

By now you have received the 2008 – 2009 membership directory. I encourage you to pick up your copy and become re-acquainted with our history, by-laws, and perhaps reconnect with an old friend. The following is a brief quote from page V covering the history of our Society.

“The corporation was organized exclusively for educational purposes and to promote the profession of petroleum evaluation engineering, to foster the spirit of scientific research among its members, and to disseminate facts pertaining to petroleum evaluation engineering among its members and the public.”

So how are we doing with respect to achieving the goals of education, promotion, and dissemination, of technical knowledge pertaining to petroleum evaluation?

The answer to this question has six parts; 1) our annual meeting technical program, 2) activities of our local chapters, 3) publications, 4) training, 5) sponsorship of technical conferences, and 6) participation on various industry committees and taskforces.

In answer to the question posed, our Annual Meeting constitutes the first and best example. David Gold, 2008 Annual Meeting Chairman, put together an action-packed and educational technical program for the 45th SPEE Annual Meeting at The Homestead in Virginia in June. David, thinking outside the box as always, introduced a new approach this year consisting of two short courses on Saturday and Sunday and three technical sessions on Monday

and Tuesday. Both short courses were dedicated to the SPE/AAPG/WPC/ SPEE Petroleum Resources Management System. The technical sessions featured presentations from 25 presenters. As a testament to the technical expertise of our Society, almost all presenters were SPEE members!

I had the pleasure of meeting with many SPEE Chapter officers at The Homestead. At the local chapter level, virtually all have periodic technical luncheons covering timely evaluation topics as well as ethics. Chapter luncheons are well attended by both members and non-members.

Another way SPEE contributes to the science of petroleum evaluation is through formal Society publications such as the Recommended Evaluation Practices, Guidance on Ethics (both publicly available on our website), Fair Market Value Monograph, Annual Survey of Economic Parameters, and the Canadian Oil and Gas Evaluation Handbook. Many man-years of volunteer time have been donated by our membership in the authoring of these publicly available resources. Similarly, over the years many individual members have published evaluation papers in industry-leading technical journals. We currently have an initiative to reprint those articles in our newsletter and/or a SPE/SPEE reprint series.

Our Society has had a long-standing commitment to training formerly via the Continuing Education Committee. The objective of the committee was to provide leading edge training specific to petroleum

President's Letter



Frank Molyneux

evaluation. Recently, this effort has been replaced with our participation on the Joint Committee on Reserves Evaluator Training in partnership with our sister societies the SPE, AAPG and the WPC.

Over the years SPEE has sponsored and/or organized a number of technical conferences such as the SPEE/SEC Reserves Forum and the Economic Software Symposium. In 2007, SPEE was a sponsoring society (at no cost) of the AAPG/ SPE International Multidisciplinary Reserves Conference in Washington D.C. Several of our members also volunteered on the symposium steering committee.

Historically, our members have generously contributed their time to various industry committees and taskforces where reserves evaluation expertise was required.

2008 Officers and Directors

Committee Chairmen and Individual Appointments

Officers

President Frank Molyneaux (Calgary)
 Vice President David K. Gold (Bakersfield)
 Secretary/Treasurer Stuart L. Filler (Houston)
 Past President S. Tim Smith (Austin)

Directors

Barry R. Ashton (Calgary)	Scott H. Stinson (Denver)
Richard F. Krenek II (Dallas)	Brian Walter (Dallas)
James G. Patterson (Houston)	Marshall Watson (Midland)
Bruce Randall (Tulsa)	Jim L. Wilson (Tulsa)

Chair of the Council of Past Presidents E. Bernard Brauer

By-Laws Committees

Qualifications Committee Jim Wilson, Chair
 Alan Farquharson, Steve Blair, Jon Crawford, Charles Nelson
 Nominating Committee S. Tim Smith
 Grievance Committee L. D. (Buddy) Sipes

Individual Appointments

Evaluation Parameter Survey Tom Collier
 Fair Market Value D. Russell Long
 Internet J. Brian Walter
 Membership James G. Patterson
 Newsletter Richard J. Miller
 Communications Director Bruce L. Randall
 Production Tax Marshall Watson
 Recommended Evaluation Practices Daniel R. Olds
 Annual Meeting Advance Planning Barry Ashton
 Professional Registration Marcus Snyder
 2009 Software Symposium Kerry Pollard, John Wright
 Evaluation of Resource Plays Russell K. Hall

SPEE Delegates

SPE OGRC Oil and Gas Reserves
 Committee Observer D. Ronald Harrell
 JCORET Joint Committee on
 Reserves Evaluator Training Stuart Filler, Dan Olds, E. Bernard Brauer
 COGEH Ad Hoc Group of Experts on
 Harmonization of Fossil Energy and
 Mineral Resources Terminology S. Tim Smith

Chapter Officers - 2008

Calgary

Chairman	Floyd Siegel
Vice Chairman	Attila Szabo
Secretary/Treasurer	Curt Labelle
Membership Coordinator	Terry Nazarko

(3rd Tuesday each month except June/July/August)

California

Chairman	Russell Bertholf
Vice Chairman	Tom Walker
Secretary/Treasurer	Barry Evans

Central Texas

Chairman	Cary McGregor
Membership	Open

(Quarterly - Austin Country Club)

Dallas

Chairman	Dean Eiland
Vice Chairman	Paul McDonald
Secretary/Treasurer	Philip Crouse
Membership Chairman	Rick Krenek

(Bimonthly-September through May - Dallas Petroleum Club)

Denver

Chairman	Jerry Hertzler
Vice Chairman -Program	Kevin Weller
Secretary/Treasurer	Pat Galuska
Membership	Mike White

(2nd Wednesday of first month of each quarter
 Hershner Room - One Norwest Center)

Houston

Chairman	Ed Gibbon
Vice Chairman	Ronald Rhodes
Secretary/Treasurer	Samantha Meador
Program Chairman	Mitchell Reece

(1st Wednesday of each month except June/July/
 August - Petroleum Club)

Midland

Chairman	Charles Gleeson
Vice Chairman (Program)	Tom Collier
Treasurer	Russ Hall
Membership	Joe Neal
At Large Member ExCom	Bob Dimit
At Large Member ExCom	Arlen Edgar

(1st Tuesday odd months-Petroleum Club)

Oklahoma City

Chairman	Jim Wilson
Vice President-Program	Ken Sigl
Vice President-Membership	Bruce Heath
Secretary/Treasurer	Fletcher Lewis

(Every odd-numbered month)

Tulsa

Chairman	Ken Richison
Vice Chairman	Chris Jacobsen
Secretary/Treasurer	Bob Harmon

(1st Tuesday of each month - Petroleum Club)



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Members of the Calgary Chapter were key contributors to the Canadian Securities Administrators' Oil and Gas Industry Task Force (1998 – 2003) which provided recommendations for changes to securities reporting requirements. We currently have three member representatives on JCORET. A member of the Board of Directors Executive Committee has represented SPEE at two meetings of the Ad Hoc Group of Experts (AHGE) on Harmonization of Fossil Energy and Mineral Resources Terminology, formed under the United Nations Economic Commission for Europe.

