

### Newsletter

August 2015

# Gresident's Letter

reetings from the Office of the President! If you didn't make it to Halifax for the Annual Meeting last month you missed a good one! We had great speakers and short courses, not to mention the excellent peer networking that is always a part of the SPEE Annual Meeting. Thanks again to VP Dee Patterson for organizing the event. Pictures and presentations will be posted on the website shortly, if not already (see the Internet Committee article). I really enjoyed my time in Halifax. A Canadian-US history lesson I received on the whale watching tour will always tickle my memory. And who could ever forget "posing with lobsters?" or any of the other general silliness that goes on at these social events? Professionally speaking, the Technical Presentations were outstanding! I want to thank presenters John Hodgin, Richard Smith, Rod Sidle, Keith King, John Etherington, Simon McDonald, Brent Hale, Jim Gouveia, Deb Ryan, Phil Kandel, and Dr. Nathan Meehan for their discussions on timely and critical issues to the members of our Society. The theme was centered on Advances in Unconventional Reservoir Engineering. The undeniable impact these advances have had in the last five years have changed the dynamics of global supply and demand, as was pointed out in the presentations. 2015 looks to be the peak oil production year for the world's top producers, and with the recent nuclear accord between Iran and the world powers, demand is even less likely to outrun supply within



the coming year. Overall supply levels have become more nimble in shadowing changes in world demand, with relatively small differences leading to increased price volatility. I was impressed by this year's Soothsayer, Philip Schenewerk, who won both the Oil and Gas price predictions. I can't wait to see if he can duplicate that feat again for next year's Parameter Survey! By the way, Brent Hale did a

great job with construction of the survey and facilitating a very high level of participation. Uncertainty in prices increases the importance of an evaluation engineer's accuracy, interpretations,



and presentations to management and investors. These SPEE Technical Presentations are critical to helping us all be better at what we do. (Presentations are available for download on the SPEE website.)



The short courses were two of the most popular in recent memory. The Monograph 4 Committee (headed by John Seidle) gave an 8-hour class that was standing room only. Their publication on *Estimating Developed Reserves in Unconventional Reservoirs* is the highly anticipated event scheduled for later in this year. I want to thank John Seidle, Creties Jenkins, Stuart Filler, Alex Novlesky, Dilhan Ilk, John Lee and Brent Hale for presenting. It was refreshing to witness the open and constructive dialog between committee members and attendees as peer review towards the end of the day. The second short course was

#### 2015 Officers and Directors

#### **Executive Committee**

President	Gary Gonzenbach (Central Texas)
Vice President	Dee Patterson (Dallas)
Secretary-Treasurer	Floyd Siegle (Calgary)
Past-President	Samantha Holroyd (Houston)

#### **Directors**

Brad DeWitt (California)
Jennifer Fitzgerald (Houston)
Robert Green (Midland)
Brent Hale (Dallas)

Don Jacks (Oklahoma City) Letha Lencioni (Denver) Simon McDonald (Europe) Rawdon Seager (Houston)

Mike White (Director-at-Large)(Denver)

#### **Bylaws Committees**

Chair of Past Presidents' Council	Marshall Watson
Qualifications	Tim Gilblom
Committee: Steve Blair, Neal Howard, and Richard Rowe	
Nominating	Samantha Holroyd
Grievance	David Gold
Committee: Frank Molyneaux and Dan Olds	
Reserves Definitions	Rod Sidle
Committee: Russ Long, S. Tim Smith, Stuart Filler, John E	Etherington, John Ritter, Dave
Elliott and Martin Hubbig	

#### **Individual Appointments**

Ethics Tom Collier
Evaluation Parameters SurveyBrent Hale
Fair Market Value D. Russell Long
Internet Mike White
Membership Donald C. Jacks
Newsletter CoordinatorRichard J. Miller
CommunicationsGeorge Schaefer
Production Tax Summary and University Interface Marshall Watson
Recommended Evaluation PracticesDaniel R. Olds
Annual Meeting Advance Planning Barry Ashton
Professional Registration Marcus Snyder
Monograph 3 - Evaluation of Resource PlaysRussell K. Hall
Monograph 4 - Unconventional Developed ReservesJohn P. Seidle
Technical Training Jennifer Fitzgerald
SPE OGRC Oil and Gas Reserves Committee ObserverRon Harrell
COGEH (Canadian Oil and Gas Evaluation Handbook)Robin Bertram
UNECE Expert Group on Resource ClassificationJohn Ritter



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The SPEE Newsletter is a quarterly publication of the Society of Petroleum Evaluation Engineers. News items, correspondence, address changes and advertising inquiries should be directed to SPEE headquarters in Houston, Texas.

