



# SPEE

SOCIETY OF PETROLEUM EVALUATION ENGINEERS

# Newsletter

August 2021

## President's Letter

I hope everyone is enjoying the summer and finding time to relish being out in the world again after our COVID-19 hibernation!

I would like to start by congratulating **Joe Young**, SPEE Vice President, on a successful 2021 SPEE Virtual Business Meeting and thanking all speakers and attendees. Joe has provided a recap of the meeting in this newsletter. Plans for an October site visit to The Meritage Resort & Spa and Vista Collina Resort have been arranged to start preparation for the 2022 Annual Meeting in Napa, California, from June 12-14. We are excited to have in-person meetings again, and are looking forward to seeing you there!

SPEE finances continue to remain healthy, even with the global pandemic affecting our chapter and annual meetings. Secretary-Treasurer **Attila Szabo** has provided a financial report for this newsletter.

Congratulations to **Mark Reeves**, the new SPEE Qualifications Committee Chairman, who took over for **Neal Howard**. Neal did a great job of helping to expedite the membership process and we appreciate his tenure as chairman of this important committee. Membership

Committee Chairman **Fred LeGrand** has established a panel to assist new applicants with sponsors using the interview process, as well as creating an "elevator speech" which was introduced to each chapter to help with recruitment of new applicants. **Steve Gardner**, Internet Committee Chairman, and his team are progressing with the redesign of the SPEE website and membership database, and documentation is near completion for both the Asia Pacific and Latin America chapters in

formation to establish them as full local chapters.

Thank you all again for your time and expertise to keep our organization thriving. If you would like to volunteer on one of the committees, please let me know.

Stay safe,

**Charles Boyette**  
2021 SPEE President



# PLAN AHEAD



## SPEE Annual Meetings

June 12-14, 2022 - Meritage Resort  
Napa, California

June 18-21, 2023 - Gurney's Resort and Marina  
Newport, Rhode Island

# 2021 Officers and Directors

## Executive Committee

President ..... Charles Boyette (Dallas)  
Vice President ..... Joe Young (Dallas)  
Secretary-Treasurer ..... Attila Szabo (Calgary)  
Past-President ..... Robert Green (Midland)

## Directors

Chuck Boyer (Pittsburgh)	Shane Hattingh (Europe)
Gregg Birrell (Europe)	Fred LeGrand (Denver)
Brenda Brown (Dallas)	Dean Sergent (Oklahoma)
Steve Gardner (Houston)	Doug Wright (Calgary)
Steve Gardner (Denver)	

## Bylaws Committees

Chair of Past Presidents' Council ..... Rick Krenek  
Qualifications ..... Mark Reeves  
Committee: Steve Blair, Danilo Bandiziol, Claudio Virues and Tad Fielder  
Nominating ..... Robert Green  
Grievance ..... David Gold  
Committee: Dan Olds  
Reserves Definitions ..... Rawdon Seager  
Committee: Shane Hattingh, Tim Smith, Jorge Faz, Rod Sidle and John Lee

## Individual Appointments

Ethics ..... Deb Ryan  
Evaluation Parameters Survey ..... Steve Hendrickson  
Fair Market Value ..... Dee Patterson  
Internet ..... Steve Gardner  
Membership ..... Fred LeGrand  
Newsletter Coordinator ..... Floyd Siegle  
University Interface ..... Marshall Watson  
Historian ..... Melissa Nance  
Communications ..... Karthik Revana  
Recommended Evaluation Practices ..... Daniel R. Olds  
Annual Meeting Advance Planning ..... Tim Smith  
Professional Registration ..... Anna Hardesty  
Monograph 5-Type Curves ..... Jennifer Fitzgerald  
Technical Training ..... Chuck Boyer  
SPE OGRC Oil and Gas Reserves Committee Observer ..... Rawdon Seager  
COGEH (Canadian Oil and Gas Evaluation Handbook) ..... Mike Verney  
UNECE Expert Group on Resource Classification .. Ron Harrell/Rawdon Seager

## Chapter Officers - 2021

### Asia Pacific

Chairman – Peter Stephenson  
Vice Chairman – Nick Pink  
Secretary – Hongfeng Wu

### Calgary

Chairman – Larry Petropoulos  
Vice Chairman – Tim Freeborn  
Secretary – Colin Edie  
Treasurer – Gary Metcalfe  
Membership – Claudio Virues

