The “Pearl” Geoscience and Engineering Team

8 of 12 Geoscientist comprising the Pearl Prospect “Technical Team” are from the Bureau of Economic Geology, University of Texas at Austin, Project STARR, MPG’s collaborator on the Pearl Prospect. The BEG is regarded as a World-class Oil and Gas Research Facility. Project STARR collaborates on Select Oil and Gas Exploration Projects which have the potential to result in major discoveries of Oil and Gas Reserves Benefiting the State of Texas.

- William A. Ambrose, STARR Principal
- Steve L. Bruington, PE, Bruington Eng.
- Dr. Gregory Frebourg, STARR Associate
- Dr. Ursula Hammes, STARR Co-Principal
- Dr. Jerry Y. Jin, Environmental Specialist
- Dr. Samuel D. LeRoy, Earthview Assoc.
- Margaret P. Graham, MPG Petroleum Inc.
- Dr. Lorena Moscardelli, STARR Assoc.
- Dr. Osareni Ogiesoba, STARR Associate
- Dr. Harry Rowe, STARR Associate
- Mr. Les Skinner, Professional Engineer
- Dr. Hongliu Zeng, STARR Associate
- Dr. Tongwei Zhang, STARR Associate

MPG
Petroleum, Inc.
Fueling the Future

Texas

Bureau of Economic Geology
William A. Ambrose is a geologist specializing in sedimentology and reservoir characterization. He received a Master of Arts degree in geological sciences in 1983 from the University of Texas at Austin. Before joining the Bureau of Economic Geology in 1987, he was involved in regional subsurface studies of the Yegua and Vicksburg Formations and the Wilcox Group in the Texas Gulf Coast. Ambrose has worked on a variety of projects at the Bureau, including characterization of Frio fluvial and deltaic reservoirs in South Texas, co-production of gas and hot brine from Oligocene reservoirs in the Texas Gulf Coast, evaluation of coalbed methane reservoirs in Rocky Mountain basins, and reservoir characterization and basin analysis studies in Venezuela and Mexico. He is currently a co-principal investigator of the Bureau’s STARR (State of Texas Advanced Oil and Gas Resource Recovery) program, chair of the EMD Coal Committee, and co-vice chair of the AAPG Astrogeology Committee. His contact information is: email: william.ambrose@beg.utexas.edu, telephone: 512-471-0258, address: Bureau of Economic Geology, The University of Texas at Austin, University Station, Box X, Austin, TX, 78713-8924.

Publications


Steven L. Bruington, P.E.

EDUCATION

Cypress-Fairbanks High School, 1972
Texas A&M University, 1972 - 1976
   Bachelor of Science Degree, Petroleum Engineering.

EXPERIENCE

September 1986 – Present
BRUINGTON ENGINEERING, L.C. /LTD. - President / Partner
Company provides in house engineering and well site consulting services.
- The services provided include but are not limited to:
  - onsite supervision of drilling, completion and workover operations; snubbing
    operations; pipeline and facility installation; CO₂ foam frac jobs; well testing;
    supervision of gaugers
- Project depths have ranged from 500 to 17,600 feet, bottom hole pressures exceeding
  15,000 psi, bottom hole temperatures in excess of 400°F and CO₂ concentrations
  exceeding 10%.
- Responsible for the preparation of drilling, completions, and workover procedures,
  cost estimates, reserve and property evaluations, estate evaluations, pressure
  transient analysis, filing of Railroad Commission forms, casing designs, bid
  specifications and preparation of drilling programs.
- Experienced in the management of a multi-rig Eagle Ford drilling and completions
  operation. This includes well design, drilling program construction, and well
  operations. Served as interim drilling and completions manager during transition
  period between operators.
- Experience in well design for frac operations, completion program design and
  execution.
- Well versed in all aspects of open and cased hole logging, acid washes and fishing
  MWD tools using coiled tubing.
- Experienced in the drilling and completion of wells in the Wilcox, Frio, Yegua,
  Vicksburg, Austin Chalk, Edwards, Miocene, Hockley, Olmos, Catahoula, Buda,
  Queen City, Ellenberger, Miss and Eagle Ford formations.
• Supervised the planning and drilling of short radius lateral wells in the Edwards Limestone.
• Supervised the drilling and completion of more than 100 horizontal wells. Many of these wells were drilled while producing 125 barrels of oil per hour with 400-500 psig backpressure.
• Perform services as expert witness.
• International experience includes:
  o Served as the United Nations technical representative to the Oil and Natural Gas Commission of India for the preparation of a feasibility study regarding the drilling and completion of horizontal wells in unconsolidated sandstone reservoirs.
  o Prepared well designs for 4500 meter wells in Bolivia.
• Prepared tender offers and analyzed responses for drilling of wells in Tunisia.
• Selected as technical advisor to chapter 7 federal bankruptcy trustee.
• Partner in Bruington Operating Company L.L.C., which is actively engaged in contract operating of oil and gas wells. The company was founded to manage oil and gas properties with a minimum amount of cost to the joint interest owner.

January 1986 - September 1986
CROSSROADS PETROLEUM CONSULTANTS, INC. - Vice President of Operations
Onsite supervision of drilling, completion, and workover operations. Prepared cost estimates, completion procedures, drilling programs and property evaluations.

November 1979 - January 1986
BAGNALL & BARBER, INC. (consulting natural gas and petroleum engineers) - Petroleum Engineer.
Onsite supervision of drilling, completion, and workover operations on wells ranging in depth from 2,000 to 15,000 feet. Activities supervised included daily workover, completion and drilling operations, running and cementing of casing and liners, monitoring of pore pressures and adjusting mud weights accordingly, drill string design, selection of solids control equipment, logging and coring operations, perforating, fishing, drill stem tests, gravel packing, 4-point potentials, casing designs, stimulation jobs, diamond coring, bit nozzle selection. Office work included reserve and property evaluations, calculation of absolute open flow potentials, Railroad Commission completion forms, preparation of workover and drilling procedures, preparation of cost estimates, and supervision of up to 8 field personnel.