And the beat goes on. We are continuing our work on JCORET, CO-GEH, REPs, AHGE, and our newsletter. Hot off the presses is the SEC Proposed Rules Changes which I am sure will attract immediate attention from all members of our Society. Volunteers are working on a second Economic Software Symposium scheduled for next April. Ideas for other symposiums are in the embryonic stage. *The future is so bright we gotta wear shades.*

So if you have read this far, you are pumped and wanting to know how you can contribute to the goals as set out in our charter of 1962.

Why not submit a course for JCORET consideration? Why not author a short paper for the newsletter and/or present it at the AM? Do you have an idea for a REP? Would you like to volunteer in any capacity? Please make the most of your SPEE membership and put into action your reasons for joining: education, promotion of petroleum evaluation, fostering the spirit of scientific research, dissemination of knowledge, and interaction with others in your profession. *Volunteers*

are seldom paid; not because they are worthless, but because they are priceless!

Before closing, I would like to congratulate David Gold on an excellent and innovative 2008 Annual Meeting. I have no doubt that the largest turnout ever was a result of the interesting and informative technical program. Of note was the recognition by the board of directors of the hard work by several volunteers.

Past President Tim Smith was honoured for his contributions as a member of the SPEE board for several years. I would like to add my personal thanks to Tim for his advice and direction during my board term. Distinguished Service Awards were also presented to Richard Banks and

Stuart Filler. Richard was honoured for over three decades of service at both the national and local chapter levels. Stuart was recognized for his efforts as a founder of and SPEE representative on JCORET as well as his contribution to PRMS.

Our 45th Annual Meeting at the Homestead was also a milestone for our Executive Secretary, B.K. Buongiorno. This year represents B.K.'s 25th year with us. As we all know, B.K. flawlessly manages all of our administrative tasks; a job that would normally employ a team of support staff. B.K. is also an invaluable encyclopedia of SPEE historical reference for Directors during

their term of service. For her contributions over the years, I was proud to present B.K. with a Distinguished Service Award.

If you have any questions, comments, or suggestions relevant to the Society, or would like to explore volunteer opportunities you may contact B.K. at (713)651-1639 (bkspee@aol.com) or me at (403)221-6566 (frank_molyneaux@scotiacapital.com).



Chapter News

Calgary

The Calgary Chapter held three business meetings and two technical meetings from January through May 2008. Our last business meeting was held on May 20. Average attendance at business meetings was 16 members. We are now recessed for the summer and will meet again on September 16 for a technical meeting at the Calgary Petroleum Club.

Proposed changes to Alberta royalties was the topic of the luncheon meeting of the Calgary Chapter on February 19th at the Calgary Petroleum Club. Cristina Lopez, Vice President and Director Institutional Research at Tristone Capital, addressed the changes to Alberta's royalty regime, the impact on project economics and recent developments announced by the Alberta Government.

Our guest speaker at the April 15th luncheon was Mr. Derril J. Stephenson, President Vikor Energy Inc. Mr. Stephenson addressed "The Potential Impact of Alberta Royalty Changes on CO2 EOR." This topic generated considerable interest and this luncheon was attended by 19 members and 12 guests.

COGEH Volume 3 which contains sections on "Detailed Guidelines for Estimation and Classification of Coal Bed Methane (CBM) Reserves and Resources" and "Reserves Recognition for International Properties" is now available from the Petroleum Society website www.petsoc.org. Guidelines for estimation and classification of bitumen reserves and resources are currently being drafted by members of the Calgary Chapter and industry experts. These will be added to COGEH Volume 3 upon completion.

Central Texas

The Central Texas Chapter meets when there are special topics of interest to the group. There is not a set monthly or quarterly meeting. Currently the group has expressed an Interest in the topic related to private equity, structured finance and the rates of return/exit strategies these groups agree to when sponsoring a startup. Planning on having Quantum Energy Partners making a presentation in the fall.

Dallas

The Dallas Chapter continued a great year with an interesting April meeting. The Chapter held a joint meeting with the Petroleum Engineers Club of Dallas. Our speaker was Congressman Joe Barton of the Sixth Congressional District of Texas. Congressman Barton

is the top Republican on the House Energy and Commerce Committee. The Congressman spoke on current legislation, proposals, and trends impacting the energy industry.

There were approximately 90 petroleum engineers eager to get the inside scoop in attendance at the lunch meeting.

The Dallas Chapter is currently in our summer break, but will resume meetings this fall with Richard Spears of Spears and Associates, Inc. presenting at our meeting on September 18th.

Denver

The Denver Section held its third quarterly meeting of the year on July 8th. A total of 35 people attended the luncheon. T. Scott Hickman presented a discussion titled "Ethical Considerations for Expert Witnesses." The presentation outlined civil legal procedures in the U.S. and highlighted factors to consider before accepting an assignment to serve as an expert witness. These included



Jerry Hertzler, T. Scott Hickman, Kevin Weller

potential conflicts of interest, availability in scheduling and comfort level relative to the issues surrounding the case, the client and the job scope. Scott pointed out the qualifications and standards for technical experts as well as potential pitfalls to watch out for. He summarized the technical expert's responsibility as helping the court understand technical issues by 1) responding to questions only, 2) not testifying extemporaneously and 3) not advocating for the client. Scott wrapped up the presentation with four examples of ethical situations he's encountered in recent years. The talk was very well received by those in attendance and there was considerable interaction with the audience following the formal presentation. The next quarterly meeting is scheduled for October 8th.

Houston

The Houston Chapter's 2008 program calendar began on January 17th with our annual joint meeting with the SIPES Houston chapter. The speaker was Frank Cornish with Imagine Resources whose topic was, "Discovery and Development of the Lower Wilcox Southwest Speaks Field, Lavaca County, Texas." The meeting was attended by 31 SPEE members and 12 SPEE guests. As SIPES was the "host" society for this meeting, the speaker was arranged through the SIPES program chairman, and the meeting was held on the usual SIPES meeting date.

The speaker for the February 6th meeting was Cheryl Collarini, Collarini Energy Staffing, whose topic was, "The 21st Century Employee: What Is Most Important." Cheryl presented results from two recent surveys of employees that were conducted to determine what non-monetary factors are of most importance to them in today's employment environment. Attendance at the meeting was 29 members and 5 guests.

Ron Harrell spoke at the March 5th luncheon meeting on "The PRMS and How It Applies to Unconventional Resources." Ron highlighted the use of inappropriate analogs as being one of the greatest areas of abuse in reserves estimating, based on his extensive experience. This meeting was attended by 35 members and 24 guests.

For the April 2nd luncheon meeting, the speaker was Bill Britain, President/CEO of EnergyNet. His presentation gave the history of live and on-line auctions of oil and gas properties in the very active auction marketplace (now more than 3,000 transactions per year). A total of 36 members and 13 guests attended the April meeting.