### California

Chairman - Brad DeWitt  
Vice Chairman – Rick Finken  
Secretary-Treasurer - Tom Walker  
Membership - John Davis

### Central Texas

Chairman –  
Vice Chairman –  
Secretary – Charles Price  
Treasurer –  
Membership –

### Dallas

Chairman - John G. Davis  
Vice Chairman – Colter Kazmann  
Secretary-Treasurer - Michael Zuber  
Membership – Stefan Krystosik

### Denver

Chairman – Zack Warren  
Vice Chairman - Emily Miller  
Secretary-Treasurer – John Seidle  
Membership - Nicole Ford

### Europe

Chairman – Joel Turnbull  
Secretary – Gregg Birrell  
Treasurer – Jes Christensen  
Membership-Program – Tom Gunningham

### Houston

Chairman – Ali Porbandarwala  
Vice Chairman – Jay Quinn  
Secretary-Treasurer – David Fulford  
Program Chairman – Jay Quinn  
Membership – Deji Adeyeye

### Midland

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

### Northern Rockies

Chairman – Rick Vine  
Vice Chairman – Bonnie Percy  
Secretary-Treasurer – Tom Hohn  
Membership – Andrew Finley

### Oklahoma

Chairman – James Sauseda  
Vice Chairman - Aaron Anderson  
Secretary-Treasurer - Steve Blair  
Membership - Don Jacks



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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 News

## Asia Pacific

*Membership - 14*

## Calgary

A virtual online Technical Meeting was held on April 20, 2021. Anne Marie Landry, Associate Chief Accountant for the Alberta Securities Commission, spoke on Accounting for Asset Retirement Obligations. She presented the accounting policies impacting asset retirement obligations.

A virtual online Annual General Business meeting was held on May 25th. Approval was passed for the October 20, 2020 AGM Meeting Minutes; the Treasurer's Report – Financial Statement; and Auditor's Report were presented; the auditor for 2021 was appointed and the Annual Donation Committee was elected. 18 members attended virtually.

The virtual AGM was immediately followed by a Business Meeting. Approval of the March 16 Meeting Minutes was obtained. The Treasurer's Report; Membership Report; National BOD Report and COGEH Update were presented. Motions approving the details for bursaries & donations were approved. 19 members attended.

*Meetings - 3rd Tuesday of each month except June, July and August. Membership - 45*

## California

*Membership - 8*

## Central Texas

*Membership - 24*

## Dallas

The Dallas Chapter has held three meetings virtually in 2021 which have been well attended. We are currently reviewing options for moving back to in-person meetings, but nothing has been finalized yet. We invite individuals from Argentina to join Dallas Chapter meetings since they don't have a large enough chapter to host regular meetings independently. We have been providing our virtual meetings free of charge to all attendees to create more regular attendance while we aren't meeting in person. Previously we had sponsorships for some of our meetings and are looking for a new sponsor for the 2021-2022 presentations.

We have discussed the potential for an evening happy hour / networking type event for members of the Dallas Chapter.

*Meetings – Semi-monthly except June, July and August. Membership – 75*

## Denver

We have returned to in-person meetings as of July! On July 14th, we hosted 42 people to hear John Fossum from Petrie Partners on *Riding the Wave of Consolidation*.

On April 14th, we held a virtual meeting featuring Evan Halpern from Sproule on *Where Did All the Capital Go? A Look at Full Life Cycle Economics on Key U.S. Shale Plays*. 116 attendees registered, including 45 members across five chapters.

Our next meetings will be October 13th and December 8th.

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

*Membership – 84*

## Europe

The European Chapter hosted two virtual events over the past few months. Both presentations have been uploaded to the SPEE "past presentations" website.

The first was a talk by Gregg Birell, Occidental Petroleum Corporation, entitled *A study of proved reserve categorization in SEC filings* which looked at a selection of SEC filings to see if the initial estimates were exceeded, as they should be, by subsequent bookings. Gregg used a novel statistical technique to investigate this and found that only 50 percent of filings were sufficiently conservative. This talk generated considerable debate amongst the 30 or so attendees.

The second was a talk by Tom Gunningham, Rockflow Resources Ltd., entitled *Resource aggregation: when two fields are better than one, but by how much?* This talk looked at many examples of aggregation where PRMS does not give explicit guidance, and showed where there may be pitfalls. Tom showed some deterministic aggregation methods that approximated the fully probabilistic theory. This talk also had good attendance, with about 30 attendees.

