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## Annual Honors and Awards

Life membership in the GSH is awarded from time to time to persons who have performed exceptionally meritorious service to the Geophysical Society of Houston. Honorary membership in the GSH is awarded to persons who have made a distinguished contribution to the geophysical profession. Nominees for Life of Honorary membership are nominated by the Nominating Committee and must have unanimous approval of the Board of Directors. Life and Honorary members have the same rights and privileges as Active members but shall not pay dues. These awards are normally presented at the Annual Honors and Awards Banquet. The names of the previous awardees are listed in the annual GSH directory.

For Life Membership: **Cheryl S. Stevens, Wulf F. Massell**

For Honorary Membership: **Yoram Shoham**

For Exemplary Service:

- Richard W. Verm** - *General Chairman 1999 SEG Annual Meeting*
- Merry Lynn Southers** - *Vice-General Chairman*
- Christopher P. Ross** - *Technical Program Chairman - 1999 SEG Annual Meeting*
- Robert L. Ayers** - *Arrangements Chairman - 1999 SEG Annual Meeting*
- James D. Thomas** - *International Showcase Chairman - 1999 SEG Annual Meeting*
- Martin L. Brandt** - *Special Programs Chairman - 1999 SEG Annual Meeting*
- Debera G. Fontenot** - *Social Programs Chairman - 1999 SEG Annual Meeting*
- Hugh W. Hardy** - *1999-2000 Membership Chairman*

### **Cheryl S. Stevens - Life Membership**

Cheryl began her career as a summer-hire at GSI in New Orleans in 1965 and worked there for three subsequent college summers. Her position as a "computer" entailed drafting, coding data input forms and wave-front chart migration. In 1969 she graduated with a B. S. degree in Earth Sciences from LSUNO, now the University of New Orleans. She immediately joined Texaco's Midland Division in Bellaire, Texas, where she processed and interpreted seismic data. In 1976 she joined Seiscom Delta as a seismic data processor in their Houston Data Processing Center and later moved to their Megaseis Division testing software and training clients. She worked hard at Seiscom and after a series of promotions became a group supervisor overseeing speculative and proprietary processing projects. Then, in 1982, Cheryl joined Tenneco Oil and was responsible for overseeing all of their Gulf Coast Division seismic processing needs. When Tenneco chose to focus on tractors instead of oil, she joined Halliburton in 1989 in the speculative data group to sell domestic and international spec data in Houston and Dallas. She moved to Western's spec department when Halliburton Geophysical was acquired in 1994.

**GEOPHYSICAL SOCIETY OF HOUSTON**

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**email: [reservations@hgs.org](mailto:reservations@hgs.org) • website - <http://www.seg.org/sections/gsh/gshhome.html>**

**GSH Board of Directors = GSH Executive Committee + SEG Section Representatives**

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## Editor's Note

To insure your information reaches the GSH society members in a timely manner it must appear in the in the appropriate newsletter issue. Please note the following deadlines and plan your function's publicity strategy accordingly. Items must be received on or before the corresponding deadline date. Materials may be sent to patty@diamondg.com or faxed to 713/783-9780. If you have any questions please call Patty Cardwell at 713/783-7837.

### 2000 GSH Newsletter Deadlines

Issue ..... August 2000  
**Deadline .... July 13, 2000**

Issue ..... September 2000  
**Deadline .... August 10, 2000**



## GeoEvents Calendar

Make reservations by e-mail at reservations@hgs.org and include your member number (found on Bulletin mailing label), or use the phone reservation system at 713/917-0218.

### Reservation Codes

Use these codes to make voice mail meeting reservations:

Technical Luncheon .....	<b>601</b>
Data Processing SIG .....	<b>602</b>
Interpretation SIG .....	<b>603</b>
Reservoir SIG .....	<b>604</b>
Potential Fields SIG .....	<b>605</b>
Environmental Applications SIG .....	<b>606</b>
Breakfast .....	<b>607</b>

*Honors and Awards continued from page 1*

After a too brief overseas adventure in Pakistan with husband Joe's employer Union Texas, she returned to Houston to market data processing services. She currently represents Western's Houston Data Processing Center as Marketing Representative for Marine Processing.