#### **Chapter Officers - 2015**

#### Calgary

Chairman – Doug Wright Vice Chairman – Keith Braaten Secretary – Floyd Williams Treasurer – Gary Metcalfe Membership – Mark Ireland

#### California

Chairman - Brad DeWitt Vice Chairman – Rick Finken Secretary-Treasurer - Barry Evans Membership - John Davis

#### **Central Texas**

Chairman – Joe Harris Vice Chairman – Secretary – Charles Price Treasurer – Gary Gonzenbach Membership –

#### **Dallas**

Chairman - Bill Gross Vice Chairman - Joe Young Treasurer - Alan Farquharson Secretary - Russell Romoser

#### Denver

Chairman – Steve Enger Vice Chairman - Andrew Forcina Secretary-Treasurer – John Wright Membership - Steve Gardner

#### Europe

Chairman – Shane Hattingh Vice Chairman – Bob Harrison Secretary-Treasurer – Paul Taylor Membership – Danilo Bandiziol

#### Houston

Chairman – Lucy King Vice Chairman – Steve Davis Secretary-Treasurer – David Nordt Program Chairman – Tosin Famurewa

#### Midland

Chairman – Robert Green Vice Chairman – Secretary-Treasurer – Gail Hankinson Membership Chairman – Russell Hall

#### **Northern Rockies**

Chairman – Tom Fitzsimmons Vice Chairman – Rick Vine Secretary/Treasurer – Tom Hohn Membership – Joe Sinner

#### **Oklahoma City**

Chairman – Gary Hunter Vice Chairman - David Yard Secretary - Bruce Heath Treasurer - Fletcher Lewis Membership - Don Jacks

#### Tulsa

Chairman - Phil Schenewerk Vice Chairman - Exec. Comm Secretary-Treasurer - Laura Stauffer Membership Chairman -

#### Continued from page 1

a very well presented and attended class on *The Role of Geoscience in Unconventional Reserve Estimation* by **Creties Jenkins** of Rose & Associates. Thank you to the individuals who were responsible for both of these informative events.

At the Business Meeting, I went over our growth and demographics as a Society. We are undeniably expanding our presence and influence internationally. Membership is growing most rapidly in our Canadian and European chapters, with the likelihood of a new chapter in Southeast Asia towards the end of 2016. Next year's Annual Meeting will be held in Lake Tahoe, Nevada, at the Ritz Carlton, followed by a meeting at the Geological Society of London in 2017. Based on recommendations from the Council of Past Presidents, we are continuing to clarify how we maintain our status as a Self-Governing Society. The issue is not whether we are one (we are), but making sure our procedures are very well defined should the need for disciplinary action ever occur. As you can see from Secretary/Treasurer Floyd Siegle's report later in this newsletter, the Society is in a healthy financial position as we go into the second half of 2015. Anticipated revenues from Monograph 4 and the associated training classes should continue that trend for the coming year. This year's Canadian-US currency exchange rates and efficient cost management boosted the overall profit from our Annual Meeting to approximately \$29,000 US (helping to close out the budget gap this year). Well done, Mr. Patterson!

SPEE continues its sponsorship of PRMS, and is participating with the SPE Oil and Gas Reserves Committee in review of

the Petroleum Resources Management System for update. The process begins this August and continues until an anticipated release near the end of 2016.

