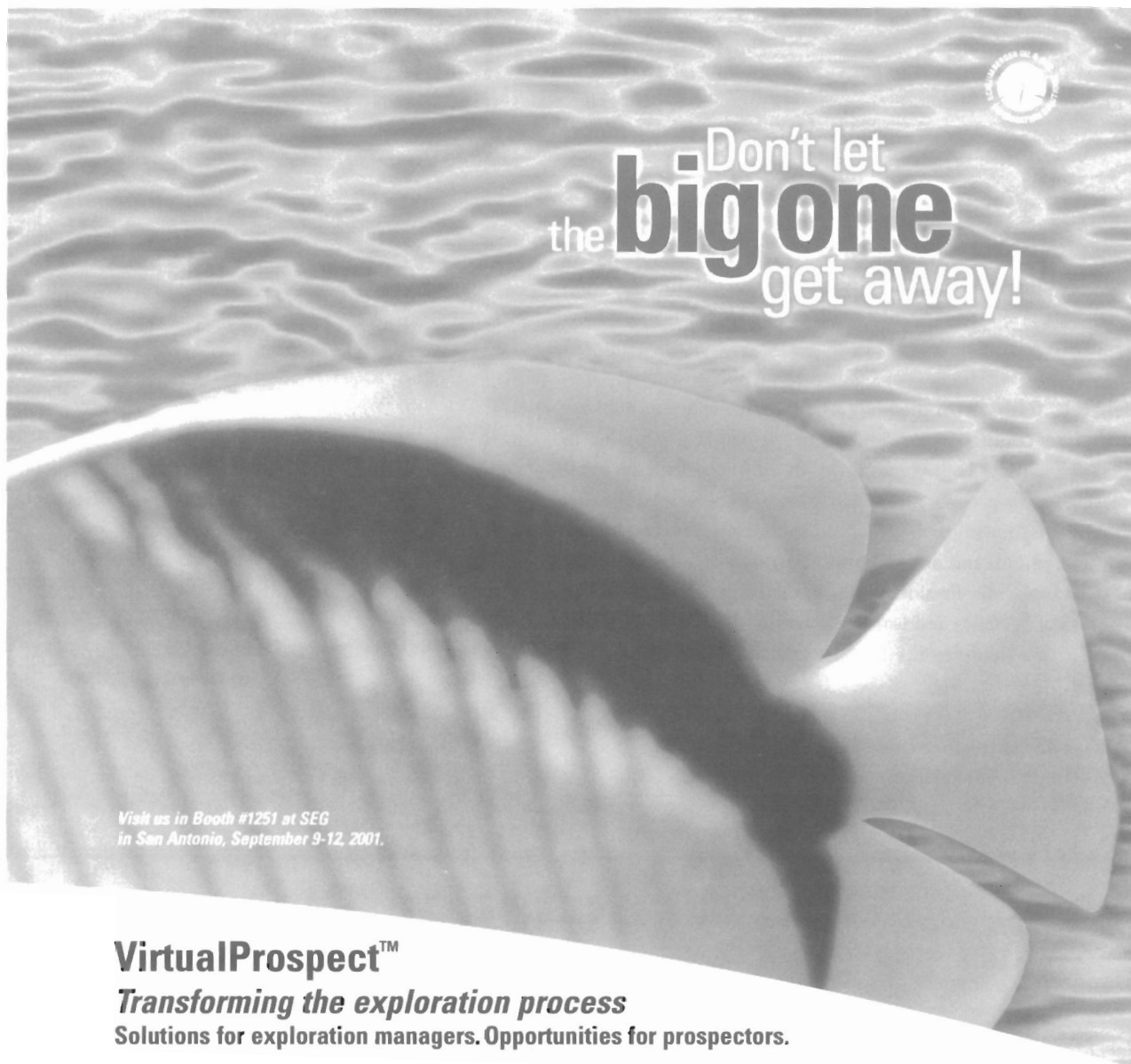
\$190.00 per day on a weekly basis
\$150.00 per day on a monthly basis
\$135.00 per day on a quarterly basis

Data loading and software assistance are available at cost.
The ultimate in confidentiality ... removable project hard drives under your direct control, if desired.

Experienced interpreters are available to interpret your projects.

We invite you to come by ... call on the phone ... or drop us an email

Thank you,
Steve Starr, The Workstation Place



Visit us in Booth #1251 at SEG
in San Antonio, September 9-12, 2001.

VirtualProspect™

Transforming the exploration process

Solutions for exploration managers. Opportunities for prospectors.

Generate new prospects **today** using VirtualProspect™. This proven Web-enabled system delivers bottom-line business benefits — significant risked reserves and cycle time reduction. With VirtualProspect™, E&P companies leverage a worldwide knowledge base of geoscientists and expand their prospect inventories without increasing staffing. Prospectors have access to a broader field of opportunities.

Increase Opportunities. Accelerate Production.
You can with IndigoPool.

For more information about Virtual Prospect™
contact us at info@indigopool.com.

*Mark of IndigoPool.com

Companies • Compress your prospect development cycle time • build new prospect inventory • maximize value from existing infrastructure • leverage scarce staff resources

Prospectors • Leverage your core expertise
• exclusive prospecting rights without lease costs/rentals • data provided by companies
• performance-based compensation for prospects developed • tap into a broader client base

 **INDIGOPOL.COM**
a Schlumberger company

001P0009



HOUSTON GEOLOGICAL SOCIETY PRESENTS

Investigations into Seismic Inversion for Geologists

November 14, 2001

Auditorium, Shell Plaza
910 Louisiana-Houston, TX
8:00 a.m.-4:30 p.m.

Are you concerned about being behind the learning curve of seismic inversion?

This seminar will begin by addressing basic questions concerning seismic data inversion: What is inversion? What is needed to perform inversion? How is it done? What are the advantages? When should this technology be used? What does it cost in time and money?

The seminar will proceed with presentations on the preparation of data, application at the project level, case histories, and a discussion of the future evolution of inversion. It will conclude with a panel discussion.

This course is intended to inform upstream professionals about the history, current status, and future of this evolving technology.

\$ 75 Members* and full-time students, before November 9
\$ 95 Nonmembers
\$ 125 Registration at the door

*(Members in HGS, API Houston, GSH, HAPL, SIPES Houston, SPE Gulf Coast, SPEE Houston, and SPWLA)

To reserve a seat, send a check payable to "HGS" and the registration below to:
HGS, 7457 Harwin, Suite 301, Houston, TX 77036, Attn: **Seismic Inversion Seminar**

Name: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

Membership in: ☐ HGS ☐ GSH ☐ API ☐ HAPL ☐ SIPES ☐ SPE ☐ SPEE

☐ SPWLA

HGS/GSH Member No. _____

Amount sent (US \$) _____ *Thank you for supporting Continuing Education.*

PERSONAL SERVICE. EXPANDED CAPABILITIES.



Core Laboratories



*Standing: Ted Griffin, Wayne Sealey, Larry Bruno, Randy Miller, Tom Swisher, Hugh Peek, Larry Hall, and Michael Santiago.
Seated: Steve Alexander, Rhonda Cothron, Keith Hudson, and Fred Palumbo.*

We are committed to the success of our client companies.

To enhance the prospects of our clients' success, we have forged our companies into a powerful union. That union combines the distinct talents of three true service companies and makes them available to you through the same sales/service representative who has demonstrated commitment to your success all along.

Invite your personal rep to describe the expanded support he or she can offer you now.

CORE PETROPHYSICS

The Gulf Coast leader in softcore and sidewall core analysis

RESERVOIRS INC

Developers of the Deepwater Gulf of Mexico Study, the world's largest and most comprehensive study of deepwater reservoirs

CORE LAB PETROLEUM SERVICES

The world's largest and most technologically advanced independent provider of petrophysical services to describe the reservoir system

© 2001 Core Laboratories, Inc.