Cheryl has been an extremely active member of the GSH for most of her career. Over the years, she has contributed countless hours to the GSH and its many committees. Since 1986 she has served as Assistant Newsletter Editor, Second Vice President, SEG Section Representative, Shrimp Peel Chairperson, President-Elect, and Arrangements Chair for the 1999 Spring Symposium. In 1995-1996 she served as GSH President. Since its inception in 1947, Cheryl is the only woman to have served in that position. Her personal interests include travel and the arts.

### Wulf Massell - Life Membership

Wulf asked me to write the citation for his Life membership in the GSH. I readily accepted, not only because of his many contributions to the Society but because of our long personal friendship and professional association. As recruiters for Chevron, Chuck Edwards and I followed Wulf's academic progress closely. During each recruiting trip we could rely on Wulf to regularly sign-up for the time slot during which coffee and rolls were served. At Indiana University, there is a well founded rumor that Wulf and friends utilized an early but powerful laser to physically spotlight campus romances in progress from their distant lab window. He survived the fallout from this prank to continue his academic progress and was granted a Ph.D. in Geophysics from the University. Although he had received his Ph.D. in record time, his timing couldn't have been worse. The industry was in a steep decline and hiring was frozen in most companies. After college, he spent a frozen year and a half in the Antarctic with the U.S. Antarctic Research Program and there is a mountain named Massell located at 163E, 72.5S. It is unclear whether he had to scale this prominence to get naming rights. (Someone should plot this location to see if it is actually on Antarctica!)

He has worked at Amoco, Geosource and had academic appointments at University of Texas, U. of Bahia, Brazil, University of Houston and the Houston Advanced Research Center. He is currently President, CEO and Founder of E&P Imaging Corporation, known better as EPIC Geophysical. But he is receiving this award for his contributions to the GSH, which are many. He chaired the Academic Liaison Committee and took an active interest in the Science Fair. In 1987, he started the Interpretation Workstation Committee. He soon changed the name to the Interpretation Special Interest Group (SIG), a name which soon caught on and resulted in the formation of several other SIGs. These are truly the strength of the GSH. He further served the GSH as Secretary, 1st Vice-President and President (96-97). He also served as SEG Vice-President in 1997-98.

It is impossible to characterize Wulf Massell in these few words. His zest for life is apparent to all who know him. Without prompting he simply states (with a smile), "I fell madly in love 32 years ago and haven't recovered since." This is totally understandable when you meet Georgeann who has put up with this character for every day of their 32 years. They are both well deserving of this Life Membership Award from the Geophysical Society of Houston. —Lee Lawyer

### Yoram Shoham - Honorary Membership

Yoram Shoham, an SEG member since 1969, has served the Society in many ways. He chaired the Research Committee for two years and has been a member for 15. He has initiated and led many workshops and special sessions, and was a member of the Technical Program Committee for several SEG annual meetings. He is a member of the International Affairs and the Interpretation committees.

Yoram played a key role in the internationalization of SEG. He chaired the Technical Program Committee for SEG Moscow '92 and SEG/CPS Beijing '93.

*Honors and Awards continued on page 4*

He led the Moscow '97 international conference and helped organize Rio '95 and St. Petersburg '95.

Yoram received a bachelor's degree (with honors) in applied mathematics and physics from Tel Aviv University. Following graduate studies at Colorado School of Mines, he earned a master's (1973) and doctorate (1977) in geophysics at Tel Aviv University. Yoram did postdoctoral work at the Department of Electrical Engineering at the University of Texas, Austin. His background includes experience with most geophysical methods, seismic and nonseismic.

Yoram has worldwide experience in R&D and operations. His initial experience was with Geotronics where he became executive vice-president. In 1983 he joined Shell at its E&P R&D laboratory in Houston. He held technical and supervisory positions with Shell Western E&P, Shell Development (manager of geophysics research), and as chief geophysicist and vice-president for E&P Business Development of Shell's Pecten International. In 1993 Yoram was assigned to Shell International E&P in The Netherlands as head of Geophysical Advice. He is currently responsible for development of all of Shell's E&P Technical External Relations around the world.