May 1976 - November 1979
GETTY OIL COMPANY - Associate, Junior Petroleum Engineer and Petroleum Engineer.
Analyzed pressure buildup and drawdown tests, constructed P/Z versus cumulative production curves. In charge of engineering and profitability of over 60 oil and gas wells.
Responsibilities included recompletion procedures with economics, log calculations, and payout calculations. Wrote several drilling programs for wells ranging in depth from 10,000 to 14,000 feet. Made calculations to size reciprocating gas compressors to fit specific conditions.

PROFESSIONAL ORGANIZATIONS

Society of Petroleum Engineers, 1975 - present
American Association of Drilling Engineers – San Antonio Chapter
San Antonio Petroleum Club - Vice President, 1999 - 2000, President 2000 - 2001
American Petroleum Institute
Registered Professional Engineer in Texas (Number 55,514)
Second Vice President - Balcones Section of Society of Petroleum Engineers 1997, 1998
Member of Balcones Energy Library, Inc.
Finalist for North San Antonio Chamber of Commerce 2003 Small Business Leader of the Year Award
The Alternative Board (TAB) 2000 - 2006

INDUSTRY TRAINING AND EDUCATION

H₂S Certified
Proficient in Microsoft Office, Excel
Cathodic Protection and Corrosion Seminar. Getty Oil Company, 1976
Customer Mud School. IMCO Services, 1977
Drilling Seminar, Hughes Tool Company, 1977
Compressor Seminar, Cooper Industries, 1977
Open Hole Log Interpretation, Schlumberger, 1977
 Blowout Prevention School, University of Oklahoma, 1977
Well Log Interpretation, Douglas W. Hilchie, 1977
Halliburton Services Customer School, 1977
Drilling Practices, Preston Moore, 1978
Directional Drilling and Fishing Tool Seminar, Wilson Industries, 1979
Enhanced Oil Recovery Seminar, Getty Oil Company, 1979
Technical Writing Seminar, Getty Oil Company, 1979
Workover and Completion School, Rike Services, 1979
M.M.S. Basic Well Control School, University of Houston at Victoria,
SOR Stimulation Seminar, Dowell-Schlumberger, 1985
Core Analysis, Seismic and Logging Seminar, Western Atlas International, 1987
Smith International Horizontal Drilling Seminar, 1990
Developing Area Specific Waste Management Plans for Exploration and Production Operations, API, 1993
Economical Fracture Optimization for 3-D Models, Integrated Energy Services, Inc., 1995
Tubular Design Technology Training, 2003
Shale Development Technology Workshop, Halliburton 2011
San Antonio Association of Petroleum Landmen Mid-Winter Seminar, 2012
Dr. Gregory Frébourg is a carbonate / clastic sedimentologist with a strong field experience. He spent his whole academic curriculum at the University of Geneva, Switzerland. He achieved his Master of Science in Geology in 2006, focusing on the sedimentology of a deep clastic system of the North Alpine Foreland Basin. He obtained his Ph.D. cum laude in carbonate sedimentology in May 2010, proving that ancient eolian carbonate deposits can be potential hydrocarbon reservoirs. While working on his Ph.D., Dr. Frébourg was hired as an intern for 13 months at the Scientific Research Center of TOTAL S.A. to work on the reappraisal of an oil field in Qatar (Jurassic Arab D Fm.). He also performed consulting work on the Tertiary of the Cariaco Basin with Beicip - Franlab for PDVSA, Venezuela. Dr. Frébourg is working since September 2010 at the Bureau of Economic Geology, at the Jackson School of Geosciences, UT Austin. Among other, he has been conducting fundamental and applied research in the sedimentology of gas-shale systems (namely Haynesville / Bossier and Eagle Ford Formations) under the Supervision of William (Bill) Ambrose for the S.T.A.R.R. project (State of Texas Advance Resource Recovery) and Stephen (Steve) Ruppel for M.S.R.L. (Mudrock System Research Laboratory). Dr. Frébourg can be reached at Gregroy.Frebourg@beg.utexas.edu, phone: +1 512 471 0338, address: Bureau of Economic Geology, The University of Texas at Austin, University Station, Box X, Austin, TX, 78713-8924.

PUBLICATIONS

* Published papers:


* Submitted papers:

MARGARET P. GRAHAM, President of MPG Petroleum, Inc., graduated from Trinity University, San Antonio, Texas in the Class of 1979 with a Bachelor of Arts Degree in Geology. Since graduation, Ms. Graham has been involved in the oil and gas industry, and is experienced in multidisciplinary areas such as geology, geophysics, prospect generation, financial oversight and operations.

Prior to forming MPG Petroleum, Inc. in 1985, Ms. Graham served as a staff geologist in the South Texas exploration department of Tesoro Petroleum, Inc., as geological technician for Gulf Energy Development Corporation and as a geological consultant to Durst Energy Corporation and to Rio Exploration Company, all located in San Antonio, Texas. Ms. Graham served as the 1997 –1998 Chairman of the Southwest Chapter of the American Petroleum Institute. Other professional affiliations are the South Texas Geological Society, the San Antonio Geophysical Society, the Society of Petroleum Engineers, the Society of Professional Earth Scientists and the American Association of Petroleum Geologists.

MPG Petroleum, Inc., a Texas Corporation, was chartered (number 775723-0) on November 22, 1985, Texas Railroad Commission Operator Number 518631. Since 1987, our corporate office has been located in the Energy Plaza Building at the address shown above.