*Meetings - Four per year. Membership - 39*

## Houston

On May 5, 2021 Susan Morrice, Chairman and Co-Founder of Belize National Energy, presented *How do we increase the value of ESG by employing a holistic approach?* The meeting was held virtually and sponsored by Omnira – Mosaic. The remaining fall lunches will be held in person at the Petroleum Club of Houston. We resume on September 1, 2021. We are fully sponsored for the remainder of the year.

The number of local Houston Chapter attendees has fallen after the pandemic. The current number of members is 162 and therefore we are looking into boosting membership by reaching out via hosting happy hours and having a booth or speaking at other larger conferences (i.e. URTEC) to promote the organization.

The Houston Chapter has committed a total of \$4,000 of scholarship money to four Texas schools.

We plan to resume short courses in the summer of 2022, starting with Monograph 4.

*Meetings – 1st Wednesday of each month except June, July and August – Houston Petroleum Club. Membership – 162*

## Latin America

Individuals from Argentina have been invited to join Dallas Chapter meetings virtually.

*Membership – 12*

## Midland

*Meetings – 2nd Wednesday odd months at 11:30 a.m. – Midland Petroleum Club. Membership – 25*

## Northern Rockies

*Membership – 8*

## Oklahoma

The speaker for the Oklahoma Chapter meeting on May 24, 2021 had to cancel. We are going to continue to strive for good presentation topics that will continue to attract views. An idea we are entertaining is using chapter funds to fly out prime speakers.

To attract membership we have developed a template email that we will send to local companies regarding potential membership and meeting attendance. James Sauseda is personally reaching out to his peers and other young engineers to invite them to meetings and to encourage them to eventually apply to join SPEE.

In-person meetings will resume in September. We will continue to offer zoom meetings for \$5 that will help combat the rising price for catering.

*Meetings – Monthly except June, July and August.  
Membership – 34*

# In Memorium

**We regret to note  
the passing of:**

**Dwayne E. Godsey  
Tulsa, OK  
May 10, 2021**

**Arlen Edgar  
Midland, TX  
June 15, 2021**

We are all saddened by the passing of one of our most well-known members, Arlen Edgar. He passed away in Midland, Texas, on June 14, 2021. He was one of the few members who was president of both SPEE (1992) and SPE (1981). Arlen was a well-known independent oil and gas investor in Midland. He was an active member of AIME, the Society of Petroleum Evaluation Engineers (SPEE), and the Society of Petroleum Engineers (SPE) for many decades. Arlen was a member of the AIME board in the early 1980s and became the President of AIME in 1986.

Arlen graduated from University of Texas with a B.S. in Petroleum Engineering in 1956. After college, he joined Pan American Petroleum Corp. (Amoco). He then went to work for Leibrock, Landreth, Campbell, and Callaway and became a manager. Later he became an Officer and Director at the Tipperary Land Corp. From 1971 to 1973 he was General Manager of Western States Producing Co. He then decided to become an independent investor and consultant.

Arlen was also the recipient of numerous awards and accolades. In 1981 he was selected as a Distinguished Engineering Graduate of the University of Texas College of Engineering. He was the 1984 recipient of the SPE Distinguished Service Award, was a trustee for the SPE foundation, and was also an SPE Distinguished Member. In 2004 he was awarded the Top Hand Award from the Permian Basin Petroleum Association. He was awarded the Hearst Energy Award for Lifetime Achievement from the *Midland Reporter-Telegram* in 2008. The SPE Permian Basin Section Presidential Scholarship was named for him in 2012. Most recently Mr. Edgar was inducted into the Midland Petroleum Hall of Fame in 2019.

Arlen was a civic leader in Midland. He was actively involved in many philanthropic foundations as well as his church. He was also active in other interest groups like FEPA where he sported a “wild tie” at each meeting.



## Virtual Business Meeting June 14, 2021 Recap

The Virtual Business Meeting (VBM) was held using Zoom Webinar on Monday morning (U.S.), June 14, 2021. The meeting saw very good attendance with 154 persons actually logged-in to the presentations. The meeting was also successful in drawing members from around the world with attendees from 13 different countries.