**24-Hour Wellsite Service and
Sample Pick-up Hotline: 713-328-2121**

Houston Advanced Technology Center
6316 Windfern
Houston, Texas 77040
713-328-CORE



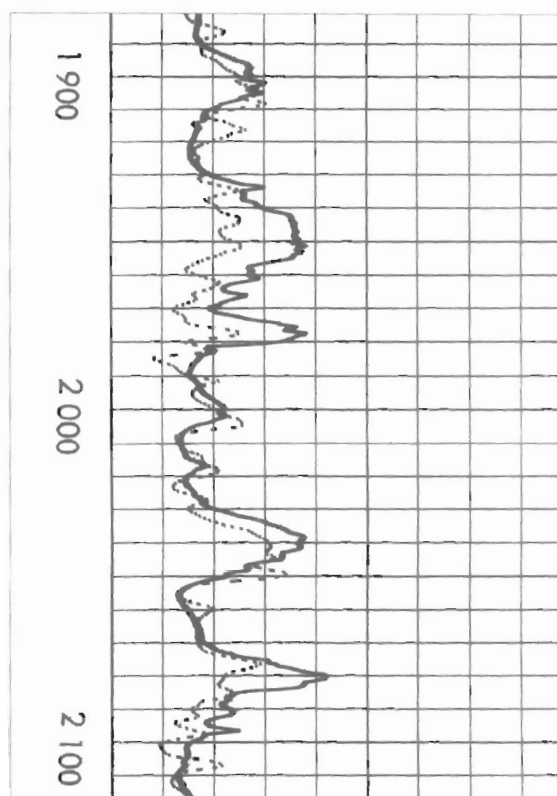
www.corelab.com

**Our new Brazil lab is open.
Contact Moyses Lachter to arrange a tour.**

Rua Sargento Aquino 287
Olaria - RJ - Brazil 21021-640
55-21-38689888
mlachter@corelab.com

New Orleans • Lafayette • Corpus Christi • Midland • Bakersfield • Duncan • Anchorage

Need that as a raster image?



Cambe's entire Gulf Coast file of 1½ million well logs is now available in a convenient Tagged Image File Format (TIFF) at a price you won't believe. Members of our library pay just **\$5** for a one-inch, **\$25** for a five-inch in whatever media you choose or have it e-mailed to you today. Ready to use with the software of your choice.

For more information, call
Susan Collette.

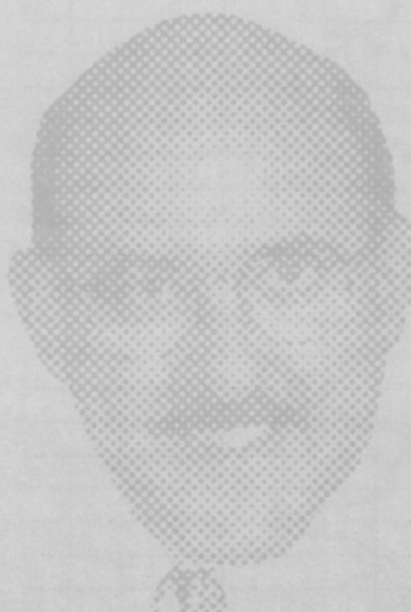


713-659-8363 800-880-0339 Fax 713-757-0179
1500 Gray Street Houston, Texas 77002-8900
www.cambe.com

Geology
Geophysics
Reservoir Technology
- on your desktop PC

Technoguide™

Petrel™ Software - Advanced 3D Reservoir Modeling on Windows

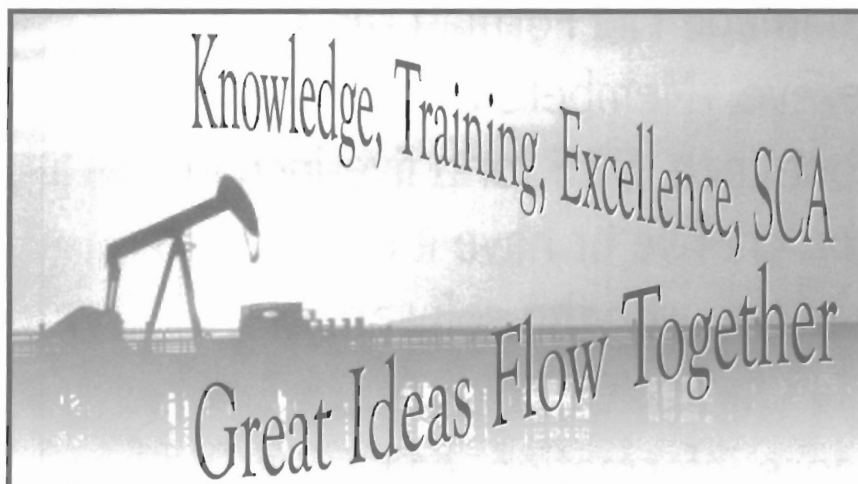


«Petrel is literally a dream come true. For years, I have dreamt of building 3D models as compelling as those I see in video-games and movies. That day has arrived - but Petrel is no video-game. It has the power to match the old UNIX-based beasts, and the integration, ease-of-use, and value-for-the-dollar to blow them completely away. That's no sales pitch. It's a reality that Delta R is proving in every hydrocarbon asset valuation that we do. Throw your UNIX boxes away. We did, and have never looked back.»

Tarek Y. Ghazi, Operations Manager, Delta R LLC

www.technoguide.com

Aberdeen	+ 44 1224 332 007	Calgary	+ 1 403 237 8385	Perth	+ 61 8 9371 0900
Beijing	+ 86 10 6461 6439	Houston	+ 1 281 558 6003	Stavanger	+ 47 51 63 79 70
Bombay	+ 91 22 7895257	London	+ 44 1784 410 411	Oslo	+ 47 22 51 04 50



When the highest level of training and consulting services is needed in the upstream petroleum industry, professionals look no further than SCA. We have trained over 15,000 managers, geoscientists, and engineers worldwide. Not only have we written the book on proven geoscience and engineering principles, we are expanding on it with the forthcoming release of the second edition of our best-selling industry book:

For Consulting contact: **Lee Shelton**

lshelton@scacompanies.com

Barry Eastland

eastland@scacompanies.com

For Training contact: **Pat Geary**

pgeary@scacompanies.com

Upcoming Training Courses

Applied Subsurface Geological Mapping

Quick Look Techniques for Prospect Evaluation

Location

Houston, Texas

Houston, Texas

Dates

Oct. 15 - 19, 2001

Oct. 30 - 31, 2001

Houston, TX

Lafayette, LA

New Orleans, LA

Phone: (713) 789.2444

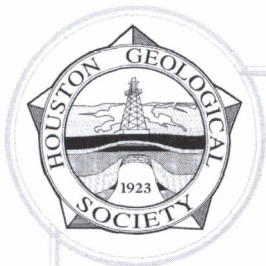
Phone: (337) 234.8557

Phone: (504) 523.1080

**Applied Subsurface
Geological Mapping
with Structural Methods**



www.scacompanies.com



HOUSTON GEOLOGICAL SOCIETY PRESENTS:

2nd International Symposium

DOING BUSINESS IN LATIN AMERICA Opportunities and Case Histories

January 22, 2002

Westchase Hilton

9999 Westheimer–Houston, Texas

8:00a.m – 4:00 p.m.

Are you interested in Latin America? Experienced speakers from small and large energy and technology companies will share their experience on keys to success in new ventures. A variety of case histories will cover the many ways to develop a successful business ranging from exploration to field redevelopment, including keys to overcoming technological hurdles, and cultural and environmental challenges. The rapidly changing roles of energy companies and governments, changes in economic and market dynamics will be discussed by industry leaders who are defining emerging business strategies.