CORPORATE AND PERSONAL REFERENCE LIST

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Ursula Hammes
Research Associate
Bureau of Economic Geology
The University of Texas at Austin

**Education:** Ph.D., Geology, University of Colorado, 1992
Diploma (M.S.), Geology, Geologisches/Paläontologisches Institut, Universität Erlangen, Germany, 1987

**Areas of Expertise:** Carbonate and clastic sequence stratigraphy
Mudrock systems
Seismic and wire-log interpretation
Prospect generation

**Professional History:**
Present Position: Research Associate, Universität Potsdam, Institut für Erd- und Umweltwissenschaften, Potsdam, Germany (August 2011 - Present)

Present Position: Research Associate, Bureau of Economic Geology, The University of Texas at Austin (September 2004 - Present)

Engineering/Scientist Associate V, Bureau of Economic Geology, The University of Texas at Austin (September 2003 - September 2004)

Consultant, Bureau of Economic Geology, The University of Texas at Austin (November 2002 - September 2003)
Sequence stratigraphy and seismic and wire-log interpretations in Tertiary clastic sediments along the Texas Gulf Coast. Prospect generation and training of operators in sequence stratigraphic analysis of wireline logs and seismic.

GOM Group: Basin and prospect evaluation of the Mesozoic Eastern Gulf of Mexico, including basin modeling, 2D/3D seismic interpretations, and prospect generation. World Wide Business Development Group: conducted studies on exploration potential for different countries and petroleum provinces around the world (e.g., Nigeria, Iran, Colombia, Hungary, Ecuador, Morocco, Mauritania). Evaluated deals and prospects. Development Group: Prospect development in Kansas and Oklahoma; responsible for identifying prospects in the Hugoton Basin, selecting well locations and supervising drilling. Basin Studies Group: Conducted basin analyses and petroleum system assessment (source rock analyses, reservoir quality, structural analysis) for exploration potential of West Greenland, Southeast Australia, and Southeast Canada. Responsible for interpreting FMI/EMI logs in different geologic settings using Z&S log interpretation software (Recall). Working knowledge of UNIX-based applications (Landmark, Z&S Recall software; FAPS fault analysis) and PC applications (Geographix, Petra, SeisVision, Freehand).
Professional History Continued:

Postdoctoral Research Fellow, Bureau of Economic Geology, The University of Texas at Austin (November 1995 - March 1997)
Develop reservoir model of karsted and fractured Ellenburger reservoir in West Texas using 3-D seismic and well log correlations. Working knowledge of Landmark workstation, including Openworks, Geodataworks, Stratworks, and Seisworks. Working knowledge of Schlumberger Sun workstation using Geoframe for FMI/FMS log interpretations. Working knowledge of Halliburton Silicon Graphics workstation using InterView for EMI log interpretations.

Environmental Scientist/Geologist, IT Corporation, Houston, Texas (July 1994 - October 1995)
Conduct geochemical soil tests for Mercury and PCB contaminated sites along Tenneco gas pipelines. Preparation of proposals, reports, and environmental audits.

Established diagenetic and geochemical model in a sandstone reservoir of the Celtic Sea. 87Sr/86Sr isotopes of Miocene carbonates of the Red Sea. Reservoir evaluation of selected wells of the Smackover Formation, U.S.A., using point-count data.

Sedimentology and diagenesis of the Cretaceous Shuaiba Formation, Oman.

Research/Teaching Assistant, The University of Colorado, Boulder (September 1988 - December 1992)

Exploration Geologist: Well-Site Geologist, BEB Oil and Gas, Hannover, Germany (January 1988 - August 1988)
Micropaleontology and stratigraphy in northwest Germany. Source-rock evaluation with pollen and spores. Sampled cuttings and selected formation boundaries.

Research Geologist, ARCO Oil and Gas, Production, and Research, Plano, Texas (June 1989 - September 1989)
Established diagenetic and geochemical model of debris flow deposits of the Permian Bone Spring Formation.
Ursula Hammes  
Research Associate  
Bureau of Economic Geology  
The University of Texas at Austin

Professional Societies:  American Association of Petroleum Geologists  
SEPM (Society for Sedimentary Geology)

Awards and Honorary Societies:  Outstanding Research Award, Jackson School of Geosciences, STARR Project, Co-Principal Investigator, 2010

Third Place, Thomas A. Philpott Excellence of Presentation Award, Gulf Coast Association of Geological Societies (GCAGS), 60th Annual Convention, San Antonio, Texas, 2010

Grover E. Murray Best Published Paper Award as co-author of Third-Place Paper published in GCAGS Transactions, "Preliminary Classification of Matrix Pores in Mudrocks", 2010

Honorable Mention, Best Poster Paper Presented at the SEG 2007 Annual Meeting for paper titled "Linear Amplitude Patterns in Corpus Christi Bay Frio Subbasin, South Texas", 2008

Second Place, Thomas A. Philpott Excellence of Presentation Award for "All Fill—No Spill: Slope-Fan Sand Bodies in Growth-Faulted Subbasins: Oligocene Frio Formation, South Texas Gulf Coast", 2007

A. I. Levorsen Award as co-author of Best Paper presented at Gulf Coast Section, GCSSEPM/GCAGS Annual Meeting, "Preliminary Classification of Matrix Pores in Mudrocks"

Committee Responsibilities and Professional Activities:  Co-Chair, Unconventional Resources, 2012 American Association of Petroleum Geologists Annual Convention, Long Beach, 2012

Chair, Gas Shales Committee: Haynesville Shale, EMD, 2011 - 2012

Co-Chair, Gas Shales Committee, 2011 Annual AAPG Conference, Houston, Texas, 2011


Dr. Jerry Jin was born 1962, grew up in Dongyang, Zhejiang Province in China, and came to the United States in 1986.

Dr. Jin is the founder and owner of Jin’s Environmental LLC, engaging in consulting on environmental restoration and oil and gas investment. He is retained by LEIDOS and OTIE as Senior Hydrogeologists.