The last meeting before the Houston Chapter's annual summer break (June through August) was held on May 7th at the Petroleum Club, and featured Curt Taylor, Senior Vice President of TCW Asset Management Company. Mr. Taylor's topic was, "Debt/Equity/Energy/Risk, The DEER in the Headlights Discussion – What Does It Really Mean?" In his talk, he provided a current perspective on Measured vs. Perceived value, highlighting the idea that the marketplace can determine measured value based on the monetization of cash flow, but that the perceived value is the asset potential value. He also covered general guidelines which separate Debt and Equity type investments and the understanding of risk in the energy market. The meeting was attended by 30 members and 14 guests.

Houston Chapter meeting dates and scheduled speakers for the remainder of 2008 are:

September 3, 2008 – Mike Cousins, ExxonMobil, "Energy Security"
October 1, 2008 – Dan Tearpock, Subsurface Consultants, "Ethics"
November 5, 2008 – Stuart Filler, Devon, "Implementation of the PRMS"
December 3, 2008 – OPEN

The January 7, 2009 luncheon, our annual joint meeting with SIPES, will be held at the Petroleum Club, and we are planning for a substantially larger than normal crowd. The Houston Chapter of the SPEE will be the "host society" for this meeting and Mitch Reece, Program Chairman, has arranged for Dr. John Lee of Texas A&M University to speak on, "New SEC Guidelines." These new reserve definitions and reporting guidelines are being developed by Dr. Lee and the SEC staff during his temporary assignment in Washington, and his insights are sure to be of great interest to the January attendees.

Oklahoma City

Current Oklahoma City Chapter officers include Ken Sigl from Devon Energy as our Vice-Chairman (Programs), Jim Wilson as Chairman and long-time contributors Bruce Heath (Membership) and Fletcher Lewis (Secretary/Treasurer). The chapter held three meetings during the first half of 2008, drawing an average of 35 members and guests per meeting. We also lost yet another meeting to bad weather.

In January, Bill Britain, CEO and President of EnergyNet, Inc., spoke to our chapter about the changing dynamics in the MLP sector and the resulting effects on A&D markets. Mr. Britain's talk was very fresh and related some aspects of this burgeoning energy investment vehicle that most industry professionals had not previously considered. In March, Mary Ann Osko gave the chapter an update on the activities of the OERB. Ms. Osko spoke about the accomplishments of the Oklahoma Energy Resources Board and its very unique programs. Voluntarily funded by oil and natural gas producers and royalty owners, the OERB has restored thousands of abandoned well sites, educated over 1 million students about energy, and weatherized hundreds of homes for low-income Oklahoma families. Through these efforts, the OERB is keeping the industry strong and making Oklahoma Proud. In April, we welcomed Darrell Noblitt, Mid-Continent and Appalachia Business Development Manager for EnergyNet.com. Darrell discussed the customary topics of current market conditions and sale metrics, but delivered a unique workshop-style forum about becoming a good seller of assets. He illustrated to the audience how to set realistic, yet challenging expectations for your divestment and the steps necessary to achieve or better those expectations.

SPEE 40th Annual Meeting
June 7-10, 2008 – The Homestead Resort, Virginia
“45 Years of SPEExcellence”



Top left clockwise: Rod & Jan Sidle, Rosemary Long & Claudia Gleeson, Tom & Gayanne Bett, David & Dodie Billingsley, Scott & Cheryl Stinson, Richard Miller & Carol Lillie





Top left clockwise: George Schaefer, Samantha Meador, & Ed Gibbon; Pete Huddleston & Kerry Pollard; Ben & B.K. Buongiorno; Winners of golf tournament Kerry & Diane Pollard and Barry & Sharon Ashton; re-enactment soldiers; David & Harvey Gold

Proposed Changes in SEC “Reserves” Reporting Rules

The Securities and Exchange Commission (“SEC”) has proposed certain changes in the oil and gas reserves disclosure requirements which are currently covered by Regulation S-K and Regulation S-X (“the rules”). These rules were adopted in 1978 and 1982 respectively and have become obsolete at best. In late 2007 the SEC issued a Concept Release (sec.gov/rules/concept/2007/33-8870.pdf) which requested public comment regarding revisions of the rules. The deadline for responses was February 19, 2008. Not surprisingly, there was considerable interest in this issue and SEC received 69 published responses from E&P companies, organizations, investment analysts, and individuals. (The SPEE response was printed in the March 2008 newsletter; several SPEE members including Mr. Olds, Mr. Long, and I contributed individual responses.) The responses to the Concept Release are interesting in themselves and can still be accessed on the SEC website at sec.gov/comments/st-29-07/s72907.shtml. This article had originally intended to discuss the various responses pending issuance by SEC of their proposed changes; however, on June 26, 2008, SEC published a document rule entitled “Modernization of the Oil and Gas Reporting Requirements” which contained the rule changes which SEC now plans to make. The document was published for the purpose of soliciting public comment. The proposed rule changes can be found on the SEC website at sec.gov/rules/proposed/2008/33-8935.pdf. The comment period ends on or about August 25, 2008.

Despite the advice provided by at least one respondent to the Concept Release, it does not appear that SEC has yielded to good sense and opted to get out of the reserves business. There is too much history and investment in the “reserves reporting” practice for SEC to fold up its tent now. Since it appears that the SEC reporting requirements have become not only a permanent aspect of our profession but the prime mover in every part of evaluation practice from reserves definitions to professional qualifications, it probably behooves us, as SPEE members, to examine the proposed rule changes and make some attempt to steer SEC in the right direction or at least help them avoid driving off a regulatory cliff.

According to the Modernization document, the proposed revisions “...are intended to provide investors with a more meaningful and comprehensive understanding of oil and gas reserves which should help investors evaluate the relative value of oil and gas companies ... The proposed amendments are designed

to modernize and update the oil and gas disclosure requirements to align them with current practices and changes in technology.” Well, maybe. Further, the proposed revisions of reserves definitions “... address three issues that have been of particular interest to companies, investors, and securities analysts.” Actually four.

1. The exclusion of activities related to the extraction of bitumen and other “non-traditional” resources from the definition of oil and gas producing activities.
2. The limitations regarding the types of technologies that an oil and gas company may rely upon to establish the levels of certainty required to classify reserves; and
3. The limitation in the current rules that permits oil and gas companies disclose only their proved reserves.
4. The use of the single-day year-end pricing to determine economic producibility of oil and gas reserves.

The proposed rule changes and ancillary discussion require 172 double spaced pages. Do not let that scare you off; a large part of the document is taken up with discussion of the cost/benefit analysis of the changes (all the benefits that derive to the SEC and others, we are assured, will not cost the industry very much) and with compliance with the Paperwork Reduction Act. There is no intent in this article to go into the substance of the all revisions; if you want the details the document can be read online. However, some of the issues raised in the proposed changes are of interest and should be highlighted. Some of the key issues are:

- Adoption of PRMS and/or Canadian NI 51-101
- Year-End Pricing
- Reliable Technology
- Reasonable Certainty
- Deterministic/Probabilistic
- Probable/Possible
- Sensitivity to Price Changes

The SEC document uses a format that includes a statement of the revision being proposed and the rationale for the revision followed by a Request for Comment (RFC) on that revision. In order to stimulate discussion on the proposed changes, some of the proposed changes, along with the RFC questions, have been summarized below. The summaries are not complete and often paraphrase the document language; text in italics is taken verbatim from the SEC document.