- A series of technical posters and exhibits will complement the themes of the Symposium.
- A mixer will follow the seminar. (4-6 p.m.)

Meet the speakers, network with peers and meet government representatives.

- Proceedings Volume (sponsored by IHS Energy) includes speaker presentations on CD.

This course is intended for any upstream professional involved in Latin America

\$ 95 Members* and fulltime students, (mail-in registration received before January 7)

\$ 110 Non-members

\$ 135 Registration at the door

*(Members in HGS, API Houston, GSH, HAPL, SIPES Houston, SPE Gulf Coast, SPEE Houston, and SPWLA Gulf Coast)

To reserve a seat and Proceedings Volume, send a check payable to "HGS" with the registration below to:
HGS, 7457 Harwin, Suite 301, Houston, Texas 77036, Attn: LA Int'l Symposium

Name: _____

Company: _____

Address: _____

City: _____ State: _____ Zip: _____ Phone: _____

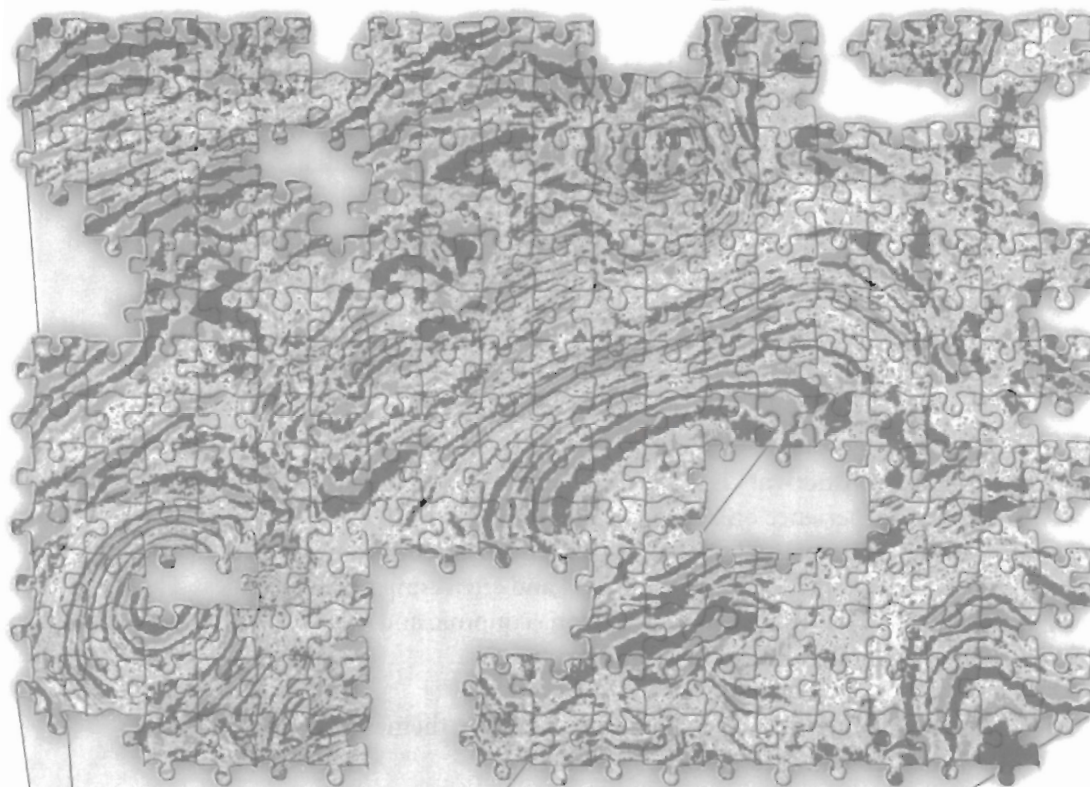
Membership in: ☐ HGS ☐ GSH ☐ API ☐ HAPL ☐ SIPES ☐ SPE ☐ SPEE

☐ SPWLA

HGS/GSH Member No. _____

Amount sent (US \$) _____ *Thank you for supporting Continuing Education.*

Missing a few pieces of the seismic puzzle?



**Fill in the blanks
from our extensive 3D
Gulf of Mexico database.**



FAIRFIELD
INDUSTRIES

Houston 281/275-7500
New Orleans 504/525-6400
Denver 303/716-1630
www.fairfield.com (800)231-9809

**Proud to be
an American
company**

HGA's Grand Opening

by Millie Tonn, President

A Jazz Brunch evoking thoughts and sounds of New Orleans and entertainment provided by Pat Austin and her musical group, CLASSIC JAZZ, were the star features at our first meeting of the new year held at the beautifully updated Lakeside Country Club on Thursday, September 20. A sumptuous buffet of brunch delicacies was enjoyed by our members, their guests and new members. The latter two groups were introduced and given special recognition.

Pat Austin and her musical group put on a prime-time show for our meeting; and we want to give Pat an extra star in that she is not only a highly talented musician, but is also an HGA member.

The membership drive, which continues all year, is under way and is getting good response. We extend a hearty welcome and thanks to the following new members: Elizabeth Barrick, Melza Barr, Ruth Harrison, Latife Hyde, Lisa Lowenstein, Ruth Masters, Jean Stoneburner, and Genne Thornton. We welcome and encourage the spouse of any HGS member to join us for our activities. Membership application forms are included in the HGS *Bulletin* or can be obtained by calling Membership Chairman, Margery Ambrose at 281-497-3413.

HGA'S SOS Volunteers have spent many hours working at the HGS office assisting Joan Henshaw and Annette Mathers with processing the membership dues. Among those volunteering were Linnie Edwards, Lois Matuszak, Sylvia Morris, Val Oualline, Helen and John Thomas, and Myrtis and Gene Trowbridge. Our thanks and appreciation to them.

We were delighted to have had a group of HGA volunteers furnish assistance with the registration at AAPG'S APPEX, which was held August 27-29 at The Adam's Mark Hotel.

It might also be mentioned at this time that it is not too early to think about making plans to attend our upcoming December event, CHRISTMAS ON BROADWAY, which is scheduled for 11:00 a.m., Wednesday, December 12, at THE GREAT CAURSO DINNER THEATRE. All HGA/HGS members and their guests are invited to this much-acclaimed production that The Great Caruso presents during the holiday season. This event is very popular and draws a large turnout, so please consider making your reservations early. An invitation will be included in the November HGS *Bulletin*.

GeoWives

Expanding Horizons October Event:
October 9, Tuesday, 10:30 a.m.

Location:
The Indonesian Consulate on Richmond

Hosts:
Chairs Susan McKinley and Linnie Edwards. A discussion of Indonesian fabrics, lunch to follow at the Consulate cafeteria.

For more information
contact Alice Cook 713-558-3267. □

**Andalusia Petroleum Services, Inc.**
Customized Solutions For All Your Reservoir Needs

We offer high quality services at competitive prices
and our staff boasts over a century of domestic & international experience

Core handling	Full line of routine and special core analysis	Thin Section Analysis
Scanning Electron Microscopy & Energy Dispersive Analysis (SEM & EDS)	X-Ray Diffraction Analysis (Bulk & Clay Mineralogy)	
Reservoir database creation and management	Well log analysis and digitization	

Contact us today for our complete line of services
Telephone: (713) 935-9048 Fax: (713) 935-9049 Email: AndalusiaP@aol.com
11211 Katy Freeway Suite 500-5 Houston, TX 77079



PETROPHYSICAL SOLUTIONS, INC.