Yoram is a member of advisory boards at CSM, Stanford University (Earth Sciences), MIT (ERL), and the University of Texas (Petroleum Engineering). Yoram has received the honorary medal of the Russian Academy of Natural Sciences and SEG Life Membership (1998).

## SIG Meetings

### Near-Surface SIG Meeting

Date: Tuesday,  
May 9, 2000  
Time: 5:30 PM  
Location: Exxon Production  
Research Complex  
Buffalo Speedway at  
Richmond Avenue  
South Tower Building  
(On Richmond)

**Topic:**  
Identifying Shallow Water Flow Drilling Hazards in Deepwater Using Sequence Stratigraphy

**Speaker:**  
Peter Trabant, Consultant

**Abstract:**  
3D seismic cubes have proven to be an excellent tool for mapping seafloor features and shallow subsurface drilling hazards in the deep waters of the continental slope. Detailed mapping of 3-D seismic cubes to one second beneath the seafloor, can reveal the Late Pleistocene sequence stratigraphy down to a system tract level for the past several sea level fluctuations. Mapping the shallow seismic stratigraphy is an excellent exercise to understand deepwater clastic systems and recognize lowstand systems tracts that cause shallow water flow (SWF) drilling problems. Dating condensed sections provides the framework from which time and depositional systems can be extracted to analyze seals, accumulation rates, and the presence of unconsolidated coarse-grained deposits. This talk will focus on the identification of systems tracts using principals of sequence stratigraphy and the dating of condensed sections for modeling depositional environments that have produced SWF drilling problems.

**About Peter Trabant:**  
Pete has been a consultant for the past twenty-five years, specializing in

the assessment of marine geohazards from high resolution and 3D seismic survey data. He applies the principles of seismic sequence stratigraphy to identify systems tracts and sand-prone depositional environments that can produce shallow water flows, a critical and expensive problem in the drilling of wells in deep water. Pete is the author of many technical papers and textbooks on marine geohazards and seismic sequence stratigraphy; he holds a Ph.D. and M.Sc. in geological oceanography from Texas A&M University where he worked as a research associate. Pete started out in the oil patch as a geophysicist with Pan American Petroleum (Amoco) working the Michigan Basin in 1969.

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### POTENTIAL FIELDS SIG

Date: May 18, 2000  
Time: 5:30 Social Hour;  
6:30 Dinner; 7:30  
Presentation  
Location: HESS building, 5430  
Westheimer, Houston  
Cost: \$22.00

Contact:  
Mike Kowalski, Chair - GSH Potential Fields Group, at 713-752-4636 (kowalma@texaco.com) by Tuesday, MAY 16, for reservations. E-mail is best because I can confirm your reservation. Please HONOR your reservation! We must bill no-shows!

**Topic**  
Sedimentary Magnetic Anomalies - Revisited

**Speaker**  
AFIF H. SAAD

**Abstract:**  
High-frequency magnetic (HF MAG) anomalies of shallow sedimentary origin have been detected

*Potential Fields continued on page 5*

and mapped since the early days (late 1960's) of using high-sensitivity aeromagnetic surveys with digital recording of total field and vertical gradient measurements. Nowadays, modern high-resolution aeromagnetic (HRAM) surveys flown routinely over sedimentary basins measure "micro-anomalies" down to sub-nanoTesla level, and provide considerable information about sedimentary structure and lithology, in addition to the basement "macro-anomalies" used traditionally to determine depth to basement. Examples of intrasedimentary HF MAG anomalies are presented from various geologic provinces including the Arctic North Slope, Gulf of Mexico, Canadian basins and others. Possible sources of these anomalies include:

- \* Detrital magnetite deposited in sediments that have a nearby source in igneous terrain.
- \* Diagenetic magnetite or other magnetic minerals (pyrrhotite, greigite, maghemite) that may be related to chemical changes associated with microseepage from hydrocarbon reservoir?
- \* Diamagnetism of salt and anhydrite, responsible for negative anomalies over salt structures.
- \* Fault mineralization due to upward-migrating hydrothermal fluids along fractures and fault planes, which may or may not be related to hydrocarbons.
- \* Combustion Metamorphism of carbonaceous pyrite-rich and organic-rich sediments (Cisowski and Fuller, 1985), producing strong magnetization as a result of exothermic oxidation of pyrite to magnetite, as well as thermal remanence acquisition (TRM). The phenomenon can be related to source rock outcrops or seepage(?).