The meeting included presentations from SPEE members including:

- Society Update, Charles Boyette, 2021 President
- Monograph 5 Update, Jennifer Fitzgerald, Monograph 5 Chair
- Reserves Definitions Committee Update, Rawdon Seager, RDC Chair
- Survey of Parameters Update, Steve Hendrickson, SOP Chair
- Ethics, Deb Ryan, Ethics Chair (with Samantha Holroyd)

We received generous sponsorships, enough to cover the costs of the meeting. As a result of the successful use of Zoom Webinar, we intend to use it for the virtual training events we have upcoming in the near future.

Thank you again to all who attended, our presenters and our sponsors.

Joe Young  
2021 SPEE Vice President

## 40th Annual Survey of Parameters Used in Property Evaluation

Steve Hendrickson presented an overview of the 40th Annual Survey of Parameters Used in Property Evaluation at the SPEE's Virtual Annual Meeting on June 14. Some highlights of the presentation were:

- **Survey Participation Was Down from Prior Years** - This year, we received 164 responses from 649 invited participants. This was down from 207 responses last year, despite inviting approximately the same number of participants. Unfortunately, the SPEE member response rate dropped from 28% to 23%.
- **Accounting for Risk Questions Received Low Response Rates** - As we've seen in prior surveys, a fairly small subset of respondents (less than half) answer the survey questions regarding reserve adjustment factors and risk adjusted discount rates.
- **Survey Reflects North American Practices** - Eighty-seven percent of the respondents listed the United States or Canada as their home country; 80% were in the U.S.
- **Acquisition Evaluations Decreased** - The responses indicated a lower level of acquisition evaluations than the prior year's survey. Acquisition success was also down.
- **DCF Still Reigns** - Discounted Cash Flow Analysis continues to be considered the most useful economic method among the survey respondents; about 90% said it was the most or second-most useful.
- **And So Does the Arps Method** - The Arps Method (including modified Arps) continues to be far and away the most commonly used method of production forecasting. Most respondents said other techniques (stretched exponential, Duong, RTA and type curves) were rarely used.
- **Prices Expected to Grow Slowly** - The average price forecasts for oil and gas reflect expectations of slowly rising prices. However, if current oil price gains are maintained, the oil forecast will underperform the market in 2021.

The Survey results will be published electronically in July. Survey participants will receive free access to the report. Others may purchase access by visiting the SPEE online publications store at [www.spee.org/store](http://www.spee.org/store).

