

Oil Prices in the Coming Year: A Buyers Market

By Kevin J. Lindemer, President of Kevin J. Lindemer LLC

Oil prices have experienced the most dramatic changes in modern history. Prices moved from \$55 per barrel to \$145, and back to \$55 in about 21 months. The collapse in prices from the peak of \$145 down to \$55 took place in only four months. While price volatility of this magnitude has inflicted pain on all participants in the oil business and those dependent on it and its products, it has also shown that markets do work. Supply and demand—producers and consumers—do respond to prices. And it is these responses that will drive the markets next year.

Oil demand growth in developed countries began to slow as early as 2005 as prices rose over \$50 per barrel. Emerging market oil demand was largely unaffected even through last summer. These economies have been insulated from higher oil prices by the weak U.S. dollar and government subsidies on petroleum products sold to consumers. However, these factors are dissipating.

The dollar has risen in value quickly and is back to early 2006 levels. And, many countries have realized they cannot afford oil subsidies when prices are high and have either decreased or eliminated them. These two factors combined with slowing economic growth in emerging markets will result in slower oil demand growth in 2009.

In developed countries, the decline in oil demand will likely stabilize in the coming months. Lower prices will tend to increase demand growth, but a weaker economy will tend to prevent oil demand from rising. In the U.S., the drop in gasoline prices since mid-July has been about \$1.88 per gallon. On an annual basis, this is equivalent to a savings of about \$1,100 per licensed driver, which will have a positive impact on consumer spending.

The global financial crisis is also having a significant effect on oil demand. The global economy will likely grow by 1% or less in 2009, which will result in almost no growth in oil demand and, possibly, even a slight decline. This compares to the nearly 4% gross-national-product growth in 2007 with a corresponding 1.2%



increase in oil demand. It is also likely that global oil growth for 2008 will also be near zero.

Since at least mid-2008, oil supply has been increasing faster than demand, creating potentially unmanageable levels of spare capacity within OPEC, reminiscent of the 1980s and 1990s. OPEC spare capacity has increased to levels not seen since at least 2002 and is likely to increase further in 2009 as new production comes on stream and

Three major factors will drive oil prices:

- Price responses—continuing impacts on supply and demand from the high oil prices of 2007 and 2008
- Income responses—weak U.S. and global economy
- Geopolitics—level of spare oil production capacity in OPEC and how OPEC manages it

demand continues to weaken. To prevent prices from eroding further, OPEC must revert back to its historic role of balancing supply and demand to stabilize prices. However, OPEC could have difficulty maintaining production discipline in the coming year, because several of the OPEC countries' national budgets for 2009 are based on oil prices above the crude oil price of early November 2008.

Given the continuing weak global oil demand and the much higher level of OPEC spare capacity, it is likely that oil prices in 2009 will remain below \$65 per barrel on average, with volatility around this level, depending on OPEC's success in balancing supply with demand.

Kevin Lindemer is President of Kevin J. Lindemer LLC, an independent energy research and consulting company based in Groton, Massachusetts, and has 25 years of experience in energy research, consulting, and the oil industry.

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PETEX PERSPECTIVES

From Director Greg McCormack



The oil and gas industry is experiencing a mass exodus of retirees and, as a result, faces its most difficult human resource challenge in 25 years. The average age of employees with major companies is 46-49 years and the average retirement age is 55. A 2005 panel at the

Offshore Technology Conference noted “North American upstream oil and gas companies will likely lose more than 60 percent of their employees, along with their experience and knowledge, in just 5 years.”

The new talent is out there, if only we can recruit and train them in time to meet the world demand for energy, which is expected to increase about 50 percent in the next 20 years. To secure enough oil, we’ll have to venture beyond usual limits and discover new ways to find and extract the oil we’ll need. There is no doubt the industry will need superior personnel trained in technology, on-the-job skills, and safety awareness to help accomplish its goals.

The year ahead presents challenges never faced before, and PETEX is uniquely positioned to help address

them. We tap a reservoir of knowledge among our broad network of seasoned experts engaged in the latest practices and impart their knowledge for the benefit of our growing petroleum industry—and in keeping with The University of Texas at Austin’s highest educational standards. Our courses and materials help prepare personnel for all walks of the industry.