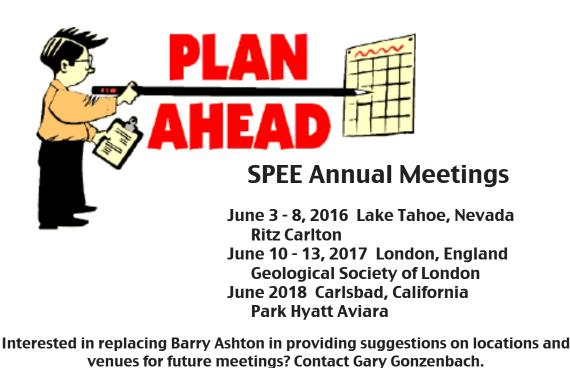
Barry Ashton is retiring from his long-held position as head of Advance Planning for the Annual Meetings. In no small way, he has been incredibly instrumental in ensuring the success of our Annual Meetings by screening, visiting, and ultimately negotiating contracts with the resorts and hotels far in advance of the rest of us even thinking about them. Thank you, Barry, for your vision in generating some truly great SPEE memories! If you are a member who has aspirations to be the next AM Advance Planner, please contact myself or someone on the Board and let us know.

The Third SPEE Software Symposium has become a reality and will be held in Houston in September (details covered later in the newsletter). Many thanks to **Jennifer Fitzgerald** and **Karl Gulick** for putting this together and coming up with a new format that will be of prime interest to our industry. Questions or further information can be directed to Karl (713-693-5380 or karl.gulick@regions.com). We will be excited to see you there!

In closing, as always, thank you to the Chapter Officers and Committee Members who are the core of our Society. Thank you to members of the Board for your tireless dedication, and finally - thank you to **B.K.** and the editorial staff (**Richard Miller** and **Diane Pollard**) for the excellent communication you provide in producing the newsletter!

At Your Service,

Gary Gonzenbach 2015 SPEE President





#### **Calgary**

Meetings - 3rd Tuesday of each month except June, July and August. Membership - 55

#### California

2015 California Chapter Officers:

Chairman - Brad DeWitt Vice Chairman - Rick Finken Secretary/Treasurer - Barry Evans Membership - John Davis

Unfortunately, since the last report in November 2014, the California Chapter has no noteworthy activity to report.

Membership - 22

#### **Central Texas**

Membership - 33

#### **Dallas**

2015 Dallas Chapter Officers:

Chairman - Bill Gross

Vice Chairman - Joe Young

Treasurer - Alan Farquharson

Secretary - Russell Romoser

Past Chairman - Brent Hale

Meetings – Bimonthly from September through May at the Brookhaven College Geotechnology Institute. Membership – 58

#### **Denver**

Meetings – 2nd Wednesday of first month of each quarter – Denver Athletic Club – The New Petroleum Club. Membership – 60

#### **Europe**

Chairman - Shane Hattingh Vice Chairman - Bob Harrison Secretary-Treasurer - Paul Taylor Membership Chairman - Danilo Bandiziol Past Chairman - Martin Hubbig

The Europe Chapter strives to hold four chapter meetings per year and to date in 2015 we have held two meetings. Each meeting begins with an update of chapter business, covering membership status, a financial update and, at both our meetings so far, a discussion on the progress of the proposal to hold the SPEE Annual Meeting in 2017 in Europe.

Our first Europe Chapter Meeting of the year was held on March 19th at the Geological Society, Burlington House, London. The meeting was attended by 13 members and 8 non-members. Our theme for the evening was "the oil price," chosen in the light of recent volatility that affected many end-of-year Reserves reports. Our two invited speakers addressed financing, reasons for oil price volatility, and the challenges of estimating future oil price scenarios.

The first presentation, titled *Streaming: a new way of financing oil and gas projects and its technical due diligence* was given by Brian Rhodes of FlowStream Commodities. "Streaming" is an alternative method for financing oil and gas developments, which originated in the mining sector. A stream is a contract to purchase a percentage of an oil and gas company's production from a specific license or field. For concessions it is equivalent to an overriding royalty interest and for production sharing contracts (PSCs) it is effectively a net profit interest (NPI). Differences to other funding sources (debt, equity and farm downs) and their reliance on Reserves estimates were explained. Brian also went over the technical due diligence process to select transactions for streaming finance.