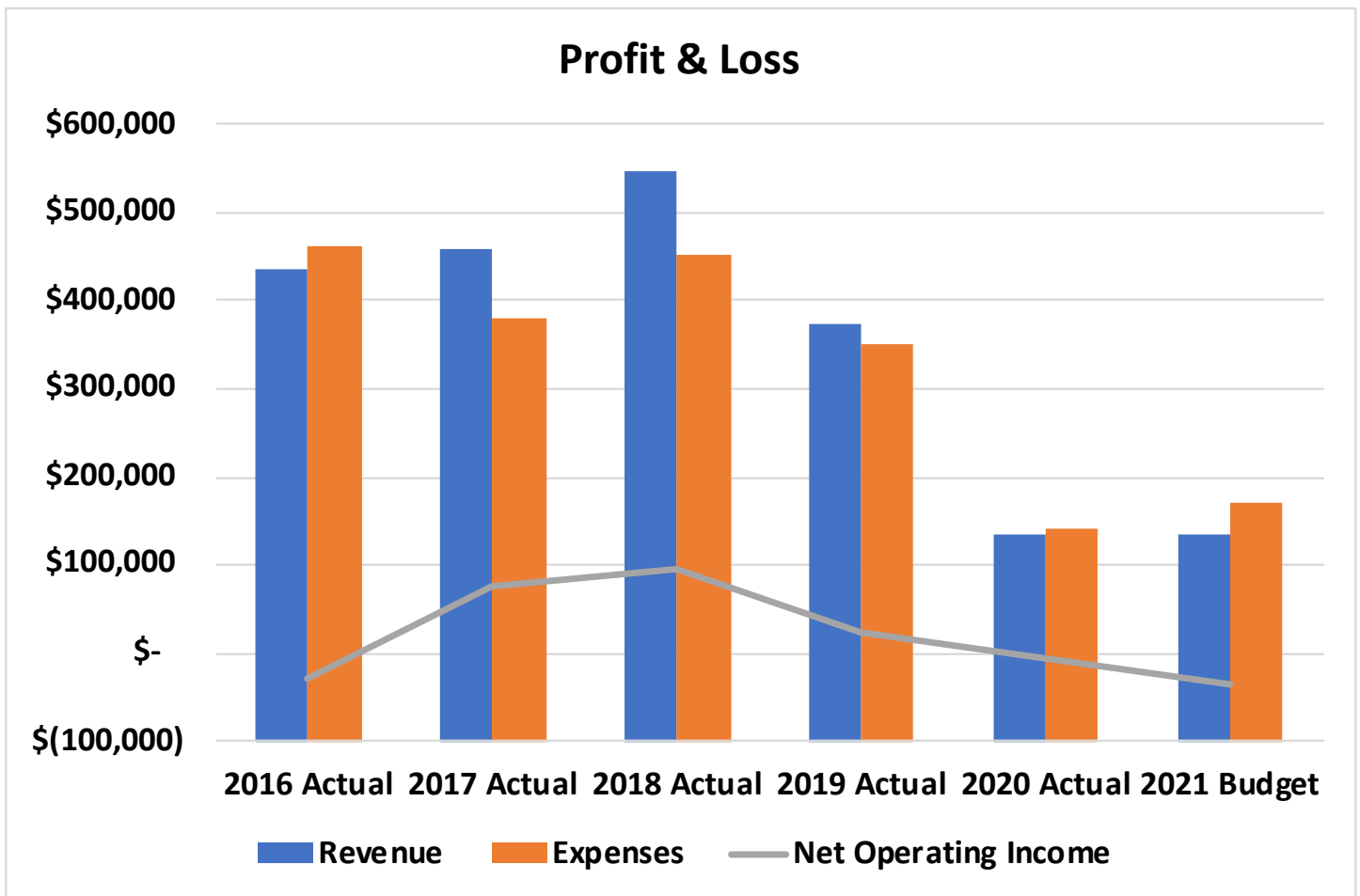
**A Final Note** - After six years of involvement with the Survey, and having served as the chairman of the Parameters Committee for the prior four reports, Steve is stepping down from his leadership role. If you are interested in volunteering to lead the Committee for the 2022 Survey, please contact Steve or SPEE Board Member Dean Sergent. Their email addresses are available through the SPEE directory.

## Financial Report

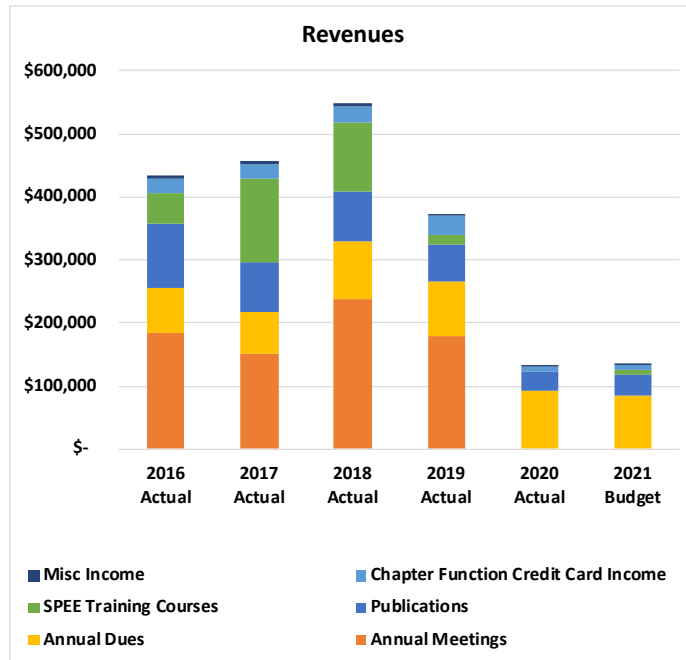
With the global pandemic affecting our ability to meet and communicate with our members in the accustomed manner, the Society has hunkered down and has done a great job in coming out with new ways of presenting content. While revenue was much lower than in the past (primarily due to cancellation of our annual meeting) costs were equally contained as well. Our members deserve kudos in finding ways to minimize our losses during the past year.

I would like to stress that we continue to remain financially healthy. Revenues in 2020 were \$134,368 with expenses of \$140,206 resulting in a net loss of \$5,839. Cash assets held by SPEE International at the end of 2020 in checking and money market accounts plus CDs total \$592,311.