Dr. Jin is the co-founder of the following non-profit organizations:

- The Greater San Antonio Association of Chinese Professionals (GSAACP), Vice President (2014-present)
- Dongyang Association of USA, Vice Chairman of the Board of Directors (2013-present)
- The Greater San Antonio Chinese Chamber of Commerce (GSACCC) (served as the Vice Chairman of Board from 2008 to 2010 and President from 2010 to 2012.)
- The Chinese Culture Performance Association of San Antonio (CCPASA) (Board member, 2007 to present)
- Chinese Orchestra of San Antonio (Manager, 2007 to present)
- East Tennessee Chinese Alliance (ETCA) (President from 1996 to 1997)
- ETCA Chinese School
- United Chinese Academy of San Antonio (UCASA) (Treasurer from 1999 to 2005)
- San Antonio Chinese Alliance SACA (Former board members and current advisor).
Summary of Experience:
Application of integrated Geologic, Geophysical, Computer Imaging for petroleum exploration and development. Integration of seismic processing with interpretation, especially for AVO and seismic velocity integration in geopressed environments. Extensive workstation experience on SMT. “Show and tell” experience on GeoQuest and Landmark platforms. Familiar with Spotfire data visualization programs. Experienced user of Hampson-Russell AVO analysis and modeling software.

Experience:
1993 - Present. VP and Geologist, EarthView Associates, Inc. Seismic 2-D and 3-D interpretation and mapping, prospect generation, prospect review, project coordination, geopressure research and application to petroleum exploration and development, computer-aided visualization, economic risk documentation, statistical consulting, teaching of computer mapping methods, and continental margin analysis. Areas worked include shelf and deepwater Gulf of Mexico, Texas (North, Gulf Coast, West, and South), South Louisiana, Chad in Central/North Africa, Brunei, New Zealand, Northwest Shelf of Australia, Paraguay, offshore Madagascar, West African offshore seismic and gravity interpretations.

1981 - 1985. Petroleum field development geology and geophysics in offshore Louisiana and Texas
1985 - 1990. Prospect generation and regional geological, seismic, gravity/magnetics and risk evaluation for offshore petroleum exploration in the Gulf of Mexico. Areas mapped included both deepwater and shelf.
Margins studied included:
- Gulf of Mexico
- Central West Africa with a concentration on Nigeria
- Northwest Shelf and onshore/offshore Perth Basin of Australia
- North Slope of Alaska


1979 - 1979 summer hire. Field Geologist, Texaco, Inc. Worked in California Coast Ranges: Field mapping and sampling, property ownership research, and owner/tenant contacts.

1978 - 1979. Teaching and Research Assistant, University of Southern California.


1974 - 1975. Investigator and Manager, Coastal Research Group. Implemented and directed a group of college students in an oil and gas lease sale assessment of offshore southern California. Through innovative use of limited resources we supplied the client with a gas supply assessment and geologic report at minimal cost.

1972 - 1974. Teaching Assistant, University of Southern California.

Summer 1972. University of Miami. Member of scientific crew, R/V Columbus Iselin in survey of the continental margin of West Africa.

Education:
Ph.D. in Geology, 1981. University of Southern California, Los Angeles, California.
M.A. in Geology, 1975. University of Southern California, Los Angeles, California.
Accomplishments in Petroleum Exploration and Development:

Established EarthView Associates, Inc. as a team of experienced petroleum professionals dedicated to high quality consulting and training in geology, geophysics, and biostratigraphy. This company has provided support services for clients seeking to open new plays, revitalize old trends, evaluate acquisitions, understand unexpected geology and find new pay in old fields.

Lease Acquisition and Prospect / Trend Mapping:

Onshore Texas and Louisiana:

- Gulf Coast Miocene, Frio, Vickburg, Yegua, Wilcox, and Jurassic prospect generation and evaluation. Mapping of 3D seismic surveys, AVO / AVA analysis, log correlation, interpretation of depositional environments.
- North Texas Paleozoics, seismic interpretation in Hardeman Basin, Bend Arch, Barnett Shale of Fort Worth Basin.
- West Texas seismic interpretation and prospect evaluation on Central Basin Platform, Midland Basin.

Gulf of Mexico shallow and deep water:

- Oligocene, Miocene, Pliocene, and Pleistocene in Louisiana and Texas. Methods used included 2D and 3D seismic interpretation, log correlation, interpretation of depositional environments.
- Geopressure detection and modeling: Applied the concepts of dynamic pressure seals to exploration for hydrocarbons, geopressure detection using AVO, AVF and seismic velocity; Developed improved methods for AVO analysis in geopressed environments; Mapped deep geopressure distribution in parts of the Gulf of Mexico using residual gravity response.
- Modeled salt-layer gravity response in support of sub-salt exploration efforts.
- Vertical Migration of Hydrocarbons in the Gulf of Mexico: Developed and applied concepts of vertical migration to support lease acquisitions on the shelf and in deep water areas of Offshore Louisiana and Texas.
- Field Extension Campaigns in the West Cameron Area of the Gulf of Mexico.

California onshore and offshore:

- Prospect Generation in the San Joaquin Basin, the Santa Maria Basin, and Offshore.
- Field Extension Campaigns in the Ventura Basin.

ANWR on Alaska’s North Slope:

- Prospect evaluations made use of seismic, well, gravity, and magnetics data; and included basin hydrocarbon generation and preservation estimation from an integrated continental margin model.

Computer Visualization and Modeling:

- Developed a "Statistical Gravity" modeling method for basin analysis on continental margins and applied it to West Africa, Australia, Madagascar, Indonesia, The Gulf of Mexico, and the North Slope of Alaska.
- Developed a Seismic Multi-Attribute Display and analysis procedure for use in seismic stratigraphy.
- Applied seismic stratigraphic methods in U.S. Gulf Coast, California, Alaska, Algeria, and offshore Nigeria.
- Developed a fast “seed-model” procedure for predicting sand transport in deep-water environments, including salt-layer regions of the deepwater Gulf of Mexico.

Economic Risk Evaluation at the Field, Prospect, Trend, and Basin Scales:

Supply clients with realistic benchmark evaluation of chance for success for property acquisition, development, and exploration projects using integrated geology, geophysics, and statistical methods.

Professional Affiliations:

Recent Presentations and Publications:


Co-author of the AVO/SEISMIC section of IHS Energy’s 2003 Deep Shelf Gulf of Mexico Production Performance Study.