The fulltime solution source

- International & Domestic Consulting
 - Workflows
 - Field Studies
 - Single Well Studies
- Training & Mentoring Programs
- Software Training & Development
- Soviet & Electric Logs

Focusing on your needs



PETROPHYSICAL SOLUTIONS, INC.
11767 Katy Freeway, Suite 380
Houston, TX 77079 USA
Phone: (281) 558.6066
Fax: (281) 558.5783
email: petrosol@aol.com

TOBIN Tools for Success



Tools for Success

- TOBIN Tools™ Visualization Software
- Land Base and Well Data
- Lease and Ownership Data
- Digital Subscription Windows
- Implementation Services
- Custom Digitizing Services

800.365.4484 www.tobin.com

Dallas, TX Denver, CO Houston, TX Moscow, Russia
New Orleans, LA Newport Beach, CA San Antonio, TX



Up-To-Date On Your Training Needs?

These Popular NEXt Courses Are Still Available!

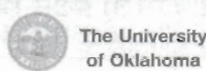


Houston	Introduction to Exploration Geophysics	October 15-19
	Advanced Formation Evaluation and "Quick-Look" Well Log Analysis	Oct 29 - Nov 2
	Overview of the Petrophysical Integration Process Model	
	and Subsurface Characterization	October 29-31
	AVO Analysis	October 30-31
	Deepwater Drilling - Operational Aspects	November 5-9
	Deepwater Drilling - Design and Planning Aspects	November 12-16
Norman	Deepwater Drilling - Well Control	November 19-21
	Deepwater Field Development Techniques	November 26-30
	Applied Geostatistics for Petroleum Engineers and Geoscientists	December 3-7
Tulsa	Structural Styles and Hydrocarbon Traps in Compressive Basins	October 22-26
	Deepwater Drilling - Well Control	December 10-12
Tulsa	AVO Modeling and Interpretation	November 1-2
	Seismic Characterization of Fractured Reservoirs	December 20-21



What's NEXt? Training solutions for today.

www.next.ie



Contact Diane Drake at
info-west@nexttraining.net
or 979.485.0477.



Application to Become a Member of the Houston Geological Society

Qualifications for Active Membership

- 1) Have a degree in geology or an allied geoscience from an accredited college or university; or
- 2) Have a degree in science or engineering from an accredited college or university and have been engaged in the professional study or practice of earth science for at least five (5) years.

Qualifications for Associate Membership (including students)

- 1) Be involved in the application of the earth or allied sciences; or
- 2) Be a full-time student enrolled in geology or in the related sciences.

Administrative Year: July 1 through June 30.

Annual dues are \$20.00; (\$10.00 of your membership fee goes toward the *HGS Bulletin*)

Full-time students and emeritus members pay \$10.00.

Mail this application and a check to:

Houston Geological Society
7457 Harwin, Suite 301
Houston, TX 77036-2190
 Telephone: 713-785-6402
 Fax: 713-785-0553

To the Executive Board: I hereby apply for ☐ Active or ☐ Associate membership in the Houston Geological Society and pledge to abide by its Constitution and Bylaws. ☐ Check here if a full-time student.

Name: _____

Address: _____

Home Phone: _____ Spouse's Name: _____

Email: _____

Job Title: _____

Company: _____

Company Address: _____

Work Phone: _____ Fax Number: _____

Circle Preferred Mailing Address: Home ☐ Office ☐

Professional Affiliations:

☐ Active AAPG Others: _____

Professional Interest:

- ☐ Environmental Geology
☐ International E&P
☐ North American E&P (other than Gulf Coast)
☐ Gulf Coast E&P (onshore & offshore)

School _____

Degree _____ Major _____ Year _____

School _____

Degree _____ Major _____ Year _____

School _____

Degree _____ Major _____ Year _____

Earth Science Work Experience _____

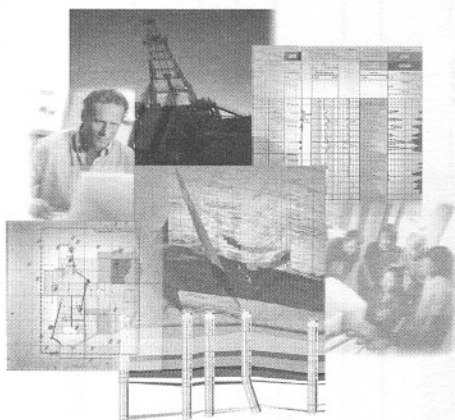
Applicant's Signature _____ Date _____

Endorsement by HGS member (not required if active AAPG member)

Name: _____

Signature _____ Date _____

Membership Chairman _____ HGS Secretary _____



Prospecting With Power.

How many more successful wells could you drill in a year if you could spend less time managing data and more time interpreting?

GEOGRAPHIX DISCOVERY™ can increase your prospecting power. Work from a single database and consolidate your geological, seismic, and log data into a single interpretation. No exports and imports between databases—run as many iterative “what-if” scenarios as you’d like—and predict results with confidence. So whether you work as part of an asset team—or you are the asset team—GEOGRAPHIX DISCOVERY will increase your prospecting power.

Call us at 303-296-0596 to learn more about GEOGRAPHIX and the power of DISCOVERY — now with the power of *GMaplus*

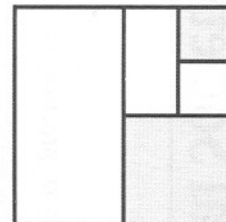
303-296-0596

GEOGRAPHIX
A Landmark Company

www.geographix.com

Square Mile Energy L.L.C.

5847 San Felipe Suite 2940
Houston, TX 77057



Active independent seeking non-operated interests in ready-to-drill, 3-D supported prospects in the Gulf Coast Tertiary. Prefer exploitation opportunities in established trends with a reserve range of 2–20 BCF. Willing to fund lease or seismic acquisition on strong leads. Long-term participation at project or program level also considered.

Contact:

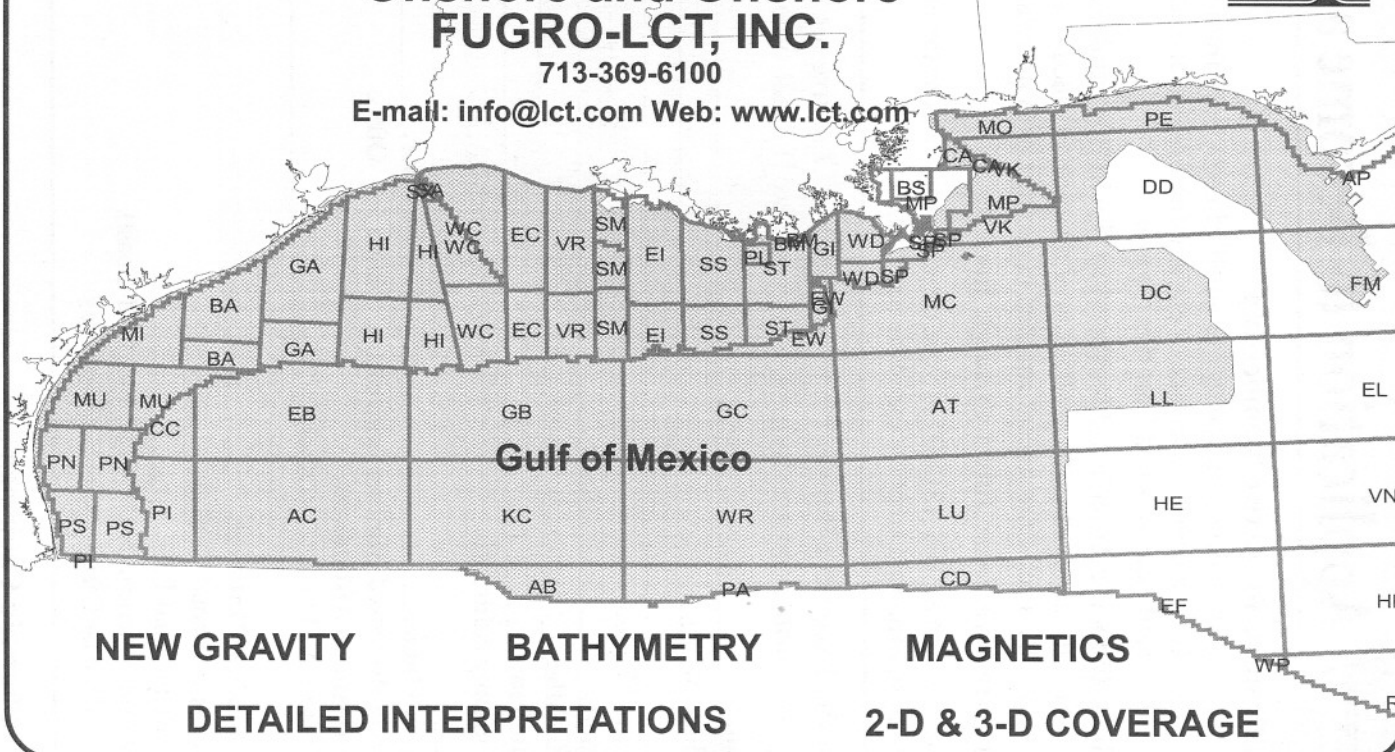
Mark Bloom at (713) 266-3685, Ext.307

Fax (713) 266-3639

Best Quality Data Onshore and Offshore FUGRO-LCT, INC.

713-369-6100

E-mail: info@lct.com Web: www.lct.com



Web site Advertising Rates

The Houston Geological Society Web site is seen by many people each day. In recent months, we got over 200 hits per day on this site. You have four options for paid advertising on the Web site, with or without links to your company's home page.

For those companies already advertising in the *Bulletin*, their company names are posted on the Supporter page for free but they have the option to link this to their home page for an additional \$10/month fee. If you have a product or service that is available at no charge, you can post it here for no ad fee. To arrange to put your ad on our Web site or to get more information, send an email to Bill Osten (lwosten@ppco.com) or go to the HGS Web site at www.hgs.org.

	"What's New" (front page) Logo Ad	Business Card (plain/linked)	Geo-Classified (plain/linked)	Bulletin Supporter Link
One year	\$500	\$50/\$60	NA	NA
6 months	\$275	NA	NA	NA
3 months	\$140	NA	NA	NA
1 month	NA	NA	\$25/\$30	\$10

PALEO-DATA, INC.

FRANCIS S. PLAISANCE, JR.
ARTHUR S. WATERMAN
MICHAEL W. CENTER

6619 Fleur De Lis Drive
New Orleans, LA 70124

ALBERT F. PORTER, JR.
NORMAN S. VALLETTE
WILLIAM H. McKEE

(504) 488-3711 Phone (504) 488-6292 Fax paleostaff@paleodata.com

♦ BIOSTRATIGRAPHIC ANALYSIS ♦ ♦ REGIONAL STRATIGRAPHIC MAP AND DATA PACKAGES ♦ ♦ DIGITAL DATABASES ♦

Professional Directory



Life, Health, Dental, Disability, and Supplemental Plans
AAPG's GeoCare Benefits Insurance Program
P. O. Box 1246
Carpinteria, CA 93014-1246
800-337-3140
E-mail: geocarebenefits@agia.com
www.geocarebenefits.com



Annette Mather
Advertising Coordinator

7457 Harwin, Suite 301
Houston, Texas 77036
www.hgs.org

Houston
Geological Society
HGS Bulletin

Office 713-785-6402
Home 281-556-9539
Fax 713-785-0553



Society of Independent
Professional Earth Scientists

SIPES

- Independents mainly in the Oil & Gas Profession
- Network with Prospect and Production Buyers and Sellers
- Deal with Duly Certified Professionals

For More Information Contact SIPES @
(713) 651-1639 or e-mail: sipes@sipes.org

Oil and Gas Prospects
Detail Field Studies

Richard R. McLeod
Petroleum Geologist

3610 Cape Forest Dr. 281-913-2136
Kingwood, TX 77345-1321 281-913-2129 FAX

RASHEL N. ROSEN

CONSULTING BIOSTRATIGRAPHY
Domestic and International
Foraminifera and Calpionellids interpreted
for Sequence Stratigraphy

(281) 893-6646 Fax: (281) 586-0833
email: rosen@neosoft.com



PROSPECT GENERATION/EVALUATIONS
DEVELOPMENT/ACQUISITION STUDIES

ROGER S. TREJO
Certified Professional Geological Scientist
Certified Petroleum Geologist

3222 Lakefield Blvd.
Sugarland, Texas 77479

Phone: (281) 265-5973



**Place Your
Business Card Here!**
\$125.00 for 10 issues

Petrophysical Solutions, Inc.

Val J. Lincecum
Sr. Petrophysical Specialist



11767 Katy Frwy
Suite 380
Houston, TX 77079
281 558 6066
fax 281 558 5783
valj@msn.com



BIG "6" DRILLING COMPANY

7500 SAN FELIPE, SUITE 666
HOUSTON, TEXAS 77063

CHESTER B. BENGE, JR.
PRESIDENT

OFFICE: 713-763-2300
FAX: 713-763-4463
RES: 713-439-0903

P.O. Box 81 • 1390 MAIN STREET
MONTARA, CA 94037-0081

PH: 650.728.3373
FAX: (BY REQUEST)

VICTOR H. ABADIE III
CONSULTING GEOLOGIST

CERTIFIED PETROLEUM GEOLOGIST, AAPG NO.3936
CALIFORNIA REGISTERED GEOLOGIST, LIC. NO. 4040
SOC. OF INDEPENDENT PROF. EARTH SCI., NO. 2085

The WorkStation Place

...affordable interpretation workstation services

Stephen G. Starr

16360 Park Ten Place, Suite 102 • Houston, Texas 77084
281 492-1856 ... Voice • 281 398-6669 ... Fax
sstarr9711@aol.com

SRI SPECTRA RESOURCES INC.

Robert H. Barton
President/CEO

1111 Wilcrest Green, Suite 130
Houston, Texas 77042

(713) 974-6061
FAX (713) 974-6461

BSE

B & S Exploration, Inc.

JAMES B. BENNETT Geology
RANDALL SCHOTT Geophysics

811 Dallas
Suite 1020
Houston, Texas 77002

Bus. (713) 650-1378



SUNRISE ARTS

Nelson B. Yoder & Jeanne Broussard

(281) 471-7951

sunrisearts.com

- Glass Art
- Stone Designs
- Paintings
- Prints
- Framing
- Beveled Glass Doors



Nelson B. Yoder
(President)
(281) 471-8406
Fax (281) 471-7951

"Specializing in Carbonate Petrography"

INTEGRATED EXPLORATION SERVICES, INC.

P.O. Box 1546 3903 Old Hwy. 146 La Porte, Texas 77572

National Petrographic Service, Inc.

THIN & POLISHED SECTIONS
PALEO FORAMS NANINOS
PALYNOLOGY VITRINITE

LINDA S. FEUX
PRESIDENT

5933 Bellaire Blvd.
Suite 108
Houston, Texas 77081
www.nationalpetrographic.com

(713) 661-1884
Fax: (713) 661-0625
email: npsinc@flash.net

CLASSEN EXPLORATION, INC.



JAMES S. CLASSEN

P.O. BOX 3480
BOISE, ID 83703
classenllc@msn.com

BUS. 208-854-1037
RES. 208-854-1038
FAX. 208-854-1029



SHANNON EXPLORATION

Remote Sensor Interpretation,
Processing, and CAD

Patrick J. Shannon

3030 South Gessner, Suite 262
Houston, Texas 77063
Tel. (713) 785-2599
Email: shannonexplor@msn.com

CEI Collarini Engineering Inc.