The examples presented include anomalies over areas with known hydrocarbon production or seeps, salt and shale diapiric structures, sedimentary faults, and sand channels. It is likely that sand channels provide locales for differential concentration or enrichment of heavy minerals including

detrital magnetite relative to surrounding sediments, very much similar to alluvial deposits or buried placers (Saad, 1993). Modeling showed that an increase of only 0.05-0.1% by volume in magnetite content within the channel is sufficient to cause measurable anomalies. Sand samples of Sangamonian and Illinoian age collected from various areas in the Gulf of Mexico indeed were found to contain up to 0.5% or more magnetite by volume. The total magnetization of the sands may consist of both induced and remanent (DRM) components.

The validation of the sedimentary HF MAG anomalies is important in any interpretation work. Repeatability and high-resolution maximum entropy spectral analysis - MESA (Saad, 1979) are two of the approaches that I used to validate the geologic nature of these anomalies. Sedimentary environments such as the Gulf of Mexico and similar basins with deep magnetic basement, absence of shallow volcanics, more or less uniform geology, minimal near-surface geologic noise, and minimal diurnal noise make it easy to detect and map these micro-anomalies with greater accuracy. The success in their interpretation requires, in addition, good quality high-resolution data, special data processing techniques (deculturing, diurnal noise suppression, RTP, and band-pass filtering for enhancement), and, more importantly, integration with gravity, seismic and geology.

#### **Biography:**

Dr. Afif H. Saad is presently a Geophysical Consultant, specializing in integrated gravity / magnetic / seismic / geologic interpretation, modeling, magnetic depth estimation, and training.

He has over 23 years of experience in the oil industry, including four years with UNOCAL in Sugar Land, TX, and nineteen years with Gulf R&D Co. in Harmarville, PA, Gulf oil E&P Co. in Houston, and Chevron E&P Services Co. in Houston. Prior to joining Unocal in September 1994, Afif held a position with LCT in Houston as Director of Interpretation and Consultant for two years. Afif's early career, prior to Gulf, includes

three years with Aero Service Corporation of Philadelphia, and three years in the academia as an Assistant Professor and Director of the Geophysical Observatory at the University of Missouri, Rolla, and as a Geology Instructor at Cairo University, Egypt.

Dr. Saad received a B.S. degree in geology from Alexandria University, Egypt, an M.S. degree in geology/geophysics from Missouri School of Mines, and a Ph.D. in geophysics from Stanford University. He is an active member of the Society of Exploration Geophysicists, a member of SEG Gravity and Magnetics Committee, and an Associate Editor for GEOPHYSICS. In his free time, Afif enjoys refereeing soccer and volleyball at the youth, high school and adult levels. He has been USSF-certified soccer referee and instructor and a member of the United States Soccer Federation for the past 19 years.

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## **RC SIG News**

RC-SIG fall meeting date is set for September 14&15, 2000 at VETC facilities in London. Ontario. VETC has a four wall cave, 24'x8' rear screen immersive work wall, two small conference rooms with rear screen interaction, an Immersadesk and a Concave. The main meeting will be in a 150 person conference theater. The four half-day sessions and an evening keynote talk are being finalized. Is there any interest by GSH members in participating remotely in Houston by streaming video? Please send comments or questions to Roice Nelson at 713-860-5007 or rnelson@continuum-corp.com.

# Near-Surface/Environmental Applications SIG Activity Report

by Stephanie Hrabar, GSH Liaison to Citizens Environmental Coalition (CEC)

4/11/2000

## Earth Day at ExxonMobil Chemical facility, LaPorte Highway.

Ms Chris Pierre, Chairperson for the Earth Day Committee at ExxonMobil Chemical, invited the GSH to participate in their Earth Day program. Hrabar notified SIG Leader Danbom about this and other Earth Day invitations to the Near-Surface/Environmental Applications SIG. As a consequence on Saturday April 8 from 10 a.m. until 2 p.m. Stephanie Hrabar and Phil Inderwiesen hosted the applied geoscience exhibit.