Refer to the full release if the subject is of interest to you. Feel free to use this summary to compile your own responses and/or to transmit your responses to others.

Adoption of Reserves Definitions

The SEC notes that *“Many commentators on the Concept Release suggested that we adopt the PRMS definitions ... to the greatest extent possible ... Others suggested that we adopt Canadian National Instrument 51-101 ...”* The text goes on to say *“... We have based many of our proposed new and revised definitions classifications on both PRMS and NI 51-101. The language in NI 51-101 lends itself to a regulatory framework more easily than the language in PRMS, which is primarily a management tool, and we have been guided by the language in NI 51-101 in several instances. Although the proposed definitions are not totally consistent with either PRMS or NI 51-101, they are more consistent with those standards than with our existing rules.”*

Year-End Pricing

The SEC suggests that, in contrast to PRMS and NI 51-101, the proposed amendments continue to require the use of historical prices and costs *“...to promote comparability.”* The revised rules propose to change the (oil and/or gas) price used in calculating reserves from the fiscal year closing day price(s) to an average price *“...for the 12 months prior to the end of the company’s fiscal year.”* SEC notes that this pricing standard is consistent with the default guideline in PRMS for ‘current economic conditions,’ in itself a debatable point. The average price would be calculated as the un-weighted arithmetic average of *“...the closing price on the last day of each month in the 12-month period.”* In a classic bit of understatement, the SEC agrees that the use of historical pricing may not capture the future outlook as would futures prices or management planning prices.

Request for Comment on Year-End Pricing

- Should the economic producibility of a company’s oil and gas reserves be based on a 12-month historical average price? Should a shorter period of time such as three, six, or nine months be considered? Or a longer period such as two years?
 - Should a different pricing method be required? Such as Futures Prices instead of historical prices?
 - Should the price on the last day of the month be used?
 - Should a different price or a supplemental disclosure be required if there is a demonstrated consistent trend in prices above or below the average for the year?

What circumstances should trigger such supplemental disclosure?

- Should the price used be based on a time period other than the fiscal year?

Reasonable Certainty

The current SEC definition of proved reserves incorporates the term “reasonable certainty” which is undefined and subject to disagreement within industry. SEC proposes to include a definition of “reasonable certainty” in the revised Rule 4-10 of Regulation S-X. The proposed SEC definition of “reasonable certainty” is *“much more likely to be achieved than not.”* In addition, *“...when deterministic methods are used to estimate oil and gas reserves, as changes due to increased availability of geoscience ..., engineering, and economic data are made to estimated ultimate recovery (EUR) with time, reasonably certain EUR is much more likely to increase than to either decrease or remain constant ... when probabilistic methods are used to estimate reserves, reasonable certainty means that there is at least a 90% probability that the quantities actually recovered will equal or exceed the stated volume.”*

Request for Comment on Reasonable Certainty

- Is the proposed definition of “reasonable certainty” a clear standard?
- Would a different standard be more appropriate?
- Is the 90% threshold appropriate when using probabilistic methods?
- Should another value be used?

Application of Reliable Technology

SEC proposes to add a definition of the term ‘reliable technology’ to Rule 4-10 of Regulation S-X to clarify the technology that can be used to establish ‘reasonable certainty.’ *“We propose to define ‘reliable technology’ as technology (including computational methods) that, when applied using high quality geoscience ... and engineering data, is widely accepted within the oil and gas industry, has been field tested and has demonstrated consistency and repeatability in the formation being evaluated or in an analogous formation. Consistent with current industry practice, expressed in probabilistic terms, reliable technology has been proved empirically to lead to correct conclusions in 90% or more of its applications.”*

Request for Comment on Reliable Technology

- Is the proposed definition of reliable technology appropriate?
 - Are the proposed criteria ‘widespread acceptance,’ ‘consistency,’ or 90% reliability appropriate?
 - What are the risks associated with adoption of such a definition?

Use of Deterministic/Probabilistic Methods

I cannot paraphrase this one, it has to be quoted. *“We propose to add definitions of the terms ‘deterministic estimate’ and ‘probabilistic estimate.’ These two terms are the two alternative methods by which a company may estimate its reserves amounts ... Our proposed definitions are consistent with industry practice. We propose to define the term ‘deterministic estimate’ to mean an estimate that is based on using a single ‘most appropriate’ value for each variable in the estimation of reserves ... we propose to define the term ‘probabilistic estimate’ as an estimate that is obtained when the full range of values that could reasonably occur from each unknown parameter ... is used to generate a full range of possible outcomes and their associated probabilities of occurrence.” Further, “... the proposed definition of ‘reasonable certainty’ would continue to allow companies to estimate reserves ... using either deterministic or probabilistic methods ...”*

Request for Comment on Deterministic/Probabilistic Methods

- Are the proposed definitions of ‘deterministic estimate’ and ‘probabilistic estimate’ appropriate? Should they be revised?
 - Should companies be allowed the choice of using either method or should one method or the other be required? If a single method, which one?
 - Should companies be required to disclose which method they use?

Including Unproved Reserves

SEC proposes to allow companies to report proved, probable, and possible reserves estimates. *“By proposing to permit disclosure of all three ... classifications of reserves, our objective is to enable companies to provide investors with more insight into the potential reserves base that managements of companies may use as their basis for decisions to invest in resource development. ... Some commenters [sic] on the Concept*

*Release were concerned that disclosing reserve categories that are less certain than proved reserves could increase the **risk of confusion and litigation**. Therefore, we are proposing to make these disclosures voluntary.”* (Emphasis added)

Apparently in order to mitigate some of the concerns about disclosure of unproved reserves, SEC proposes a definition of probable and of possible reserves, to wit, *“... probable reserves ... are less certain to be recovered than proved reserves but ... in sum with proved reserves, are likely as not to be recovered.”* While possible reserves are *“... those additional reserves that are less certain to be recovered than probable reserves.”* In both cases caveats are added depending upon whether deterministic or probabilistic methods are used.

Request for Comment on Unproved Reserves

- Should companies be permitted to disclose probable and possible reserves? Why?
- Should we (SEC) require disclosure of unproved (probable and possible) reserves?
- Should we adopt the proposed definitions of probable and possible reserves?

Optional Reserves Sensitivity Analysis

While SEC plans to retain the requirement that reserves be based on some form of historical pricing, SEC is also proposing *“... to permit companies to include an optional reserves sensitivity analysis table in their filings that would show what reserves estimates would be if based on different price and cost criteria, such as a range of prices and costs that may reasonably be achieved, including standardized futures prices or management’s own forecasts. The company would be free to choose the different scenario ... that it wishes to disclose in the table.”*

Request for Comment on Sensitivity Analysis

- Should we (SEC) adopt an optional sensitivity analysis?
- Should we require a sensitivity analysis if there has been a significant decline in prices at the end of the year? What if there was an increase in prices?