With our expanded global presence, PETEX can assist clients almost anywhere with training distributed, rather than centralized, and located closer and closer to sites of operation on and offshore, in Texas and worldwide. In addition to scheduled classes at our Houston Training Center, we’ve reopened our West Texas Training Center in Odessa with plans to expand in 2009 with hands-on training in all phases of lease production operations—all to better to serve you in the new and challenging year ahead.

In 1944, it was a shortage of skill sets in the industry that caused the Texas Legislature to mandate that The University of Texas at Austin provide training to the oil and gas industry, hence the creation of PETEX. That same shortage of skills reappears today, and PETEX stands ready to assist, as it has for nearly 65 years.

Best wishes in the new year,

PETEX Voice of Training

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Accessible Learning for All



George Vaughn (left), a reservoir engineer with Denbury Resources in Plano, TX, recently attended Petroleum Fundamentals training at the Houston Training Center. Vaughn, who is hearing-impaired, was accompanied by speech interpreter **Monica Parks** (far right). The Center arranged for the assistance to ensure optimal learning. Also pictured is student **Saree Timmons** (center) from the Alaska Department of Natural Resources.



Focus on People

Event Honors Legends in Drilling Industry



Bill Rehm

Rehm, an independent drilling consultant and author of PETEX drilling publications, focuses on issues surrounding well pressure and improving safety in drilling well control. He began his career at Dresser Industries developing well control and pressure measurement from electric logs. He wrote the first manual on well control

PETEX Advisory Board Member Bill Rehm was among five recipients of this year's JPT Legends in Drilling award presented by the Journal of Petroleum Technology at the annual conference of the Society of Petroleum Engineers in September.

Rehm, an independent drilling consultant and

accepted by the U.S. Minerals Management Service, and throughout his career, contributed to some of the most significant technological advancements in recent history including the development of directional drilling, coiled tubing, underbalanced drilling, and high-pressure drilling operations.

Also honored was Dr. Martin E. Chenevert, senior lecturer of Petroleum Engineering at The University of Texas at Austin (UT-Austin). Chenevert has earned international recognition for his work in wellbore stability and drilling fluids. After beginning his career with Humble Oil, he launched and ran his own company between 1977 and 1984 and remains on faculty at UT-Austin.

PETEX congratulates both recipients and is honored to have them participate in our shared mission of delivering quality education to oil and gas industry personnel, present and future.

WE ARE PETEX



Michelle Wernert, Marketing Specialist, will assist PETEX in marketing its programs and services. She brings a breadth of applied experience and degrees in communication and journalism with an emphasis in public relations. In addition

to family ties to the oil patch, Wernert has experience as a college instructor and public speaker. As PETEX expands its reach, Wernert will help guide our exposure and communicate our mission to those who might benefit from our educational offerings.



Margaret Kopko, Course Administrator, is an experienced administrative professional who comes to PETEX with a range of solid technical and interpersonal skills. She has worked in various personnel and customer service roles in the Houston area and in New York State. Kopko studied

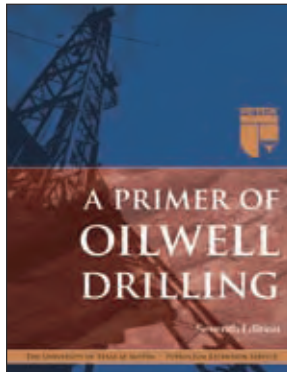
Human Resources Management after receiving bachelor's degrees in psychology and sociology. Visitors to the Houston Training Center will get a chance to meet her and say hello in person. And if you have any questions or need assistance, she is ready to assist you!



Dan Comstock, Training Specialist, applies expertise in all aspects of petroleum measurement to his role as instructor at the Houston Training center. Comstock is principal member of Comstock Consulting, LLC, and former manager for SGS North America. He has served on various working groups within API and is recipient of two distinguished API citations for service. In addition to troubleshooting and start-up activities on foreign and domestic sites, Comstock served as project manager for the first successful introduction of ballistic provers in the industry in the North Sea.