Dr. Inderwiesen explained the principles and applications of geophysical methods to plant workers, teachers, students, children, and parents. Phil used a "magic spring" and other toys to make his points with participants. Colorful magic springs and spin tops were given to all who participated, regardless of age. Hrabar helped to distribute copies of the GSH-HGS Earth Day booklet.

ExxonMobil Chemical provided the GSH booth space under the shade of a tent (and the tent flaps provided safety from the gusty winds.) at no charge to the GSH. Employees and guests of the plant leisurely visited several of the exhibits before or after their bar-b-que lunch and between tours of the facility. A variety of music

provided a festive background for the day.

## ACKNOWLEDGMENTS

### In kind contributors:

ExxonMobil Chemical printed copies of the 12-page Earth Day booklet and provided booth space and covered table set up. GEMS2 provided gift "demonstration toys" [magic springs, compasses, and spin tops]. HGS and GSH members who added information or revisions to the 2000 Earth day booklet include Richard Barnett, Craig Dinger, Bill Gafford, Alison Henning, Stephanie Hrabar, and Inda Immega. The Write Stuff provided the desktop publishing.

## Highlights of the SEG-sponsored Sessions at the 2000 Offshore Technology Conference

**May 1 - 4, 2000**

**Houston, Texas**



**Technical Luncheon  
(May 3, 12:00)**

**"The Importance of New Frontiers to Meet the Global Energy Demand in the 21st Century."**

Steve Cassiani of ExxonMobil addresses the projected increase in oil and gas consumption as an increasing part of the world's total energy demand, and the ensuing potential demand/supply gap. Companies must not only focus on where, but also on how to explore for and produce hydrocarbons. A company's success will depend on how they obtain maximum value from technology and, most importantly, from their people, their knowledge, and ability to understand and apply fundamental scientific principles.

**Reservoir Characterization  
(May 1, 9:30 - 4:00)**

**co-sponsored by AAPG and SPE**

Neal Goins for ExxonMobil will emphasize integration of multi-disciplinary technologies as key to effective reservoir description. William Bashore of RC2 will then build on this integration theme and underscore emerging technologies. Papers include fluid and lithology using marine 4-C seismic, over-pressure detection with Vp/Vs estimates, inversion of 4-D seismic and Production data, application of neural networks to 3-D seismic for fluid and lithology volumetrics, refining reservoir definition using depth modeling, angle dependent seismic inversion, and geostatistical seismic modeling.

*Highlights continued on page 7*

### **Multiple Attenuation**

**(May 2, 9:30 - 4:00)**

Dodd DeCamp of Arco will describe the challenge of discovery, delineation, and development of new, high quality resources while it is becoming increasingly difficult to achieve economic success in the face of complex, costly and challenging technology requirements. Removing multiples from seismic data to make the data suitable for wave theoretic imaging can improve imaging in complex settings and meet the challenge. Papers will cover specific technical responses and general strategic approaches to the challenges and authors will exemplify the issues with synthetic and field data examples.

### **Geophysical Technology**

**(May 2, 9:30 - 12:00)**

From gathering premium quality seismic data and transmitting it back to the processing center as quickly and inexpensively as possible to the sophisticated imaging techniques that are required to accurately delineate a reservoir, this session spotlights the application of diverse geophysical technologies to maximize exploration and production efficiency.

### **4D Seismic: Evaluating Reservoir Dynamics**

**(May 3, 9:30 - 4:00)**

**co-sponsored by AAPG and SPE**

Karl Berteussen of PGS will relate progress in 4-D acquisition technology and the impact on field development risks and economics. Roger Anderson of Columbia will illustrate the economics of 4-D reservoir management with case histories. Papers, which will emphasize business relevance, will cover acquisition, processing, determination of resolution by stochastic simulation, calibration of seismic, well, and field performance data, AVO effects linked to fluid movement and pressure changes, and using 4-D seismic to optimize field simulation and development.



## **GEOPHYSICAL AUXILIARY OF HOUSTON**

The annual business meeting and luncheon of the Geophysical Auxiliary of Houston will be held on Thursday, May 18, 2000 at the Racquet Club on Memorial Drive. Mae Dennison will be the chairperson for the last event of the spring. Dr. Sandra Scurria will be the featured speaker talking about health care for the mature adult. She will also enlighten us on HMO's and Managed Care Programs. The officers for 2000-2001 will also be announced.