The second presentation, titled *The Oil Price:* A *Review in Changing Times* was given by Jerry Ho of ERC Equipoise. Jerry discussed the recent volatility in the oil price and the challenges faced by Resources Evaluators during the 2014 year-end evaluations in trying to make plausible price assumptions. He explained the shape of the crude oil futures curve and how it is related to market fundamentals. Oil price has an impact on Reserves estimates and Jerry highlighted the issue that as price drops, net entitlement volumes can increase under a PSC. He showed a breakdown of global oil demand and supply, which highlighted that since January 2014 the growth in supply has outstripped the growth in demand. He concluded by exploring some of the trends in the industry that could affect oil prices in the future.

Our second chapter meeting of 2015 was held on May 21, kindly hosted by Dong Energy in their Central London offices. The meeting was attended by 13 members and 9 non-members, representing seven consultancies and five oil companies. The theme for the evening was the use of Reserves reports for Reserves based financing (RBF).

Two speakers from the banking community, Jeremy Thompson from Societé General and Sean Nash from Standard Chartered were invited to give their views in a joint presentation, titled *How Reserves Reports are Used by Financial Stakeholders – The Banking View.* 

Jeremy provided an overview of International RBF practices

and what lenders are looking for in a Reserves report. Reserves reports that contain only generic accounts of the work carried out in the preparation of the estimates, together with numerous cash flow tables, do not provide the lenders with adequate detail for setting up an RBF facility. There are still occasional examples of inconsistencies regarding classification of Reserves and Contingent Resources and in practices used for estimating Proved and Proved plus Probable volumes.

Sean went on to discuss the due diligence requirements and the construction of the banking case including production revenues, costs and schedule. Consistency between the various sources of information, including the Reserves reports is crucial. Some of the challenges that can occur are related to fluctuations in oil price, lending to a non-operator, changing activity programmes, switching Reserves Evaluators and difficulties in accessing data due to commercial restrictions.

Besides the two chapter meetings held so far, Europe Chapter office bearers have held two committee meetings in 2015 to date. Since committee members are located across Europe, the committee meetings are held by teleconference call. Our first committee meeting of the year was held on January 14. Committee members' responsibilities for the year were clarified, provisional dates were set for the four chapter meetings, the status of the AM 2017 proposal was discussed and the first chapter meeting was planned. Our second committee meeting was held on April 8 and was dedicated to preparing for the second chapter meeting.

Membership of the Chapter now stands at 33 with two applicants (Victor Alcobia and Ryan Adair) serving their 30 day pre-membership periods.

Chapter members have been actively involved in the preparation of various stages of the proposal to hold the SPEE 2017 Annual Meeting in Europe. The initiative has been driven by Simon McDonald. An initial survey showed very strong support for the idea by Europe Chapter members. An informal sub-committee was established to review locations in major European cities, including London, Amsterdam and Vienna, estimate costs, formulate a provisional agenda, solicit potential sources of sponsorship and prepare a flyer. The general consensus is that central London would be the preferred location. In the event that our proposal is successful, an organising committee will be formalised.

Meetings - Four per year. Membership - 28

#### Houston

2015 Houston Chapter Officers:

Chairman - Lucy King, Miller and Lents, Ltd.
Vice Chairman - Steve Davis, BBVA Compass Bank
Secretary-Treasurer - David Nordt, PNC Bank
Program Chairman - Tosin Famurewa, Ryder Scott Co.
Generally, the Houston Chapter holds its meetings on

the first Wednesday of the month in the Wyatt Room of the Petroleum Club of Houston, 1201 Louisiana St., 35th Floor, Houston, TX 77002. The Chapter does not have meetings in June, July or August. In January we have a joint meeting with SIPES – Houston. Each year we dedicate one meeting to an ethics topic that will satisfy the one-hour ethics Continuing Education Program requirement to renew professional engineering licenses/registrations.