Richard Miller

When you are digging yourself deeper into a hole, stop digging and climb out.”

Anonymous

PRMS Guide for Non-Technical Users

Back in 2007 SPE, SPEE, AAPG and WPC got together and compiled a revision of the reserves definitions. This revision was designated as the Petroleum Resources Management System or PRMS. As issued in final form, the PRMS consists of 23 pages of text starting with a Preamble and covering everything from Basic Principles to the treatment of flared gas and, of course, the deterministic/probabilistic debate. There are another 6 pages of tables that recapitulate the definitions of all the reserve and resource classifications discussed in the preceding 23 pages. The tables are followed by another 18 pages of a Glossary to explain all the terms used in the previous 29 pages. And that is only in the English version.

The relative merits of the PRMS can be, have been, and will continue to be debated for some time or at least until the next revision, which may not be that far off. The PRMS was a considerable undertaking for the persons and organizations involved and, regardless of one's view of the result, the profession should be grateful that there are people who will contribute time and energy to such efforts. The PRMS is primarily a system of classification of reserves and resources although there are other components whose purpose is not so clear. The classification system is complex, hence the lengthy text, and is not easy to follow. Apparently this complexity, coupled with the high level of subjectivity in the system, was recognized as a problem that required simplification. Whether or not that is the reason, SPE (on its own) has issued the SPE Petroleum Resources Management System Guide for Non-Technical Users which thins the whole 47 pages down to four. Think of this as the Cliff'sNotes™ edition of the PRMS.

There is a lot to quibble about in the Non-Tech Guide, not least of which is the assertion in the opening sentence that reserves are the major driver of value for exploration and production companies as opposed to, say, earnings; but the document may have utility for certain government agencies, journalists, academics, politicians and "investors" who may have difficulty digesting the full version. The Guide is available on the SPE website.

Some Publications of Interest

Thanks to the many petroleum industry publications and internet data sources there is far more information available to evaluation professionals than we could ever collect, let alone read and assimilate; there is simply not time in the day. However, this portion of the Newsletter is set aside to let you know of publications which the staff and SPEE

members have found and want to pass along. If you have a suggestion for an article or book to be included here, please provide the title and source, preferably with a short abstract.



BOOK Reviews

Analysis of Crude Oil Production in the Arctic National Wildlife Refuge, Energy Information Administration, May 2008 www.eia.doe.gov/oiaf/service_rpts.htm.

This study on a topic of very current interest includes extensive discussion of potential recoveries from the ANWR under several differing production and economic scenarios. The report presents various production profiles along with a discussion of the economic conditions, both product price and investment/operating costs, that would be likely to prevail were ANWR to be developed starting in 2008. Better hurry.

Oil at the "Break Point", Daniel Yergin, Cambridge Energy Research Associates (CERA), Testimony before the Joint Economic Committee of the U.S. Congress. At CERA.com under News and Recent Articles.

Testimony to members of Congress is often long on words and short on information, for good reason, but Mr. Yergin does manage to convey the importance of the economic impact of the current "oil shock" in a well-documented yet concise presentation that is worth taking the time to read and, better yet, pass along to all those folks who think it is all caused by evil "speculators."

June 8, 2008

To: Board of Directors
From: Richard J. Miller, Newsletter Coordinator
Re: SPEE Newsletter

During the past 12 months extensive changes were made in the newsletter and, if current plans work out, further changes will occur in the coming year. We are pleased with the conversion to color which has enhanced the quality and readability of the newsletter. The effort to include more pictures and graphics has been accomplished smoothly and efficiently thanks to the efforts of our Publisher, Diane Pollard and our Production Manager, BK Buongiorno.

We have also embarked on a program to expand the content of the newsletter to contain, in addition to news pertaining directly to SPEE and members, articles and discussion of topics of interest to our profession in general. We have made a modest start in this direction primarily through personal badgering of contributors but we hope to see a major improvement in this area in the next year within the following outline. In our report to the Board in January, several sources of content were suggested (see below) and some progress has been made in this area. One plan being pursued is to publish some of the presentations made at the Annual Meeting in the next few issues starting in July.

- Inclusion of specific articles on evaluation subjects written by SPEE members.
- Inclusion of several of the articles prepared for the 2008 SPEE Annual Meeting in either abstract or full length format. This would include those presentations made simply as graphical discussion of accompanied by text interpretation.
- Inclusion of Abstracts of papers and discussions of interest presented in other venues preferably with reviews and comments by SPEE members other than the Editor.
- Inclusion of full Articles/Papers of interest written for or presented in other venues, subject to permission and copyright approval, if necessary again preferably with SPEE peer review. Venues mined for such articles would include SPEE Chapter meeting presentations and other informal settings.
- Inclusion of Book Reviews and References to publications on evaluation or other subjects that may be of interest to SPEE members.

Annual Meeting Papers

The SPEE Annual Meeting, held this past June at The Homestead, featured an innovative and highly successful approach to technical program development by having presentations made for the most part by SPEE members on topics of their choosing. Presentations were made primarily in PowerPoint format with only a few "papers" having text handouts. In total, over 25 presentations were made including discussions during panel sessions. The quality of the presentations and the interest shown by attendees suggests that this approach may be a model for future SPEE meetings.

For those who could not attend the meeting but may have an interest in some or all the presentations they are available on the SPEE website at: <http://www.spee.org/2008SPEEAnnualMeeting.html>.

Drop by and see what your friends and colleagues have been up to.

Entrepreneurial Geology—A Model for a New College Course

(Acquisition of Oil and Gas Properties)

Robert Harmon, Robert W. Von Rhee, Tom Alexander, and Bryan Tapp

Abstract

To fill a need for students to learn the basics of acquisitions of oil and gas properties where little, if any, academic training exists, a semester-long Senior/Graduate-level course was proposed to the Geosciences Department at the University of Tulsa. Three practicing geologists, all active members on the Board of Geosciences at the University of Tulsa, volunteered to create and teach the course in Fall 2006, with the objective of “filling in the acquisitions gap” in the university curriculum.

The course syllabus outlined course content and evaluation procedures in detail. As the course was to be “real-world,” exams were eliminated. Instead, two projects/presentations were assigned with a list of items for each project’s 3-ring binder. In addition, quizzes on terminology and homework covering auction properties were given.

For Project #1, students were each assigned an auction property for sale during the course. Students had to evaluate their property and to formulate a bid strategy. Each student had to collect individual property due diligence, database information, completion cards, well logs, etc. Simple economics and reserves were calculated using cost figures, calculations, and spreadsheets provided by the instructors.

Next, for Project #2, students advanced to exploit their same Project #1 property by a) prospecting for a bypassed formation behind pipe or drilling deeper in an existing well and/or b) drilling a new well. All students’ subsequent projects/presentations showed impressive results of material comprehension and breadth of research.

In conclusion, students learned and applied some of the basics of acquisition evaluation and exploitation techniques. Additionally, they generated and maintained their own individual acquisition and prospect portfolios for future reference or interview purposes.