Lorena Moscardelli
Research Associate
Bureau of Economic Geology
The University of Texas at Austin

Professional Summary: My technical experience is in stratigraphy, seismic geomorphology, and seismic interpretation and visualization. I specialize in the study of deep-water deposits, with particular interest in mass transport complexes. My industry experience includes regional hydrocarbon prospectivity and the development of exploration prospects.

Research Interests: Study and characterization of mass transport complexes around the world, Application of quantitative seismic geomorphology techniques in shallow and deep-water deposits, Subsurface mapping of depositional systems, Basin analysis

Education: B.S., Geology, Universidad Central de Venezuela, 2000
Ph.D., Geology, The University of Texas at Austin, 2007

Professional History: Bureau of Economic Geology: Graduate Research Assistant for the Quantitative Clastic Laboratory Consortium, 2003–2007
BHP Billiton: Summer Intern, 2006
OXY Occidental Oil and Gas: Summer Intern, 2005

Lorena Moscardelli
Research Associate
Bureau of Economic Geology
The University of Texas at Austin


Moscardelli, L., and L. Wood, 2005, Visualization Technology and Quantitative Morphometrics of Mass Transport Complexes along the continental margin of Trinidad, West Indies, in SEPM Research Conference Proceedings, Houston, Texas, USA.


Lorena Moscardelli

Research Associate
Bureau of Economic Geology
The University of Texas at Austin


Awards: Ed Picou Full Fellowship Grant, 2007 Gulf Coast Section of SEPM

AAPG Grant in Aid, 2006 American Association of Petroleum Geologists Foundation

Graduate Student Research Grant, 2005 Geological Society of America GSA

Outstanding Student Paper Award, 2004 Hydrology Section AGU

Thomas R. Banks Memorial Scholarship, 2004 from the San Antonio Area Foundation

L. Austin Weeks Grant, 2004 American Association of Petroleum Geologists Foundation

Exxon-Mobil Student Grant Participation Award, 2001 AAPG/SEPM Annual Convention
Osareni Christopher Ogiesoba
Professional Summary
March 13, 2013

Business address: The University of Texas at Austin
Bureau of Economic Geology
University Station, Box X
Austin, Texas 78713-8924
(512) 471-6250
E-mail address: osareni.ogiesoba@beg.utexas.edu

Academic Background

B.Sc. Geology, University of Benin, Benin City, Nigeria, 1979
M.Sc. Applied Seismology, University of Calgary, Alberta, Canada, 2004
Ph.D. Earth and Planetary Sciences, McGill University, Montreal, Quebec, September 2007

Areas of Expertise

A. Seismic interpretation of depositional systems.
B. Seismic data processing and seismic anisotropy.
C. Multicomponent data processing and velocity ratios estimation for reservoir characterization.
D. Seismic modeling.
E. Acreage evaluation and prospect generation.
F. 3D seismic attributes-based rock property prediction in hydrothermal dolomite reservoirs.

Professional Work Experience

A. Present Position: Research Associate, Bureau of Economic Geology, The University of Texas at Austin (October 2007 - Present).

Seismic interpretation of the Frio Formation in South Texas Gulf Coast; development of regional structural and stratigraphic models; post-stack processing of the seismic volume; seismic attribute analysis; pre-stack velocity analysis; development of post-stack velocity analysis algorithm.


Development of converted-wave velocity ratio scanning algorithm for automatic transformation of PS to P time.


Team leader of reservoir management team (multidisciplinary team): Mobil Southwestern oil fields, Niger Delta, West Africa.


Responsible for integration of geological, geophysical, and reservoir-engineering data for optimal production uplift, Mobil Producing Nigeria Southwestern oil fields, Niger Delta, West Africa; responsible for the development of deep exploration plays in the cluster.

G. Geophysical Advisor, Dallas, Texas, Mobil Corporation (1996 - 1997).

Reservoir characterization and gas injection project, Mobil Producing Nigeria Southwestern oil fields, Niger Delta, West Africa.


Deep-water block seismic evaluation: Mobil Western block, Niger Delta, West Africa.


Regional mapping of deep leads and prospects; development of structural and stratigraphic framework for Mobil deep plays, Mobil acreage, Niger Delta, West Africa; GMA stratigraphic modeling of an offshore stratigraphic hydrocarbon indicator (HCI) and wildcat recommendation: Niger Delta, West Africa; supervision of seismic mapping projects and wildcat recommendation: Mobil acreage, Niger Delta, West Africa; 3D seismic interpretation, reservoir delineation and recommendation of development wells, Mobil acreage, Niger Delta, West Africa; team leader on 3D mapping projects and wildcat recommendations: Mobil acreage, Niger Delta, West Africa; 3D mapping of an oil-bearing submarine fan: Mobil acreage, Niger Delta, West Africa.


Prospect generation and recommendation: Mobil acreage, Niger Delta, West Africa; gas potential studies of Mobil acreage, Niger Delta, West Africa; training and development of seismic interpreters: Nigeria, West Africa.

L. Senior Geophysicist, Dallas, Texas, Mobil Corporation (1986 - 1987).

Edop field 3D seismic data processing project: Mobil acreage, Niger Delta, West Africa; in-house consultant on seismic evaluation of an offshore acreage and identification of oil and gas fields during a lease sale: Niger Delta, West Africa.

Seismic interpretation and wildcat recommendations of a submarine channel play: Mobil acreage, Niger Delta, West Africa; seismic evaluation of offshore acreages during a lease sale and well-site duties: Mobil acreage, Niger Delta, West Africa.

N. Junior Geophysicist, Mobil Corporation (1980 - 1982).

2D seismic interpretation and recommendation of appraisal well location: Mobil acreage, Niger Delta, West Africa; well-site duties, postdrilling mapping and volumetric; quality control of 1982 2D seismic data processing.