On May 6th, Robert Thibault, counsel in the Energy Practice Group of Haynes and Boone, LLP delivered a presentation on Growing Trends in Sub-surface Rights and Trepass Arising from Fracing and Horizontal Drilling. Mr. Thibault's presentation asserted that modern oil and gas fields are now dominated by hosts of sophisticated and interrelated operations and showed how the multiple, ever-accelerating technologies intersect vis-àvis rights/trespass. He also discussed how our legal concepts can be applied to the intersection of liabilities and inquired into new responsibilities being created as an inadvertent by-product. There were 51 members, guests, and visitors in attendance for the meeting.

We request permission to post meeting presentations from all of our speakers and most allow us to post their slides. The presentations for the January-May, 2015 meetings are posted on the SPEE website https://secure.spee.org/local-chapters/houston.

Meetings – 1st Wednesday of each month except June, July and August – Wyatt Room of the Petroleum Club of Houston. Membership – 182

#### Midland

The Midland Chapter meetings are scheduled bimonthly starting in January on the 2nd Wednesday of the month. They are held at the Petroleum Club of Midland at 11:30 AM and feature a sit-down plate-served luncheon. The meetings are open to non-members to reach out to the technical community and attract new members.

The January meeting featured Dr. Jim Wright, Project Director of the High Temperature Test and Teaching Reactor, University of Texas of the Permian Basin. He presented a talk on *The UTPB HT3 Project and Other Observations of the Nuclear Industry*. His presentation included: the HT3 Project, Observations from Los Alamos, and Insight into the Nuclear Accident at the Japanese Nuclear Power Plant at Fukushima Daiichi. Nine persons attended the meeting.

At the March meeting, Glenn Winters, Chief Geophysicist, Fasken Oil and Ranch, Ltd. presented Obstacles and Pitfalls of the Everyday Interpreter, the Role of Geophysics in Resource Plays. His presentation included the explanation of seismic anomalies which caused several shallow blowouts in the Permian Basin. He referred to them as FLT's or Funny Looking Things on shallow seismic. Twenty-three persons attended this meeting, 11 members and 12 non-members.

At the May 13th meeting, Past President of SPEE Sam Holroyd spoke on Financing the Oil Industry and Benefits of SPEE Membership

Meetings – 2nd Wednesday odd months – Midland Petroleum Club. Membership - 22

#### **Northern Rockies**

Membership - 10

#### Oklahoma City

During the first half of 2015, the Oklahoma City Chapter held two excellent lunch meetings at the Twin Hills Country Club.

On May 28th, the OKC SPEE Chapter hosted Bob Campbell, Partner with Campbell & Associates. Bob discussed how the assumptions and limitations of the traditional, simplistic evaluation model and provided ideas on how one can customize it to develop one's unique perception of value.

The Chapter had election of Officers with the following

Gary Hunter - Chairman David Yard - Vice Chairman Fletcher Lewis - Treasurer Bruce Heath - Secretary Don Jacks - Membership

Meetings – Every odd-numbered month. Membership - 22

#### Tulsa

Meetings - Four times yearly - Summit Club. Membership - 24

#### 2015 Petroleum Evaluation Software Symposium

You are invited to participate in the 2015 Petroleum Evaluation Software Symposium. The basis for the symposium will be responses from two distinct questionnaires — one for software vendors and one for users of petroleum reserves evaluation software. Whether or not you are able to attend the symposium, please participate in the online user survey. Visit the SPEE website for more information. Hope to see you there!

#### Participation in User Survey:

Deadline for submissions is August 14, 2015

https://SPEE.formstack.com/forms/speeusersurvey

#### Registration and Symposium Details:

When: Thursday, September 10, 2015 from 8:00 AM to 5:00 PM

Where: Anadarko Petroleum - Conference Center

1201 Lake Robbins Drive, The Woodlands, TX 77380

Registration deadline is September 4, 2015
The registration fee is \$85.00 per person
<a href="https://secure.spee.org/civicrm/event/info?reset=1&id=78">https://secure.spee.org/civicrm/event/info?reset=1&id=78</a>

#### For additional information:

Contact Karl Gulick or Jennifer Fitzgerald





#### Financial Update from SPEE 2015 Secretary-Treasurer

I am pleased to provide a financial summary for SPEE. The Society remains financially healthy. The cash Assets held in checking, money market and CD's held by National at year-end 2014 total approximately \$425,144 while the Local Chapters held approximately \$167,765 in their accounts. The Executive Committee and Board of Directors are prudently managing the funds invested in CD's and Money Market accounts to maximize interest rates received during this period of low interest rates. SPEE National 2014 Revenue was approximately \$322,377 and 2014 expenses were \$331,775, resulting in a small deficit of \$9,398.