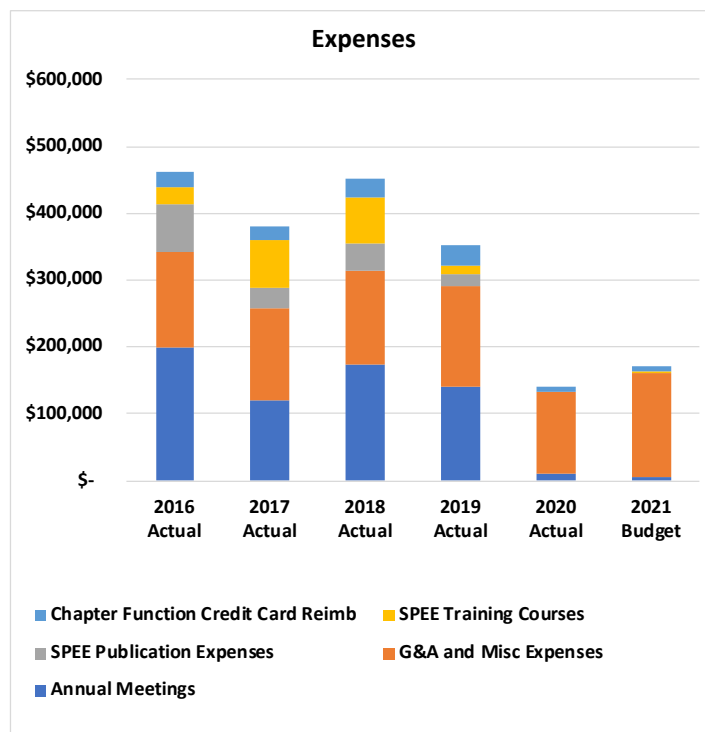
The chart below shows the financial performance of SPEE International for 2017 through 2020, including the budget for 2021. Overall, the Society had been operating at a profit since 2017. Owing primarily to the cancellation of the Annual Meeting, a small loss was incurred in 2020. A loss of \$33,000 is projected for 2021 primarily due to expenses relating to modernizing the website. SPEE International's cash balance is projected to stand at approximately \$559,000 at the end of 2021.



The charts below summarize the principal sources of revenue and expenses over the last several years. Of note is the lack of revenue associated with the cancellation of the physical annual meetings in 2020 and 2021. Overall revenues for 2021 are expected to be similar to 2020 results.



With one exception, expenses are expected to remain relatively constant from 2020 to 2021. Cost savings realized from past years are expected to continue. The projected increase in G&A is primarily due to expenses relating to modernizing the website.



If you have any questions or need additional information, please feel free to contact me or President Charles Boyette directly.

**Attila Szabo**  
2021 SPEE Secretary - Treasurer

## Monograph 5, A Practical Guide to Type Well Profiles

Monograph 5, *A Practical Guide to Type Well Profiles*, follows and builds upon two previous Society of Petroleum Evaluation Engineers (SPEE) monographs in analyzing and addressing specific aspects of reserves and resources evaluations. The purpose of this monograph is to be a recommended practices guideline for the evaluation engineer to perform type well analysis, focusing first on public or easily obtained data, and then enhancing the reliability by supplementing detailed or proprietary data, as necessary. The monograph gives due consideration to the “fit for purpose” confidence level to be achieved. Secondly, this monograph serves as a guideline for assessing the reliability of type well profiles (TWP).

As some of you may be aware, this has been a labor of love for the committee for a few years now. On the surface, the concept of TWPs seems so simple. But in reality, there are quite a few hidden complexities that can materially impact the result. Many of these complexities require judgement to sort out. As such, it is impossible to generate a simple checklist of steps to achieve the perfect TWP. That being said, the committee has developed a high-level overview of a robust TWP process, breaking down the process into four key phases.

The first phase of the workflow, Identification, includes definition of purpose, determination of the area of interest, and recognition of the data available. The purpose of the TWP will determine subsequent steps in the workflow, and due consideration of the use and purpose should be made to ensure the accuracy and reliability of the result. The extent and type of data available will not only influence subsequent steps of the workflow but also the reliability of the result. It is important to know the difference between what data is nice to have versus what data is must have. As an evaluator we should know when we are not being diligent enough versus when we are analyzing the data beyond the predictive information that it contains, all the while considering the implications and practicalities associated with both limited and large datasets.