Focus on Education

Dr. Paul Bommer Updates Drilling Best-Seller



As drilling technology continues to evolve, *A Primer of Oilwell Drilling* remains a staple among the industry's nontechnical workforce. Starting with the history and evolution of drilling, this informative book tells the complete story from top to bottom—and back up again, following the track of making and producing wells.

Author Dr. Paul M. Bommer, Petroleum Engineering Senior Lecturer at The University of Texas

at Austin and newest member of the PETEX Advisory Board, applies over 30 years of oil and gas industry and academic experience to enhance the *Primer* with a stronger engineering focus. He has highlighted the role of engineers in the process of drilling, expanded topics to present a global view, and added material on critical new technologies.

A third-generation oil man, Bommer's father and grandfather were Texas oil men, so he knows firsthand the importance of understanding the fundamentals of the petroleum business. Bommer wants this book to continue serving its purpose as a valuable first-reader for engineers, business personnel, and students seeking a firm grasp of what drilling means today.

He says, "I tell my students they're entering a world where drilling technology allows us to drill anywhere in the world—better, faster, and

deeper than ever before. Through the use of innovative directional technology we can now drill wells to reach targets that were previously out of reach. Drilling technology will continue advancing to meet our greatest challenges of drilling in deep water." Such advances call for expert training and solid resources such as the new *Primer*.

The latest version, with its new perspectives, explanations, and detailed graphics, will illuminate the world of drilling for readers across the industry. This printing completes seven editions of the *Primer* developed by several authors and editors; the first edition was published in 1951. You can order your copy online at www.utexas.edu/ce/petex or call 800-687-4132.

Dr. Paul M. Bommer



CALL FOR EXPERTS

If you are a subject-matter expert and would like to review publication projects in drilling techniques, offshore operations, or oil and gas fundamentals, please contact Fran Kennedy-Ellis, Assistant Director, at 512-471-6160 or fkennedyellis@austin.utexas.edu.

Professional Development Training Showcase

The University of Texas at Austin's Professional Development Center (PDC) is headed east in February to hold a Training Showcase in Houston and share its program offerings with decision-makers at leading companies in the metro area.

PDC will hold a half day of presentations by top instructors on current topics of interest such as global project management and the multigenerational workforce. Attendees can meet the trainers and preview courses on business writing,

performance coaching, and work process mapping, among other timely topics.

A special lunchtime program will feature PETEX Director, Greg McCormack, speaking on the topic of oil supply and demand. His thought-provoking presentation, "Are We Running Out of Oil?" is a stimulating topic that is top of mind for many professionals today, and demonstrates the importance of continuing education as the pathway to staying informed on key issues that affect our lives.

PDC designs and delivers noncredit certificate programs, seminars, and workshops for individuals and organizations to improve personal and organizational performance. The PDC Training Showcase will be held on February 17, 2009, from 9:00 a.m. to 1:00 p.m. at the Houstonian Hotel, Club, and Spa. Space is limited and by invitation only. For more information, contact Kimberly Carella at carella@austin.utexas.edu or 800-687-7345.



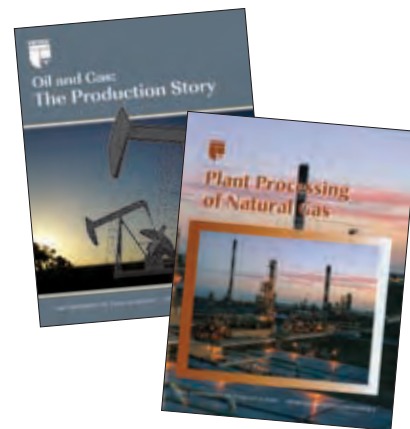
A New Year of Courses and Publications

Several courses and books have been updated to better meet clients' needs in 2009.