Exploration Engineers & Geoscientists

Cheryl R. Collarini, P.E.
President

909 Poydras St., Suite 1450
New Orleans, Louisiana 70112
Office: 504-522-9077
Fax: 504-522-9097
crc@collarini.com

2500 Tanglewilde, Suite 480
Houston, Texas 77063
Office: 832-251-0160
Fax: 832-251-0157
crg@collarini.com

Eric F. Paauwe, M.Sc.Geol.

Borehole Imaging Processing & Interpretation

4201 FM 1960 W., #500, Houston, TX 77068



Phone: (281) 537-8300
epaauwe@restechinc.com



ADDPRO CONSULTANTS, INC.

Domestic/International

BY REED
CONSULTING OPERATIONS GEOLOGIST

P.O. Box 2 • SUGAR LAND, TEXAS 77487 • (281) 980-9793

BER-EX-CO., INC.

Orville Roger Berg, Ph.D.
Exploration, Exploitation
Seismic Evaluation
Domestic, International

400 Travis St., Suite 616
Shreveport, LA 71101-3108
(318) 220-0300
orberg@bellsouth.net

9949 Beaver Creek Drive
Shreveport, LA 71106
(318) 798-1748



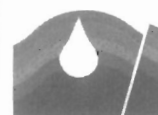
Jim (M. Ayad) Zaki
President

Geotech & Design Services

Data digitizing, drafting & computer graphic

16360 Park Ten Place Dr. # 102
Houston, TX 77084
gdsjz@aol.com

Tel.: (281) 492-0530
Fax: (281) 492-6606
Cell: (281) 935-4830



William E. Ellington, Jr., PE
President

Ellington & Associates, Inc.

Petroleum Engineering & Geological Services

1022 Wirt Rd., Suite 300
Houston, TX 77055
e-mail: ellingt@flash.net

Phone: 713-956-2838
Fax: 713-956-2840
ellingtongeologic.com

Oil and Gas Landman with PLM
Degree/20 yrs. of experience would like
to work with Oil and Gas Co., Geologist
or Engineer generating prospects and/or
making oil and gas acquisitions. For
more information see my resume at
www.geocitites.com/reagancl or call
Chuck L. Reagan (713) 266-8114



BRUCE W. BLAKE, CPL/ESA

ENVIRONMENTAL SERVICES • AUDIT SERVICES
LAND SERVICES • PETROLEUM PROPERTY MANAGEMENT

HOUSTON AREA
P.O. Box 4082 • LIBERTY TX 77575
(936) 334-2841 • (800) 453-4275

PERMAN BASIN
400 N. MAIN • MIDLAND TX 79701
(915) 683-4275 • bruceblake@buc.com.net

INTEGRATED STUDIES LARGE MATURE PRODUCING PROPERTIES

Ray J. Forbush
CPG-AAPG
PE (Geological) - Texas

R.J. Forbush & Associates
12707 N. Freeway, Suite 446
Houston, Texas 77060

Phone: (281) 875-3730
Fax: (281) 875-0433



D. Hugh Fraser, Jr.
Manager, Marketing & Sales

Tel: (281) 398-9503 • Fax: (281) 398-9506
16850 Park Row, Houston, TX 77084
P.O. Box 219950, Houston, TX 77218-9950
Direct Phone: (281) 848-6806
Home Phone: (713) 660-0910
Email: hugh.fraser@grantgeo.com • Web site: www.grantgeo.com

TIDEWATER ENVIRONMENTAL

ARLIN C. HOWLES, REM. OFA CAPM
NATIONAL REGISTRY OF ENVIRONMENTAL PROFESSIONALS

- Phase I and II Due Diligence
- Phase II and III Corrective Action/Remediation
- Wetlands Delineation
- UST Closure & Removal
- Fault Studies and Expansive Soils Investigations
- Asbestos & Lead Inspection

Office: 281-531-0909
Pager: 713-217-8266
Mobile: 281-808-8629
Fax: 281-752-5138
tdenv@netropolis.net
11231 Richmond Ave.
Suite D-103
Houston, Texas 77082

GEORGE N. MAY & ASSOCIATES

Consulting Geologists
and Paleontologists

WILLIAM S. GRUBB

201 HEYMANN BLVD.
P.O. BOX 51858
LA FAYETTE, LA 70505

OFFICE (337) 234-3379
FAX (337) 234-3389
HOME (337) 235-1923

Winship Geological Consultants

CONSULTING PETROLEUM GEOLOGISTS

Steve H. Hill
PETROLEUM GEOLOGIST
OWNER

Two Allen Center
1200 Smith Street
Suite 1140
Houston, Texas 77002
Office: (713) 659-7301
Home: (713) 467-4166
Pager: (713) 735-0825
Fax: (713) 654-9136
WinGeoCon@aol.com

PROFESSIONAL TRANSLATIONS

English-Español-Portugués

Claudio Bartolini, Ph.D.

P.O. Box 460424
Houston, Texas 77056-8424
Email: translations_inc@hotmail.com
Fax: (253) 595-5425
Phone: (281) 856-7502

Geology
Geophysics
Petroleum
Environmental
Drilling

(504) 831-8874 (O)
(504) 831-8827 (Fax)

(504) 454-1472 (H)

JURASIN OIL & GAS

2424 EDENBORN AVENUE, SUITE 680
METAIRIE, LA 70001

JOHN M. JURASIN
President

Cert. Pet. Geologist #4284
Carl. Prof. Earth Scientist #1961

TEXAS PETROGRAPHIC SERVICE INC.

12520 MARKET STREET
HOUSTON, TEXAS 77015

POLISH/THIN SECTION

PHONE: (713) 330-1018
MOBILE: (281) 451-3980
FAX: (713) 330-8186
E-MAIL: rocks@ev1.net



GeoCenter, Inc.

16800 Greenspoint Park Drive • Suite 100S
Houston, Texas 77060-2300

William El Zepeda
Alan Foley

Sales
Seismic Data Processing
SeisUP® Systems

Telephone (281) 443-8150 Fax (281) 443-8010
afoley@GeoCenter.com

NORTEX CORPORATION

OIL & GAS PRODUCTION & EXPLORATION

Robert W. Kent
Vice President
Land & Acquisitions

1415 Louisiana Suite 3100 Houston, Texas 77002
713-658-1142 Fax: 713-658-0739

THUNDER EXPLORATION, INC.

WALTER S. LIGHT, JR.
PRESIDENT
PETROLEUM GEOLOGIST

1710 BOISSEVER
SUITE 41
MAILING ADDRESS
P.O. BOX 541674
HOUSTON, TEXAS 77254-1674
OFFICE: 713-529-2233
CELLULAR: 713-823-8288
PAGER: 713-815-1447
FAX/RESIDENCE: 713-522-4829
EMAIL: WTHUNDERX@AOL.COM



Advanced Resources International, Inc.

9801 Westheimer
Suite 805
Houston, TX 77042
U.S.A.

Scott R. Reeves
Executive Vice President

Phone: (713) 780-0815
Fax: (713) 780-3819
Email: sreeves@adv-res-hou.com

Nomad Geosciences

11429 Purple Beech Drive
Reston, VA 20191-1325



Al Taylor - President

Prospect Generation, Exploration and Development, Acreage
Evaluation, Reservoir Characterization and Consulting

Phone/Fax: 703-390-1147 E-mail: NomadGeo@aol.com
Residence: 703-390-1146 E-mail: CATaylorJr@aol.com

ROGER MORTON

GEOPHYSICAL CONSULTANT

SEISMIC INTERPRETATION
DOMESTIC—FOREIGN—2D/3D

14527 SANDY CREEK DR. PHONE: 281-370-3770
FAX: 281-370-4369 E-MAIL: KVCRRM@AOL.COM

WWW.ROGERMORTON.COM

Note:

If your mailing label has a blue
stripe on it, your membership
has expired and this is your
last issue.