Introduction

This course originated as an idea of how to bring acquisitions, taught by practicing professionals, into the classroom. Active members of the Board of Geosciences at the University of Tulsa volunteered to create and teach the course. It was decided early on that, due to the vast nature of material that a course like this could cover, the syllabus must be extremely detailed as

to what the course would entail. Our syllabus worked well as far as lecture readings and date information was concerned but, during the course, we learned that our detailed syllabus still needed clarification for the two projects/presentations. We then developed one-page checklists that spelled out exactly what the students were to put in each project/presentation and how many points each item was worth. These checklists became the primary focus of what the students would concentrate on for the semester, and students usually included these at the front of each project’s 3-ring binder. The instructors graded the projects with these checklists and included their copy at the front of the binder also.

As the course was to be “real-world,” exams were eliminated. It was decided that the most realistic, and in our opinion “worthwhile” way to teach the course was to have the students learn whatever was needed to do the two projects/presentations. In this way, the students would learn how to acquire a property for Project #1, and then prospect for or exploit that same property for Project #2. In addition, quizzes on terminology and homework covering auction properties were given so as to aid in the understanding of the two projects/presentations. Quizzes had terminology that the students studied for 1) help in understanding words for the projects/presentations, and 2) words that a student should know from an introductory acquisitions course. Homework given to the students was that of doing quick evaluations of four auction properties, while using a minimum of due diligence, and then having the instructors explain the various answers before the first project/presentation was due.

The course would be an introductory overview of all aspects of acquisitions—something considered difficult, yet necessary, if the students were to see the overall or “big picture.” You could take almost any week’s lecture and turn it into a course by itself. Indeed, Petroleum Engineering has done just that in the areas of economics and reserves. What Petroleum Engineering takes a semester to do, our course covered in just one 3-hour lecture. However, our course did not and could not cover economics and reserves as in-depth as the Petroleum Engineering course. We simply want to stress what a vast amount of material there is available on acquisitions, and how necessary an introductory course like this is. Depending on the amount of interest generated in a course like this, an aggressive Geoscience or Petroleum Engineering department could build many courses from the various one-week lectures that we offered.

We have shown that volunteers can teach this course. We hope more volunteers will adopt this philosophy. Realistically however, a continuation of this course will most probably mean having a professor at the helm. A professor could easily teach the course, if he/she would bring in guest lecturers to help bring “real-world” opinions and experience into the classroom. We believe our system of teaching the course was effective and have made efforts here to show what we have developed, learned, and taught to our students.

A large amount of course material was from “real-life” situations “learned in the field.” This is where instructors with field experience, or guest lecturers, are vital. Regardless of the level of experienced acquisition personnel or guest lecturers available, however, it was deemed crucial early on, to have a textbook that would give a basis to form the course around. Due to how most books on acquisitions are “engineering-oriented,” and how the class was to be made up primarily of geologists with some petroleum engineers, it was decided that the textbook should have a geologic focus. The textbook chosen was from the AAPG Treatise of Petroleum Geology series entitled “The Business of Petroleum Exploration,” edited by Richard Steinmetz (Steinmetz, 1992). Several other books were used as references, but this book had many excellent chapters of readings plus a relevant glossary, making it the one required textbook of the course.

Project #1

For Project #1, each student had to evaluate a unique auction property for the course. For the purposes of this course, students all had to choose properties in Oklahoma, as one of the goals of the course was to get the students to gather much of their due diligence at the local log library in Tulsa. In order for there to be enough properties for each student to have a unique property, it was decided that students could choose a property for sale from either of two auction houses that were having auctions at specific times during the course. The two auctions used were Energynet and the Oil & Gas Asset Clearinghouse. Energynet is strictly an internet auction and their due diligence was only available on site for a specified length of time. (Due diligence for the auctions is defined here as information provided by an auction that may not be available at a log library. Material that only the auctions or operator of a property may have, might include check details, operating agreements, leases and so on. In general, due diligence is any materials that help you know about a lease and therefore help you in the decision process.) Likewise, the Oil & Gas Asset Clearinghouse also had due diligence information available for only a certain

specified length of time. However, as the Oil & Gas Asset Clearinghouse auction is a hybrid auction (both internet and live) information could have been collected either by internet or at the local log library as prepared paper documents. To further the students’ knowledge of both kinds of due diligence information, Energynet was strictly available only online and the Oil & Gas Asset Clearinghouse was only available on paper at the local log library.

In the interest of having enough properties to choose from and for students to each have a unique property, no interest was considered too small. Students could choose any kind of property, such as operated working interest (Oper. WI), non-operated working interest (Non-oper. WI), royalty interest (RI), and overriding royalty interest (ORRI).

Students had to evaluate their property and formulate a bid strategy in Project #1. Each student had to collect individual property due diligence from the auction company, database information, completion cards, well logs, and so on and assemble the list of items into the project’s 3-ring binder. The checklists were developed for both the students as well as the instructors. By spelling out exactly what was required of the students and how many points each item was worth, the checklist made the students see what they should concentrate on.

Undergraduate and graduate grades were both calculated on the basis of 1000 total points for the course. This made it simple to calculate for both the student and the instructor. Grades were calculated exactly the same for undergraduates/graduates, with the exception of how graduates were only given up to 50 points for each of the two presentations, instead of 100 points each like the undergraduates. In this way, the other 100 points was for the 10-page Graduate paper. The Graduate students had to do an extra assignment, a 10-page paper covering in-depth trend analysis of the area near their prospect lease. Otherwise, besides the 600 points possible for the undergraduate project/presentations, the two quizzes were worth 100 points each, 100 points was for the homework grade, and 100 points for the cross section discussions and class critiques.

Going through the 17 items required for Presentation #1, Item 1 is clearly explained (see fig. 1). Item 2 is how the student explains his/her knowledge of the project to the instructor. Formulas in Item 2 are calculated in Item 14 and are the simple, straight-line decline curve calculations for reserves, life of the property in years, and the decline rate. Item 3 is two Excel spreadsheets. One spreadsheet calculates NRI (net revenue interest), Gross, LOE (lease operating expense), and tax to come up with a yearly net. The second spreadsheet then takes the number from the first spreadsheet and multiplies it from a series of from 1 to 10 years, so as to