- The **Field Handling and Plant Processing of Natural Gas School** has been expanded to two weeks to provide more in-depth instruction on natural gas handling from the production field (wellhead) through process plant operations to achieve optimal performance.
- The **Economics of the Petroleum Industry School** premiered in 2008 and gears up for additional exposure at the Houston Training Center and on sites globally to share a comprehensive grounding in the economic dynamics of the petroleum industry.
- The **Natural Gas Measurement Schools** continue to enhance its series of courses covering everything from fundamentals to advanced measurement techniques. PETEX measurement schools are known worldwide for offering

the most in-depth measurement training of its kind.

- The **PETEX West Texas Training Center** reopened in Odessa late this year with planned expansion in 2009. A full-scale production area will provide hands-on training for lease operators, technicians, and drilling and production personnel.
- The book *A Primer of Oilwell Drilling, 7th ed.*, is newly enhanced to meet drillers' needs (see left page).
- A new edition of *Plant Processing of Natural Gas, 2nd ed.*, written by industry experts Dr. Doug Elliot, J.C. Kuo, and Dr. Pervaiz Nasir, is available. The book details the working practices of gas processors and features full-color graphics and schematics demonstrating concepts.
- Now available, the updated *Oil and Gas: The Production Story, 2nd ed.*, tells the complete, easy-to-read story of oil and gas from origin to everyday use. This colorful book includes an educational



poster, **An Oil Lease and Its Components**, suitable for framing.

- Two pocket-sized guides, the *H₂S Safety Handbook, 2nd ed.*, and *Arithmetic for Rig Personnel, 2nd ed.*, have been revised to better serve clients' needs.
- **2009 Catalog Now Available!** The *2009 Petroleum Extension Catalog* is ready. Find out what's new and check out the 2009-2010 schedule of classes. It's easy to enroll in classes and order materials online. Visit www.utexas.edu/ce/petex and click on Courses or Publications.

PETEX Awarded Top Program of Excellence

The University Continuing Education Association (UCEA) South Awards Committee recently selected PETEX to receive its first-place award for Program of Excellence—Noncredit.

PETEX was honored for providing state-of-the-art training in support of University objectives for delivering quality continuing education to the greater community. PETEX was required to demonstrate success of programs in operation for at least two years, showing educational benefits and continuing growth in demand for services. PETEX described new initiatives such as

global on-site training at facilities in Dubai and partnerships with associations in support of petroleum technology instruction in high schools. As evidence of continuing development, future plans for digital delivery were stated as efforts continue to make training more convenient and accessible to clients in remote locations.

UCEA South provides opportunities to examine issues of importance to continuing higher education professionals. The University of Texas at Austin program was selected from among 94 universities across 12 southern states and Puerto Rico. This award is

recognized nationally as a prestigious honor among continuing educators.





WINTER TRAINING

For the complete 2009-2010 schedule, visit www.utexas.edu/ce/petex

School	CEUs	Length	Dates	Tuition
Pipeline Technology	10.8	14 ½	Jan. 26–Feb. 13	\$5,010
1st Week		5	Jan. 26–30	\$1,800
2nd Week		5	Feb. 2–6	\$1,800
3rd Week		4 ½	Feb. 9–13	\$1,710
Production Technology	7.1	9 ½	Feb. 23–Mar. 6	\$3,410
1st Week—Subsurface		5	Feb. 23–27	\$1,800
2nd Week—Surface		4 ½	Mar. 2–6	\$1,710
Elementary Drilling	3.3	4 ½	Mar. 2–6	\$1,710
Petroleum Fundamentals	3.3	4 ½	Mar. 9–13	\$1,750
Mass Measurement of Hydrocarbon Fluids	3.3	4 ½	Mar. 16–20	\$1,710
Hydraulics for Pipeline Engineers	3.3	4 ½	Mar. 23–27	\$1,710
Introduction to Offshore Operations	3.3	4 ½	Mar. 30–Apr. 3	\$2,200

Some courses have associated publications available by enrolling in the training class or by ordering from the *2009 Petroleum Extension Service Catalog*; call 800-687-4132.

All courses are held at the PETEX Houston Training Center, 2700 W.W. Thorne Blvd., Houston, TX 77073. Training dates are subject to change.

To enroll, visit www.utexas.edu/ce/petex or call 800-687-7052; fax 281-443-8722; or email petexhtc@www.utexas.edu.

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