## **Geophysical Society of Houston Membership Report**

### **ACTIVE**

Fred Aminzadeh  
David Angstadt  
David Becker  
Daniel Bendig  
Richard Cooper  
Charles Holman  
Alan Levander  
Jack Litchenberg  
Charles Melton  
David Oxley  
Donald Rodgers  
Wayne Rydman  
James Schuelke  
Mark Sparlin  
Jeff Sposato  
Robert Will

### **ASSOCIATE**

Mark Boyd  
Mark Brumbaugh  
Dean Dennison  
Beth Kendall  
Robert Keys  
Jesse Marion  
Paul Mitcham  
Glenn Remmert  
Kayleen Robinson  
J. Marty Sommerville

### **STUDENT**

Khalid Al-Rufai



# Golf Tournament and Dinner Geophysical Society of Houston



DATE: Monday, May 22, 2000	FORMAT: Four Man Florida Scramble
PLACE: Kingwood Country Club	COST: \$115.00 Members and Guests
TIME: 9:30 AM Registration 11:30 AM Tee off (Shotgun)	DEADLINE: April 15, 2000

### MAIL ENTRIES TO:

Fairfield Industries • 14100 Southwest Freeway, Suite 600 • Sugar Land, TX 77478 • Attn: George Lauhoff

### MAKE CHECKS PAYABLE TO:

Geophysical Society of Houston

### GOLFERS READ CAREFULLY

The three courses at Kingwood are available to the first 432 entrants. No entry will be accepted until the entry form and fees are received in full. NO EXCEPTIONS!!!

MULLIGANS \$5.00 EACH (MAX. 2/PERSON) AVAILABLE AT CHECK-IN

If you are not playing golf but want to join your friends attending the dinner following the tournament, please send in \$15.00 per person to cover the cost of the dinner. Make a note at the bottom of the check "Dinner Only". These checks should also be payable to the Geophysical Society of Houston.

### GOLF TOURNAMENT FORM

You may select your own foursome, if not you will be assigned to a group. The first name listed will be considered the TEAM SPOKESPERSON.

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Circle: Member Guest

Circle: Member Guest

Company: \_\_\_\_\_

Company: \_\_\_\_\_

Phone: \_\_\_\_\_ HDCP: \_\_\_\_\_

Phone: \_\_\_\_\_ HDCP: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Circle: Member Guest

Circle: Member Guest

Company: \_\_\_\_\_

Company: \_\_\_\_\_

Phone: \_\_\_\_\_ HDCP: \_\_\_\_\_

Phone: \_\_\_\_\_ HDCP: \_\_\_\_\_

Course Preference: ISLAND LAKE MARSH DEERWOOD  
(Circle One)





# SEG 2000 International Exposition & 70th Annual Meeting

**For more info:**

tel +1.918.497.5500  
fax +1.918.497.5557

  
**SEG/Calgary 2000**  
*Focus on the Future*

## **EXHIBIT SPACE AVAILABLE**

**Society of Exploration Geophysicists**  
Calgary • August 6 - 11

**Explore the world's largest marketplace of geophysical technology and services.**

Join an estimated 10,000 geoscientists in Calgary to "Focus on the Future" of the latest acquisition, processing, and interpretation technologies and methods. Survey more than 500 technical presentations and approximately 300 exhibits displaying state-of-the-art products and services for the geophysical industry.

### **3 Ways to Register**

- Input online at <http://meeting.seg.org> (available after April 15)
- Use forms inserted in the "Annual Meeting Announcement" (available after May 1)
- Contact SEG Business Office and we will fax the forms to you after April 15

**Technical Papers Deadline FEB 15**  
**Advance Registration Begins APRIL 15**  
**Advance Registration Deadline JUNE 30** (for Reduced Fees)