Professional Societies

American Association of Petroleum Geologists
Canadian Society of Exploration Geophysicists
Society of Exploration Geophysicists

Awards and Honorary Societies

Howard Scholarship, McGill University, Montreal, Canada, 2006 - 2007
Mobil SPOT AWARD for outstanding performance: Inanga Evaluation Team, 1994
Federal Government of Nigeria Postgraduate Scholarship Award, 1982
Federal Government of Nigeria Academic Merit Award for outstanding University student: University of Benin, Nigeria, 1977 - 1978

Publications

Articles

Peer Reviewed


Non-Peer-Reviewed


Abstracts


Hammes, Ursula, and Ogiesoba, Osareni, 2008, Seismic imaging of sediment ridges in growth-faulted subbasins of the Oligocene of the South Texas Gulf Coast—are they shale, salt, or seismic artifacts? (abs.): AAPG 2008 Annual Convention and Exhibition Abstracts Volume, v. 17, p. 74.

Ogiesoba, O. C., and Hart, B. S., 2005, Fault controlled porosity within a Trenton-Black River hydrothermal dolomite reservoir, Essex County, Southern Ontario (abs.), In AAPG Convention, Calgary, Alberta, Canada.


Contract Reports


Thesis

Prestack Vp/Vs scanning and automatic PS-to-PP time mapping using multicomponent seismic data.

Dissertation

Lecturing

Lectures and Addresses
Understanding lithologic significance of amplitude envelope within Oligocene and Miocene Strata, South Gulf Coast: presented to Geophysical Group, Jackson School Institute for Geophysics, The University of Texas at Austin, Austin, Texas, October 2, 2009.

Amplitude envelope and fault zone reflection phenomenon: presented to Geophysical Group, Jackson School Institute for Geophysics, The University of Texas at Austin, Austin, Texas, July 17, 2009.

Prestack velocity ratio scanning from PS-wave data: presented to Geophysical Group, Jackson School Institute for Geophysics, The University of Texas at Austin, Austin, Texas, March 6, 2009.

Seismic interpretation of mass-moved sediments within the upper Oligocene Frio Formation, South Texas Gulf Coast: poster presented at American Association of Petroleum Geologists Annual Convention, Austin, Texas, July 7 2009.

Seismic imaging of large channels in the Miocene interval, South Texas Gulf Coast: presented to Geophysical Group, Jackson School Institute for Geophysics, The University of Texas at Austin, Austin, Texas, October 24, 2008.


Harry Rowe
Professional Summary
January 30, 2013

Business address: The University of Texas at Austin
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Austin, TX 78713-8924

E-mail address: harry.rowe@beg.utexas.edu

Academic Background

B.A. Geology, Miami University of Ohio, 1993
M.S. Earth and Planetary Sciences, University of New Mexico, 1995
Ph.D. Geological and Environmental Sciences, Stanford University, 2002

Areas of Expertise

A. Chemostratigraphy of mudrock systems.
B. Paleoceanography of marginal marine systems.
C. Development of x-ray fluorescence for rapid core/hand sample analysis.
D. Paleoclimateology records in karst environments.
E. Stable isotope geochemistry.

Professional Work Experience

A. Present Position: Research Scientist, Bureau of Economic Geology, The University of Texas at Austin (August 2012 - Present).
B. Assistant Professor, Earth and Environmental Sciences, Univ. of Texas at Arlington (August 2008 - August 2012).
C. Assistant Professor, Earth and Environmental Sciences, Univ. of Kentucky (July 2002 - July 2008).
D. Visiting Assistant Professor, Univ. of Illinois-Chicago (September 2001 - May 2002).

Committee Responsibilities and Professional Activities

Member, Mudrock Systems Research Laboratory Industry Associates Consortium, Bureau of Economic Geology, Arlington, Texas, 2012 – present
Director, Stable Isotope Facility, University of Texas at Arlington, 2009 - 2012
Director, Stable Isotope Facility, University of Kentucky, 2002 – 2008
Advisor for 2 PhD and 20+ MS students at University of Kentucky and UT Arlington

Examples of Publications


RESUMÉ

Les Skinner, PE
Licensed Professional Engineer

PERSONAL

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- Phone: 281-463-4297
- Cell: 281-961-8595
- e-mail: lskinner@sbcglobal.net

EDUCATION

- Phillips High School, Phillips, Texas, 1967
- BS Chemical Engineering - Texas Tech University, 1972
- Advanced Studies toward MS Chemical Engineering - Texas Tech University, 1973 and 1976

CERTIFICATIONS

- IADC WellCap® Well Control, Supervisor, Onshore/Offshore, Wireline, Workovers and UBP, 2014
- Licensed Professional Engineer, Texas, continuously since 1978
- Registered Environmental Professional, Texas, 1995
- 40-hr HAZWOPER, HAZWOPER Supervisor, HAZMAT, H₂S, First Aid, CPR and Confined Space Certified, 1991-2006
- Trained as Firefighter Intermediate Certificate (Texas Firemen's and Fire Marshall's Association Certification)
- Emergency Medical Technician Special Skills (Texas Dept. of Health)
- Certified Radiation Safety Officer and Radiation Surveyor, 1997
- Member SPE, AADE, ASME, AIChE, ICoTA

RECENT PROFESSIONAL SOCIETY PARTICIPATION

- Served on API RP 65 Parts 1 and 2 Committee
- Currently chairing API RR 90-1 Committee on Annular Casing Pressure Management in Offshore Wells
- Chaired SPE Petroleum Professional Certification Subcommittee preparing a professional proficiency test for foreign engineers 2010.
- Member IADC Technical Publications Committee - currently writing Snubbing Operations; Coiled Tubing Operations being printed
EXPERIENCE

1. CHEVRON, ETC

Drillsite Manager (consulting), May 2014 to present. Consulting drilling engineering specialist for Chevron’s worldwide drilling and completion operations. Provided experienced input to ongoing drilling and completions operations and monitored operations in real time. Worked in Chevron’s Decision Support Center as supervisor and mentor.

2. LES SKINNER PE

Consulting Engineer and Instructor - April, 2012 to present. Consulting drilling and well control engineer for independent operators in Houston drilling wells in West Texas, the Golden Trend in Oklahoma and other prospect areas in 2012 and 2013. Instructor for Petroskills, an oil industry training organization. Taught courses on Wellsite Management in Szeged, Hungary, Houston and Aberdeen, Scotland, 2012-2013.