Figure 1

PRESENTATION #1 or ACQUISITION PRESENTATION (Undergraduates 300 points, Graduates 250 points)		"X" if	Possible	TOTAL
Item	3-Ring Binder Contents	Present	Points	Points
1	Cover Page – Name, Course, Lease Name, Auction name, County, Legal Location.		5	
2	Summary – Minimum of 1–2 pages that lists where your lease is located; formation and field discussion; life, reserves, decline your lease has according to formulas used on p. 134, 135; the price your lease should go for at auction, and so on. In other words, a summary of all the material in your binder.		40	
3	2 Excel Spreadsheets – One will calculate NRI and WI (or RI) multiplied by Gross - LOE to get Net. The other spreadsheet is your amount X years.		20	
4	1 Excel Spreadsheet – Bob Von Rhee's spreadsheet where you insert numbers you have and it calculates.		10	
5	Base Map – Show lease boundaries and color lease.		10	
6	Contour Map – Contour 6–10 points. Contour the formation tops that are producing in your well.		15	
7	Cross Section Map – Show and label X-sections. Label one as A–A' and the other as B–B'.		5	
8	2 Cross Sections - Each should have a minimum of 3 logs. Show Log Header and the part of the log that has the producing formation. Color formations according to scheme in class.		40	
9	Scout (or Completion) Tickets – For logs used and for base maps.		10	
10	OCC 1002A's – For cross section wells.		5	
11	Due Diligence – Photocopied materials you have included from the auction site.		5	
12	Production History – From LASSER or Dwigths/IHS.		5	
13	Decline Curve – On lease(or property). Obtain from LASSER or Dwigths/ IHS. Use colored pencils to draw on your decline curve.		5	
14	3 Formulas – Reserves, Life, and Annual decline rate from p. 134, 135 of book. Apply these to your curve and show hand calculations and answers on a page, or pages, after the graph.		15	
15	Photocopied paper on Producing Formations.		5	
16	Photocopied paper on Producing Field.		5	
17	PRESENTATION #1 – (Between 4-6 minutes) (100 points for Undergraduates/ 50 for Graduates)		100/50	

(ALL LOGS, SCOUT TICKETS, 1002A'S ARE NOT TO BE COMPUTER-GENERATED!)

show a range of dollar values with which to bid. Most properties go from a minimum of 4–5+ years net.

Item 4 is an advanced spreadsheet developed by one of the instructors where students could put in numbers and have them calculated by the program. Item 4, though complicated, was a basic evaluation program that could easily turn into a course by itself. Many advanced property evaluation programs are available, but were beyond the range of an introductory course such as this. Item 5 is the hand-drawn basemap. Item 6 is a contour map, drawn on a copy of the base map. Item 7 is a cross section map drawn on a copy of the base map that simply spots where the cross sections are located. Item 8 is two detailed cross sections that showed formations which the students were to color by hand. Items 9 and 10 are the completion tickets and OCC (Oklahoma Corporation Commission) 1002A's respectively, which were to be copied by hand and not reproduced electronically as part of this course is to have the students do things at the log library and only use the computer as necessary. Item 11 is the due diligence from the auction site and just required simple copying. Items 12 and 13 are simple computer-generated monthly production histories and decline curves from the property database sites. Item 14 is the three formulas that would be calculated by hand. Items 15 and 16 are papers to find and copy on producing formations and fields near the student's unique property. Item 17 is the presentation.

Lectures used to aid in the preparation of Presentation #1 were as follows from Figure 2. Week 1 was the course overview, followed by how to use a property database. LASSER was the property database provided to the students, but Dwights/IHS was also allowed to be used as several students were already familiar with it. Legal locations were also discussed in Week 1 and students were given some wells to plot on a base map in class, to make sure they knew how to apply what they learned.

Week 2 accelerated the course towards Presentation #1, as homework was given out to prepare the students to evaluate four auction properties: an operated working interest, a non-operated working interest, a royalty interest, and a mineral interest. This homework had the added excitement for the students of how the auction

that provided the properties for evaluation purposes, also gave prizes to student's winning bids in the Auction company's lecture for Week 7. Week 3 saw much of the operations part of the lecture come from the instructor's firsthand personal experiences. The oil and gas property evaluations lecture came from personal experiences and the book. Week 4 was to show the students how to use electric/induction logs for the purpose of making the cross sections for their projects/presentations. Handouts were given out the previous week so that the students could study log interpretation. The handout was a classic 1978 paper on electric logs that showed how to "eyeball" or compare curve shapes on logs to interpret formations (King and Fertl, 1978). Instructions were also given on how best to use the log library. Weeks 5 and 6 were a combination of readings from the book combined with instructor's experience. Week 7 was the Auction company's lecture, Week 8 was a discussion of environmental concerns in the field, and Week 9 was Project/Presentation #1.

To check on the progress of the student projects during the semester, oral cross section discussions were required of each student a few weeks before the project/presentations were due. Class critiques of the various presentations were also a vital part of participation the day of the presentations and were graded according to content and how many presentations were reviewed. A student could leave early after giving a presentation, or arrive late to give a presentation, but would receive points only for the quantity and quality of work shown on the class critiques. These critiques served a more valuable purpose, however, and that was showing the students how to pay attention to relevant facts in a presentation, such as what value others placed on properties and how the student determined that value.

Project #2

For Project #2, each student had to evaluate their same unique auction property for prospect or exploitation purposes. In this manner, students became intimately familiar with their properties and were able to follow them through from steps A–Z (purchase to exploitation). Students now had to evaluate their property by looking at opening or perforating (perforating) zones behind pipe, drilling a well deeper or drilling a new well. The emphasis was on how to exploit a property to increase new reserves. Students were encouraged to look at nearby leases for acquisition potential if their lease had little further exploitation potential.

As this was a "real-life" course with a variety of properties covering many formations and counties, problems did occur. Students were encouraged to talk to instructors anytime they had a property issue. Issues

Figure 2 - Course Outline for Presentation #1

Week	Lecture
1	Course Overview, Property Database, Legal Locations
2	Terminology, Spreadsheets, Auctions, and Decline Curves
3	Operations, Oil and Gas Property Evaluations
4	Electric/Induction Logs, Completion Tickets = Log Library
5	Due Diligence
6	Financing the Deal
7	Auction Company – Guest Speakers
8	Environmental Realities
9	Presentations on Acquisition Properties

Figure 3

PRESENTATION #2 or PROSPECT PRESENTATION (Undergraduates 300 points, Graduates 250 points)		"X" if Present	Possible Points	TOTAL Points
Item	3-Ring Binder Contents			
1	Cover page – Name, Course, Lease Name, County, Legal Location and possible other acreage.		5	
2	Summary – Minimum of 2 pages that identifies your prospective formation; mentions where your lease is located, the possibility of picking up additional acreage if warranted for your prospective Formation, whether you will workover a well, drill, or do both and how doing formulas on a nearby lease's identical formation's decline curve will help you determine your lease potential.		40	
3	2 Excel AFE Spreadsheets – One to calculate drilling deeper or perforating behind pipe in existing well. The other spreadsheet is to determine costs of drilling a new well.		20	
4	Trend Analysis Spreadsheet – Use either LASSER or Dwight's/IHS that shows prospective formation in 1 or more (depending on data) townships. Include: Lease Name, Well #, County, Operator, API, Status, Gas Cum, Oil Cum, Depth, Section, Township, Range and Reservoir.		15	
5	Base Map – Show lease boundaries, other acreage you may acquire and color. Show location where well is to be drilled.		10	
6	Contour Map – Contour 6–10 points. Contour prospective formation tops.		15	
7	Cross Section Map – Show and label X-sections of prospective formation. Label one as A–A' and the other as B–B'.		5	
8	2 Cross Sections – Each should have a minimum of 3 logs. Show log header and the prospective formation part of the log. Color formations according to notes. Draw a line in cross section(s) where new well is to be drilled.		40	
9	Scout (or Completion) Tickets – For logs used and base maps.		5	
10	OCC 1002A's – For cross section wells.		5	
11	OCC Website – Download well information that pertains to workover well and/or lease to reworked (well deepened or perforated behind existing pipe) and for drilling a new well.		10	
12	Production History – Choose one nearby lease from LASSER or IHS that best approximates your prospective lease formation.		5	
13	Decline Curve – Choose one nearby lease that best matches your prospective formation for thickness, depth and proximity. Use colored pencils to draw on your decline curve.		5	
14	3 Formulas – Reserves, life, and annual decline rate from p. 134 and 135 of book. Apply these to the nearby lease curve and show hand calculations and answers on a page or two after the graph.		15	
15	Photocopied paper on prospective formation.		5	
16	PRESENTATION #2 – (Between 4–6 minutes) (100 points for Undergraduates/ 50 for Graduates)		100/50	

(ALL LOGS, SCOUT TICKETS, 1002A'S ARE NOT TO BE COMPUTER-GENERATED!)