**Place Your
Business Card Here!
\$125.00 for 10 issues**

Earth View Associates, Inc.

12000 Westheimer, Suite 320
Houston, Texas 77077 U.S.A.

Support for Pathfinders
Geology - Geophysics - Biostratigraphy

Sam LeRoy - V.P. Geosciences
Phone: (281) 556-9766 Fax: (281) 556-9778
email: earthview@aol.com
<http://members.aol.com/earthview/EV1.html>



Daniel C. Huston
Holly Hunter Huston



HUNTER 3-D

3-D seismic / gravity interpretation,
and AVO analysis.

9898 Bissonnet suite 362 • Houston, TX 77036
(713) 981-4650 • (281) 242-0639
E-mail: hunter3d@wt.net
Website: www.hunter3dinc.com

PCI PALEO CONTROL, INC.

WILCOX- WELLS STUDIES DATABASE
MICROPALEONTOLOGY PALEOECOLOGY

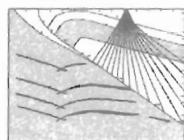
7706 GREEN LAWN DR.
HOUSTON, TEXAS 77088-5406
OFIC. 281-847-0922 RES. 281-847-3339
E-MAIL: rsllska@hal-pc.org

Petrophysical Solutions, Inc.

William G. Price
Sr. Petrophysical Specialist

11767 Katy Frwy
Suite 380
Houston, TX 77079
281 558 6066
fax 281 558 5783

wgp@psi-petro.com



TX RESOURCES

"Combining Technology with Petroleum Exploration"

W. MICHAEL CLINE
Internet-Based Seismic Interpretation

Voice: (713) 665-5449
Fax: (713) 665-7343
E-mail: mikec@txresources.com
Website: www.txresources.com

SMT Seismic Workstations
Exploration & Development
Domestic or International
Technology apps. since 1985

PalCon DataBase

PALEONTOLOGIC CONTROL

BY
JOHN PICKERING

AAPG CPG #2234
FRIO-VICKSBURG-JACKSON TOPS
(& CONTROL WELL DATA)

VICKY PICKERING, MGR.
(281) 498-5249

11203 SHARPPVIEW DR.
HOUSTON, TEXAS 77072-2907



MICRO-STRAT INC.

Seismic Sequence Stratigraphic Analysis
High Resolution Biostratigraphy
Prospect and Block Evaluation
International Training Center
Geochronology



Walter W. Wornardt, Ph.D.
President

5755 Bonhomme, Suite 406
Houston, TX 77036-2013
E-mail: msiw3@Micro-Strat.com
Web-Site: www.Micro-Strat.com

Off: 713/977-2120
Res: 713/795-5190
Fax: 713/977-7684
International - Domestic

Seismotech

Geophysical/Petrophysical Exploration Services

Specializing in seismic modelling,
imaging, processing, and acquisition

Joseph M. Mills, Jr., Ph. D.

2107 Olympic Drive
League City, Texas 77573-4451
email: josephmills@ghg.net phone/fax: (281) 334-7905



Royce Landman

4411 Bluebonnet • Suite 108
Stafford, Texas 77777
(281) 240-2777 • FAX (281) 240-0043
Email: rlcl@rcl.com • <http://www.rcl.com>

Geophysical Workstations • Hardware/Software
Systems Analysis • Custom Programming
Local Area Networks • Documentation Solutions

Sproule

ASSOCIATES
INC.
Geological and Petroleum
Engineering Consultants

Harry E. Saul, P.E.
Manager, Houston Office

1000 Louisiana, Suite 3610
Houston, Texas USA 77002
Tel: (713) 652-5140 Fax: (713) 652-5143
Cell: (281) 300-9251
Email: harry.saul@sproule.com



APPLIED BIOSTRATIGRAPHIX

Michael J. Nault
717 East 8th Street
Houston, Texas 77007
Ph./Fax: 713-868-7444
E-Mail: biostrat@aol.com

Complete Integrated Oil Field Paleontologic Services

JAMES M. NORRIS CERTIFIED PETROLEUM GEOLOGIST



Field Studies/Field Value Enhancement
Property Purchase Evaluations
Workover/Drilling Recommendations

5222 Applevale Court
Kingwood, Texas 77345
(281)-361-5981
jmnor@aol.com



GEHRIG SCHULTZ Worldwide Business Development Manager

PGS Onshore, Inc. Tel: (281) 589-6732
738 Highway 6 South Fax: (281) 886-1528
Suite 900 Direct: (281) 679-2225
Houston, TX 77079 Mobile: (713) 582-2779

E-mail: gehrig.schultz@pgsonshore.com



RICHARD B. BEVERLIN, JR. Certified Professional Geological Scientist Certified Petroleum Geologist Registered Environmental Professional

2138 Fenwood (281) 334-1629
Kemah, Texas 77565 E-MAIL: beverlin@ix.netcom.com

PADGETT EXPLORATION

Carl M. Padgett **Dianne B. Padgett**
Consulting Geophysicists

800 Wilcrest Drive, Suite 225 Office: (713) 781-8139
Houston, Texas 77042 Res: (713) 784-1827



THUNDER EXPLORATION, INC.

WALTER S. LIGHT, JR. PRESIDENT PETROLEUM GEOLOGIST

2440 SOUTH BLVD.
SUITE 108
MAILING ADDRESS:
P.O. BOX 541674
HOUSTON, TEXAS 77254-1674
OFFICE: 713.529.2233
CELLULAR: 713.823.8288
PAGER: 713.815.1447
FAX: 713.529.2869
RESIDENCE: 713.522.4829



THE SCOTIA GROUP, INC.

DOMESTIC AND INTERNATIONAL
OIL AND GAS ADVISORY SERVICES

Reservoir Engineering
Strategic Studies
Reserves Evaluation
Technology Applications
Reservoir Simulation
Enhanced Recovery
Geological Analysis
M&A Evaluations

www.Scotia-Group.com

Houston: Gene Wiggins (281) 448-6188
Dallas: Dave Heather 214.987.1042

Robert L. Fleisher, Ph.D.

Biostratigraphy and Paleoecology
Planktonic and Benthic Foraminifera
International and Domestic

1615 W. Clay (713) 520-0962
Houston, TX 77019 forams@flash.net



STEVEN TEDESCO PRESIDENT

ATOKA GEOCHEMICAL SERVICES
CORPORATION
14550 E. EASTER AVE., STE. 1000
ENGLEWOOD, COLORADO 80112

E-MAIL: atokageo@aol.com
www.atoka.com

PHONE: 303-617-8919
FAX: 303-617-8956
1-800-853-5113



Texas Petrographic Service Inc.

Polish / Thin Section

12520 Market Street Phone: (713) 330-1018
Houston, TX 77015 Fax: (713) 330-8186
E-mail: rocks@ev1.net www.texaspetrographic.com

MICRO-STRAT INC.

Seismic Sequence Stratigraphic Analysis
High Resolution Biostratigraphy
Prospect and Block Evaluation
International Training Center
Geochemistry



Egypt • Indonesia • Malaysia • Nigeria • Venezuela

Bernard L. Shaffer, Ph.D. Calcareous Nannofossils

5755 Bonhomme
Suite 406
Houston, TX 77036-2013
International Off.: 713/977-2120
Fax: 713/977-7684
Domestic

For Sale GCAGS Transactions and GCAGS Convention Portfolio (green canvas)

Cost \$30.00

Call the HGS Office at 713-785-6402

PDS

• GEOLOGICAL • GEOPHYSICAL
• LAND • AIRBRUSHING

Where drafting is an art

PRECISION DRAFTING SERVICES

Cathy Tarte

5400 Bellaire Blvd., Suite E Tel: (713) 660-8454
Bellaire, Texas 77401 Fax: (713) 666-9374
e-mail: pdsmaps@airmail.net

JIM THORPE PCI PALEO CONTROL, INC.