# ANNUAL MEETING

and

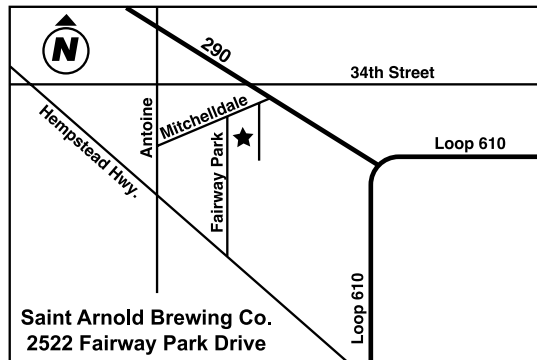
## Bar-B-Que

5:00 p.m. to 8:00 p.m. on Thursday, May 11, 2000

**Come Enjoy A Great Evening - Welcome The New GSH Officers**



**Houston's First Microbrewery**  
2522 Fairway Park Drive



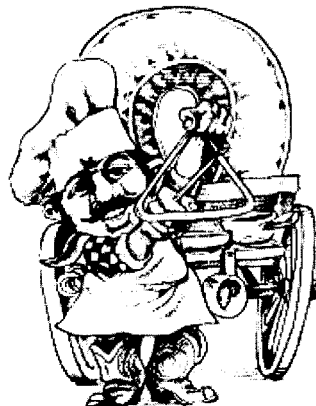
**Tickets:**

Only \$17.00 Each  
If Purchased By May 9, 2000  
\$20.00 Each At The Door

**Note:**

We Have To Guarantee The  
Number Of Dinners, So You  
Must Prepay To Be Guaranteed  
Your Meal.

**RAIN  
or  
SHINE**



**WE WILL BE SERVING**

- ☞ Bar-B-Que Brisket
- ☞ Sausage
- ☞ Chicken
- ☞ Beans
- ☞ Cole Slaw
- ☞ Bread
- ☞ Pickles
- ☞ Onions
- ☞ Draft Beer
- ☞ Soft Drinks
- ☞ Iced Tea

## Annual Meeting and Bar-B-Que

Thursday, May 11, 2000

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Number Tickets Desired: \_\_\_\_\_ X \$17.00 Each = \$ \_\_\_\_\_

Enclose Check Payable To: **Geophysical Society of Houston**

And Mail To: **7457 Harwin Drive, Suite 301 • Houston, Texas 77036 • (713) 785-6403**

Tickets Will Be Held At The Door. If Your Company Is Purchasing A Block Of Tickets -  
Please Indicate Names On The Form To Eliminate Any Confusion At The Door.

**Ticket Orders Must Be Received By May 9, 2000 to Obtain \$17.00 Price.**

## The Role of Geophysics in Risk Assessment

William D. Brumbaugh, Laura Kay Ethetton

July 25-26, 2000, Houston, Texas

Risk is intrinsic to all international and domestic petroleum ventures. Today's geophysicist is expected to use technical expertise to assess and minimize this risk. As advancing technology gives geophysicists increasing ability, industry is driving them to go beyond the workstation and demonstrably add value. This course examines how geophysics impacts the abatement of technical and economic risk through sound, cost effective decisions. Geophysics is presented as a risk management tool with methods to promote optimal business decisions.

The course is built around an analysis of a live petroleum venture. Participants will evaluate a development opportunity with exploration potential. Emphasis is placed on the necessity of geophysics to advance technical understanding and minimize risk. An information strategy is thus generated that closes the gap between risk assessment and risk tolerance. An economic analysis of this strategy and its impact on expected monetary value concludes the course. The decision as to whether to pursue the venture is decided in the wrap-up.

### Course Outline

- The anatomy of risk
- Inferring an earth model with geophysics
- How big is the container: Geophysics in reserve estimates
- Incorporating geophysics into the economic model
- The value of geophysical information
- Wrap-up: What will 3-D do for us?

**Enrollment in this course is limited to 18.**

### Instructor Biographies:

William D. Brumbaugh holds degrees in physics and geophysics from the University of Utah. His thirty-two years of international operations

include twenty years of applying geoscience to international exploration problems. His career includes work as research geophysicist with the U.S. Energy Research & Development Agency in Salt Lake City and positions with Conoco in Angola, Indonesia, Egypt, and the United States. Mr. Brumbaugh is a member of SEG, EAGE, and AAPG.