Floyd Siegle

Figure 1: National SPEE 2014 Income

Figure 2: National SPEE 2014 Expenses

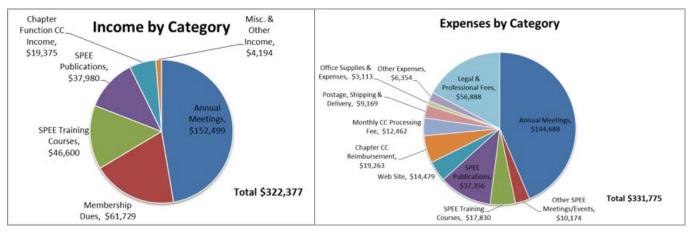


Figure 3: National and Local Chapter Combined Balance Sheet

## SPEE Statements of Assets and Liabilities - Income Tax Basis As of December 31<sup>st</sup>

Assets	2014	2013
Current accounts	\$482,909	\$477,092
CD's	\$110,000	\$110,000
Office Equipment	\$ 1,013	\$ 1,013
Accum Depr	\$ (1,013)	\$ (1,013)
	\$592,909	\$587,092
Liabilities and Fund Balance		
Liabilities	\$ -	\$ -
Fund Balance	\$592,909	\$587,092
	\$592,909	\$587,092



#### 2015 Annual Meeting Recap





Congratulations to Tim Smith- SPEE's Newest Honorary LIfe Member

**Ashelin Entertained at the Awards Banquet** 

The conference was an excellent opportunity to catch up with old friends and colleagues and establish new relationships in addition to the continuing education.

The Sunday Short Course provided the participants an opportunity to listen and learn from the authors of Monograph 4 on reserve assessment of developed reserves unconventional resources.

The Monday and Tuesday technical sessions were full with presentations on oil prices, a banker perspective in uncertain price environment, reporting resources other than reserves, value of seismic in assessing resources type curve aggregation, challenges of using unconventional resources to underpin an LNG project. Thanks to Brent Hale for his work and presentation on the Parameters Survey and we were honored to have the 2016 SPE President (Nathan Meehan) provide us with a great Ethics Presentation.

We were pleased to have John Hodgin from the US Securities Exchange Commission back again as a speaker this year. It is great to have the interaction with an important regulator.

We wrapped up the conference with Creties Jenkins teaching us "It Ain't all Engineering- How Geoscience Impacts Volumes, Rates & EUR's in Unconventionals"

Thanks to everyone for making it a great conference!

Dee Patterson- 2015 Conference Chairman



Phil Kandel recognized with an SPEE Appreciation Award for his work as Chairman of Qualifications Committee



Thanks to John Hodgin from the SEC for Speaking

2015 Society of Petroleum Engineers Annual Meeting was held in Halifax Nova Scotia June 6<sup>th</sup>-9th



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- \$1,000 -





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DON RAY GEORGE & ASSOCIATES, INC. CONSULTING PETROLEUM ENGINEERS

\$250







#### News You Can Use from Your Internet Committee

The Internet Committee is comprised of SPEE members Mike White and Jennifer Fitzgerald. In this series of News You Can Use articles, the Internet Committee, IC for short, covers useful aspects of your SPEE website. The address of the SPEE website is www.spee.org.



The recap web page covering the 2015 Annual Meeting can be found under the main menu item News. Then on the right side menu click 2015 Annual Meeting Recap. On this page you will find select photographs and summaries of the technical and social event offerings. Prior year recaps going back to 2012 are also available for review. Presentation materials plus biographical information of the technical session speakers may be found on another page called Past Presentations.

To access this page, go to main-menu item **Resources**. Once there, on the right side menu select **Past Presentations**. Currently, the Past Presentations page is populated with presentation slides in downloadable .PDF format listed in reverse chronological order.