MICROPALAEONTOLOGY PALEOECOLOGY



P.O. BOX 41751
HOUSTON, TEXAS 77241-1751
OFFICE 713-849-0044 RESIDENCE 713-466-7922



LOYD TUTTLE PALEO CONTROL, INC.

MICROPALAEONTOLOGY PALEOECOLOGY

P.O. BOX 41751
HOUSTON, TEXAS 77241-1751
OFFICE 713-849-0044 RESIDENCE 713-466-7922

CERT. PETR. GEOL. #4014 SUPS. #1271

DEBORAH KING SACREY CONSULTING GEOLOGIST

AUBURN ENERGY

THE ASHFORD ATRIUM OFFICE: 281-493-5059
14825 ST. MARY'S LANE FAX: 281-493-3390
SUITE 118 RES: 281-463-2285
HOUSTON, TEXAS 77079 MOBILE: 713-816-1817
E-MAIL: auburn@concentric.net



JOHN T. WALKER 3D Sales

PGS Onshore, Inc. Tel: (281) 589-6732
738 Hwy. 6 South Fax: (281) 589-6885
Suite 900 Direct: (281) 679-2225
Houston, Texas 77079 Mobile: (281) 787-4274

E-mail: jthorpe@pgsonshore.com

E. H. STORK, Jr. E. H. Stork, Jr. & Assoc.'s, Inc. Consulting Geologists & Paleontologists Specializing In

Biostratigraphy - Paleoecology - Geologic Interpretation
207 Pecore St. Office (713) 802-9731
Suite #2 Fax: (713) 802-9732
Houston, Texas 77009 Home (713) 466-9064

Place Your Business Card Here! \$125.00 for 10 issues

Chelsea Energy, Inc. Prospect Generation Geoscience Services

Lee Higgins

1010 S. Edmonds 214.363.2100
Suite 109 fax: 972.353.8949
Lewisville, TX 75067 chelsea.energy@gte.net

ENERGY GRAPHICS

FOR DEPENDABLE DATA AND THE SOFTWARE TO MAKE IT WORK FOR YOU.

WWW.ENERGYGRAPHICS.COM



EXPLORATION DATA
PRODUCTS & SERVICES
INCLUDING

THE INTELLEX EXPLORATION SYSTEM

AN INTEGRATED
SUITE OF SOFTWARE
TOOLS SUPPORTING
A NETWORK OF
EXPERTLY MANAGED
DATA.

**Comprehensive
Software Products**
Mapping & Data Mgmt. Software
PC Reporting Software

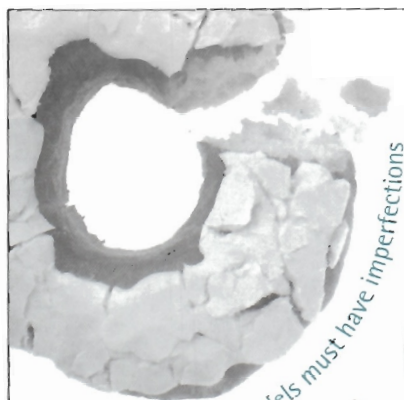
**Custom Verified & Managed
GOM Data Products**
Leases-Wells-Pipelines
Directional Surveys
*Texas State Waters Wells
*Fields & Reservoirs
Mapping Culture

(*New)

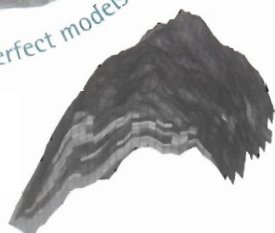
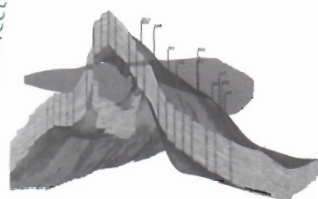


**ENERGY
GRAPHICS, INC.**

ONE WOODBRANCH PLAZA
12121 WICKCHESTER LN., #400
HOUSTON, TX 77079
PHONE (281) 558-2061



Perfect models must have imperfections



Your reservoir isn't a neat little bundle of sediments.

You have faults, fractures, permeability variations and porosity changes to face.

So, if your model is representing this complex heterogeneity as a well-ordered sequence of uniform layers, you need help.

From the first steps in field data gathering to the last simulation, you can rely on leading Roxar products such as IRAP RMS*, IRAP Mapping*, STORM* and MORE* to record the real world's imperfections.

We provide accurate fault modelling for better structural representations and volume calculations. Our deterministic and stochastic techniques for modelling depositional environments and petrophysical variations are designed to incorporate heterogeneity. Our industry-leading upscaling techniques ensure that your reservoir characterization is consistent through to the fluid flow simulation.



Making models that make sense

visit our Web site <http://www.roxar.com>

Roxar Houston tel: +1 713 339 2626 email: info@roxar.com

* Roxar product

roxar

the reservoir company



HOUSTON GEOLOGICAL SOCIETY

7457 Harwin, Suite 301 • Houston, TX 77036-2190

Periodicals
U.S. Postage
PAID
Houston, Texas

NOTE!

If your mailing label has a blue stripe on it,
your membership has expired and this is your
last issue.



wellwatch™

Do You Need a Scout?

PennPoint introduces **WellWatch™**, weekly custom electronic scout reports provided by our outstanding network of top industry professionals. Choose your area of interest and we'll monitor the well activity for you.

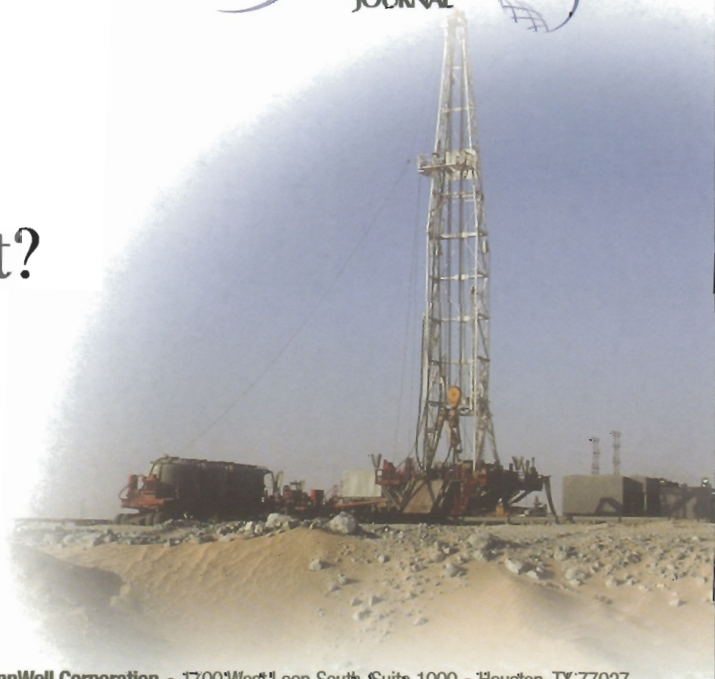
Contact a PennPoint representative at 713.621.8833 or www.PennPoint.com for more details and to sign up for a FREE two-week trial!

PennPoint™
THE NEW CHOICE IN ENERGY DATA

PennWell

OIL & GAS
JOURNAL

PennWell
MAPSearch



A Division of PennWell Corporation • 1700 West Loop South, Suite 1000 • Houston, TX 77027

Toll free: 877-744-0761 • Fax: 713-963-6288 • www.pennpoint.com