3. SHELL E&P COMPANY

Sr. Wells Engineer, Alaska Development Team – Houston, TX - March, 2006 to April, 2012. Preparing well designs, regulatory documents for permitting and working on special projects such as well control and relief well drilling capability. Permits for initial site preparations issued in late-August, 2012.


4. CUDD PRESSURE CONTROL, INC.

Vice-President and Division Manager, Energy Personnel Inc. – Houston, TX - June, 2004 to May 2005. Managed Cudd’s consulting business including approximately 60 drilling supervisors, technicians and engineers in several locations in the USA.

Sr. Engineering Manager – Houston, TX - May, 2001 to June, 2004. Sr. Well Control Specialist and Well Control Engineering Manager for Cudd’s Well Control Division. Responsible for technical aspects of emergency response activities and plans to mitigate these events including relief well drilling worldwide.
5. HALE-MILLS CONSTRUCTION

Project Manager - Houston, TX - February, 1999 to May, 2001. Managed construction on 2-5 projects at a time with total tender values ranging from $3 to $25 million involving quarters and specialized facilities.

6. LES SKINNER, PE

Consulting Engineer - Houston, Texas - December, 1992 to February, 1999. Provided technical engineering services for a variety of independent oil company operators and service companies, onshore and offshore including Advanced Coiled Tubing, Cudd Pressure Control, Petrotex Engineering, National Energy Group, PDO (Oman) and others. Emphasis on deep well completions using underbalanced and near-balanced techniques.

5. AMERICAN ENERGY & ENVIRONMENTAL ENGINEERING, INC.

Associate Environmental Engineer - Houston and Austin, TX - March, 1992 to December, 1992. Performed environmental analyses of wellsites damaged during blowout incidents and through normal drilling and production activities. Supervised remediation of several contaminated sites as project manager.

6. NEAL ADAMS FIREFIGHTERS, INC.

Firefighting and Blowout Specialist - Midland and Houston, Texas - December, 1990 to March, 1992. Assisted in preparation of DEA Project No. 63 “Deepwater Well Control” and presented final report to participants. Assisted in blowout, firefighting and restoration of wells and production facilities in Kuwait following the invasion by Iraq. Seconded to the Kuwait British Group for 8 months.

7. LES SKINNER, PE

Consulting Engineer - Midland, Texas - May, 1989 to December, 1990. Supervised underbalanced drilling of horizontal Austin Chalk wells in the Pearsall, Texas area for Texas independent operators. Worked on 23 separate wells during drilling and completion phases of operations.

8. HERITAGE RESOURCES, INC.

Operations and Drilling Manager - Midland, Texas - May, 1986 through May, 1989. Designed and supervised drilling of several 22,000- to 23,000-ft Silurian, Fusselman and Ellenburger wells in Wink County, Texas. Completed the second highest producing well in Texas history (by initial potential test). Drilled 11 additional wells using UBD techniques including mud cap, low-density fluid and air/gas drilling.
9. H. L. BROWN, JR.

Operations and Drilling Manager - Midland, TX - September, 1983 through May, 1986. Managed all drilling and completion operations on approximately 270 wells for this independent operator. Drilled several wells in gas storage fields in Michigan using underbalanced techniques including low fluid density, aerated fluids and mud cap techniques.

10. LES SKINNER, INC.

President and CEO - Midland, TX - July, 1978 through July, 1983. Engineering consultancy that also provided wellsite supervisors to manage drilling operations on rigs. Designed, supervised and managed UBD drilling of 84 San Andres in Crockett County, Texas using air drilling and underbalanced completion techniques. Participated in numerous deep drilling projects including 26,000 ft Hunton wells in Beckham County, Oklahoma. Drilled sections of these wells underbalanced using only ECD to control flows while drilling. Owned and operated three drilling rigs and three completion units along with ancillary equipment.

11. TEXAS OIL AND GAS CORPORATION

District Reservoir Engineer and Operations Manager - Midland, TX - September, 1977 through July, 1978. Analyzed prospects generated by 23 exploration and exploitation geologists. This division of TXO had a 97% success rate drilling during this time period.

12. AMOCO PRODUCTION COMPANY

Staff Engineer and Engineering Supervisor - several locations - May, 1972 through September, 1977.

REFERENCES

Available upon request.
Hongliu Zeng  
Research Scientist  
Bureau of Economic Geology  
The University of Texas at Austin

**Professional Summary:** One focus of my research has been seismic sedimentology and its application in seismic stratigraphy, high-frequency sequence stratigraphy, and reservoir prediction. I study seismic frequency controls on clastic and carbonate seismic stratigraphy and the ways a good-quality seismic pick of geologic-time surfaces can improve depositional systems imaging. I invented the stratal slicing technique and am pushing for transfer of this technology to industry. As part of my research, I am experimenting with seismic data optimization and attribute analysis for better, geologically meaningful representation of seismic geomorphology. I investigate how morphologic patterns on stratal slices relate to various depositional systems and how depositional history can be rebuilt by sequential analysis of stratal slices. Recent research topics include using stratal slicing as a tool for high-frequency sequence stratigraphy, and applying Neural Net to automate geomorphology-based seismic facies analysis. Another theme of my research involves seismic characterization of thin-bedded reservoirs. I do seismic modeling of outcrop and subsurface data to study optimal forms of seismic data (frequency, wavelet phase, attribute, etc.) for thin-bed interpretation. I pursue data integration of well-based and seismic-based interpretations to avoid pitfalls and to minimize prediction error. Working with reservoir geologists and engineers, I promote using seismic data as a hard constraint to reservoir and simulation models. Present studies are focused on the interpretive advantages of 90° wavelets, and full-spectrum, progressive inversion of well and seismic data.