The project of posting back-year copies of the SPEE newsletters continues. To access the archive, select main menu item News, then click on Newsletter Archives. Years 1995 to present are available again in downloadable .PDF format. When completed, years 1983 to present will be available.

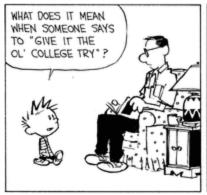
As a reminder, if you wish to update your contact information, pay dues or vote for SPEE directors in the fall, you can perform all these tasks online. You simply need to login to your account. Your user ID is the email address of record with SPEE. If you have forgotten your password, you can have the website email to you a replace-

# Log in to the directory Request new password

ment. To request a replacement password, go to SPEE.org. On any page other than the home page on the right side menu, click **Request new password**. Supply your email address of record and within one minute, the system will generate and transmit to this email address a message containing an embedded link. Click on the link within the email and it will take you to your account where it will ask you to select a new password to use going forward. If this process does not work for you, particularly if your email address of record is no longer a working account, simply send an email to info@spee.org where we can manually implement this process.

Lastly, if you require any other assistance regarding online issues, simply email info@spee.org - the Internet Committee at your service.









#### THE ETHICS COLUMN

#### "That Really Wasn't What I Said"

Is your work always used properly?

I had an interesting discussion with a colleague about a month ago. He had received a letter from a bank regarding some earlier work he had done for a client. The bank was in the final stages of authorizing a loan and they were unable to locate the cover letter for the reserve report they had in their file. The bank's request presented two problems. The person applying for the loan was not his client. And the "reserves report" was in fact an upside sensitivity case.



Or consider the case of a company engineer asked by his exploration group to evaluate a leasing opportunity. After reviewing a number of wells which the exploration geologist believed to be geologically similar, the engineer's internal memo indicated the project would have to outperform the best analogous well to be economically viable. As the geologic analysis was being finalized the engineer was somewhat surprised to learn that it was being characterized as only needing a small improvement to become attractive.

In both cases the engineers were able to correct the record. Neither the bank nor the company moved forward based on inaccurate information. But ethically, there are several issues here worth discussing. Both involve preventing subsequent misuse of reserve evaluation work product. In the first case, we have the unauthorized use of reserve evaluation work product. In the second, we have a misrepresentation of the engineer's conclusions.

Our job is to provide appropriate classifications and reliable estimates of future outcomes for petroleum resources. As such we must be very clear in what our reports mean, as well as restrict their use to those which are consistent with the report's methodology. SPEE Recommended Evaluation Practice #1 – Elements of a Reserve and Resource Report §2.1 states, "The preparer should clearly state the purpose for which the report is being prepared and for whom it is prepared."

In the consulting case, this was done by communicating the upside sensitivity outside of the reserve report. By refusing to issue a cover letter and specifically disclaiming the upside case as reliable for the bank's purposes, the consulting engineer acted ethically. We advise, but do not control our clients. However, should a pattern of misrepresentation on the part of the client or its affiliates develop, it might not be possible to continue a business relationship that particular client.

In the case of the company engineer, direct and frequent communication with the users of the reserve evaluation work product is critically important. Improved levels of technical sophistication and alignment of goals that exist amongst company employees does not reduce the need for clear and accurate communication. This applies to both the recommendation and the limitations on the applicability of our studies.

Both the client and the company in these scenarios have ethical obligations as well. Misrepresentation of professional work product is a serious matter. Just as the preparer should adequately and accurately inform those who rely upon our reports of their purposes and limitations, the user of the report should in turn should exercise due care to use the studies in manner prescribed.

Is your work always used properly? What would you call "best practices" when it comes to control over finished reporting? You have heard from me. Now I would like to hear from you. Please forward any suggestions you might have on how we influence or control the use of our reserve evaluation reports to me at tcollier@concho.com

Tom Collier Chair, SPEE Ethics Committee

#### How Fake Science Gets Published

Charles Seife LA Times May 28, 2015

The now-discredited study got headlines because it offered hope. It seemed to prove that our sense of empathy, our basic humanity, could overcome prejudice and bridge seemingly irreconcilable differences. It was heartwarming, and it was utter bunkum. The good news is that this particular case of scientific fraud isn't going to do much damage to anyone but the people who concocted and published the study. The bad news is that the alleged deception is a symptom of a weakness at the heart of the scientific establishment.