Laura Kay Ethetton has twenty years of international experience in the petroleum industry, integrating technical and business analysis to minimize risk and maximize company value. She began her career with Conoco in 1977 and currently has a consulting practice emphasizing risk assessment and information management. Laura Kay is a proven oil finder with master's degrees in both geological science and finance. She is a member SEG, AAPG, EAGE, SPE, Houston Geological Society and Geophysical Society of Houston.

## AVO: Seismic Lithology

Mike Graul, Fred Hilterman

August 22-23, 2000, Houston, Texas

The concept of using amplitude variations with offset (AVO) for the direct detection of hydrocarbons was first reported to the geophysical industry in 1982 by Bill Ostrander. Since then, the interest in this technique has continued with multiple sessions at the SEG Annual Meeting, special issues of *The Leading Edge*, dedicated seminars, and specialized processing and interpretation packages. While there have been many significant technical advances and improvements in our understanding of this subject, there is still much in the way of mysticism and misconception in its treatment and implementation throughout the industry. The goal of this seminar is to update the geophysical community on the current state and future trends of AVO (e.g., azimuthal AVO, "Fizz water" discrimination) and to dispel the mythology which has attached itself to this valuable technique.

While the course is comprehensive

and fast-paced, no special math or physics background is required. Case histories illustrate methodology; exercises and workshops are used frequently to focus on the practical aspects of AVO in predicting lithology and pore fluid. Emphasis is placed on the balance of potential and pitfalls of this technology.

### Instructor Biographies:

Mike Graul has served in various fields of geophysical activity for more than thirty-five years.

Upon graduation from Rensselaer Polytechnic Institute, he joined the Chevron Corporation, where he worked in acquisition, processing, interpretation, research, and project management for twenty-three years. In 1980, he formed a consulting and training firm, Exploration Education Consultants, and, in 1986, he co-founded TexSeis, a seismic data processing company. Mr. Graul has taught courses on virtually every aspect of geophysics to a wide variety of students in more than twenty countries and has served as a lecturer for SEG, AAPG, and The University of Houston. He is a member of SEG, Geophysical Society of Houston, Denver Geophysical Society, EAGE, IEEE, and the Near-Surface Geophysics Section of SEG.

Fred J. Hilterman holds a geophysical engineering degree and Ph.D. in geophysics from the Colorado School of Mines. After working with Mobil Oil, he joined the Geology Department at the University of Houston where he was professor of geophysics and co-founder of UH Seismic Acoustic Laboratory. Since 1981, Dr. Hilterman has been vice-president of development at Geophysical Development Corp. He received SEG's Best Paper Award in 1970 and the Virgil Kauffman Medal in 1984 and CSM's vanDiest Gold Medal in 1971. Dr. Hilterman was SEG President in 1996-97, served as General Chairman of the SEG 65th Annual Meeting, and is an Honorary Member of SEG.

# MAY 2000

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	<b>1</b> OTC 2000	<b>2</b> OTC 2000 <hr/> 14th Advanced Carbonate Field Seminar	<b>3</b> OTC 2000 <hr/> 14th Advanced Carbonate Field Seminar	<b>4</b> OTC 2000 <hr/> 14th Advanced Carbonate Field Seminar	<b>5</b> OTC 2000 <hr/> 14th Advanced Carbonate Field Seminar	<b>6</b> <hr/> 14th Advanced Carbonate Field Seminar
<b>7</b> <hr/> 14th Advanced Carbonate Field Seminar	<b>8</b> <hr/> 14th Advanced Carbonate Field Seminar	<b>9</b> Near-Surface SIG Meeting <hr/> 14th Advanced Carbonate Field Seminar	<b>10</b>	<b>11</b> Annual Meeting and Bar-B-Que	<b>12</b>	<b>13</b>
<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b> Auxiliary Annual Business Meeting & Luncheon <hr/> Potential Fields SIG	<b>19</b>	<b>20</b>
<b>21</b>	<b>22</b> Golf Tournament and Dinner	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>			

## GEOPHYSICAL SOCIETY OF HOUSTON

7457 HARWIN DRIVE, SUITE 301  
HOUSTON, TEXAS 77036  
(713) 785-6403



ADDRESS SERVICE REQUESTED

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