**Research Interests:** Seismic sedimentology, Seismic and sequence stratigraphy, 3-D seismic: processing, modeling, and inversion, Characterization of thin-bed reservoirs

**Education:**  
B.A., Geology, Petroleum University, Dongying, China, 1982  
M. A., Geology, Petroleum University, Dongying, China, 1985  
Ph.D., Geophysics, The University of Texas at Austin, 1994

**Professional History:**  
Research Scientist, Bureau of Economic Geology, The University of Texas at Austin, 1997-present  
Graduate Research Assistant, Bureau of Economic Geology, The University of Texas at Austin, 1990-1993  
Instructor, Petroleum University at Beijing, China, 1985-1989
Hongliu Zeng
Research Scientist
Bureau of Economic Geology
The University of Texas at Austin

**Selected Publications:**


**Selected Committees:**

Ph.D. dissertation committee for a graduate student in UTDOGS
Member, AAPG Geophysical Integration Committee, American Association of Petroleum Geologists, since 2004.
Member, SEG Development and Production Committee, Society of Exploration Geophysicists, since 2001.
Member, Publication Board, Bureau of Economic Geology, since 2004.

**Awards:**

National Science Award, China, 1988.
Tongwei Zhang

Professional Summary
January 9, 2013

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Academic Background

B.S. Petroleum and Natural Gas Geology, Northwest University, 1986
M.S. Petroleum Geochemistry, Chinese Academy of Sciences, 1994
Ph.D. Isotope Geochemistry, Chinese Academy of Sciences, 1999
Postdoctoral Senior Research Fellow Chemistry, California Institute of Technology, January 2007

Areas of Expertise

A. Extensive expertise in geological interpretation of petroleum and natural gas origins and accumulation in sedimentary basins by integrating petroleum and natural gas geochemistry, geology, and basin evolution.
B. Expertise in shale gas and tight oil geochemical characterization and integration with lithology and pore characterization to evaluate gas and oil storage, petroleum expulsion efficiency, oil saturation and fluid properties.
C. Expertise in non-hydrocarbon gases (CO₂, H₂S, and N₂) risk prediction prior to drilling, especially H₂S risk prediction from thermochemical sulfate reduction.
D. Expertise in the application of noble gas geochemistry and fluid inclusions to the reconstruction of oil- and gas-filling history in reservoirs.
E. Hands-on knowledge and experience with high-temperature and high-pressure gold-tube hydrous pyrolysis, high pressure and temperature gas adsorption, pore characterization with N₂ adsorption and the kinetics of petroleum and gas generation.
F. Strong skills in gas and organic compound quantification and isotopic composition analysis with GC, GCMS and GC/C/MS (MAT252, MAT251). also experienced with FT-IR/IR, UV, and VG-5400 isotope spectrometer.
G. Skills in laboratory water-chemistry measurement and formation-water chemistry prediction by using thermodynamic model.

Professional Work Experience


As PI or Co-PI for several research projects financially supported by ExxonMobil, Shell, ConocoPhillips, and also as one of key researchers of MSRL (Mudrock System Research Laboratories), my research focus is on shale gas and tight oil geochemical characterization and integration with geological elements (lithology, geological facies) and pore characterization to evaluate gas and oil storage, petroleum generation and migration, oil saturation and fluid properties. I also setup a new gas geochemistry laboratory in the Bureau with the Startup Funds provided by Jackson School of Geosciences.
B. Laboratory Manager and Research Geochemist, Power, Environmental & Energy Research Center (PEER center)
Chemistry and Chemical Engineering Division, California Institute of Technology, Pasadena, CA
(March 2007 - April 2008).

Responsible for geological interpretation of petroleum and natural gas origin and accumulation in sedimentary basins worldwide; research-project, annual-report, final-report, and proposal writing; and effective management of PEER chemistry laboratories.

C. Postdoctoral Scholar, Chemistry and Chemical Engineering Division, California Institute of Technology, Pasadena, CA
Chemistry and Chemical Engineering Division, California Institute of Technology, Pasadena, CA
(September 2001 - February 2007).

Focus: integrated geological and geochemical tools for petroleum reserves assessment, geochemical methods for petroleum and natural gas exploration, CO2 origin and accumulation in sedimentary basins, H2S and CO2 risk prediction from TSR prior to drilling.


Quantitative investigation of cap-rock sealing properties of oil and gas for providing important parameters of basin modeling; conduction of gas migration in diffusion to evaluate extent of carbon-isotope fractionation of methane on experimental and geological time scales; establishment of mathematical procedure by which the extent of isotopic fractionation can be estimated on the geological time scale.

E. Professor of Geochemistry, State Key Laboratory of Gas Geochemistry, Lanzhou Institute of Geology, Chinese Academy of Sciences (CAS) (November 1998 - August 2001).

As PI or Co-PI, focused on integrating geological observations and geochemistry of natural gas and sources; established a method of composition analysis for oil/gas inclusions trapped in reservoirs by means of ultraviolet laser ablation; reconstructed oil- or gas-filling history in reservoirs and identified oil/gas-filling stages of the trap by combining fluid-inclusion microthermometry in the Sichuan sedimentary basin, China; conducted field and laboratory measurement of soil gas (including free phase and absorbed phase), soil secondary carbonate, and mercury; established relationship between enrichment of soil secondary carbonate and microseepage hydrocarbon from deep reservoirs; proposed new mechanism of mineralization in soils resulting from hydrocarbon microseepage; built classification of natural gas origins in a depression on the basis of natural gas geochemistry; evaluated a prospective target for unconventional natural gas accumulation within the depression; conducted N2, CO2, Hg gas geochemistry and He and Ar noble gas geochemistry in main gas fields of China; discovered close relationship between helium and argon isotopes and fault activity and volcanic activity; developed geochemical criteria to identify mantle-derived CO2.

Professional Societies

- Geochemical Society
- American Association of Petroleum Geologists
- Geological Society of China
- Petroleum Geology Association, Gansu Province, China

Publications


Miscellaneous Activities of a Professional Nature


Invited as a reviewer for Chinese Science Natural Foundation

Invited as a reviewer for Acta Sedimentologica Sinica (China)