The study in question was the brainchild of Michael LaCour, a graduate student at UCLA, along with Donald Green, a professor of political science at Columbia University. Using surveys, they showed that a 20-minute conversation with a gay person would soften the hearts of opponents to same-sex marriage. The simple act of putting a face on an issue could begin to dissolve abstract ideology and entrenched hostility. When it was published in *Science* magazine last December, the research attracted academic as well as media attention; it seemed to provide solid evidence that increasing contact between minority and majority groups could reduce prejudice.

But earlier this month, other researchers tried to reproduce the study using the same methods, and failed. Upon closer examination, they uncovered a number of devastating "irregularities" — statistical quirks and troubling patterns — that strongly implied that the whole LaCour/Green study was based upon made-up data.

The data hit the fan last week, at which point Green distanced himself from the survey and called for the *Science* article to be retracted. The professor even told *Retraction Watch*, the website that broke the story, that all he'd really done was help LaCour write up the findings. What's more, Green said that he initially had doubts about the results, which were "so astonishing" that they "would only be credible if the study were replicated." After LaCour "replicated" the result, Green was satisfied, apparently without ever looking at the original survey responses.

Major peer-review journals tend to accept big, surprising, headline-grabbing results when those are precisely the ones that are most likely to be wrong.

Science magazine didn't shoulder any blame, either. In a statement, Editor-in-Chief Marcia McNutt said the magazine was essentially helpless against the depredations of a clever hoaxer: "No peer review process is perfect, and in fact it is very difficult for peer reviewers to detect artful fraud."

This is, unfortunately, accurate. In a scientific collaboration, a smart grad student can pull the wool over his advisor's eyes — or vice versa. And if close collaborators aren't going to catch

the problem, it's no surprise that outside reviewers dragooned into critiquing the research for a journal won't catch it either. A modern science article rests on a foundation of trust.

Which is a sign that something is very amiss.

Sure, it's an act of bad faith when a grad student fools his advisor with a fake survey, but it's also a predictable consequence of the scientific community's winking at the practice of senior scientists putting their names on junior researchers' work without getting elbow-deep in the guts of the research themselves.

It's all too common for a scientific fraud — last year's Japanese stem-cell meltdown, a 2011 chemistry scandal at Columbia University, the famous materials-science fiasco involving Bell Laboratories' Jan Hendrik Schon — to feature a young protege and a well-established scientist. The protege delivers great results; the stunningly incurious mentor asks no questions.

And, sure, it's an act of bad faith when a scientist submits false data to a journal; but the scientific publishing industry encourages such behavior through lax standards.

You don't have to look far to find dramatic failures. Recently two big-name scientific publishing houses had to withdraw dozens upon dozens of nonsense papers — computer-generated gobbledygook that somehow passed the peer review process. If the process can't catch such obvious fraud — a hoax the perpetrators probably thought wouldn't work — it's no wonder that so many scientists feel emboldened to sneak a plagiarized passage or two past the gatekeepers.

There's a deeper structural issue: Major peer-review journals tend to accept big, surprising, headline-grabbing results when those are precisely the ones that are most likely to be wrong. Replications (and failed replications), and less-than-spectacular results are incredibly difficult to get published, even though these constitute the true spine of the scientific endeavor. When scientists are rewarded for producing flashy publications at a rapid pace, we can't be surprised that fraud is occasionally the consequence.

Despite the artful passing of the buck by LaCour's senior colleague and the editors of *Science* magazine, affairs like this are seldom truly the product of a single dishonest grad student. Scientific publishers and veteran scientists — even when they don't take an active part in deception — must recognize that they are ultimately responsible for the culture producing the steady drip-drip-drip of falsification, exaggeration and outright fabrication eroding the discipline they serve.

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The following member applicants have been processed by the Qualifications Committee. The by-laws 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 by-laws regarding other important details) since the applications have already passed through the Qualifications Committee.

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