Missing data must be adequately explained to Instructor and explained in Summary for credit.

that seemed insurmountable early on, such as finding limited data, occasionally meant that a student had to choose a different property. Other issues that arose might be missing logs, scout tickets, and OCC 1002A's. Instructors could circumvent some missing data by having students construct more cross sections with other logs so as to bypass the missing log(s) and data. Finally, electronic data could be used if no other data were available and, if this was explained in an acceptable manner to the instructor.

Going through the 16 items required for Presentation #2, Item 1 is basic information with the exception of how other acreage, properties, or leases may need to be acquired to aid the student's property's exploitation (fig. 3). Item 2 is the summary of how the student identified their prospective formation, the possibility of picking up additional acreage, and how they would either workover a well or drill a new one. Item 3 is two Excel spreadsheets for AFE's (Authorizations for Expenditures). One spreadsheet would calculate costs of drilling deeper or perforating behind pipe; the other spreadsheet would calculate the costs of drilling a new well.

Item 4 is a trend-analysis spreadsheet. This spreadsheet, developed from either LASSER or Dwights/IHS, would show how the student found and analyzed trends around their property. Item 5 is the same hand-drawn base map used in Project/Presentation #1. Item 6 is a contour map used to map the prospect formation, drawn on a copy of the base map. Item 7 is a cross section map showing locations of wells. Item 8 is two detailed cross sections that show prospect formations.

Items 9 and 10 are the prospect completion tickets and OCC (Oklahoma Corporation Commission) 1002A's respectively. Item 11 is the OCC website information that pertains to the workover well and/or lease to be reworked. Items 12 and 13 are the simple computer-generated monthly production histories and decline curves from the property database sites for the prospect formation. Item 14 is applying the three formulas to a nearby lease that best approximates your prospective lease formation. Item 15 is the copy of a paper on your prospective formation. Item 16 is the presentation.

Lectures used to aid in the preparation of Presentation #2 were as follows from the checklist in Figure 4. Week 10 was the lecture on prospects and how to initiate a prospect. Week 11 was on trend analysis. In addition to textbook readings for Week 11, an instructor's paper involving trend analysis using a property database in the Ardmore basin of Oklahoma was handed out (Harmon, 2002). Week 12 was on basic economics and AFE's. Week 13 was on budget, funding, and putting a deal together. Much of this lecture came from instructors' notes as to what the instructors had gone

Figure 4 - Course Outline for Presentation #2

Week	Lecture
10	Prospects
11	Trend Analysis
12	Basic Economics and AFE's
13	Budget, Funding, and Putting a Deal Together
14	No Class – Thanksgiving Break
15	Creativity and Ethics
16	Presentations on Prospects

through in the history of their time with a company. Week 14 was Thanksgiving Break. Week 15 was creativity and ethics. The creativity part of the course dealt with the careers that could arise out of working in the acquisitions business in the future. Related jobs could include working at an auction company, consulting, or working in the media with an energy emphasis. Ethics was taught as this is demanded in the acquisitions business and is a crucial area to have covered in any business-oriented class. Week 16 was Project/Presentation #2. As was the custom of the class, lectures given the week before the Projects/Presentations were important to the course, but not important to the projects/presentations. In this way, the students had extra time to prepare for their presentations.

Conclusions

The students' projects/presentations showed impressive results of material comprehension and breadth of research. As would be expected, Presentation #2 showed that the students were "in charge" of their material and could explain what they did intelligently. The two projects/presentations method of teaching this course on acquisitions seemed to be the very best solution for learning we could have decided upon. Not only was it an excellent way for the students to learn the material in a "real-world" type of project, students then had their own individual acquisition and prospect portfolios for future reference or interview purposes.

It is the desire of the authors that this paper will serve as an outline of how a course on acquisitions could be taught. The purpose of writing a paper on this course then, is to pass on a written record of how the course was conducted, the materials generated and lessons learned. We believe we have come up with a winning way of teaching the course that should prove valuable to the student, as well as to simplify the course as much as possible for future instructors. Perhaps through reading this paper, courses in Entrepreneurial Geology may be created or if a similar course exists, enhance the way it is being taught.

NEW LOCATIONS

Corrections and Changes to the SPEE 2008-2009 Membership Directory

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Membership Applicants

Welcome New Members

The following member applicants have been processed by the Qualifications Committee. The bylaws require that names be presented to the membership for at least 30 days as a pre-membership requirement. Any member with an objection should address the objection to the Executive Committee (see bylaws regarding other important details) since the applications have already passed through the Qualifications Committee.

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Change from Associate Member to Regular Member

MCCLURE, JR., RICHARD F.

Ellora Energy
Member No. 362

TORRES, TIMOTHY JASON

Towers Energy LLC
Member No. 500



COME AND LISTEN TO A STORY 'BOUT A MAN NAMED JED
POOR MOUNTAINEER, BARELY KEPT HIS FAMILY FED
THEN ONE DAY HE WAS SHOOTING AT SOME FOOD
AND UP THROUGH THE MUD CAME A BUBBLIN' CRUDE
(OIL THAT IS, BLACK GOLD, TEXAS TEA)

WELL THE FIRST THING YOU KNOW JED THINKS HE'S A MILLIONAIRE
BUT THEN CONGRESS SAID, "HEY GET AWAY FROM THERE!"
SAID CUBA'S THE ONLY PLACE WHERE DRILLING OUGHT TO BE
SO THEY PUT HIM IN A TRUCK BOUND FOR THE PENITENTIARY
(JAIL THAT IS, FEDERAL PEN, WITH OIL COMPANY CEOs)

WELL NOW IT'S TIME TO SAY GOODBYE TO JED AND ALL HIS KIN
THEY RAN OUT OF GAS AND STARVED TO DEATH, 'CAUSE CONGRESS DID THEM IN
YOU'RE ALL INVITED BACK TO THIS LOCALITY
BUT ONLY IF YOU'RE A CARIBOU OR YOU WANT TO PLANT A TREE
(DONT COME BACK NOW, YA HEAR?)