The next phase, Data Refinement, includes investigation of the quality and reliability of the available data, identification of the determinants of performance, and selection of analogs. Initial data analysis is necessary to identify trends from individual well data

that may be otherwise lost once absorbed into a TWP. As existing wells within the area of interest are reviewed for potential inclusion as analogs, it is necessary to identify those subsurface, mechanical, and completion variations that systematically impact performance. A key challenge is balancing the benefits of a large dataset versus the benefits of a dataset that is as analogous as possible.

The third phase in the workflow, Analysis, includes the determination of the appropriate TWP construction methodology and preparation of the TWP using that methodology. These methodological choices may mitigate the negative impact of various types of bias inherent in TWP construction.

The final phase of the workflow is Validation. Validation is always a good scientific principle, but in practice it may not always be so straightforward. Often, the hardest thing to know is what you do not know. The resulting TWP should undergo a suitable qualitative and quantitative review for reasonableness and soundness of the result. Additionally, proper and clear documentation of the TWP is critical. Uncertainty is a fundamental reality within reserves and resources evaluations. Identifying and understanding the impact uncertainty plays in a TWP is paramount for any consumer of TWP analysis.

As we all anxiously await the publication of Monograph 5, we would like to leave you with a final thought. A hammer is a tool, yet there are different kinds of hammers which are used for driving nails, bending/shaping metal, and easing parts together. A skilled craftsman knows precisely which hammer to choose for each task at hand. Likewise, a type well profile is a valuable tool in the hands of a qualified professional. This monograph is not intended to be a “cookbook” for construction and application of TWPs. But rather Monograph 5 will set forth recommended practices, guidelines, and workflows that with due consideration should be a valuable resource in the hands of a qualified professional. Proper construction and application can only be made by applying sound judgment and common-sense, rooted in knowledge and experience. Thank you to the committee’s continued hard work on Monograph 5. We look forward to further discussing the results of our efforts very soon with you all.

**Jennifer Fitzgerald**  
**SPEE Monograph 5 Chairperson**





# Welcome New Members

## Dallas Chapter

Status Change – Associate to Full Member

**Hyde, Robert** Member No. 992

Burk Royalty Co., Ltd.  
P O Box 94903  
Wichita Falls, TX 76308  
Rob.hyde@burkroyalty.com

## Denver Chapter

**Heinle, Sara** Associate Member No. 1053

Consulting Engineer  
Heinle & Associates, Inc.  
1490 West Canal Court, Suite 300  
Littleton, CO 80120  
sara@heinleassociates.com

**Stelmach, Lindsey** Associate Member No. 1052

Sr. Reservoir Engineer  
Occidental Petroleum Corporation  
P O Box 173779  
Denver, CO 80217  
Lindsey\_stelmach@oxy.com

## Houston Chapter

**Beaird III, John H.** Member No. 1051

Vice President  
Ralph E. Davis & Assoc., An Opportune Company  
711 Louisiana St., Suite 3100  
Houston, TX 77002  
jbeaird@ralphedavis.com

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## Executive Assistant Opening

Debbie Suter has made the decision to retire in mid to late 2022 to help get us through our upcoming busy times, including the annual meeting, and to properly train her replacement. Debbie has been a great asset to SPEE for the last seven years and we are sad to see her go. We plan to hire a replacement as soon as possible such that the new person will overlap with Debbie's remaining time. If you know of anyone who might be suitable (Houston area would be ideal, but we may consider another location) for the SPEE Executive Assistant position, please contact Joe Young, 2021 SPEE Vice President (joeyoung@larocheltd.com) or Debbie (debbie@spee.org).

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## On the Lighter Side ...

Some people say the glass is half full. Some people say the glass is half empty. Engineers say the glass is twice as big as necessary.

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An engineer, a statistician, and a physicist are out hunting. They spot a buck, and each take turn to try and bag it. The physicist goes first. He pulls out his lab book and quickly calculates the trajectory of the bullet, assuming it is a perfect sphere in a vacuum. The bullet falls 20m short of the deer. The engineer goes second. He pulls out his engineering pad and book of projectile assumptions. After a few minutes he's ready. He takes aim and he fires. The bullet lands 20m past the deer. The statistician triumphantly leaps in the air shouting, "We got it!"

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